

Submit by Monday 2 December 2013

## DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 20: 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.

### ELIGIBILITY

**1. Name and address of organisation** (NB: Notification of results will be by email to the Project Leader)

<b>Name of organisation:</b> ReefDoctor.Org	<b>Address:</b> -BP 623, Toliara, Madagascar 601 -14 Charlwood Terrace, Putney, London SW15 1NZ, UK
--	---

**2. Stage 1 reference and Project title**

(max 10 words)

Conservation and sustainable-use of marine turtles, south-west Madagascar

**3. Project dates, and budget summary**

Start date: 15 April 2014		End date: 31 March 2017		Duration: 36 months
Darwin request	2014/15 £68,000	2015/16 £51,000	2016/17 £52,500	Total £171,500
Proposed (confirmed and unconfirmed) matched funding as percentage of total Project cost: <b>22%</b>				
Are you applying for DFID or Defra funding? (Note you cannot apply for both)		DFID Yes	Defra No	

**4. Define the outcome of the project. This should be a repetition of Question 24, Outcome Statement.**

Promote the long-term survival of marine turtle populations through the incremental and adaptive implementation of a bay-wide aquaculture project that directly assists the marginalized fishing communities transition to sustainable livelihoods.

**5. 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: Madagascar	Country 2:
-----------------------	------------

**6. Biodiversity Conventions**

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

Convention On Biological Diversity (CBD)	Yes
Convention on Migratory Species (CMS)	Yes
Convention on International Trade in Endangered Species (CITES)	No

## 6b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the convention(s) 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)**

The present Darwin Initiative project will be aligned with all the goals of the Strategic Plan for Migratory Species, namely targets 1-4, 6, 7, 10, 11, 14, 15, in engaging stakeholders in the conservation of five migratory species of marine turtle occurring in the project area: Green turtles (*Chelonia mydas*) that comprise 97% of fisheries landings, Loggerhead (*Caretta caretta*), Leatherback (*Dermochelys coriacea*), and Hawksbill (*Eretmochelys imbricata*), and their associated feeding-habitat. Objectives of the Convention on Biological Diversity will be achieved through the conservation of marine turtles and of seagrass habitat biodiversity. Sustainable-use of biodiversity and the fair-and-equitable sharing of the benefits arising from the use of resources will be accomplished through the implementation of the aquaculture activities proposed here. Activities are designed to train and provide direct benefits to ca. 720 men and women, and provide indirect benefits, in terms of poverty relief, to their respective families (ca. 3,600 people) over a 3-year period. This Darwin Initiative project seeks to become a working model and platform for marine turtle conservation throughout the Western Indian Ocean that will contribute to on-going regional conservation efforts and global sustainability.

**Is any liaison proposed with the CBD/CITES/CMS focal point in the host country?**

Yes  No if yes, please give details:

**7. Principals in project. Please identify and provide a one page CV for each of these named individuals. You may copy and paste this table if you need to provide details of more personnel or more than one project partner.**

Details	Project Leader	Project Partner 1 - Main	Project Partner 2
<b>Surname</b>	Abeare	Bernardin	Lavitra
<b>Forename (s)</b>	Shane	Jean Bezozo	Thierry
<b>Post held</b>	1) Executive Director 2) PhD candidate	President	Director
<b>Institution (if different to above)</b>	1) ReefDoctor 2) University of New Orleans, USA	<i>Fikambanana Mpaniriky Miaro ny Fano (FIMPAMIFA)</i>	<i>Institut Halieutique et des Sciences Marines (IHSM), Universite de Tulear</i>
<b>Department</b>	Earth and Env. Sci.		
<b>Telephone</b>			
<b>Email</b>			

**8. 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

**9a. If you answered 'NO' to Question 8 please complete Question 9a, b and c.****If you answered 'YES', please go to Question 10 (and delete the boxes for Q9a, 9b and 9c)**

What year was your organisation established/ incorporated/ registered?	2000
What is the legal status of your organisation?	NGO Yes Government No University No Other (explain)
Type of organisation (e.g. University, NGO, private sector, Government Department etc)	NGO
Have you unsuccessfully applied to the Darwin Initiative before? If yes please provide the application reference number(s)	No
How is your organisation currently funded?	ReefDoctor is a non-profit organisation that is partially funded through an international intern / volunteer program, where visitors pay to receive training in scuba diving and in marine science. In addition to volunteer fees, donations, grants, and contracts have allowed the organisation to pursue its marine research, conservation, and sustainable fisheries management objectives, while also providing for numerous community development projects.
Have you provided the requested audited/independently examined accounts?	Yes

**9b. DO NOT COMPLETE IF YOU ANSWERED 'YES' TO QUESTION 8.**

**Provide detail of 3 contracts previously held by your institution that demonstrate your credibility as a research organisation and provide track record relevant to the project proposed. These contracts should have been held in the last 5 years and be of a similar size to the grant requested in your Darwin application.**

Contract 1 Title	Land and seascape conservation program in Ranobe Bay and Onilahy Delta
Contract Value	26,000 GBP
Contract Duration	3 years; 2008-2010
Role of institution in project	Project Leader
Brief summary of the aims, objectives and outcomes of the contract.	Scuba-based biodiversity surveys were conducted in the Bay of Ranobe and surrounding areas to identify sites of high ecological value, in terms of biodiversity and productivity, as potential areas to receive protected status. Interested community groups were organised and formalised as legal associations. Workshops and meetings were used to build capacity amongst the association members, and technical support was provided leading to the creation and formalisation of the MPAs.
Client reference contact details (Name, e-mail, address, phone number).	World Wildlife Fund (WWF) Madagascar & West Indian Ocean Vola Ramahery ( <a href="mailto:vramahery@wwf.panda.org">vramahery@wwf.panda.org</a> ) Address: Immeuble Ny Havana, 2e etage, Rue Lally Tollendal 201, Antsiranna, Madagascar Tel: +261 34 48 803 58

Contract 2 Title	<i>Miamby Fano</i> Project: marine turtle conservation
Contract Value	6,000 GBP + 6,000 GBP = 12,000 GBP
Contract Duration	1 year / phase; 2009-2010 (Phase I); 2012-2013 (Phase II)
Role of institution in project	Project Leader
Brief summary of the aims, objectives and outcomes of the contract.	The aim of the Miamby Fano project (Phase-I) was to gain an understanding of the cultural and socio-economic importance/role-played by marine turtles in the Vezo culture. Socio-economic surveys and focus groups revealed that the once highly-revered role played by marine turtles in traditional ceremonies has been greatly eroded in more recent generations. In Phase-II of the project, concerned community members were organised and an association formalised for the protection of the Bay's marine turtle populations. Phase-II culminated with the signing into local law the first community-led, marine turtle fishery regulation—a minimum size limit.
Client reference contact details (Name, e-mail, address, phone number).	The Rufford Small Grants Foundation Josh Cole (josh@rufford.org) 6 <sup>th</sup> Floor, 248 Tottenham Court Road, London, W1T 7Qz, UK Fax: +44 (0)20 7636 1428

Contract 3 Title	UNDP-PE3 Project: Scuba diving and underwater data collection training program for Malagasy governmental agents (Ministry of the Environment)
Contract Value	16,000 GBP
Contract Duration	35 days divided into 3 phases; 2012
Role of institution in project	Project Leader
Brief summary of the aims, objectives and outcomes of the contract.	As part of a larger UNDP conservation and development initiative (PE3), ReefDoctor acted as a training facility for early-career, Malagasy environmental agents in a capacity building program. Training sessions provided the diving and underwater data collection skills that would allow the government agents to develop and conduct a government-led, coastal monitoring program.
Client reference contact details (Name, e-mail, address, phone number)	United Nations Development Program-Madagascar Hanta Rabefarihy ( <a href="mailto:hanta.rabefarihy@undp.org">hanta.rabefarihy@undp.org</a> ) Address: Maison commune des Nations Unies, Enceinte Galaxy Plaza, Rue Dr Raseta, Andraharo, Madagascar Tel: +261 34 48 100 71

Contract 4 Title	Coral reef fisheries assessment, Bay of Ranobe, Madagascar
Contract Value	5,600 GBP
Contract Duration	1 year; 2013
Role of institution in project	Project Leader
Brief summary of the aims, objectives and outcomes of the contract.	The aim of the project is to create the first reliable and comprehensive baseline dataset on the artisanal fisheries of the Bay of Ranobe. Project objectives include: 1) evaluation of seasonal and spatial variations in catch, 2) biological evaluation of secondary productivity, 3) economic evaluation of secondary productivity, and 4) intensive sampling in the first year should allow for the identification of sampling redundancy, thereby allowing for the logical reduction in effort/costs in subsequent

	years.
Client reference contact details (Name, e-mail, address, phone number).	PADI Foundation Sharon Tanaka ( <a href="mailto:SHT@taxlitigator.com">SHT@taxlitigator.com</a> ) Address: 9150 Wilshire Boulevard, Suite 300, Beverly Hills, CA 90212-3414, USA Fax: +1 310 859 1430

**9c. DO NOT COMPLETE IF YOU ANSWERED 'YES' TO QUESTION 8.**

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

<p><b>Aims</b></p> <p>To promote the conservation of coral reef ecosystems—coral reefs, seagrass, and mangroves—through an ecosystem-based approach to resource management, direct conservation intervention, scientific research, education, and community development</p>
<p><b>Activities</b></p> <p>Since 2002, ReefDoctor has strived to achieve its aims through: 1) conducting biodiversity inventories, 2) scuba-based research, 3) continual monitoring of resource-use, 4) capacity building, 5) the formation of community associations to co-manage marine resources, 6) creating marine reserves, and 7) community development projects (e.g. education, construction, and drinking water).</p>
<p><b>Achievements</b></p> <p><u>Conservation/management</u>: formation of conservation associations/platform (i.e. FIMIHARA, Capricorn Alliance, FIMPAMIFA), creation of marine reserves and formation of management committee</p> <p><u>Development</u>: rehabilitation of IHSM research station, provision of dive training to IHSM graduate students, repair/construction of local village primary school, formation of women's association (FIVIETAMI), provision of family planning services</p>

**10. 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.**

<p><b>Lead institution and website:</b></p> <p>ReefDoctor <a href="http://www.reefdoctor.org">www.reefdoctor.org</a></p>	<p><b>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</b></p> <p>ReefDoctor (RD) was established in 2000 as UK-registered, non-profit, marine conservation organisation. Although, technically, considered an international organisation, since 2002, 99% of the organisation's activities have taken place uniquely amongst the communities of the Bay of Ranobe, Madagascar. As such, RD has become a fully-integrated part of the greater community, with an extensive network of local associations spread throughout the 13 villages of the Bay, making it the natural Lead Institution for the Darwin Initiative project proposed here.</p> <p>Drawing upon 10+ years of experience in: 1) awareness raising, 2) capacity building, 3) project implementation, monitoring, and reporting, 4) conducting marine and socio-economic research in the Bay-area, and 5) creation and legalisation of marine protected areas</p>
--	--

	and village associations, the RD team will, initially, take the lead role in all project activities. Later, after having received training and gaining some experience, the role of RD's local partner, FIMPAMIFA, will progressively transform from project beneficiary to collaborator to taking the lead with continued awareness raising and capacity building activities.
--	--

<b>Partner Name and website where available:</b>	<b>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</b>
Turtle Protection Association <i>Fikambanana Mpaniriky Miaro ny Fano</i> (FI.MPA.MI.FA)	Created in 2012, the newly-formed Turtle Protection Association, <i>Fikambanana Mpaniriky Miaro ny Fano</i> (in Malagasy; FIMPAMIFA), is comprised of village elders and turtle hunters concerned about the over-harvesting of marine turtles, with representatives throughout the 13 villages of the Bay. Members of the association are uniquely suited to guide the Darwin Initiative in drawing upon their local knowledge and personal network, and will periodically play a key role in awareness raising, consensus building, and capacity building.
<b>Have you included a Letter of Support from this institution?</b>	<b>Yes</b>

<b>Partner Name and website where available:</b>	<b>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</b>
Marine Science Institute, University of Tulear Institut Halieutique et des Sciences Marines (IHSM), Université de Tulear www.ihsm.mg	The Marine Science Institute ( <i>Institut Halieutique et des Sciences Marines</i> , IHSM), affiliated with the University of Tulear, is the principle academic institution for marine science in the country. An official collaboration between IHSM and ReefDoctor has existed since 2002. The role of the IHSM for the present Darwin Initiative will be to provide periodic consultations in support of the proposed aquaculture projects. In particular, the Director of the IHSM, Dr. Thierry Lavitra, whom specializes in sea cucumber aquaculture, will provide expertise in this field.
<b>Have you included a Letter of Support from this institution?</b>	<b>Yes</b>

<b>11. Have you provided CVs for the senior team including the Project Leader</b>	<b>Yes</b>
---	------------

## 12. Problem the project is trying to address

Please describe the problem your project is trying to address. For example, what biodiversity and challenges will the project address? Why are they relevant, for whom? How did you identify these problems?

In the semi-arid, drought-prone region of Tulear, south-west Madagascar, harsh living conditions drive more-and-more people towards the coast to eke out an existence from already over-exploited coastal ecosystems. The Bay of Ranobe (BRB) exemplifies this phenomenon, where 13 villages (ca. 20,000 people), heavily-dependent upon declining fisheries yields for subsistence, are in desperate need of an alternative.

From an environmental perspective, poverty leads to escalation in competition for scarce resources, accelerating rates of biodiversity loss, as a "scramble for resources" ensues. Consequently, loss of biodiversity results in greater food-insecurity and *extreme* poverty, establishing a negative feedback loop difficult to reverse. In such situations, alternatives must



be provided, first, before biodiversity objectives may be attained.

Following a novel approach to alternative-livelihoods / biodiversity-conservation, the present project will address the needs of the BRB community in providing rapid poverty relief through the provision of aquaculture skills, materials, and market access. Long-term benefits, in terms of biodiversity conservation, will be provided through prioritising / incentivising fishermen practicing harmful / destructive fishing techniques to partake in project-related activities. In protecting productive seagrass habitat, and essential marine turtle feeding-habitat, this project will, essentially, strive to replace the negative ecosystem feedback loop with a positive one.

### 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.).

**IMPACT:** Eradicate *extreme* poverty in the Bay of Ranobe communities (III, IV), safeguard regional biodiversity (I, II, III) through sustainable use of marine resources, in terms of sustainable tourism, fisheries, and aquaculture, following an ecosystem-based approach (I, II, III).

**OUTCOME:** Promote the long-term survival of marine turtle populations (I, II, III) through the incremental and adaptive implementation (IV) of a bay-wide aquaculture project (III) that directly assists the marginalized fishing communities transition to sustainable livelihoods (I, II, III).

#### Methodology

- I. Reduction in fisheries-related turtle mortality (Project Coordinator, Emma Gibbons: oversight of data collection team and capacity building activities)
  - a. Methodology
    - i. Strengthen capacity of recently-formed, local turtle association, FIMPAMIFA, on the application of the newly-created, local turtle fishery law through training focused on legal rights and procedures, increased “patrols”, or visual presence;
    - ii. Reinforce FIMPAMIFA bay-wide communication network and coordination of activities through increased frequency of meetings;
    - iii. Gradually transition interested turtle hunters to aquaculture activities, where “target villages” are selected based on intensity of turtle hunting activities (III).
- II. Protection of seagrass habitat (Anthony Arnold, Emmanuel Pepin, Angelou Rabearisoa)
  - a. Methodology
    - i. Initial meetings with beach-seine fishermen to present project ideas;
    - ii. Series of focus groups to gain understanding of potential areas of conflict, or resistance;
    - iii. Gradually transition interested beach-seine fishermen to aquaculture activities, where selection of “target villages” is based on intensity of beach-seining activity (III);
    - iv. Village-wide meetings to discuss creation of seagrass reserves and to reach consensus on placement / configuration;
    - v. Creation of seagrass reserves to protect 10% of total seagrass extent, with zoning for strict protection and restricted use;
- III. Sustainable aquaculture (Aquaculture Project Coordinator, Benjamin Taylor: oversight of field work; Angelou Rabearisoa, Socioeconomic Officer: trainings and workshop organisation)
 

(site prospection and 3-month trial using “mini” aquaculture plots to determine site-specific, average growth rates in the 6 targeted villages will be conducted before Darwin Initiative

start date)

a. Methodology

- i. Training workshops conducted with participants on installation and maintenance;
- ii. Installation of necessary aquaculture infrastructure for sea cucumbers and/or seaweeds, depending on trial results (adaptive), 10 aquaculture units / village for 6 villages;
- iii. Training workshops on harvesting and sale of products
- iv. Installation of necessary aquaculture infrastructure for sea cucumbers and/or seaweeds, depending on success in year-1 (adaptive), 10 aquaculture units / village for 6 villages;
- v. Installation of necessary aquaculture infrastructure for sea cucumbers and/or seaweeds, depending on success in year-2 (adaptive), 10 aquaculture units / village for 6 villages.

IV. Research-based optimisation of aquaculture (Science Officer, David Illgen: oversight of data collection, entry and management)

a. Methodology

- i. Installation of experimental aquaculture units;
- ii. Monitor environmental quality parameters (temperature, pH, salinity, turbidity) at all aquaculture sites using YSI
- iii. Perform experimental manipulations of stocking density and locally available food supplements.

#### 14. Change Expected

Detail what the expected changes this work will deliver. You should identify what will change and who will benefit.

- 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. Q19 provides more space for elaboration on this.

Under the Darwin Initiative, an adaptive and incremental training strategy will be employed to provide the necessary skills and materials to local fishermen, with priority given to those targeting marine turtles and to those using fishing gear destructive to critical turtle-feeding habitats. Throughout the project period, research focused on the optimisation of aquaculture productivity will be used to strengthen the general knowledge base pertaining to sea cucumber and seaweed farming adapted to local conditions, with the potential to be applied throughout the region.

Specifically, the positive social changes expected, include:

1a. Direct benefits

- Aquaculture as tool to reduce poverty through income generation,
- Increase in food security and decrease vulnerability to environmental/climate change through diversification of livelihoods,
- Empowerment of women as equal beneficiaries of project outputs,

1b. Indirect benefits

- Improved health and well-being as the result of the stable income afforded by aquaculture activities,
- Revenue injection into local economy,
- Empowering community members to manage their natural resources,
- Potential increase in finfish fisheries productivity (2b),
- Increased sea cucumber fisheries revenue (2b).

Positive environmental / ecological changes expected, include:

2a. Direct benefits

- 50% reduction in marine turtle mortalities related to targeted fishery,



- 250ha of seagrass habitat receiving some form of protection for turtle feeding habitat,
- 2b. Indirect benefits
- Seagrass meadows that function as fish nurseries, refuge areas, and habitat corridors gain protection,
  - Seeding of wild sea cucumber stocks through uncontrolled spawning events

**15a. Is this a new initiative or a development of existing work (funded through any source)? Please give details (Max 200 words):**

In 2008, ReefDoctor began collecting data on the targeted turtle fishery in a few selected villages. Financial assistance from the Rufford Small Grants Foundation (RSGF) allowed for the expansion of fisheries data collection efforts and the addition of a socio-economic survey component, becoming the ReefDoctor-Fano project. Later, an association, comprised of turtle fishermen and village elders, was organised and formalised, FIMPAMIFA. Through support provided by ReefDoctor, in recent months, FIMPAMIFA achieved their first, major accomplishment—the creation of the first, local fisheries law limiting the capture of marine turtles. With the continued financial support from RSGF, ReefDoctor will continue providing technical support and build capacity amongst FIMPAMIFA members, allowing them to confront and manage future challenges related to the enforcement of newly-created fisheries regulations.

The Darwin Initiative project proposed, here, will:

- Benefit from the years of groundwork and progress already achieved by the RD-Fano project,
- Reinforce the RD-Fano project in supporting the necessary continued data collection, and
- Complement the existing RD-Fano project by building capacity amongst local association members (FIMPAMIFA), beach-seine fishermen, and the general community, in providing the aquaculture skills and market access necessary, to create a *real* alternative to destructive fishing practices.

**15b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work?**  Yes  No

If yes, please give details explaining similarities and differences, and 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:

**15c. Are you applying for funding relating to the proposed project from other sources?**  Yes  No

If yes, please give brief details including when you expect to hear the result. Please ensure you include the figures requested in the spreadsheet as Unconfirmed funding.

Rufford Small Grants Foundation (Award: 12,000 GBP; Status: application submitted; Notification: 7 January 2014) — Round-3 “Booster grant” funds will be used to provide training to FIMPAMIFA in association management, and development / strengthening of local village network and outreach / enforcement related to the newly-created local law(s).

Fonds Regional pour le Developpement Agricole-Atismo Andrefanana (FRDA, Award: 8,000 GBP; Status: in preparation; Notification: 15 January 2014) — the “Regional agriculture development fund” is a European Union funding program that will be used to defray costs associated with the purchase of aquaculture materials (e.g. enclosure fencing, ropes, stakes, etc), and used to support village-based technicians resident at each of the 6 project sites.

**16. Value for money**

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

ReefDoctor provides practical, cost-effective development projects to maximise economic benefits for indigenous coastal communities, through the economical and calculated use of project funding, whilst safeguarding the unique biodiversity of this region. The proposed Darwin Initiative (DI) project will provide good value for money due to the following reasons:

- **Extensive, in-depth knowledge of the local political, social, and ecological environment:** ReefDoctor (RD) has been developing research, education, and conservation projects in this challenging region for over 10 years, building a valuable in-country professional network of organisations and national government institutions that will facilitate DI project efficiency and success;
- **Efficient-use of project funds:** As the RD office, base of operations, and project team are permanently located in the proposed project area, no project funds are allocated to international airfare(s), travel stipend(s), or internationally-based office overhead. Modest salaries for all staff and partners;
- **RD-Fano project foundation:** Over the past 5 years, the RD-Fano project has resulted in a number of notable accomplishments and products that will greatly facilitate implementation of the DI project, including:
  - Creation of baseline marine turtle fisheries and socio-economic database, which can be used to measure DI project progress;
  - Formation of the grassroots association FI.MPA.MI.FA, providing a network of 100+ members located throughout the DI project area, whom are able to assist in the organisation of village meeting and workshops, and resulting in significant saving in time and in project funds.

## 17. Ethics

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

ReefDoctor will meet all legal and ethical obligations of both the UK and Madagascar. Researchers will follow a strict code of ethical practices pertaining to: data collection, data management, analyses, and presentation of results. Furthermore, Prior Informed Consent (PIC) will be obtained from community members participating in the project, covering the use of their knowledge, skills, and practices in generating project outputs: fisheries and ecosystem management strategies, aquaculture methods, and publications. Traditional knowledge will be regarded as a dynamic element evolving as it is transferred through generations. PIC will be obtained from the local community before the beginning of the Darwin Initiative project, and MoU's on the subject of land-use rights from user groups will be obtained. Before disclosing traditional knowledge on scientific articles, databases, books, presentations, websites, among others, the appropriate consent of traditional knowledge holders shall be sought and an understanding regarding authorship and attribution shall be reached. Stakeholders will all be provided a copy of all publications that have been made using the collected knowledge translated into the local dialect. Project actors will aim to protect traditional knowledge from misuse and misappropriation and help, to the extent possible, communities that wish to actively seek means of protecting traditional knowledge, ensuring its maintenance within the local context. The Darwin Initiative project leader is responsible for ensuring a suitable and sufficient risk assessment is in place to ensure that all safety precautions are observed and applied to all staff involved in the project. ReefDoctor fully complies with guidelines requiring independence and integrity of the research process and the presentation of results.

## 18. Legacy

Please describe what you expect will change as a result of this project with regards to biodiversity conservation/sustainable use and poverty alleviation (for DFID funded projects). For example, what will be the long term benefits (particularly for biodiversity and poor people) of the project in the host country or region and have you identified any potential problems to achieving these benefits?

In terms of its natural resources Madagascar is perhaps best known for its unrivalled biodiversity that plays an important role in providing food and income for rural communities. Conserving and sustainable-use of biodiversity is therefore of utmost importance as it is the

source of livelihoods and human well-being. Effective marine turtle management and conservation efforts utilising traditional ecological knowledge will be implemented to protect seagrass meadows, reduce the exploitation of marine turtles by 50%, and support the continued protection of juvenile marine turtles under 70cm. These actions together will contribute significantly to the long-term recovery of marine turtle populations, ecosystem recovery, and safeguard biodiversity. Seagrass meadow reserves not only provide an ecosystem management strategy for achieving the long-term goal of protecting biodiversity and critical feeding habitat for marine turtles, they also shelter juvenile fish important in the artisanal fishery. This has the potential to benefit the long-term sustainability of the artisanal capture-fishery of the Bay of Ranobe.

Poverty alleviation will be addressed through the implementation of the Darwin Initiative aquaculture project. A long-term strategy has already been developed, with a working model already in-place, involving the collaboration between the local aquaculture supplier (Indian Ocean Trepong, IOT), the international, seafood product exporter (Copefrito), and ReefDoctor, which will ensure the continued technical and logistical support required to guarantee the continuation of the project into the foreseeable future.

### 19. Pathway to poverty alleviation

Please describe how your project will benefit poor people living in low-income countries. All projects funded through DFID in Round 20 must be compliant with the OECD Overseas Development Assistance criteria. Projects are therefore required to indicate how they will have a positive impact on poverty alleviation in low-income countries.

Madagascar has been designated by the United Nations as one of the 'least-developed' countries. Over three quarters of the population are directly dependant upon natural resources, predominantly through fishing and agriculture. However, Madagascar is experiencing a decline in total wealth, with fisheries displaying negative growth since 2008; this raises concerns for the sustainability of the current economic development and fisheries policies at the national level. ReefDoctor objectives are aligned with the OECD policy orientation towards 'green growth' (OECD, 2009), rights and equity (OECD, 2006) and fostering coherence between fishery sector policies and policy related to trade, food security, employment, environment and economic growth (OECD, 2008).

Developing countries are responsible for 92 percent of global aquaculture production, thus aquaculture is a significant activity that although is unlikely to be a major national 'engine of growth', can be at a local level. The Darwin initiative project identifies the unrealised wealth potential in the sea cucumber/seaweed farming sector and channels that wealth into the community in a way that contributes most effectively to long-term poverty reduction, and creates the incentives for long-term sustainable resource management. The proposed Darwin Initiative project aims to improve contributions to food security, and poverty reduction, through the transition from over-exploited capture fisheries to sustainable sea cucumber / seaweed farming.

### 20. 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?

The Darwin Initiative (DI) funding will be used to develop a long-term strategy for the marine turtle community-based conservation project to provide a pathway to poverty alleviation. Providing communities with the tools, resources and support during the 3 years of the project will provide a robust aquaculture program with the capacity of providing guaranteed market access, food security, economic growth, and wealth for rural fishing communities, with the potential to persist long after the lifetime of the project.

From the outset, the aquaculture component of the DI project was designed and planned in-

collaboration with the local aquaculture supplier (Indian Ocean Trepang, IOT) to ensure that materials necessary for the construction of aquaculture infrastructure (e.g. enclosures, cultivation lines, etc), and provision of juvenile sea cucumbers, would be available in sufficient quantities to supply the aquaculture component of the project proposed here. In addition, to the supply chain, the local seafood product exporter, Copefrito, will ensure access to international markets. During the course of the project, a relationship will be created between the suppliers, exporter, and local farmers as a means ensuring continued success of aquaculture activities.

## 21. 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?

**Local:** The Darwin Initiative project includes the development of the indigenous community network in the Bay of Ranobe. Many people that live in the rural communities are illiterate therefore knowledge sharing and/or dissemination of information will be conducted through meetings, workshops and focus groups. Reports, working papers, and peer-reviewed publications will be synthesised and translated into the local Malagasy dialect and presented at meetings.

**National:** the marine turtle focal point based at the IH.SM will be provided full access to research and development material to contribute to marine turtle conservation in Madagascar.

**International:** ReefDoctor will provide international and national stakeholders, previously identified during the 5 years of the RD-Fano project, with periodic updates, biannual/annual reports, working papers, and peer-reviewed publications. News releases are regularly submitted to the UNEP – Indian Ocean - South-East Asian (IOSEA) Memorandum of Understanding on the Conservation and Management of Marine Turtles, to be distributed as feature articles, displayed the IOSEA website and released in the IOSEA newsletters. Access to biological information will be provided to scientific partners / advisors: 1) Kelonia, marine turtle observatory, La Reunion, France, 2) Dr Ronel Nel, chair of the Western Indian Ocean - Marine Turtle Task Force (WIO-MTTF), and 3) Dr George Hughes, Technical Advisor for the Indian Ocean South East Asian (IOSEA-MoU) United Nation Environment Program (UNEP), Former Chief Executive Officer Natal Parks Board.

The aim of the international communication strategy outlined, above, is to contribute to on-going, regional marine turtle conservation efforts, with data and progress updates.

## 22. 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. (See Section 9 of the Guidance Notes for further information)

ReefDoctor is committed to ensuring the widest possible access to information for all peoples in accordance with the principles expressed by the DFID Research Open and Enhanced Access Policy. Providing free, online access to all documentation in English, French and Malagasy will be the most effective way of ensuring that the research can be accessed, read and built upon. In turn, this will foster a richer research culture.

## 23. Importance of subject focus for this project

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.

The Darwin Initiative (DI) project proposed here focuses on a specific habitat (seagrass), species (marine turtles), and a geographic region of the world (Madagascar) under-represented in the Darwin portfolio, where only 0, 1, 17, and 2 out of 835 Darwin Initiatives address seagrass, marine turtles, Madagascar, and the marine / coastal environment of Madagascar, respectively. Furthermore, marine turtle exploitation, seagrass habitat, and coastal ecosystems of Madagascar are highly under-represented topics in both the research and conservation bodies of literature.

Additionally, the present DI projects proposes a novel approach in addressing the biodiversity-development linkage by incentivising the reduction in destructive fishing practices / gears (turtle hunting / beach-seine) through aquaculture benefits, effectively providing a level of protection to endangered species (marine turtles) and their habitats (seagrass). More importantly, however, the project will attempt to establish a positive ecosystem feedback loop to replace, or counter-act, the normal tendency to move into the downward spiral of ecosystem collapse. This may be achieved by establishing the linkage between aquaculture revenue and the state of the seagrass habitats: large expanses of seagrass produce large quantities of detritus fed upon by sea cucumbers, providing a sustainable revenue for coastal communities.

## 24. Leverage

### 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:

None, at present.

### b) 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
21 November 2013	Rufford Foundation	12,000 GBP	3 <sup>rd</sup> -phase, Booster Grant
15 December 2013	Fond Regional pour le Developpment Agricole (FRDA)	8,000 GBP	Regional Agricultural Development Fund – European Union

## PROJECT MONITORING AND EVALUATION

### MEASURING IMPACT

## 25. 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. Further detail is provided in Annex C of the guidance notes which you are encouraged to refer to. The information provided here will be transposed into a logframe should your project be successful in gaining funding from the Darwin Initiative. The use of the logframe is sometimes described in terms of the Logical Framework Approach, which is about applying clear, logical thought when seeking to tackle the complex and ever-changing challenges of poverty and need. In other words, it is about sensible planning.

## Impact

The Impact is not intended to be achieved solely by the project. This is a higher-level situation that the project will contribute towards achieving. All Darwin projects are expected to contribute to poverty alleviation and sustainable use of biodiversity and its products.

Eradicate *extreme* poverty in the Bay of Ranobe communities, safeguard regional biodiversity through sustainable-use of marine resources, in terms of sustainable tourism, fisheries, and aquaculture, following an ecosystem-based approach.

## Outcome

There can only be one Outcome for the project. The Outcome should identify what will change, and who will benefit. The Outcome should refer to how the project will contribute to reducing poverty and contribute to the sustainable use/conservation of biodiversity and its products. This should be a summary statement derived from the answer given to question 14.

Promote the long-term survival of marine turtle populations through the incremental and adaptive implementation of a bay-wide aquaculture project that directly assists the marginalized fishing communities transition to sustainable livelihoods.

## Measuring outcomes - indicators

Provide detail of what you will measure to assess your progress towards achieving this outcome. You should also be able to state what the change you expect to achieve as a result of this project i.e. the difference between the existing state and the expected end state. You may require multiple indicators to measure the outcome – if you have more than 3 indicators please just insert a row(s).

Indicator 1	50% decline in turtle mortality associated with the targeted fishery by year-3
Indicator 2	Improved livelihoods: targeted households will benefit from a 1 USD/day increase in revenue by year-3
Indicator 3	Protection of 10% (ca. 400ha) of critical seagrass habitat throughout the Bay by year-3
Indicator 4	Local optimisation of aquaculture production and creation of expansion strategy by year-3

## Verifying outcomes

Identify the source material the Darwin Initiative (and you) can use to verify the indicators provided. These are generally recorded details such as publications, surveys, project notes, reports, tapes, videos etc.

Indicator 1	Fisheries exit surveys, landing surveys, market surveys, number of turtles tagged/released
Indicator 2	Household economic surveys and focus group reports
Indicator 3	Local laws, dinas, created and implemented
Indicator 4	Publication of experimental results of aquaculture production studies

## Outcome risks and important assumptions

You will need to define the important assumptions, which are critical to the realisation of the *outcome and impact* of the project. It is important at this stage to ensure that these assumptions can be monitored since if these assumptions change, it may prevent you from achieving your expected outcome. If there are more than 3 assumptions please insert a row(s).

Assumption 1	Madagascar remains politically stable throughout the project period
Assumption 2	The project area remains unaffected by natural disasters, such as cyclones
Assumption 3	Effective protection and stewardship of aquaculture units will be put into place to prevent significant losses due to theft, disease, or predation
Assumption 4	Potential conflict related to territorial user-rights will be resolved through the economic incentives associated with aquaculture activities

## Outputs

Outputs are the specific, direct deliverables of the project. These will provide the conditions necessary to achieve the Outcome. The logic of the chain from Output to Outcome therefore needs to be clear. If you have more than 3 outputs insert a row(s). It is advised to have less than 6 outputs since this level of detail can be provided at the activity level.

<b>Output 1</b>	50% reduction in the baseline marine turtle exploitation rate and a, potential, exit from the fisheries
<b>Output 2</b>	Protection of essential seagrass habitat that is critical to the long-term survival of marine turtles and the productivity of sea cucumbers, with a minimum areal target of 10% total cover; agreement reached on intertidal land-use rights related to the conflict between beach-seine fishing activities and aquaculture activities;
<b>Output 3</b>	Selection of 10 community groups (1 group / aquaculture unit (a.u.)) per year per target village (n=6) to participate in the Darwin Initiative; each group is comprised of two family units (2 men / 2 women per a.u.) with a projected number of people directly participating in the training totalling 720 people and associated family units (ca. 3,600 people) indirectly benefiting by year-3.
<b>Output 4</b>	Local optimisation of aquaculture productivity through a multi-year investigation into the poorly-understood factors affecting sea cucumber / seaweed growth rates (i.e. environmental tolerances, nutritional requirements, etc.) designed to provide direct benefits to local sea cucumber / seaweed farmers. Integration of environmental, growth rate, and satellite imagery data into a GIS for the creation of a spatial predictive model could provide indirect benefits in allowing for the prediction of highly-productive sites throughout the developing world

## Measuring outputs

Provide detail of what you will measure to assess your progress towards achieving these outputs. You should also be able to state what the change you expect to achieve as a result of this project i.e. the difference between the existing state and the expected end state. You may require multiple indicators to measure each output – if you have more than 3 indicators please just insert a row(s).

Output 1	
Indicator 1	Continued enforcement by FI.MPA.MI.FA of the local indigenous law (dina) that prevents the exploitation of juvenile marine turtles under 70 cm year 1 - 3
Indicator 2	Continuous biological monitoring of the marine turtle fishery to evaluate success of recently created management strategies, and the 50% targeted decrease in exploitation of marine turtles in the 6 targeted villages of the BRB year 1 - 3
Indicator 3	Working paper summarising results of year-1 marine turtle fishery surveys and socio-economic research; progress evaluation



Indicator 4	Workshops and training to develop the capacity of FI.MPA.MI.FA, FI.MPA.MI.FA's marine turtle protection teams, and turtle network year 1 - 3
Indicator 5	Working paper summarising results of year-2 marine turtle fishery surveys and socio-economic research; progress evaluation
Indicator 6	90% of juvenile marine turtles captured in the fishery are tagged and released by year 3
Indicator 7	Peer-reviewed publication on the marine turtle fishery results by the end of year-3

<b>Output 2</b>	
Indicator 1	A signed memorandum of understanding (MoU), between local turtle fisheries management association (FI.MPA.MI.FA) and the beach-seining communities of the targeted villages, agreeing to a gear exchange program—seine nets in exchange for participation in the Darwin Initiative by year-1
Indicator 2	Formation and implementation of a bay-wide local indigenous law (dina) providing total protection to 150ha of intertidal seagrass meadows and partial protection to an additional 250ha; 10% of critical habitat for marine turtles, juvenile fishes, and sea cucumbers, afforded some form of protection in year-2
Indicator 3	Working paper summarising results of year-1 seagrass monitoring; progress evaluation
Indicator 4	Exclusion of beach-seine activity from sea cucumber farming areas 6 villages by year-2
Indicator 5	Working paper summarising results of year-2 seagrass monitoring; progress evaluation
Indicator 6	Working paper summarising results of year-3 seagrass surveys and the discontinuation of the use of the beach-seine fishing gear
Indicator 7	Peer-reviewed publication on the seagrass monitoring results by the end of year-3

<b>Output 3</b>	
Indicator 1	Workshop on aquaculture techniques
Indicator 2	60 aquaculture projects (sea cucumber / seaweed) in-place and stocked in the 6 targeted villages, with priority given to turtle fishermen and beach-seine fishermen, by year-1
Indicator 3	Working paper summarising results of year-1 data collection: environmental data associated with the sea cucumber enclosures and growth rates/ seaweed productivity; progress evaluation
Indicator 4	Additional 60 aquaculture projects (sea cucumber/seaweed) in-place and stocked in targeted villages, with priority given to all other interested community members, by year-2
Indicator 5	Working paper summarising results of year-2 data collection: environmental data associated with the sea cucumber enclosures and growth rates/ seaweed productivity; progress evaluation
Indicator 6	Additional 60 aquaculture projects (sea cucumber/seaweed) in-place and stocked in targeted villages, with priority given to the most successful, or

	productive, participants by year-3
Indicator 7	Peer-reviewed publication on the marine turtle fishery by the end of year-3
Indicator 8	National symposium presenting Darwin Initiative project results hosted by ReefDoctor in the regional capital, Tulear, during the last quarter of year-3

<b>Output 4</b>	
Indicator 1	Installation of experimental sea cucumber enclosures and seaweed cultivation lines to test different approaches aimed at optimising production in year 1
Indicator 2	Working paper summarising results of year-1
Indicator 3	Continued data collection on experimental aquaculture projects to test different approaches aimed at optimising production in year 2
Indicator 4	Working paper summarising results of year-2
Indicator 5	Continued data collection on experimental aquaculture projects to test different approaches aimed at optimising production in year 3
Indicator 6	Creation of a community expansion program for aquaculture projects in-line with the exit strategy for the project by end of year-3
Indicator 7	Peer-reviewed publication on the optimisation of aquaculture production by the end of year-3
Indicator 8	Development of a GIS-based spatial model to predict site suitability and productivity by end of year-3

### Verifying outputs

Identify the source material the Darwin Initiative (and you) can use to verify the indicators provided. These are generally recorded details such as publications, surveys, project notes, reports, tapes, videos etc.

Indicator 1	Presentation of results at a regional scientific symposium—Western Indian Ocean Marine Science Association (WIOMSA) bi-annual symposium
Indicator 2	Peer-reviewed publications / reports
Indicator 3	National symposium hosted by ReefDoctor at a venue in the regional capital, Tulear, Madagascar

### Output risks and important assumptions

You will need to define the important assumptions, which are critical to the realisation of the achievement of your outputs. It is important at this stage to ensure that these assumptions can be monitored since if these assumptions change, it may prevent you from achieving your expected outcome. If there are more than 3 assumptions please insert a row(s).

Assumption 1	Agreement reached on land-use rights: MoUs signed and Dina's created
Assumption 2	Natural mortality rates remain within a range that allows for economic sustainability
Assumption 3	Given that sea cucumbers are a commercially valuable species, effective measures are put into place to avoid major losses due to theft
Assumption 4	Growth period for sea cucumbers required to attain a marketable weight of 400 grams is 8 - 9 months, and seaweed turn-over rate of 4 months

Assumption 5	Community groups remain committed to the aquaculture farming project
--------------	--

### Activities

Define the tasks to be undertaken by the research team to produce the outputs. Activities should be designed in a way that their completion should be sufficient and indicators should not be necessary. Risks and assumptions should also be taken into account during project design.

Output 1	
Activity 1.1	Meetings and focus groups held with those involved in the marine turtle fishery in the 6-targeted villages to introduce Darwin Initiative
Activity 1.2	Marine turtle protection team training on dina management and enforcement
Activity 1.3	Annual marine turtle meeting hosted by ReefDoctor and FI.MPA.MI.FA; bringing together national, local institutions, government bodies, NGO's from southwest Madagascar, and stakeholders from the BRB
Activity 1.4	Biological monitoring of the marine turtle fishery in the 6-targeted villages of the BRB: 1) fisheries exit surveys, 2) landing surveys, 3) market surveys, and 4) record number of turtles tagged/released
Activity 1.5	Meetings and focus groups held with those involved in the marine turtle fishery in the 6-targeted villages to introduce Darwin Initiative
Activity 1.6	Working paper and submission for publication

Output 2	
Activity 3.1	Development of the MoU agreement on intertidal land-use rights related to the conflict between beach-seine fishing activities and aquaculture activities
Activity 3.2	Formation and implementation of a bay-wide local indigenous law (dina) protecting 10% (400ha) of seagrass meadows
Activity 3.3	Community training on dina management and enforcement
Activity 3.4	Periodic stakeholder meetings to facilitate a smooth social transition from capture fisheries to aquaculture and resolve any minor conflicts
Activity 3.5	Seagrass surveys: data collection on species composition/diversity and density to monitor effects of sea cucumber/seaweed farming infrastructure/activities, and protection status
Activity 3.6	Working paper and submission for publication

Output 3	
Activity 2.1	Meetings and focus groups held in the 6-targeted villages to implement Darwin Initiative
Activity 2.2	Selection of 10 community groups (1 group/enclosure) per year per target village; training of 4 elected group members in sea cucumber/seaweed farming techniques
Activity 2.3	Sea cucumber/seaweed farming workshops held; construction and stocking of sea cucumber enclosures in each village
Activity 2.4	Continual technical and logistical support for maintenance of enclosures/cultivation lines and sale of sea cucumbers/seaweed
Activity 2.5	Socio-economic surveys: changes in poverty level resulting from Darwin Initiative
Activity 2.6	Working paper and submission for publication

<b>Output 4</b>	
Activity 4.1	Construction and stocking of experimental sea cucumber enclosures/seaweed cultivation lines
Activity 4.2	Continuous biological and environmental assessment of productivity
Activity 4.3	Working paper(s) and submission of manuscript(s) for publication of sea cucumber/seaweed optimisation studies
Activity 4.4	Development of a GIS-based spatial model to predict site suitability and productivity
Activity 4.5	End-of-project national symposium to present the results of the Darwin Initiative project

26. 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.

Activity	No of Months	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Output 1</b> 50% reduction in the baseline marine turtle exploitation rate and a, potential, exit from the fisheries													
1.1 Meetings and focus groups held with those involved in the marine turtle fishery in the 6-targeted villages to introduce Darwin Initiative	2												
1.2 Marine turtle protection team training on dina management and enforcement	3												
1.3 Annual marine turtle meeting hosted by ReefDoctor and FI.MPA.MI.FA; bringing together national, local institutions, government bodies, NGO's from southwest Madagascar, and stakeholders from the BRB	9												
1.4 Biological monitoring of the marine turtle fishery in the 6-targeted villages of the BRB: 1) fisheries exit surveys, 2) landing surveys, 3) market surveys, and 4) record number of turtles tagged/released	36												
1.5 Working paper and submission for publication	3												
<b>Output 2</b> Protection of essential seagrass habitat													
2.1 Development of the MoU agreement on intertidal land-use rights related to the conflict between beach-seine fishing activities and sea cucumber/seaweed farming	9												
2.2 Formation and implementation of a bay-wide local indigenous law (dina) protecting 400ha of seagrass meadows	12												
2.3 Community training on dina management and enforcement	3												
2.4 Periodic stakeholder meetings to facilitate a smooth social transition from capture fisheries to sea cucumber/seaweed farming and resolve any minor conflicts	36												
2.5 Seagrass surveys: data collection on species composition/diversity and density to monitor effects of sea cucumber/seaweed farming infrastructure/activities, and protection status	36												
2.6 Working paper and submission for publication	3												
<b>Output 3</b> Implementation of sea cucumber/seaweed farming project													

Activity	No of Months	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.1 Meetings and focus groups held in the 6-targeted villages to implement Darwin Initiative	2												
3.2 Selection of 10 community groups (1 group/enclosure) per year per target village; training of 4 elected group members in sea cucumber/seaweed farming techniques	3												
3.3 Sea cucumber/seaweed farming workshops held; construction and stocking of sea cucumber enclosures in each village	33												
3.4 Continual technical and logistical support for maintenance of enclosures/cultivation lines and sale of sea cucumbers/seaweed	33												
3.5 Socio-economic surveys: changes in poverty level resulting from Darwin Initiative	36												
3.6 Working paper and submission for publication	3												
<b>Output 4 Optimisation of sea cucumber/seaweed farming productivity</b>													
4.1 Construction and stocking of experimental sea cucumber enclosures/seaweed cultivation lines	2												
4.2 Continuous biological and environmental assessment of productivity	30												
4.3 Working paper(s) and submission of manuscript(s) for publication of sea cucumber/seaweed optimisation studies	3												
4.4 Development of a GIS-based spatial model to predict site suitability and productivity	12												
4.5 End-of-project national symposium to present the results of the Darwin Initiative project	2												

## 27. 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 projects 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.

ReefDoctor will use the key milestones and performance indicators as measurements of the project activities enabling the project leader to track progress and achieve the intended goals within the suggested timeframe. Resource allocation and project direction will be the responsibility of the project leader, supported with rigorous data collection, involving comprehensive biological and socioeconomic monitoring, analysis and reporting. ReefDoctor will be able to draw on its wealth of adaptive management knowledge, and local resources gained through the successful completion of previous projects, formation of local associations, and creation of protected areas in the Bay of Ranobe.

## 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.**

**NB:** Please state all costs by financial year (1 April to 31 March) and in GBP. **Budgets submitted in other currencies will not be accepted.** Use current prices – and include anticipated inflation, as appropriate, up to 3% per annum. The Darwin Initiative cannot agree any increase in grants once awarded.

## 28. 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 ReefDoctor-led Darwin Initiative project will provide value for money in leading a efficiently managed project, with management always mindful of waste reduction and efficiency improvements. The minimal overhead and modest salaries of project staff allows for most of the funds received to benefit our local community.

## 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**



### CERTIFICATION

On behalf of the trustees/company\* of ReefDoctor.Org

(\*delete as appropriate)

I apply for a grant of £                      in respect of **all expenditure** to be incurred during the lifetime 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 project principals and letters of support.
- Our most recent audited/independently verified accounts and annual report are also enclosed/can be found at:

<b>Name (block capitals)</b>	SHANE M. ABEARE
<b>Position in the organisation</b>	Executive Director

**Signed**

**Date:**

**Stage 2 Application - Checklist for submission**

	Check
Have you <b>read the Guidance Notes</b> ?	X
Have you provided <b>actual start and end dates</b> for your project?	X
<b>Have you indicated whether you are applying for DFID or Defra funding. NB: you cannot apply for both</b>	X
Have you provided your <b>budget based on UK government financial years</b> i.e. 1 April – 31 March and in GBP?	X
Have you checked that your <b>budget is complete</b> , correctly adds up and that you have included the correct final total on the top page of the application?	X
Has your application been <b>signed by a suitably authorised individual?</b> (clear electronic or scanned signatures are acceptable in the email)	X
Have you included a <b>1 page CV for all the Principals</b> identified at Question 7?	X
Have you included a <b>letter of support from the main partner(s) organisations</b> identified at Question 10?	X
Have you <b>been in contact with the FCO</b> in the project country/ies and have you included any evidence of this?	
Have you included a <b>copy of the last 2 years annual report and accounts</b> for the lead organisation? An electronic link to a website is acceptable.	X
Have you <b>checked the Darwin website</b> immediately prior to submission to ensure there are no late updates?	X

Once you have answered the questions above, please submit the application, not later than midnight GMT on Monday 2 December 2013 to [Darwin-Applications@ltsi.co.uk](mailto: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.