



Darwin Initiative Main Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2018

Darwin Project Information

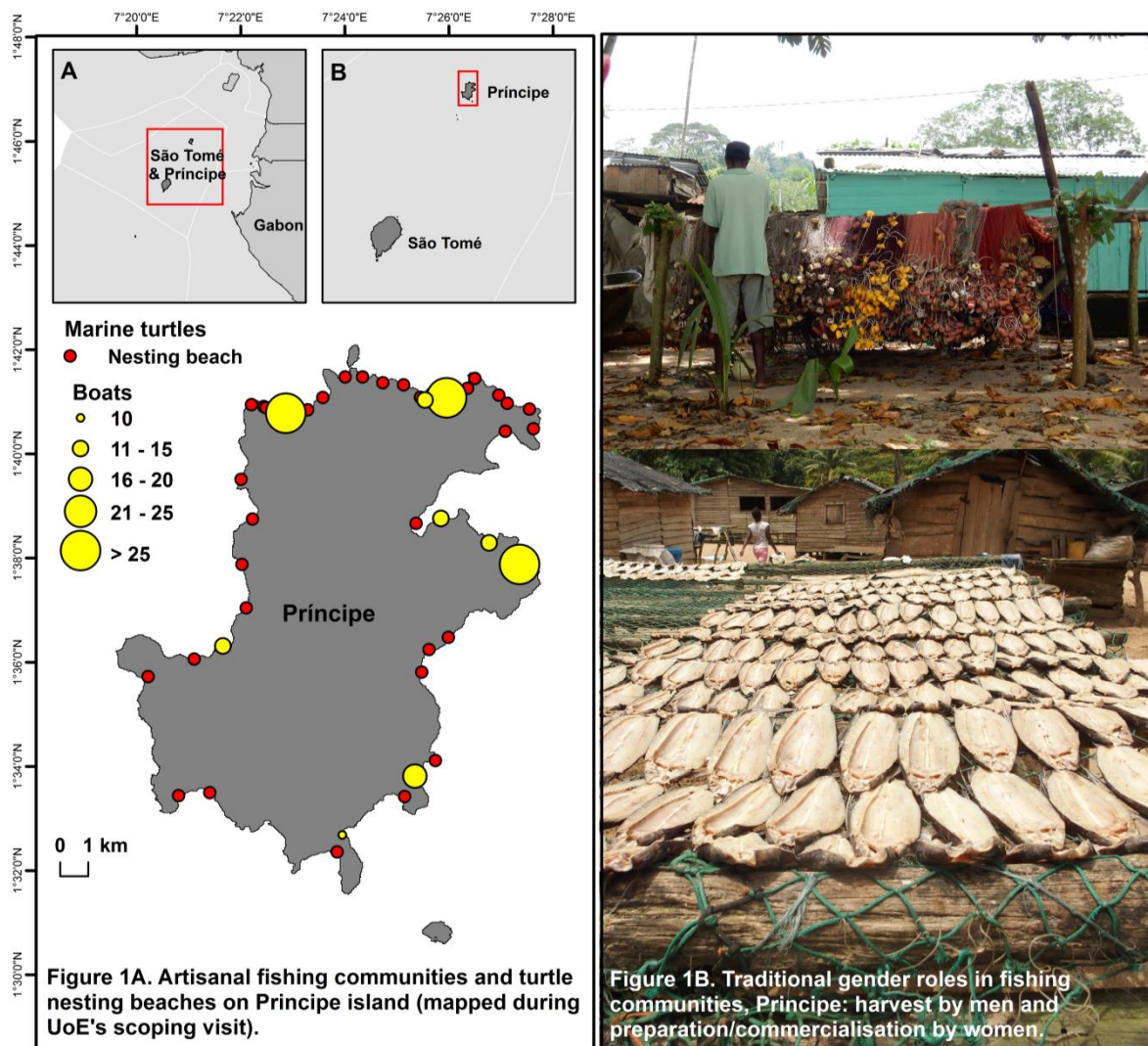
Project reference	23-012
Project title	Improving marine biodiversity and livelihoods of coastal communities in Principe
Host country/ies	Sao Tome and Principe
Contract holder institution	University of Exeter, UK (UoE)
Partner institution(s)	Principe Trust Foundation (PTF), Regional Fisheries Department and Principe’s Biosphere Reserve Management Unit
Darwin grant value	£295,187
Start/end dates of project	01-07-2016 to 31-12-18
Reporting period (e.g., Apr 2017 – Mar 2018) and number (e.g., Annual Report 1, 2, 3)	April 2017 – March 2018 (Annual Report 2)
Project Leader name	Prof Annette Broderick
Project website/blog/Twitter	http://omaliprincipe.weebly.com/ (Click English/Portuguese for specific website language)
Report author(s) and date	Ana Nuno, Annette Broderick and Estrela Matilde 30 th April 2018

1. Project rationale

Sao Tome and Principe is a Portuguese-speaking island nation in the Gulf of Guinea, off the western equatorial coast of Central Africa. São Tomé lies 255 km, and Príncipe 220 km, off the coast of Gabon; the former is the larger covering 859 km², with the latter covering 142 km². An independent nation since 1975, São Tomé and Príncipe has a population of ca. 179,000 inhabitants with population density unevenly split between islands (Príncipe has around 7500 inhabitants) and annual population growth approximately 2.45% (INE 2012). Príncipe, where this project is based, became an autonomous region in 1995, with its own regional government reporting to the national government based in São Tomé.

With a high degree of endemism, the island of Principe is of global biodiversity significance and was designated a UNESCO Biosphere Reserve in 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.

An agrarian economy sees reliance on subsistence farming and fisheries, with 62% of the population below the poverty line. Around 17% of the national population are involved in fisheries; a major source of protein for households in Príncipe (>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 pre-project scoping study in Príncipe, were: access to equipment; infrastructure; conflict; alternative livelihoods and government support. Households headed by women (29% of all households in Príncipe) are especially vulnerable as women suffer from unequal access to education and job opportunities (e.g. female illiteracy 186% higher than male).



Overfishing and habitat degradation are directly affecting the viability of fishing livelihoods. Príncipe has also recently attracted several investors, leading to rapid change in development, population growth and tourism. Ongoing changes in fishing practices suggest dynamic responses to socio-economic drivers. Low conservation capacity, limited monitoring/enforcement, poor governance and lack of impact evaluation are major barriers to effective resource management on the island; this has crucial implications for biodiversity, food security and human wellbeing, given fisheries dependence.

2. Project partnerships

Over the last year, the project partnerships have strengthened, particularly regarding involvement of the Regional Fisheries Department and Príncipe's Biosphere Reserve Management Unit; all project partners are now much more involved in actively advising project activities and making decisions about them, as well as establishing links to other ongoing initiatives. For example, the selection panel for the "community ideas" initiative was composed by representatives from all project partner organizations ([blog and photos](#)), stimulating involvement in budget allocation and

choice of interventions to be implemented. Given that the lead partner (UoE) has only recently started working with these partners on the island, this improvement is to be expected and represents a significant advancement in partner trust and buy-in. We believe continuous engagement, regular communications and updates, balanced representation in decision-making processes as well as given appropriate credit to everyone's contributions have been at the core of these advancements.

Key meetings with project partners and local stakeholders to discuss progress have been held on: 22nd May (UoE with National Fisheries Dept), 30th May – 5th June (community meetings with UoE and PTF to discuss preliminary findings from mapping of fishing areas), 8th June (UoE, PTF and Regional Fisheries Department), 4th July (general project meeting with all project partners), 8th September (event to disseminate and discuss preliminary project findings and launch “community ideas” with all project partners and community representatives), 23rd October (event to announce winners from “community ideas” competition with all project partners and community representatives), 31st October (UoE with National Fisheries Dept), 21st November (PTF, President of Regional Union of Associations of Fishers and Fish Traders and President of Principe), 7th March (all project partners with President of Principe), 14th March (UoE with National Fisheries Dept). A focal point from the National Fisheries Department also traveled to Principe island to visit the project, provide feedback and act as facilitator among departments from 6th to 9th September. In addition, UoE/PTF meetings have been held in person or by skype at least once a week. To enhance partnerships and enhance communication between PTF and the government, monthly meetings are now also used to provide updates on multiple projects, including ours (meetings scheduled for last Thursday of every month; started January 2018).

In addition to project partners, we have invested in strengthening or starting relationships with other relevant stakeholders. In particular, we have kept regular contact with organizations working in the neighbour island Sao Tome ([Oikos](#) - development NGO; [Marapa](#) - artisanal fisheries NGO; [ATM](#) - sea turtle conservation NGO), providing updates about our progress and exchanging experiences between islands. We have discussed potential collaborations with the University of Sao Tome (e.g. opportunities for their students to participate in our research activities as well as identifying capacity building opportunities for academic staff); we believe this can be a very fruitful and meaningful collaboration for the development of local academic and technical capacity. We have also started a new collaboration with [Africa's Eden](#), a conservation and tourism enterprise working in Principe; thanks to this, we have now received additional funding to undertake complementary ecological research and monitoring tasks. In addition, we were very pleased to receive a visit from FAO in December 2017 ([blog and photos](#)); their team was keen to learn more about our project and discuss potential collaborations.

In terms of partnerships, high staff turnover and complete restructuring of the main host partner organization (PTF) have been the most challenging aspects. During this year, UoE has thus invested on increased presence on the ground (Research Fellow spent 5 months in Principe; thanks to additional funds, we hired a Research Assistant that spent 6 months in Principe; and Dr Phil Doherty visited for two weeks to provide training and advice on methodologies). We have also focused on training and hiring of local project officers as well as strengthening links to regional and national institutions so that the project can continue as planned with no major implications for project delivery, timings or budget.

3. Project progress

3.1 Progress in carrying out project Activities

Towards 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.*

Engagement with, and participation of, fishing communities remains a core project consideration (Activity 1.1). As during Y1, focal points (3 women and 3 men) from six target coastal fishing communities keep undertaking fisheries landing surveys and acting as liaison between the project and community. Fisheries landing surveys (n> 300 participating fishers) and mapping of fishing areas using GPS trackers (n= 41 participating fishers) continued throughout all year, while

the project initiative “community ideas” (see below) generated plenty of attention with all communities (n=6) having participated and six community interventions now ongoing.

Based on needs assessments undertaken during Y1 (Activity 1.2), we have adopted a community-driven approach for defining project interventions (Activity 1.5). In August/September 2017, we launched a call for “community ideas” which are a participatory approach to defining and implementing interventions for improving sustainability of small-scale fisheries in Principe ([blog and photos](#)). Criteria were defined with all project partners; for example, interventions were required to be linked to: reducing costs and/or increasing income from fishing or sale of fish; income diversification; increasing the quantity of fish in fishing areas; capacity development of fishers and fish traders; and/or improving the functioning of fisheries associations and their involvement in the management of marine resources. We also made explicit that at least 50% of winning proposals should directly benefit women (i.e. fish traders) and that proposals that only increased fishing effort would be excluded (see [description](#) as well as [proposal](#) and [evaluation sheets](#)). Each project community participated in at least 4 meetings over six weeks in order to discuss potential bids before they submitted their ideas (see proposal submitted by one of communities in Annex 4). The winners were announced on the 23rd October ([blog and media coverage of event](#)). The panel, composed by Ana Nuno (University of Exeter, UK), Plácida Lima (Biosphere Reserve), Damião Matos (Regional Fisheries Department) and Jaconias Pereira (Principe Trust Foundation), decided that, although with different levels of funding (ranging from £1065 to £3550), 6 out of 7 proposals deserved to be supported (see section 9 for discussion about non-funded proposal).

Winning ideas (Activity 1.5) include a handicraft center at Burras Beach, handmade soap from Abade, the construction of a community headquarters in Lapa and Campanha, a community shop selling material for repairing gear and trading fish in Santo Antonio and materials for transformation of fish products for the association of fish traders from Abade. These required project investments in terms of infrastructure, material and training, as well as focusing on organizing community committees, drafting operational plans and implementing monitoring and evaluation schemes. Despite considerable delays due to material transportation to the island, infrastructure is now ready for 5 out of these 6 interventions (see photos for each one of interventions in Annex 5); tailored training (Activity 1.3) has been delivered to one out of three communities ([blog and media coverage](#)); and material has been ordered for all the six interventions. Baseline information has been collected (Activity 1.6; see Annex 6 for example of monitoring and evaluation form being used) and community management plans have been drafted (see Annex 7 for an example of agreement developed with one of the project communities); implementation will be closely followed by main Darwin project officer throughout Y3. To allow for a more robust consideration of potential impacts of these interventions, and thanks to additional funds made available by other organizations, we will request a no-cost project extension, delaying project end from December 2018 to March 2019.

Fisheries landing surveys and mapping of fishing areas are ongoing (Activity 1.4), as planned. For example, 7420 fishing trips have been recorded in landing surveys from December 2016 to February 2018 and 1426 fishing trips based on GPS tracking from March 2017 to March 2018. Summaries have been produced and presented to fishers in order to return information, seek their feedback and maintain engagement. For example, preliminary individual, community and island fishing maps have been produced ([blog and map](#)). To protect fisher anonymity and privacy, only community and island maps are shared with other stakeholders. Preliminary information from landing surveys has also been summarized (see [example summary](#)) and discussed with fishers. The GPS tracking and resulting fishing maps have been perceived as particularly useful by many stakeholders, including the National Fisheries Department and other NGOs; similar information is now also being collected in Sao Tome by [Oikos](#).

Thanks to additional funds from [Africa's Eden](#) and the [Halpin Trust](#), we are now collecting additional information about fish reproductive biology and marine biodiversity distribution around the island. In collaboration with Prof Charles Tyler (UoE), a protocol for collection of fish gonads and analyses about maturity and general aspects of reproductive biology has been developed (data collection started 12th April). Baited Remote Underwater Video Stations (BRUVS) were tested during 2 weeks (17 - 30 September 2017) with support from Dr Phil Doherty (UoE), who

helped us setting-up and implementing this methodology. This non-invasive technique allows recording diversity and abundance of marine species by attracting them into the field of view of an underwater camera with bait ([blog and video](#)). This information is now being used to design robust biodiversity assessments using this methodology to start May 2018. This information is essential for determining potential protection measures as well as measuring biodiversity impacts over time and space.

While our report about project findings and recommendations will be produced in Y3 (Activities 1.8, 1.9 and 1.10), presentations to multiple stakeholders have been used to disseminate and discuss preliminary findings, reaching regional, national and international audiences: National Fisheries Week, Sao Tome (6-7 July 2017; [presentation](#); [blog and photos](#)); IV Lusophone Congress of Environmental Education, Príncipe (17-20 July 2017; [presentation](#); [blog and photos](#)); 3rd Marine Conservation Network meeting, University of Exeter – UK (26 July 2017; [presentation](#)); ZSL and CIIMAR / CIMAR Associate Laboratory workshop to share best practice in working with communities for marine conservation, Matosinhos – Portugal (22 Jan 2018; [presentation](#); [blog and photos](#)); First Congress of Marine Biology of Portuguese Language Countries, Faro – Portugal (24-26 January 2018; [presentation](#)); [Conference of Financing Sustainable and Climate-Resilient Ocean Economies in Africa](#), Seychelles (at the invitation of World Bank Group; 22-23 February 2018; [blog and photos](#)); remote presentation at the seminar "Biodiversity - Contributing towards diversifying Angola's economy", Luanda - Angola (27-28 February 2018; [video presentation](#)). Our project activities were also disseminated to national and international audiences by being covered as a 3-page section in [PTF's 2017 annual report](#). At the end of 2017, we also produced a [summary](#) for disseminating ongoing and future project tasks.

Towards Output 2. *Establishing co-management: to improve long-term sustainability of fisheries sector through improved and empowered governance.*

Based on preliminary project work and initial workshops during Y1 assessing status and feasibility of fisheries co-management ([Working document](#) on "Associativism for the co-management of coastal and marine resources in the island of Principe?"), community cohesion, trust and teamwork were identified as key factors to be targeted to enhance success of potential fisheries co-management initiatives. For example, although there are some community-level fisheries associations on the island, several of them have a history of mistrust and money mismanagement and are mainly driven by economic incentives and are created to receive government funds. In practice, they are poorly functional and not involved in fishing decision-making. During Y2, we have thus decided to adopt a participatory approach for identifying and implementing community-specific interventions aiming to lead to improved community cohesion and improved management of resources.

As part of this "community ideas" initiative (see activities towards Output 1), potentially improved mechanisms to increase fisher and fish trader earnings have been identified or are under investigation (Activity 2.1). While it is not likely that these will produce established co-management of marine resources within the time scale of the project, the participatory management of resources and infrastructure associated to funded community interventions will allow exploring and recommending co-management structures. This adopted participatory approach for identifying and implementing community-specific interventions thus aims to lead to improved community cohesion and improved management of resources, while investing on enhancing skill development using "community ideas" as a springboard; these initiatives require co-management committees that were established during Y2 (Activity 2.2) and will be supported throughout Y3.

Towards 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.*

Survey protocol developed in Y1 (Activity 3.1) and baseline information obtained from 880 (fishing and non-fishing) residents interviewed at end of Y1 (Activity 3.2). Y3 surveys to be collected. Preliminary summaries (see e.g. [presentation at Fisheries Week](#) and attached preliminary socio-economic information; Annex 8) have been produced based on data collected

in Y1 for posterior comparison with information to be collected in Y3. Key findings include, for example, perceived decline in fisheries catch during last 10 years and moderate to high consumption rates of sharks, rays and monkeys.

As a clarification to reviewer of our previous annual report: this type of data will be used to ascertain if, over time, potential changes in marine governance also reflect in use of other natural resources and social factors in both fishing communities and non-target communities. This is important for assessing project impacts over time and space, particularly when considering long-term effects (so this contributes to defining baseline for potential post-project assessments as well).

Towards 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.*

Four new staff members joined our team (Activity 4.1; [blog and photo](#)): Guillermo Porriños joined as field research assistant (15th May-14th November 2017 and 5th Feb 2018 – present), Albertino Lopes (previously conducted social surveys for our project) joined for two months (June-July 2017) to assist with data entry in Excel, Cileine Fernandes is now responsible for data entry (July 2017-present) and will be involved in environmental awareness efforts during Y3, and Yodiney Santos joined the team in January 2018 to support fisheries landing surveys and marine biodiversity assessment using BRUVS. Meanwhile, Estrela Matilde, previous conservation programme manager at PTF, became the new executive director, being now more directly involved with our project.

Training has been delivered to fit specific staff needs and project activities, as well as refreshers, if required (Activities 4.2, 4.3 and 4.4). In July 2017, we trained staff from PTF and the Regional Fisheries Department (n=2) on both producing and delivering oral presentations. This training included sessions working together to produce presentations and then each person doing at least 2 practice presentations to receive feedback from wider team. This resulted in four final 20-min presentations delivered at conferences. Fisheries landing follow-up visits to community focal points were conducted twice a week from 15th July to end of September. This allowed us identifying key challenges in order to improve community engagement and data collection. A refresher session for the 6 focal points was then organized on the 5th October ([blog and photos](#)). As part of an ecotourism course taking place in Principe, we ran a 25h cartography module (24 July - 2 August; 21 students, 9 of which women) aiming to develop capacity of local staff in both the conservation and tourism sectors ([blog and photos](#)). During 2 weeks in September, training on BRUVS deployment at sea was provided to 8 people (e.g. [schematic illustrating devices](#)). In 11-15 December, Estrela Matilde attended the “Managing and Leading Conservation Projects” course in Cambridge (UK) hosted by the University of Kent, the Durrell Institute and FFI ([blog and photos](#)). From 22nd to 27th January, Litoney Matos attended a Conflict Mediation course ran by the Institute for Certification and Training of Lusophone Mediators (ICFML), at the Catholic University of Porto (Portugal; [blog and photos](#)). Based on our project progress self-reflection and feedback form completed by key staff every 6 months (see Annex 9), “the participatory nature of all activities”, “the diversification of the activities and partners” and “being able to do so much with so little money” have been described as project highlights, while, in personal terms, also being a “challenging but enriching experience” and opening “windows for knowledge exchange” among staff. Further training on “data analysis for fisheries data and geographical information” have also been listed as ongoing needs by staff so will require further attention in Y3.

Training for communities has been tailored according to community interventions. In collaboration with Sonha, Faz e Acontece (Dream, Do and it Happens), a Portuguese social entrepreneurship association, for five days (10-16 August), fish traders and fishers (total: 25 people, including 17 women) from one of the target communities participated in entrepreneurship classes where they learned how to evaluate and grow their business in a sustainable way ([blog and photos](#)). Based on participants’ feedback, this was particularly useful for “learning how to assess if business is going well (i.e. register sales and purchases)”, “learning how to manage business” and “how to treat customers”, allowing them to “grow their own business initiatives” (e.g. fish trading). The participants also mentioned being interested in “receiving more training opportunities” and mentioned that “more follow-up support” by our project would be needed to fully accompany progress; this is already being taken into account during implementation of community ideas.

From 19 to 29 March, a group of fish traders and fishers (total: 16 people, including 8 women) from Praia Burra received training in handicraft production (for example, with fish scales and sea shells; [blog and media coverage](#)). This training is related to the idea proposed by this community: creating a craft center to supplement their fishing activity and increase their income by taking advantage of materials that would be wasted (e.g. fish scales). Training was provided in collaboration with artisan from neighbour island Sao Tome. Further training on producing handmade soap, processing of salted fish and small business management have been scheduled for April and May 2018.

In collaboration with FFI and University of Cambridge, a MSc student (Conservation Leadership) undertook a placement looking at “Assessing options to mitigate the impacts of illegal, unregulated and unreported fishing on Príncipe”. This entailed a student visit to Sao Tome and Principe from 13th to 24th June ([blog and photos](#)) and conducting interviews with governmental departments and fishing communities to discuss impacts from IUU fisheries and consider ongoing and potential monitoring, control and surveillance (MCS) programs (e.g. VMS, AIS, and community-based approaches). This report has been submitted in August 2017 and a summary produced ([see here](#); thesis available upon request) and then translated for local dissemination. Based on project discussions and priorities identified, equipment allowing the National Fisheries Department to use Automatic Identification Systems (AIS) to identify potential IUU fishing has now been provided by [MarineTraffic](#) and is ready for installation during Y3, enhancing national monitoring capacity.

Towards Output 5. *Project monitoring and evaluation in addition to M&E activities aiming at robust assessment of interventions described in outputs 1-4.*

Based on reviewer feedback from previous annual report, this output has been removed and its activities are reported throughout other sections.

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3.2 Progress towards project Outputs

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.

Progress towards Output 1: Work towards achieving Output 1 is progressing particularly well, both in terms of gaining a better understanding of social and ecological dimensions of artisanal fisheries on the island (see e.g. indicators 1.2 and 1.3) and stimulating community engagement (see e.g. indicators 1.4 and 1.5). Thanks to additional funding, we are now able to collect complementary biodiversity information (fish reproductive biology and marine biodiversity assessment using BRUVS) while implementing six community interventions linked to improved fisheries practices.

Indicator	Baseline and progress to date	Source of evidence	Comments, if necessary
<p>1.1. Household specific livelihoods opportunities, capacity and training needs are identified through participatory methods with individual beneficiary households by Q3 year 1 and training delivered by Q2 year 2, specifically targeting female-headed households (> 15 fishers and 15 females in at least 5 focal fishing communities).</p>	<p>Needs assessment conducted in Y1, leading us to adopt a participatory approach for selecting and implementing specific community interventions and develop related training in Y2. Training has been implemented in one community with remaining training scheduled for April 2018. Number of participants in training sessions so far: entrepreneurship - 25 people (including 17 women); handicraft - 16 people (including 8 women).</p>	<p>Entrepreneurship classes: blog and photos, training certificates and photo (Annex 10)</p> <p>Training in handicraft production: blog and media coverage, registration sheets (Annex 11) and training certificates (Annex 12)</p>	<p>Our project focuses on six target coastal fishing communities with population size ranging between 18 and 170 adults. Despite delay in delivering training due to linking this to implementation of specific community interventions, planned overall number of participants in training events should be achieved.</p>
<p>1.2. Knowledge of current barriers to sustainability, needs and threats for fishers identified through participatory 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).</p>	<p>Fisheries landing surveys and mapping of fishing areas are ongoing in six fishing communities, as planned. So far, we have collected 16 months of data on landing surveys (number of fishing trips: 7420; >300 fishers) and 13 months of data on GPS tracking (number of fishing trips: 1426; 41 fishers). Baseline was zero databases at start of project.</p>	<p>Preliminary fishing maps from GPS tracking: blog and map</p> <p>Summary from landing surveys: example summary</p>	
<p>1.3. Spatiotemporal patterns of resource use, seasonality (effort), target species, and distribution data for baselines and future comparison are assembled by Q1 year 2 (> 15 fishers in >5 fishing communities) and re-examined as part of the project in years 2 and 3.</p>	<p>Same as above. In addition, we have also started collecting complementary information on fish reproductive biology and marine biodiversity distribution.</p>	<p>Same as above. In addition: BRUVS: blog and video</p>	

<p>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 start of year 2.</p>	<p>Six community interventions have now been identified and are in different stages of implementation (infrastructure ready for 5 out of 6 interventions), allowing us to explore their feasibility and provide recommendations for wider application by end of project.</p>	<p>Announcement of community interventions to be implemented: blog and media coverage of event</p> <p>Inauguration of handicraft centre: blog and media coverage</p>	<p>In order to increase buy-in and implementation success of interventions in communities, project partners have decided to open “call for community proposals” based on an agreed set of criteria. Six community interventions are being implemented; one of target fishing communities was not allocated funding for intervention (see detailed discussion in section 9).</p>
<p>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 >5 fishing communities by the end of year 2.</p>	<p>We have adopted a more participatory approach, which means we have implemented more interventions than planned and recommendations about best strategies will be provided at end of project.</p>	<p>Same as above. In addition: Annex 5, 6 and 7</p>	<p>Same as above.</p>
<p>1.6 Increased understanding of linkages between livelihoods (e.g. dependency, vulnerability, loss evaluation) and fisheries practices by year 3 Q3.</p>	<p>Baseline data on social and ecological factors has been collected (as mentioned above) and will be used for assessing linkages. Baseline was zero databases at start of project.</p>	<p>Preliminary summaries (see e.g. presentation at Fisheries Week and Annex 8)</p>	
<p>Output 2. Establishing co-management: to improve long-term sustainability of fisheries sector through improved and empowered governance.</p>			
<p>Progress towards Output 2: We are on track to obtaining improved governance (see indicators 2.1 and 2.3) although the direct link to fisheries co-management had to be toned down given challenges and priorities identified during Y1.</p>			
Indicator	Baseline and progress to date	Source of evidence	Comments, if necessary
<p>2.1 Co-management establishment process initiated by Q2 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 Q3 year 2.</p>	<p>Based on preliminary project work and initial workshops during Y1 aiming to assess current status and feasibility of fisheries co-management, community cohesion, trust and teamwork were identified as key factors to be targeted to enhance success of potential fisheries co-management initiatives. We have thus decided to focus on those through a “community ideas” initiative.</p>	<p>Working document on “Associativism for the co-management of coastal and marine resources in the island of Principe?”</p> <p>Description of “community ideas” initiative</p> <p>Announcement of community interventions to be implemented: blog and media coverage of event</p>	<p>Commenced ahead of schedule for allowing detailed pre-establishment phase.</p> <p>Six community interventions are being implemented; one of the target fishing communities was not allocated funding for intervention (see detailed discussion in section 9).</p>

2.2 Baseline fisheries and social data following establishment of co-management process are assembled by Q3 year 2 (>5 fishing communities) and re-examined as part of the project in year 3.	Baseline data has been collected using questionnaires and landing surveys during Y1. Monitoring and evaluation scheme implemented in six community interventions during Y2, as well as composition of community committees responsible for managing these interventions. Baseline was zero databases at start of project.	Annex 5, 6 and 7	
2.3 Co-management committees identified for > 5 fishing communities by year 3 Q1 and terms agreed by end of year 3, Q2.	Same as above.	Annex 7	This indicator should be interpreted in terms of community committees responsible for project interventions; while there are some fisheries associations on island, their functionality hinders link to fisheries co-management.
2.4 Co-management annual operational plans are developed and reviewed by stakeholders and local/national partners by year 3.	Based on preliminary lessons from community interventions (both in terms of community engagement and drivers as well as expected benefits), operational plans and recommendations will be produced during Y3. Current baseline is zero.		Same as 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.	Ongoing discussions with key stakeholders, including local NGOs and government. Established collaboration with Oikos (development NGO) that has a project on fisheries co-management in the neighbour island of Sao Tome.		
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.			
Progress towards Output 3: Baseline assessments are completed and follow-up surveys are planned for Y3.			
Indicator	Baseline and progress to date	Source of evidence	Comments, if necessary
3.1 Ecological and resource use assessments on terrestrial and marine biodiversity (dietary recalls, landings and bycatch surveys)	Baseline information collected during Y1 (880 adult residents were interviewed, 585 of them in 6 coastal fishing communities); Y3 surveys to be	Preliminary summaries (see e.g. presentation at Fisheries Week and Annex 8	Census-based surveying was used with community

undertaken in >5 fishing communities and at least 5 non-fishing communities (> 30 participants per community; 50% female).	collected. Baseline was zero databases at start of project.		population size varying between 18 and 170 adults.
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).	Same as above.	Same as above.	Initially, we were planning to re-examine levels during Y2 too but we have decided against it to avoid survey fatigue given small population size and census-based interviewing.
3.3 Increased understanding of wider scale (negative and positive) effects of improved fisheries practices (interventions) and co-management synthesised by year 3 Q2.	Preliminary summaries have been produced based on data collected in Y1 for posterior comparison with information to be collected in Y3. Baseline was zero databases at start of project.	Same as above.	
<p>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.</p> <p>Progress towards Output 4: Training and improved staff capacity exceeding initial estimates (see indicator 4.1) in order to promote local expertise and sustainability (this has been particularly important give high staff turn-over at local project partners).</p>			
Indicator	Baseline and progress to date	Source of evidence	Comments, if necessary
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 Q1 year 2.	Staff training reached a total of 22 people so far. See detailed description in section 3.1	Photos and project news ; see detailed description in section 3.1	Training is being delivered to fit staff needs and specific activities so, instead of finalizing by Q1 year 2, it is being done throughout all project duration.
4.2 Training programmes for staff (biological and socio-economic sampling methodologies, geographic information systems, data management and analysis) delivered by Q1 year 2 and trainee skills for marine management assessed and evaluated semi-annually with follow up training in year 2 as required.	Same as above	Same as above	
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, Q3 to address potential threats associated with an emerging industrial fisheries sector and illegal, unreported and unregulated (IUU) fishing effort.	Challenges and opportunities in implementing MCS programmes as well as potential threats associated with IUU fisheries have been identified and discussed with multiple stakeholders. Based on project discussions and priorities identified, equipment allowing the National	MSc thesis (available upon request) and summary	

	Fisheries Department to use Automatic Identification Systems (AIS) to identify potential IUU fishing has now been provided by MarineTraffic.com and is ready for installation during Y3.		
<p>Output 5. Project monitoring and evaluation in addition to M&E activities aiming at robust assessment of interventions described in outputs 1-4.</p> <p>Progress towards Output 5: Based on reviewer feedback from previous annual report, this output has been removed.</p>			

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3.3 Progress towards the project Outcome

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.

Progress towards project outcome: Overall, we are making good progress towards our project outcome and are reaching our goal of stimulating participatory approaches for improved fisheries management in Principe. Significant steps have been made towards improving livelihoods of fishing communities through implementation of six community interventions. Governance being improved through community engagement and enhanced local capacity, ultimately aiming to improve marine management and conservation. We are being successful in collecting social and ecological information related to fishing practices, allowing for more robust and informed management decisions.

Indicators	Baseline and progress to date	Evidence
<p>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.</p>	<p>Social and economic data collected to establish baseline levels. These will be re-examined as part of the project in Y3. Livelihood interventions started in Y2.</p>	<p>Social surveys: protocol and questionnaire</p>
<p>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).</p>	<p>However, given our focus on using a participatory approach for identifying and implementing community interventions, only 4 out of 6 interventions are directly related to economic gains so it is likely that we will achieve a range of wellbeing improvements but not strictly income-related (thus limiting the validity of indicator 0.1). In addition, the number of people benefited is likely to differ considerable among different wellbeing metrics.</p>	<p>Preliminary socio-economic information (Annex 8)</p>
<p>0.3 Committees for co-management of marine resources established with inclusive and equitable 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 Q3 year 3.</p>	<p>Community committees have been established for community interventions related to fisheries, although mostly focusing on fisheries profitability, alternative sources of income and shared spaces for community work. Based on preliminary project work and workshops to assess current status and feasibility, we have changed our focus so that we target community skill development for enhanced cohesion and improved teamwork.</p>	<p>Working document on co-management of coastal and marine resources in the island of Principe</p>
<p>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.</p>	<p>Data collected to establish baseline levels. These will be re-examined as part of the project in Y3.</p> <p>Project must link specific harvest reduction strategies to livelihood interventions in order to promote buy-in.</p>	<p>Fisheries: protocol and landing survey</p> <p>Social surveys: protocol and questionnaire</p>
<p>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</p>	<p>Information being gathered throughout project. We have produced preliminary reports and summaries in Portuguese that have been shared locally and made available to everyone online.</p>	<p>Project website</p>

publications from the current zero baseline will increase incrementally in years 1, 2 and 3.		
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.	Four Darwin project officers, 7 focal points, 6 enumerators and 6 marine guards (total of 6 women and 16 men) have received training relevant to their specific tasks in the project.	See sections regarding Output 4

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3.4 Monitoring of assumptions

All assumptions still hold true; see below for specific discussions.

Assumption 1: *Government Departments remain amenable to implementation of fisheries co-management approach.*

Marine conservation and improved fisheries management have been gaining momentum in country, with fisheries co-management on the governmental agenda (see e.g. [Kike da Mungu](#), a collaborative project on fisheries co-management in the neighbour island of Sao Tome).

Assumption 2: *Project partners, especially fishing communities and Government, retain commitment to sustainable use of marine resources.*

Given our participatory approach, sustainable use messaging and project findings have been discussed throughout different phases, while allowing to get a better understanding of barriers and opportunities in terms of promoting uptake of improved practices.

Assumption 3: *Country remains politically stable.*

Sao Tome and Principe has remained stable and is generally peaceful. National and regional elections scheduled for 2018 so we are fully aware this might bring some delays and/or uncertainty given project links to government, and we are planning accordingly.

Assumption 4: *Retention of key staff and/or ability to appoint replacements.*

At the end of May 2018, A.B. (marine conservation manager and interim director at Principe Trust Foundation) resigned from her job. The new director has now been appointed and started her new role. Representatives from governmental partners have also frequently changed throughout the project. High staff turn-over at the several partner organizations throughout the project has emphasized the need to focus on strengthening the local team and communicating our projects goals, activities and findings to a wide range of contacts to promote institutional legacy.

Assumption 5: *There are no major economic shocks, or anthropogenic or natural disasters affecting fish yield and community capacity to prioritize fisheries management.*

No major economic shocks or natural disasters. Given location in small island, project and fishing are sometimes affected by, for example, restricted access to fuel. To account for impacts of these smaller, but potentially important, factors, since the start of the project, we have been collecting the following monthly information: monthly rainfall; average, minimum and maximum monthly temperature; exchange rate (£ to Sao Tomean dobras), average fuel price and average energy price, and additional notes (e.g. limited fuel availability, regional elections or holiday season).

Assumption 6: *Target local community groups remain willing to explore and engage in research and co-management of fisheries.*

Engagement with, and participation of, fishing communities remains a core project consideration. As described throughout report, participation levels remain high.

Assumption 7: *Target local community groups remain willing to explore and engage in livelihood diversification and enhancement activities.*

All targeted project communities submitted ideas for livelihood interventions to be implemented (see section 9 for discussion about non-funded proposal).

Assumption 8: *The success of the pilot interventions will be sufficient enough to encourage more families, especially women-headed households, to trial interventions.*

The community interventions will be closely monitored in Y3 in order to record successes and failures, aiming to provide recommendations and showcase different stories of success for subsequent uptake. Because the community interventions have been proposed by communities themselves and is being managed by them (with our support), this is likely to generate more interest (instead of being simply funder-driven).

Assumption 9: *In country partners remain willing to learn and be actively involved in the implementation of the project.*

Project partners, government agencies, local communities and other collaborators remain amenable to the implementation of the project. As described in section 2, the partnership has strengthened throughout Y2, enhancing active engagement.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

This project aims at improved food security, increased gender equality and poverty reduction in fisheries dependent coastal communities in the island of Principe, through a participatory social-ecological approach to enhance marine biodiversity and resource management. Positive impacts on biodiversity are expected through its better management and improved fisheries practices, with an increase in the diversity and abundance of indicator species over time. Positive impacts on poverty alleviation are expected through an increase in income and wellbeing for both fishers and fish traders given the more empowered and better management of artisanal fisheries and implemented livelihood interventions.

We have made significant progress in terms of implementing community interventions that are directly linked to empowerment by adopting a fully participatory approach and, some of them, are linked to income-generating opportunities. By the end of the project, we should achieve improvements in wellbeing (e.g. community cohesion, freedom of choice and action) and, for some, additional sources of income. In terms of biodiversity conservation, we are now gaining a much better understanding of species abundance, distribution and resource use; based on this information and close work with all key stakeholders, our findings will link into fisheries management recommendations (e.g. marine biodiversity distribution to inform processes of spatial protection). Baseline social and ecological data has been collected to monitor impacts as the project progresses.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

Our project aims to contribute to the following SDGs:

- Goal 1 (end poverty): the project aims to contribute to decreased income and non-income poverty (see section 3.5). We have implemented six community interventions and have collected baseline data in order to assess impacts;
- Goals 2 & 14 (food security & conserve marine resources): the project is working towards 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 at the long-term. The project is providing a better understanding of major issues at play (e.g. some fishers catching undersized fish at bays) and is working towards providing specific recommendations to inform government decisions about fisheries management and marine protected areas. We have collected baseline data in order to assess these impacts later on;
- Goals 4, 5 & 8 (gender equality & lifelong learning & inclusive sustainable economic growth): our project is targeting women (fish traders and staff) for capacity building and training, as well as providing direct employment for local residents and stimulating sustainable business opportunities (e.g. handicraft centre). For example, all of our six community interventions benefit women directly, with one of them focusing only on women (i.e. fish traders).

5. Project support to the Conventions, Treaties or Agreements

The work undertaken in this project is intended to support Sao Tome and Principe meet obligations under two of the following major biodiversity conventions:

- contribution 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). Progress during Y2 was particularly relevant in terms of defining and implementing livelihood opportunities, stimulating participatory and empowered decision-making by fishers and fish traders (i.e. women), while obtaining a better understanding of biodiversity considerations for advising conservation and management.

- At its planning and inception, CITES was also listed as a major convention to be informed by our work. Our project aims to inform governmental decisions by providing evidence about the international trade of endangered species and support legislative changes to enable CITES ratification. Whilst this remains an important consideration, based on findings obtained during Y1, we realized the scale of this issue on the island is probably very small and reducing. For example, based on informal conversations with two previous shark fin traders, the income generated was very small and they stopped doing it because the effort wasn't worth it as the price offered by middlemen reduced drastically (around 75% reduction). Although there seems to be some international trade through links in Nigeria, sharks and rays are mainly caught opportunistically. We have collected baseline ecological and socio-economic information about harvest and trade, and aim to enhance 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). During Y2, we met the CITES focal point and he attended our presentation at the National Fisheries Week where we reported preliminary findings.

6. Project support to poverty alleviation

As discussed in section 3.5. We have implemented six community interventions, four of which are directly related to generating additional sources of income benefiting both fishers and fish traders (i.e. women). These will be monitored and evaluated throughout Y3.

7. Project support to gender equality issues

As demonstrated in activities and indicators reported in section 3.1, this project is working to address gender equality by: promoting capacity building and employment for women staff; targeting both fishers (generally men) and fish traders (generally women) as key actors of artisanal fisheries and involving them throughout all project stages (including design of project activities and proposal of community interventions); collecting social and economic information from 1 man and 1 woman per household, thus allowing gender differences to be identified and accounted for when developing and implementing interventions; organizing discussions for men and women separately in order to allow for differences in experiences, opinions and social dynamics to be respected and accounted for. Notably, during Y2 we made explicit that at least 50% of winning community proposals should directly benefit women (i.e. fish traders); in the end, all of our six community interventions being implemented benefit women, with one of them focusing only on women (i.e. fish traders).

8. Monitoring and evaluation

As reported in several other sections, monitoring and evaluation is an intrinsic component of this project. Based on definition of community interventions now implemented, we had to adapt our approach so that it focused on more qualitative assessments as well (rather than a single quantitative approach through the use of household questionnaires). Acknowledging that an economic metric for wellbeing improvements might be too narrowed, we have a wide range of metrics being use for capturing changes in, for example, empowerment and freedom of action.

9. Lessons learnt

During Y2, we have focused mainly on community intervention and thus a different set of challenges arose. Although being clearly defined in October 2017, the implementation of community interventions took longer than planned. Despite delays due to material transportation to the island, infrastructure is now ready for 5 out of these 6 interventions; tailored training has been delivered to one out of three communities and material has been ordered for all the six interventions. Throughout this implementation period, providing regular updates to everyone involved has been crucial, particularly communities so it was clear why arrival of materials, etc, was delayed.

All of the six target communities presented proposals for interventions to be implemented. The selection panel, including representations from all partner organizations, decided that, although with different levels of funding (ranging from £1065 to £3550), 6 out of 7 proposals deserved to be supported. This means that one community (Hospital Velho) was not allocated funding for implementing a community intervention. We found this to be a particularly difficult situation as it could lead to potential conflict and/or disengagement. Even more importantly, this non-funded proposal (getting a motorbike to improve transportation of people and fish) came from the biggest fishing community on the island, which means we would decrease our ability to directly benefit a considerable portion of the fishing population. There are multiple reasons for this decision, as well as important considerations for next steps and applications elsewhere: based on previous regional projects in which partners were involved, motorbikes had been already provided in several communities and were found to be difficult to manage (e.g. fuel expenses, people using them for personal use); this was the most expensive proposal and would exceed stipulated budget; people proposing this intervention had some support from wider community but, overall, this would only benefit a small group of people; several people from this community had attended our meetings to discuss potential ideas but struggled with identifying ideas to be proposed and/or agreeing on ideas to put forward. While we did our best to generate ideas for discuss, disseminate information, facilitate group discussions and provide support as required, everyone in the panel also felt giving them a motorbike would be unfair to the other communities, who were much more committed. During Y3, we will keep engaging and involving fishers and fish traders from this community, who were explicitly told about the rationale about this decision, in our other activities; we should keep in mind that, even adapting a fully participatory approach, not everyone is willing to participate and our incentives might not be enough for generating participation (for example, because the other communities are smaller, our funding represents a more considerable investment for them).

In addition, as mentioned in sections 2 and 3.4, high staff turnover and complete restructuring of the main host partner organization have been considerable challenges. This required guaranteeing an increased field presence to provide technical and management support as well as maintaining good and regular communication with a wide range of people in order to promote institutional legacy and buy-in.

10. Actions taken in response to previous reviews (if applicable)

Four queries were raised in response to last year's review. We respond to each below:

- 1. Consider your level of effort on some of your data collection (e.g. fortnightly review of enumerators knowledge) in year 2 to free up resources for other work*
During Y2, we have indeed allocated most resources to implementation of interventions. Based on great progress and involvement achieved during Y1, in Y2 we focused on defining and implementing livelihood interventions, while carrying on capacity building for local team and supporting all field tasks through regular updates and refreshers, when required.
- 2. Targets for outcome indicators related to income (50% increase) and harvesting of key species (significantly reduced due to co-management which isn't expected to come into force until Q3Yr3) are ambitious in this timeline – this is a good time to review and revise if necessary.*

First, we would like to clarify that our initially estimated income increase was a more modest 10% (and not 50% as suggested above). Nevertheless, now that the community interventions have been defined and implemented, it's clear that an income-focused wellbeing metric is not a good indicator in this case. Only 4 out of 6 interventions are directly related to economic gains so it is likely that we will achieve a range of wellbeing improvements but not strictly income-related. We are thus now focusing on a wider range of wellbeing impacts, focusing on improvements due to enhance participation, community cohesion and engaged decision-making.

Regarding harvest of key species, we have now collected baseline data (none was available before our project) that suggest, for example, out of 869 adults interviewed, 48%, 17% and 5% consumed sharks, rays and sea turtles, respectively, during previous year. This will be re-assessed in Y3. As part of ongoing initiatives by partner organization (PTF), efforts towards reducing sea turtle harvest and consumption are being made through monitoring, enforcement, and environmental education.

3. *Output indicators are largely a repetition of your activities – they do not serve well for Darwin (or others) to measure change. Consider a revision of these indicators to make them useful for the project and outside parties to understand change being effected by the project.*

In section 3.2 we have clarified baseline and progress being made for output indicators, clarifying or revising measures being used.

4. *The majority of the sources of evidence are in Portuguese which cannot be read by the reviewer. Please try to share the translations of important documents if you are going to use them as sources of evidence of your progress.*

We have now provided English translations of all key documents to measure progress during Y2.

11. Other comments on progress not covered elsewhere

Nothing else to report here.

12. Sustainability and legacy

This project is the first of its kind in Principe. This greatly enhanced both national interest in our project and the potential to draw wider recommendations for the region by piloting novel approaches as well as drawing comparisons across islands. We have made all our project material, including presentations, survey protocols and forms, available to collaborators and the wider public (see [resource section](#) in project website).

By investing in capacity and engagement of local staff and communities, we aim to enhance the sustainability and legacy of the project. Our activities are designed and implemented in order to promote active local participation and increase resilience in case of reduced external support. During Y2, we have strengthened national and international links to prepare next steps and post-project sustainability. For example, our project received a visit from FAO in December 2017 ([blog and photos](#)); their team was keen to learn more about our project and discuss potential collaborations.

13. Darwin identity

This project is recognized as a distinct initiative with a clear identity. It has been locally named as “Omali vida nón” (Sea, our life) thanks to suggestions from fishers and fish traders. We have produced a project logo and [project website](#) which we use to advertise and inform about project activities and outputs to an international audience. We have produced preliminary reports and summaries in Portuguese that have been shared locally. All project documents include the Darwin Initiative logo, which has also been used in international and national presentations, project template forms and summaries for dissemination (e.g. Annex 12, [Presentation](#) at Congress of Marine Biology of Portuguese Language Countries).

14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2017 – 31 March 2018)

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			0%	
Consultancy costs			-	
Overhead Costs			0%	
Travel and subsistence			+3%	
Operating Costs			-2%	
Capital items (see below)			-1%	
Monitoring & Evaluation (M&E)			-9%	
Others (see below)			+9%	
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p>Impact</p> <p>Poverty alleviation, food security, and sustainable use of marine biodiversity through improved marine governance in Principe.</p>		<p>Significant steps have been made towards improving livelihoods of fishing communities through implementation of six community interventions. Governance being improved through community engagement and enhanced local capacity, ultimately aiming to improve marine management and conservation.</p>	
<p>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.</p>	<p>0.7 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).</p> <p>0.8 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).</p> <p>0.9 Committees for co-management of marine resources established with inclusive and equitable 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 Q3 year 3. Current baseline is zero.</p>	<p>0.1 and 0.2 We have implemented six community interventions related to fisheries. However, given our focus on using a participatory approach for identifying and implementing community interventions, only 4 out of 6 interventions are directly related to economic gains so it is likely that we will achieve a range of wellbeing improvements but not strictly income-related. In addition, the number of people benefited is likely to differ considerable among different wellbeing metrics.</p> <p>0.3 Community committees have been established for community interventions related to fisheries, although mostly focusing on fisheries profitability, alternative sources of income and shared spaces for community work. Based on preliminary project work and workshops to assess current status and feasibility, we have changed our focus so that we target community skill development for enhanced cohesion and improved teamwork.</p>	<p>0.1 and 0.2 Social surveys will be conducted at the community level to compare with information collected during Y1. Community interventions will also be closely monitored to support people involved and ascertain a wide range of wellbeing effects.</p> <p>0.3 Community committees will be fully supported throughout Y3 in terms of resource management, conflict mediation, accountability and business management. Social impacts to be closely monitored.</p>

	<p>0.10 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).</p> <p>0.11 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.</p> <p>0.12 By Q3 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).</p>	<p>0.4. Data collected to establish baseline levels. These will be re-examined as part of the project in Y3.</p> <p>0.5 Information being gathered throughout project. We have produced preliminary reports and summaries in Portuguese that have been shared locally and made available to everyone online.</p> <p>0.6 Four Darwin project officers, 7 focal points, 6 enumerators and 6 marine guards (total of 6 women and 16 men) have received training relevant to their specific tasks in the project.</p>	<p>0.4 Carry on collection of information on fisheries landings and practices. Link specific harvest reduction strategies to livelihood interventions in order to promote buy-in.</p> <p>0.5 As project and data collection progress, provide frequent updates and produce summary documents for dissemination to different audiences (e.g. local communities, academics and governmental institutions).</p> <p>0.6 Provide training and training refreshers, as required.</p>
<p>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.</p>	<p>1.1 Household specific livelihoods opportunities, capacity and training needs are identified through participatory methods with individual beneficiary households by Q3 year 1 and training delivered by Q2 year 2, specifically targeting female-headed households (> 15 fishers and 15 females in at least 5 focal fishing communities).</p> <p>1.2 Knowledge of current barriers to</p>	<p>1.1 Needs assessment conducted in Y1, leading us to adopt a participatory approach for selecting and implementing specific community interventions and develop related training in Y2. Training has been implemented in one out of three community interventions with remaining training scheduled for April 2018.</p> <p>1.2 Workshops and social surveys conducted in Y1.</p>	

	<p>sustainability, needs and threats for fishers identified through participatory 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).</p> <p>1.3 Spatiotemporal patterns of resource use, seasonality (effort), target species, and distribution data for baselines and future comparison are assembled by Q1 year 2 (> 15 fishers in >5 fishing communities) and re-examined as part of the project in years 2 and 3.</p> <p>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 start of year 2.</p> <p>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 >5 fishing communities by the end of year 2.</p> <p>1.6 Increased understanding of linkages between livelihoods (e.g. dependency, vulnerability, loss evaluation) and fisheries practices by year 3 Q3.</p>	<p>1.3 Fisheries landing surveys collected since December 2016 (16 months of information, so far) and GPS tracking conducted since February 2017 (13 months of information).</p> <p>1.4 Together with fisheries information being collected, findings from community interventions being currently implemented will allow producing management recommendations by end of project.</p> <p>1.5 Interventions identified and implemented using participatory approach in Y2. During Y3, these will be monitored, allowing us to make recommendations about potential expansion.</p> <p>1.6 Baseline information collected and Y3 surveys to be collected to ascertain potential changes and linkages.</p>
<p>Activity 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.</p>	<p>As during Y1, focal points (3 women and 3 men) from six target coastal fishing communities keep working in our project undertaking fisheries landing surveys and acting as liaison between the project and community. Community representatives are involved in project events and there are regular community meetings. Particularly due to the “community ideas” initiative, this engagement will continue throughout Y3 and community groups will receive technical support on conflict management, resource management and teamwork.</p>	

<p>Activity 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.</p>	<p>This has been conducted during Y1 and reassessed during Y2 given specific community needs due to “community ideas” initiative.</p>
<p>Activity 1.3 Develop and deliver training programme tailored to meet critical local needs.</p>	<p>Training needs and programmes have been developed according to specific “community ideas” being implemented throughout Y2 and Y3. Training has been delivered to one out of three communities with remaining training scheduled for April 2018.</p>
<p>Activity 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.</p>	<p>As planned, data collection is ongoing and will carry on during Y3. So far, we have collected: 16 months of fisheries landing surveys, 13 months of GPS tracking; socio-economic information obtained from 194 fishers and 157 fish traders, as well as 529 non-fishing individuals. In addition to planned activities, we are also collecting complementary information on fish reproductive biology and marine biodiversity distribution; this will be key for providing management relevant recommendations at the end of the project.</p>
<p>Activity 1.5 Pilot and implement multiple interventions for increasing fisheries profitability based on project findings.</p>	<p>We have adopted a community-driven approach; in Y2, we launched a call for “community ideas” which are a participatory approach to defining and implementing interventions for improving sustainability of small-scale fisheries in Principe. Their implementation has started for all the six community interventions and will be supported throughout Y3. Recommendations about potential expansion to be produced at the end of project.</p>
<p>Activity 1.6 Monitor adoption of activities, feedback and social-ecological (perceived and actual) outcomes.</p>	<p>Baseline socio-economic information collected during Y1; Y3 surveys to be collected. Baseline information for already ongoing community interventions has been collected during Y2, with follow up and collection of remaining baseline information to be conducted in Y3.</p>
<p>Activity 1.7 Review existing national and regional legislation regarding protection of endangered and/or protected species of wild flora and fauna.</p>	<p>All national and regional legislation regarding fisheries and environment has been compiled during Y1. Key information from each document (for example, general content, specific relevance and department responsible) has been summarized (see summary). Information to be updated throughout project, as needed.</p>
<p>Activity 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.</p>	<p>In order to account for ongoing community initiatives as well as complementary ecological information being collected thanks to additional funds, this document will be prepared during Y3 together with recommendations report for government (see point below).</p>
<p>Activity 1.9 Produce recommendations report for government underpinning potential legislative changes and CITES ratification, and fisheries practices.</p>	<p>Preliminary findings have been presented during project meetings and other dissemination events. As planned, report to be prepared during Y3.</p>
<p>Activity 1.10 Peer reviewed paper prepared on the artisanal fisheries of the region.</p>	<p>As planned, manuscript to be prepared during Y3. Data already collected: 16 months of fisheries landing surveys, 13 months of GPS tracking; socio-economic information obtained from 194 fishers and 157 fish traders.</p>
<p>Output 2. Establishing co-management: to improve long-term sustainability of fisheries sector through improved and empowered governance.</p>	<p>2.1 Co-management establishment process initiated by Q2 year 2 and participatory research to identify key values and requirements supports development of fisheries co-management strategies (e.g. fisheries</p> <p>2.1 Based on preliminary project work and initial workshops during Y1 assessing current status and feasibility of fisheries co-management (Working document on “Associativism for the co-management of coastal and marine resources in the island of Principe?”), community cohesion, trust and teamwork were identified as key factors to be targeted to enhance success of potential fisheries co-management initiatives. We have thus decided to focus on those through a “community ideas” initiative.</p>

	<p>co-operatives) in >5 fishing communities by Q3 year 2.</p> <p>2.2 Baseline fisheries and social data following establishment of co-management process are assembled by Q3 year 2 (>5 fishing communities) and re-examined as part of the project in year 3.</p> <p>2.3 Co-management committees identified for > 5 fishing communities by year 3 Q1 and terms agreed by end of year 3, Q2. Current baseline is zero.</p> <p>2.4 Co-management annual operational plans are developed, and reviewed by stakeholders and local/national partners by year 3. Current baseline is zero.</p> <p>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.</p>	<p>2.2. and 2.3 Monitoring and evaluation scheme implemented in six community interventions during Y2, as well as composition of community committees responsible for managing these interventions.</p> <p>2.4 and 2.5 Based on preliminary lessons from these community interventions (both in terms of community engagement and drivers as well as expected benefits), operational plans and recommendations will be produced during Y3.</p>
<p>Activity 2.1. Establishing co-management mechanisms for fisheries in focal communities to increase fisher earnings, through a participatory approach.</p>		<p>Based on project progress throughout Y1, during Y2 we have adopted a participatory approach for identifying and implementing community-specific interventions aiming to lead to improved community cohesion and improved management of resources.</p>
<p>Activity 2.2. Facilitate establishment of co-management committees, planning and monitor progress of co-management teams.</p>		<p>We are working towards this by investing on enhancing skill development using “community ideas” as a springboard; these initiatives require co-management committees that were established during Y2 and will be supported throughout Y3.</p>
<p>Activity 2.3 Organize awareness campaigns and disseminate environmental education information across island.</p>		<p>To be undertaken in Y3.</p>
<p>Activity 2.4 Produce findings synthesis and recommendations report about fisheries co-management.</p>		<p>To be produced during Y3, together with recommendations report for government.</p>
<p>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.</p>	<p>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.</p>	<p>3.1 and 3.2 Baseline information collected during Y1; Y3 surveys to be collected. Initially, we were planning to re-examine levels during Y2 too but we have decided against it to avoid survey fatigue given small population size and census-based interviewing.</p>

	<p>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.</p> <p>3.3 Increased understanding of wider scale (negative and positive) effects of improved fisheries practices (interventions) and co-management synthesised by year 3 Q2.</p>	<p>3.3 Preliminary summaries have been produced based on data collected in Y2 for posterior comparison with information to be collected in Y3.</p>
<p>Activity 3.1 Development of data collection protocols and survey tools.</p>	<p>Done during Y1.</p>	
<p>Activity 3.2 Field data collection and analysis. Mixed-methods approach investigating wellbeing and marine and terrestrial resource use in fishing and non-fishing communities.</p>	<p>Baseline information collected during Y1; Y3 surveys to be collected.</p>	
<p>Activity 3.3 Synthesis report produced on social and ecological benefits of improved fisheries management for Principe island.</p>	<p>To be undertaken in Y3.</p>	
<p>Activity 3.4 Peer-reviewed paper prepared on ecosystem services trade-offs and social spill-over effects of improved marine management across island.</p>	<p>To be undertaken in Y3.</p>	
<p>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.</p>	<p>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 Q1 year 2.</p> <p>4.2 Training programmes for staff (biological and socio-economic sampling methodologies, geographic information systems, data management and analysis) delivered by Q1 year 2 and trainee skills for marine management assessed and evaluated semi-annually with follow up training in year 2 as required.</p> <p>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, Q3</p>	<p>4.1 and 4.2 Enhancing capacity and technical expertise of local staff (n=22) has been a priority of this project, with multiple training sessions (e.g. biological and socio-economic sampling methodologies, GPS, data management, conflict mediation) having been delivered during Y1 and Y2. This is being delivered to fit staff needs and specific activities so, instead of finalizing by Q1 year 2, it is being done throughout all project duration.</p> <p>4.3 Challenges and opportunities in implementing MCS programmes as well as potential threats associated with IUU fisheries have been identified and discussed with multiple stakeholders. Based on project discussions and priorities identified, equipment allowing the National Fisheries Department to use Automatic Identification Systems (AIS) to identify potential IUU fishing has now been provided by MarineTraffic.com and is ready for installation during Y3.</p>

	to address potential threats associated with an emerging industrial fisheries sector and illegal, unreported and unregulated (IUU) fishing effort.	
Activity 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.		During Y2, four new staff members joined our team to assist with biological data collection and data entry in Excel.
Activity 4.2 Develop training programme and materials to build capacity in social-ecological monitoring, community engagement, biodiversity conservation and fisheries management.		Training has been developed and provided to fit staff needs and specific activity requirements.
Activity 4.3 Deliver training to current and new local staff.		Training has been developed and provided to fit staff needs and specific activity requirements.
Activity 4.4 Monitor the progress of staff to deliver activities; organise training refresher sessions if needed.		Refreshers sessions have been organized as required throughout project, particularly regarding landing surveys by focal communities from local communities.
Activity 4.5 Identify and assess costs of potential monitoring, control and surveillance (MCS) programs (e.g. VMS, AIS, and community-based approaches).		MSc thesis undertook during Y2 looking at "Assessing options to mitigate the impacts of illegal, unregulated and unreported fishing on Príncipe". AIS equipment obtained thanks to collaboration with MarineTraffic.com and ready for installation during Y3.
Activity 4.6 Produce report on available options, cost-benefit analysis and capacity needs regarding potential monitoring, control and surveillance programs.		This report has been produced during Y2 and a summary translated for local dissemination.
Output 5. Project monitoring and evaluation in addition to M&E activities aiming at robust assessment of interventions described in outputs 1-4.		Based on reviewer feedback from previous annual report, this output has been removed and its activities are reported throughout other sections.

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

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.			
<p>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.</p>	<p>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).</p> <p>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).</p> <p>0.3 Committees for co-management of marine resources established with inclusive and equitable 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 Q3 year 3. Current baseline is zero.</p> <p>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</p>	<p>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.</p> <p>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.</p> <p>0.3 Production of information synthesis document; biodiversity monitoring data; technical reports; records of feedback and stories of change from local stakeholders involved in the project; records of feedback and stories of change from community members. Press releases.</p> <p>0.4 Data collection (household and fisher surveys and stranding records), peer-reviewed publication and reports.</p>	<p>Government Departments remain amenable to implementation of fisheries co-management approach. Note 1: <u>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.</u></p> <p>Fishing communities and government retain commitment to sustainable use of marine resources. Note 2: <u>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.</u></p> <p>Country remains politically stable. Note 3: <u>Sao Tome and Principe has been relatively stable for several decades and is generally peaceful, with most visits trouble-free, as stated by FCO.</u></p> <p>Retention of key staff and/or ability to appoint replacements. Note 4: <u>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.</u></p> <p>There are no major economic shocks, or</p>

	<p>community interventions (baseline SMART reduction targets established in year 1 and re-examined as part of the project in years 2 and 3).</p> <p>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.</p> <p>0.6 By Q3 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).</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>NB All data and reports will be disseminated to project partners for future management.</p>	<p>anthropogenic or natural disasters affecting fish yield and community capacity to prioritize fisheries management.</p>
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<p>Outputs:</p> <p>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.</p>	<p>1.1 Household specific livelihoods opportunities, capacity and training needs are identified through participatory methods with individual beneficiary households by Q3 year 1 and training delivered by Q2 year 2, specifically targeting female-headed households (> 15 fishers and 15 females in at least 5 focal fishing communities).</p> <p>1.2 Knowledge of current barriers to sustainability, needs and threats for fishers identified through participatory 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).</p> <p>1.3 Spatiotemporal patterns of resource use, seasonality (effort), target species, and distribution data for baselines and future comparison are assembled by Q1 year 2 (> 15 fishers in >5 fishing communities) and re-examined as part of the project in years 2 and 3.</p> <p>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 start of year 2.</p>	<p>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.</p> <p>1.2 Household socio-economic surveys. Reports including findings from scenario analysis and threat ranking exercises produced by year 2 Q1.</p> <p>1.3 Workshop reports, interim field reports, Darwin project website. Synthesis document/report and recommended actions on artisanal fisheries produced by end year 3 Q1.</p> <p>1.4 Surveys / focus groups. Report on take and trade of CITES listed species by year 2 Q3.</p> <p>1.5 Synthesis and recommendations report for government regarding fisheries practices by year 3, Q1.</p>	<p>Project partners, especially fishing communities and Government, retain commitment to sustainable use of marine resources. Note 2 above</p> <p>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></p> <p>Target local community groups remain willing to explore and engage in livelihood diversification and enhancement activities. Note 2 above</p> <p>The success of the pilot interventions will be sufficient enough to encourage more families, especially women-headed households, to trial interventions. Note 5 above</p>
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	<p>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 >5 fishing communities by the end of year 2.</p> <p>1.6 Increased understanding of linkages between livelihoods (e.g. dependency, vulnerability, loss evaluation) and fisheries practices by year 3 Q3.</p>	<p>1.6 Peer reviewed publication on livelihoods and fisheries by year 3 Q3.</p>	
<p>2. Establishing co-management: to improve long-term sustainability of fisheries sector through improved and empowered governance.</p>	<p>2.1 Co-management establishment process initiated by Q2 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 Q3 year 2.</p> <p>2.2 Baseline fisheries and social data following establishment of co-management process are assembled by Q3 year 2 (>5 fishing communities) and re-examined as part of the project in year 3.</p> <p>2.3 Co-management committees identified for > 5 fishing communities by year 3 Q1 and terms agreed by end of year 3, Q2. Current baseline is zero.</p> <p>2.4 Co-management annual operational plans are developed, and reviewed by stakeholders and local/national partners by year 3. Current baseline is zero.</p> <p>2.5 By the end of year 3, preliminary lessons from co-management model are considered by the government as a</p>	<p>2.1 Workshop reports, interim field reports, Darwin project website.</p> <p>2.2 Fisheries, data collection (household surveys, focus groups and workshops to generate baseline and monitor changes).</p> <p>2.3 Workshop reports, interim field reports, Darwin project website.</p> <p>2.4 Annual operational plans. Workshop reports, interim field reports, Darwin project website. Evaluation reports from local partners.</p>	<p>Project partners, especially fishing communities and Government, retain commitment to sustainable use of marine resources. Note 2 above</p> <p>Target local community groups remain willing to explore and engage in research and co-management of fisheries. Note 5 above</p>

	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.	<p>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.</p> <p>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.</p> <p>3.3 Increased understanding of wider scale (negative and positive) effects of improved fisheries practices (interventions) and co-management synthesised by year 3 Q2.</p>	<p>3.1 Fisheries, data collection (household surveys, focus groups and workshops to generate baseline and monitor changes).</p> <p>3.2 Data collection (household surveys, focus groups and workshops to generate baseline and monitor changes).</p> <p>3.3 Peer reviewed publication on wider scale effects of improved fisheries practices and co-management by year 3 Q3.</p>	Target local community groups remain willing to explore and engage in research. Note 5 above.
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 Q1 year 2 .	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.	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: The

	<p>4.2 Training programmes for staff (biological and socio-economic sampling methodologies, geographic information systems, data management and analysis) delivered by Q1 year 2 and trainee skills for marine management assessed and evaluated semi-annually with follow up training in year 2 as required.</p> <p>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, Q3 to address potential threats associated with an emerging industrial fisheries sector and illegal, unreported and unregulated (IUU) fishing effort.</p>	<p>4.2 Workshops delivered, number of participants trained, capacity assessment scores, trainees' feedback and perceptions forms. Training material provided for future use.</p> <p>4.3 Report on available options, cost-benefit analysis, capacity needs.</p>	<p><u>issues and interventions described in this proposal have been identified through a collaborative exercise and the bid developed in partnership.</u></p>
<p>5. Project monitoring and evaluation in addition to M&E activities aiming at robust assessment of interventions described in outputs 1-4.</p>	<p>5.1 Minimum of 2 steering group / committee meetings with project partners in host country each year to discuss progress towards project activities. Feedback to Outputs and Activities 1-4.</p> <p>5.2 Submission of half year and annual Darwin Reports. Feedback to Outputs and Activities 1-4.</p>	<p>5.1 Checklists of key parameters (social, ecological, economic). Steering group / committee meetings and minutes. Interim partner reports on annual progress towards agreed goals.</p> <p>5.2 Darwin Reports. Darwin project website updated.</p>	
<p>Activities</p> <p>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.</p> <p>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.</p> <p>1.3 Develop and deliver training programme tailored to meet critical local needs.</p> <p>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.</p> <p>1.5 Pilot and implement multiple interventions for increasing fisheries profitability based on project findings.</p> <p>1.6 Monitor adoption of activities, feedback and social-ecological (perceived and actual) outcomes.</p>			

- 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.
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- 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.
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- 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.
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- 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.
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- 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.

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
2	Number of people to attain Masters qualification (MSc, MPhil etc.)	M	New Zealand	0	1	0	0	1
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	3 F 7 M	Sao Tome and Principe	7	1	1	8	9
6A	Number of people to receive other forms of education/training	2 F 9 M	Sao Tome and Principe	11	0	6	6	17
11B	Number of papers to be submitted to peer reviewed journals			0	0	2	0	2
12A	Number of computer based databases to be established and handed over to the host country			3	0	2	3	5
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/ disseminated.			1	5	2	6	8

In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Mark (*) all publications and other material that you have included with this report.

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
Participatory approaches for marine conservation	Oral presentation - Conference program and abstracts	Ana Nuno, Litoney Matos, Guillermo Porriños, Kristian Metcalfe, Brendan Godley, Annette Broderick (2018)	F	Portugal	First Congress of Marine Biology of Portuguese Language Countries, Faro - Portugal	link

<p>“Omali Vida Nón”: bringing marine conservation and livelihoods together</p>	<p>Oral presentation - Conference program and abstracts</p>	<p>Litoney Matos, Ana Nuno (2017)</p>	<p>M</p>	<p>Sao Tome and Principe</p>	<p>IV Lusophone Congress of Environmental Education, Príncipe</p>	<p>link</p>
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Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	✓
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	✗
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	✗
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	