



## Darwin Initiative Annual Report



**Important note:** *To be completed with reference to the Reporting Guidance Notes for Project Leaders:  
it is expected that this report will be about 10 pages in length, excluding annexes*

**Submission Deadline: 30 April**

### Darwin Project Information

Project Reference	19-020
Project Title	Responding to fish extirpation in the global marine biodiversity epicentre
Host Country/ies	Philippines
Contract Holder Institution	Newcastle University
Partner institutions	Haribon Foundation for the Conservation of Natural Resources
Darwin Grant Value	£294151
Start/end dates of project	1 April 2012 – 31 March 2016
Reporting period (eg Apr 2013 – Mar 2014) and number (eg Annual Report 1, 2, 3)	Apr 2013 – Mar 2014, Annual Report 2
Project Leader name	Nicholas Polunin
Project website	-
Report author(s) and date	Nicholas Polunin, Margarita Lavidés 29 April 2014

### 1. Project Rationale

Because the Philippines is a global marine biodiversity epicentre, yet fishing intensity is great, it is likely that species have become locally extinct, however there has been no investigation of this. The project is using surveys of fishermen's recollection of former catches in particular together with underwater survey data at five major 'key marine biodiversity' areas (Fig. 1) to determine likely threatened reef fish species and describe abundance trends of species and groups of these. The project will strengthen resource management capacity and help to reconcile any conservation needs with those of relevant sustainable livelihoods in one of these areas. It will also make policy recommendations from local to international levels.

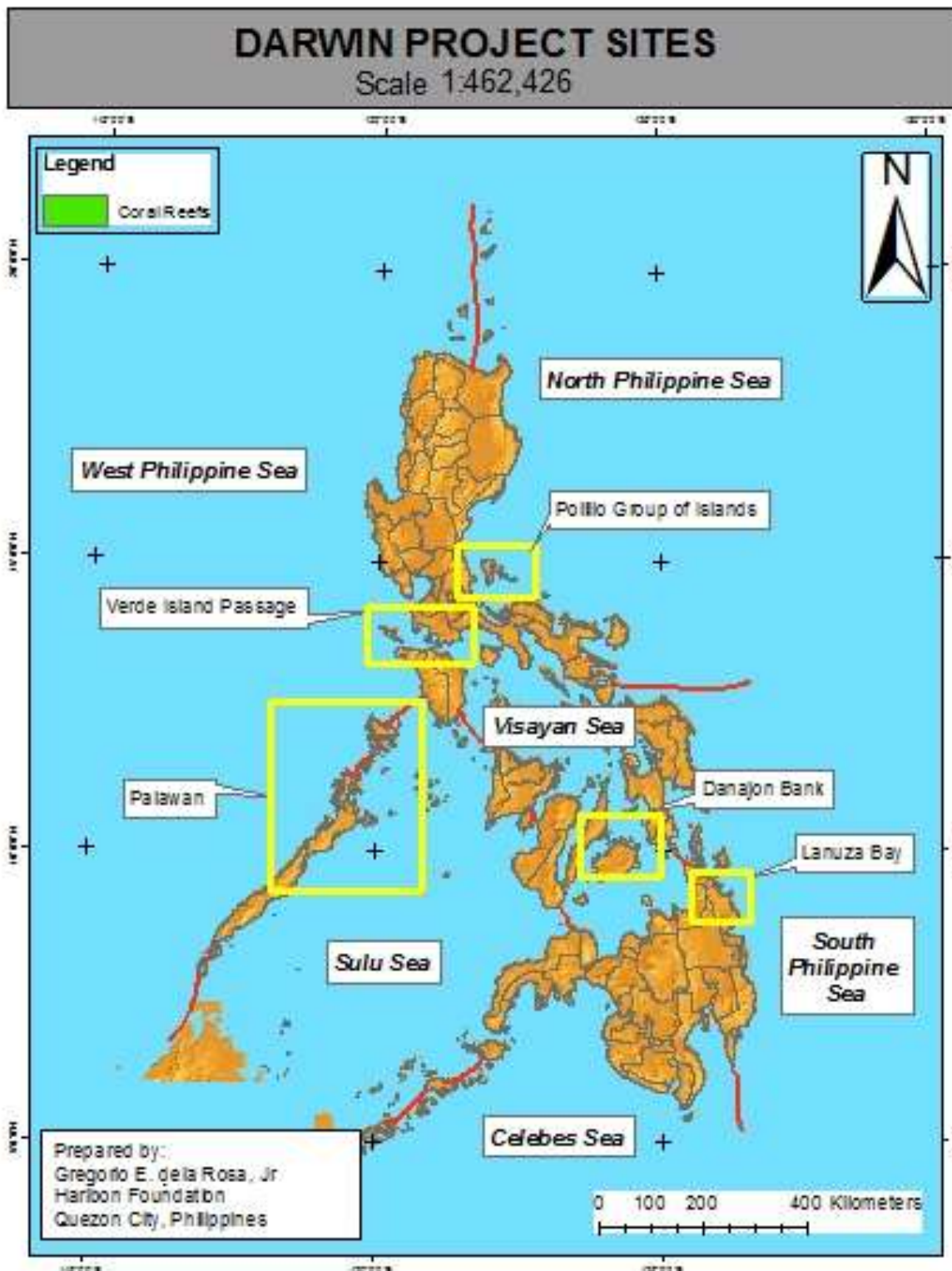


Figure 1 Location of Lanuza Bay, Danajon Bank, Verde Island Passage, Polilio Islands and Honda Bay, the Darwin Initiative project sites.

## 2. Project Partnerships

The project ended the first year with the main partner institutions Ateneo de Manila University and Haribon Foundation, but the move of Dr Margarita Lavidés to the Haribon Foundation with effect from 1 April 2013 led to the project agreement being revised; it was finally signed in June 2013. The work however has also relied on a network of other institutions in the Philippines. Planning and conduct of the field work at the 5 key marine biodiversity areas designated for this study has necessitated agreements including with local NGOs, local universities, local government units and Fishers' Organizations: Kadagatan Ampingan Pagbugtaw Katawhan

(KAAMPAKA), Lanuza Bay Development Alliance (Lanuza Bay), Project Seahorse-Zoological Society of London (Danajon Bank), Institute of Social Order (Polilio Island), Palawan State University, Western Philippine University, Puerto Princesa City Local Government Unit (Honda Bay, Palawan). The project is in addition benefitting from the Global Environment Facility 5 and United Nations Development Programme (GEF5-UNDP) project on marine Key Biodiversity Areas (mKBA) a focus of which is strengthening a marine protected area network at Lanuza Bay (Mindanao). Apart from Dr Lavidés, Ms Erina ('Yna') Molina, Mr Gregorio ('Ditto') dela Rosa and Mr Miguel ('Mikey') Lorenzo Panopio have been actively engaged in the Philippines field work, analysis and project administration. Apart from Prof. Nicholas Polunin, the Newcastle team's work this year has primarily involved Dr Aileen Mill (statistical modelling), Prof. Selina Stead (social survey guidance) and Dr Steven Newman (underwater survey planning).

### **3. Project Progress**

#### **3.1 Progress in carrying out project activities**

##### **1.2 Fishers' knowledge, socio-economic and underwater surveys conducted [YR1Q2 – YR4Q1]**

The project team has completed fishers' knowledge surveys in four of the five sites (Lanuza Bay [Surigao del Sur: municipalities of Lanuza and Cortes, 414 fishers interviewed], Danajon Bank [Bohol: Bien Unido, Getafe and Talibon municipalities, 967 fishers], Verde Island Passage [San Juan Batangas and Batangas City in Batangas, Lubang in Occidental Mindoro, 457 fishers] and Polilio Islands [Quezon: municipalities of Burdeos and Patnanungan, 406 fishers])(Fig. 1). The information has been entered into an Access database. There was delay in the conduct of fishers' knowledge surveys at Honda Bay (Palawan) due to the complicated process of seeking permission from Palawan Council for Sustainable Development (PCSD), to do field research. All requirements have now been submitted and the team is awaiting PCSD to consider the team's application in their monthly meeting.

##### **1.3 Analysis of vulnerable species [YR2 Q2 – YR4 Q1]**

The vulnerable species at the first four sites were identified by linear mixed methods statistical modelling.

##### **2.1 Fishers' knowledge of fish abundance trends [completed YR2 Q3]**

Analysis of fishers' knowledge of abundance trends at family level was initially delayed by the time needed to complete the species-level analysis but this is now on track.

##### **2.2 Underwater survey and landings data [YR2 Q2 – YR3 Q4]**

The underwater work will be done in early 2015 (later on in the period indicated in the original project implementation table), but planning for this is well under way, including involving an additional local collaborator, Dr Cleto L ('Ting') Nanola (University of the Philippines Mindanao), and seeking extra funding because this was under-budgeted in the original proposal. The landings data require formal permission from the Government and Dr Lavidés is seeking this for those areas in the study where the data are relevant (e.g. Honda Bay). Lanuza Bay catch data from the Lanuza local government unit since 2002 are already being prepared for Access by the team; completion of this task is expected by June 2014. Use of previous underwater visual data (e.g. Danajon Bank 1997-present, Lanuza Bay 2002-2009) is being facilitated through MOAs between Project Seahorse-ZSL and the Darwin Project 19-020). Landings data will be normalised by effort data (BFAR/NFRDI and Lanuza local government unit data).

##### **2.3 Fish abundance trends analysed across methods and locations [YR2Q2 – YR4Q4]**

Fish abundance trends at the species level based on fishers' knowledge are being analysed per site and upon completion of Honda Bay survey, analysis will be completed across all five sites. Writing and submission of papers for peer-reviewed publication will commence upon

completion of the fishers' knowledge survey at Hoday Bay, complete databasing, and processing and analysis of data across the five sites.

3.1-3.2. Training sessions in Lanuza Bay, marine ecology/fisheries, participatory monitoring [YR2 Q1]; Workshops on management needs and training in fisheries monitoring, participatory management, indicators in Lanuza Bay [YR2 Q2]

These activities in Lanuza Bay were initially delayed by the move of Dr Lavidés to the Haribon Foundation, but the training needs analysis involving focus group discussions and surveys of target beneficiaries (e.g. fishers and KAAMPAKA officers) were completed in October. A training session on social entrepreneurship as it relates to environmental, social and economic objectives in the Lanuza Bay context has nevertheless been completed through the facilitation of SEED Inc., a social entrepreneurship expert NGO.

3.3 Communication planning, production and distribution of posters, flyers, radio plugs etc in Lanuza Bay area [YR2 Q3-4]

Dissemination of project results available thus far has been through popular media and scientific conferences. For the former, Dr Lavidés took part in a national TV programme and discussed this project. The Haribon website where the project is described is constantly being updated, along with Facebook and other social media items. The British Embassy in Manila has featured the project in their website and newsletter, including Facebook entries. Project team members have attended and made paper oral presentations in scientific conferences including the Philippine Association of Marine Science Symposium (Tacloban, October 2013), BFAR-NFRDI Scientific Conference (Manila, October 2013), International Marine Protected Area Conference (Marseille, October 2013) and the Small-Scale Fisheries Innovation Summit (Bellagio, February, 2014). Results of the project thus far have in addition been shared with participants in a series of workshops updating the National Biodiversity Strategy and Action Plan (NBSAP), particularly in that addressing the Action Plan to Prevent Species Extinction.

4.1 Social-economic drivers of diversity losses assessed [YR2Q4 – YR3Q1]

Lanuza Bay data on social-economic drivers of diversity losses have been processed and statistical models analysis is under way.

4.2 Conservation-livelihood agreements assessments, options and training needs [YR3Q1-4]

Other conservation-livelihood initiatives in Burgos Cortes in Lanuza Bay have been assessed to understand and learn from the organizational capacity required for better planning, implementation and monitoring of relevant agreements between target fisher organizations and local government units. A Participatory Rural Appraisal (PRA) was conducted in Barangay Burgos (Surigao del Sur) for KAAMPAKA. Data gathered on the agro-ecological, community and coastal resources of the barangay were reviewed to determine opportunities, as well as risks, in establishing a social enterprise alongside the organization's advocacy to protect the marine sanctuary and fisheries resources. Inputs on the concept and processes of subsector and value-chain analysis were given to help members of the organization to better understand the economic system within the barangay. A simple tool using subsector selection criteria and an attractiveness matrix were used to determine the most viable products for the enterprise. This was found to be *danggit* (rabbitfish) and coconut. The PRA provided a forum for informal and unbiased dialogues with the community members and with a variety of stakeholders who are knowledgeable on the situation in the barangays. This participatory information-gathering through dialogues has allowed for an in-depth examination of existing practices, problems, conflicts and opportunities regarding the use of resources, thus providing a basis for developing a more sustainable and productive management system for planned enterprise.

The Development Planning Process engaged the members of the organization in crafting their development plan, which focused on the visioning of a social enterprise that can be set up in the community. The process likewise included an analysis of potential products and services

that may be developed by the envisioned social enterprise and the necessary actions to take – discussed in broad strokes for the development of these products and services.

A feasibility study will be done, for both danggit and coconut by June 2014, in preparation of a business plan for the social enterprise. This will include investigation of the market for danggit and coconut products, technical and technological requirements for production and processing, and financial projections. It will also help determine the objectives of the enterprise, and the detailed plan for operations, marketing, finance and human resources.

Conservation-Sustainable Livelihood Agreements are to be drafted between and among KAAMPAKA, Haribon and the local government unit of Cortes to formalize roles of KAAMPAKA in marine and fisheries conservation and management (e.g. patrolling and management of marine sanctuaries, and compliance with size limits and closure seasons for danggit). Haribon and local government units would in return assist in the development and implementation of a social enterprise/sustainable livelihood, including capacity building and resource mobilization.

4.3-4.4 Installation of new livelihood option under conservation agreement set up with peoples organisation(s) in Lanuza Bay [YR3Q4 – YR4Q4]

A project proposal will be submitted to FSSI (a local NGO) to secure funding for KAAMPAKA to be assisted in the actual establishment of the enterprise, including assistance with deployment of resources to establish the enterprise and with undertaking pilot-run, pre-operating or sub-commercial tests to prepare for planning the full operation. A person with technical know-how on the enterprise operation (production and processing) will be deployed at this time to assist the social enterprise to start-up or hand over to a member or members who have been adequately trained. The KAAMPAKA member's training would include social enterprise marketing, operations and finance management, and management of conflicts in the organization, organizational development, and social returns on investment.

5.1-5.3 Formulation with LGUs and POs in Lanuza Bay of local policy; formulation with government agencies of paper targeting national policy including NBSAP; recommendations to IUCN Red List Authority [YR3Q4 – YR4Q4]

There have been interactions with relevant national (NBSAP) and international bodies (IUCN SSC) to lay the foundations for the policy-related activities due for completion in YR4. Dr Lavidés and Ms Molina were involved in workshops to update the NBSAP by its completion date of April 2014; it is assumed that later inputs from this project will be to the next generation of the NBSAP process. Project results to date facilitated the inclusion of National Red Listing of fishes, among the Actions and Targets of the NBSAP 2025.

## 3.2 Progress towards project outputs

### Output 1. Vulnerable marine finfish species identified in 5 key marine biodiversity areas

**1.2 Fishers' knowledge, socio-economic surveys conducted.** The Lanuza fishers' knowledge data have been prepared and were presented by Ms Yna Molina at the BFAR NFRDI Scientific Conference and Philippine Association of Marine Science Symposium in October and Dr Lavidés was interviewed about these by the British Embassy, *Business Mirror* as well as participating in a national TV programme in February.

**1.3 Analysis of vulnerable species.** Numbers of zero catch reports on a decadal basis since the 1950s helped identification of 10 vulnerable species across four sites. Five of these species are common to all these sites: bumphead parrotfish (*Bolbometopon muricatum*) with a CPUE decline of 67-87%, humphead/napoleon wrasse (*Cheilinus undulatus*) with 66-88% CPUE decline, African pompano (*Alectis ciliaris*) with 66.21-79.5%, giant grouper (*Epinephelus lanceolatus*) with 64-67%, and mangrove red snapper (*Lutjanus argentimaculatus*) with 48-65% CPUE decline. The dogtooth emperor (*Lethrinus microdon*) and giant trevally (*Gnathanodon speciosus*) are vulnerable species common at both Danajon Bank and Verde Island Passage, showing CPUE declines of 47-85% and 54-80%, respectively. Other species showing declining trends include fourfinger threadfin (*Eleutheronema tetradactylum*), leopard grouper

(*Plectropomus leopardus*) and spotted sardinella (*Amplygaster sirm*). The declines in CPUE since the 1950s suggest possible local near-extinction of these species based on fishers' knowledge.

## **Output 2. Changes in abundance of reef finfish families and fishery target species modelled for 5 key marine biodiversity areas**

**2.1 Fishers' knowledge of fish abundance trends (M2 completed).** Data on changes in abundances of reef finfish families and fishery target species have been gathered for four sites. Statistical modelling and analysis is awaiting the completion of data gathering for Honda Bay, Palawan, to get a more robust data and thus model across sites. A paper based on Lanuza Bay data was drafted, however, the team decided to wait until data gathering and statistical modelling across all five sites are complete in order to invest better in a relatively high impact paper.

**2.2 Underwater survey and landings data.** Underwater surveys will be conducted in early 2015 but planning for this is underway, including additional resource mobilization to be able to cover more reef areas.

**2.3 Fish abundance trends analysed and written up.** Data on changes in abundances of reef finfish families and fishery target species have been gathered for four of the sites. Statistical modelling and interpretation are awaiting the completion of data gathering for Honda Bay (Palawan).

## **Output 3. Capacity of LGUs and POs for local resource management in conservation site enhanced**

**3.1-3.2 Training sessions in Lanuza Bay, Workshops on management needs and training in fisheries monitoring.** Training in social entrepreneurship based on environmental, social and economic considerations as they relate to fisheries and marine sanctuary management was completed in February 2014 with KAAMPAKA. There will be further capacity building activities in 2014. Apart from the social enterprise training provided to KAAMPAKA officers, sessions on improving marine sanctuary and fisheries management including fishing seasonal closures and fish size restrictions will also be conducted.

**3.3 Communication planning, production and distribution of materials.** National level communication activities have included a national TV guest input, daily newspaper broadsheets, Haribon and Newcastle University websites and Facebook posts and other social media. Local level (i.e. Lanuza Bay) communication planning is awaiting completion of data gathering and analysis of underwater survey and fish landings.

## **Output 4. Conservation needs reconciled with sustainable livelihoods**

**4.1 Socio-economic drivers of diversity losses** [due for completion by June 2014]. Analysis across all five sites awaits completion of the fishers' knowledge survey in Honda Bay (Palawan).

**4.2 Conservation-livelihood agreements assessments, options and training needs** [due to start in 2014]. Building on the training needs assessment completed in YR2, conservation-livelihood agreements drafting and assessments will begin during May 2014. The training and other capacity building activities will focus on the interface between conservation and sustainable livelihoods/social enterprise. KAAMPAKA has proved a trusted partner and target organisation.

**4.3-4.4 Installation of new livelihood option under conservation agreement set up with peoples organisations in Lanuza Bay; surveys to compare income and savings levels of participants** [due to start January 2015]

## **Output 5. Policy recommendations made at local, national and international levels** [due to start January 2015]

The project team is very much involved in the updating process of NBSAP 2025, either as workshop participants (Yna Molina and Ditto de la Rosa) or as lead expert discussant or overall facilitator in workshop on Action Plan to Prevent Species Extinction. In the workshops, results of the project have been shared and form a basis for such NBSAP Actions and Targets as

National Red Listing of fishes. At the international level, action have been taken together with Dr Kent Carpenter of IUCN towards uptake of the project results for a National Red Listing of fishes based on IUCN criteria and methodology.

### **3.3 Progress towards the project Purpose/Outcome**

The Purpose-level indicators (identify vulnerable reef finfish species, model changes in reef finfish abundances, enhance local capacity in local resource management, reconcile any conservation needs with sustainable livelihoods, recommend policy from local to international levels) are expected to be achieved by the end of the project. Significant progress is being made with the conservation-livelihood component, however that was a post-submission request from Darwin and could have been better planned and costed. It is likely that more time and/or funding will be required if the social enterprise decided upon is to be fully set up and sustained. Thus the project team will with the social enterprise experts develop a project proposal for additional small funding from a local donor agency. The additional funds if forthcoming will provide some seed capital and sufficient time of a social enterprise expert. Based on the business plan, KAAMPAKA would be assisted in the actual establishment of the social enterprise (see above).

### **3.4 Goal/ Impact: achievement of positive impact on biodiversity and poverty alleviation**

The project Goal to support of the implementation of the objectives of the Convention on Biological Diversity and related Aichi targets and Sub-goal (new knowledge gained, stakeholder-led management capacity built and new conservation action taken to conserve marine biodiversity in Philippines hotspots) have this year entailed a participatory rural appraisal of KAAMPAKA in order to ascertain potential sustainable livelihoods/social enterprises complementary to fishing activities which are threatening fish species with local depletion or extirpation. KAAMPAKA has identified two potential products they wish to develop in this regard. A feasibility study will be done for both products in 2014 in preparation of a business plan for the social enterprise decided upon. This will include survey of the danggit and coconut markets, production and processing details and financial projections. The technology, production processes, market segments, industry entry points, organizational modes, and means of accessing and mobilizing resources including start-up capital will need to be better understood. This will need to be cemented with Conservation-Sustainable Livelihood Agreements among KAAMPAKA, Haribon and the local government unit of Cortes (see above).

## **4. Project support to the Conventions (CBD, CMS and/or CITES)**

The project responds to the the CBD (particularly Aichi Biodiversity Targets 6, 10, 17 and 18 of the CBD 2011-2020 Strategic Plan), through the project's engagement with the Philippines CBD focal point the DENR-BMB (formerly PAWB), enhanced by Haribon's GEF-5 funded work with it to review and revise the Philippine NBSAP. Regional level discussion on marine fish extinction in relation to marine conservation policy has been led by Haribon through the IUCN Asia Regional Conservation Forum with input to the IUCN World Conservation Congress.

Significant project activities include providing evidence of local depletions and extirpations of species, building stakeholder management capacity, devising new action to conserve marine biodiversity in the five study areas and inputting to national conservation prioritisation and plans

## **5. Monitoring, evaluation and lessons**

There has been frequent email, telephone and where feasible skype contact between the principal partners throughout the year. This has been to discuss field work planning, survey methodologies, analysis of data and generally monitor project progress. The monitoring focuses on the actual work, the logframe and project implementation timetable and milestones.

## **6. Actions taken in response to previous reviews (if applicable)**

There was one major comment on the Yr1 report. To respond as fully to this as possible but also address the proposal as funded (e.g. logframe and section 18), two household surveys, training needs assessment, and participatory rural appraisal were conducted in relation to the conservation-sustainable livelihoods subcomponent of the project. The PRA data gathered

were on the agro-ecological, community and coastal resources of the barangay were reviewed to determine opportunities, as well as risks, in establishing a social enterprise. Inputs on the subsector and value-chain analysis were given, and subsector selection criteria and attractiveness matrix were used to determine the most viable products for the enterprise. The danggit and coconut were found to be the most feasible products for this purpose. The development planning process engaged members in crafting a development plan of a social enterprise that the community could set up. The process likewise included an analysis of potential products and services that may be developed by the envisaged social enterprise and the necessary actions to take for development of these products and services. A feasibility study will be done during 2014 in preparation of a business plan for the social enterprise. The feasibility study should include a thorough study of the market of danggit and coconut products; the technical and technological requirements for production and processing; and financial projections.

## 7. Other comments on progress not covered elsewhere

The only physical risk is in relation to Lanuza Bay which on the Pacific side of the country is vulnerable to a potential super typhoon. Especially if Cortes in Lanuza Bay were hit, it would negatively affect the current smooth implementation of the project. If it did happen, priorities would need to be changed and project activities might have to be redirected elsewhere.

## 8. Sustainability

Beyond promoting the profile of the project, the usefulness of the project in conservation and development work is being disseminated at two levels: (1) through different mass media (Philippines national TV, project video shown several times weekly since February, national newspaper broadsheets [e.g. *Manila Times*, *Business Mirror*]; websites of Haribon and British Embassy, and Facebook and other social media including YouTube); (2) through active participation and contribution to updating the NBSAP and advocating to international bodies such as IUCN using project data and mobilizing resources towards National Red Listing of fishes using IUCN criteria; and (3) scientific communications, to date in particular oral presentations at national and international scientific conferences (see above).

With respect to (2), a NSF-USAID PEER project proposal together with Dr Kent Carpenter of IUCN was submitted in January, to help address this. Another NSF proposal with Dr Kent Carpenter and other scientists is being drafted to build on project findings on threatened or vulnerable species towards elucidating different dimensions of fish functional and species biodiversity including genetics.

## 9. Darwin Identity

Many dissemination opportunities have been used and are being used to highlight the Darwin logo. This project is a distinct project with clear identity; it is also a significant output and point of collaboration between the Haribon Foundation and Newcastle University. Since the successful project inception, there has been an increase within the Philippines environment and conservation community in seeking funding from the Darwin Initiative.

## 10. Project Expenditure

**Table 1 project expenditure during the reporting period (1 April 2013 – 31 March 2014)**

Project spend since last annual report	2013/14 Grant (£)	2013/14 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)			5.6	
Consultancy costs			0	
Overhead Costs			-0.8	



Travel and subsistence			3.3	
Operating Costs			8.0	
Capital items (see below)			-67.8	Delay in underwater field work meant underspend; request that the balance be carried over
Others			-26.3	
<b>TOTAL</b>				

**11. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes**

I agree for the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2013-2014

Project summary	Measurable Indicators	Progress and Achievements April 2013 - March 2014	Actions required/planned for next period
<p><b>Goal</b> <i>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</i></p> <p><b>Sub-goal</b> <i>New knowledge gained, stakeholder-led management capacity built and new conservation action taken to conserve marine biodiversity in Philippines hotspots</i></p>		<p>Significant project activities include providing evidence of local depletions and extirpations of species, building stakeholder management capacity, devising new action to conserve marine biodiversity in the five study areas and inputting to national conservation prioritisation and plans including the updating of NBSAP 2025 and National Action Plan to Prevent Species Extinction.</p>	
<p><b>Purpose</b> Identify vulnerable reef finfish species, model changes in reef finfish abundances, enhance local capacity in local resource management, reconcile any conservation needs with sustainable livelihoods, recommend policy from local to international levels</p>	<p>Purpose indicators:</p> <p>Vulnerable species identified</p> <p>Relevant policy derived and delivered at international, national and a local area</p> <p>Resource management capacity in Lanuza Bay enhanced</p> <p>Training and experience required to sustain project outputs in future achieved</p>	<p>Vulnerable fish species based on fishers' knowledge identified in four out of five sites.</p> <p>Significant inputs to NBSAP updating and actions towards usefulness of project results to IUCN National Red Listing made and underway.</p> <p>Participatory rural appraisal including subsector analysis and value chain analysis, training needs analysis, household surveys and development planning with the target conservation-livelihood partner, done. Training session on introduction to social enterprise/sustainable livelihood as it relates to fisheries management and marine conservation, done.</p>	<p>Key actions planned for next period include:</p> <ol style="list-style-type: none"> <li>1. Completion of fishers knowledge survey and analysis</li> <li>2. Drafting of cross-site fishers' knowledge paper</li> <li>3. Commence underwater survey</li> <li>4. Access fish landing data at Lanuza and Honda Bays including organizing into Access database</li> <li>5. Input to writing of National Action Plan to Prevent Species Extinction</li> <li>6. Feasibility and market studies for danggit and coconut</li> <li>7. Business planning with KAAMPAKA including conservation-livelihood agreements</li> </ol>

		Continuous training at staff level (with Newcastle University) and at community level is being done e.g. Access databasing with Lanuza local government unit.	8. Additional resource mobilization for social enterprise 9. Commence installation of social enterprise for danggit/coconut Conduct trainings related to social enterprise for danggit/coconut
<b>Output 1.</b> Vulnerable marine finfish species identified in 5 key marine biodiversity areas	Output indicators: 1.0 Inception workshop and database/statistics training conducted 1.1 Fishers' knowledge of threatened species surveyed, data processed and analysed 1.2 Underwater visual census conducted, presence/absence data gathered and analysed 1.3 List of vulnerable species drafted	Inception workshop and database/statistics training completed YR1.  Fishers' knowledge of threatened species surveyed, data processed and analysed in 4 of 5 sites.  Underwater visual census to commence in YR3Q4, analysis in YR4.  Preliminary list of vulnerable species presented at conferences, revision by YR4	
Activity 1.0 Inception workshop: in Manila, review of proposal, preparation for Newcastle training, inception of field work planning		Completed (YR1)	
Activity 1.1 Training in database and statistical modelling: in Newcastle University, introduction and application of Access, application of R to time-series and multivariate data		Completed (YR1)	
Activity 1.2 Fishers' knowledge, socio-economic and underwater surveys conducted: presence-absence data by site, socio-economic variables derived for Output 5		Fisher's knowledge completed for 4 sites, the fifth to be completed in YR3Q1. Underwater surveys being planned for YR3Q4, analysis of socio-economic drivers under way	
Activity 1.3 Analysis of vulnerable species: entry, processing and statistical analysis of data, technical report		Report on Lanuza analysis, overall analysis awaits fishers' knowledge data from fifth site	
<b>Output 2.</b> Changes in abundance of reef finfish families and fishery target species modelled for 5 key marine biodiversity areas	Output indicators: 2.1 Fishers' retrospective perceptions of abundance trends surveyed and analysed; 2.2 Abundance trends in underwater visual census and landings data analysed; 2.3 Trends compared between methods within and among sites, drivers analysed; revised vulnerable species list	Fishers' perceptions of past trends surveyed and analysis commenced in YR2, continuing YR3.  Trends in underwater visual census and landings data analysis in YR4.  Comparison of trends between methods and across sites, analysis of drivers, and revision of vulnerable species list in YR4.	

<p>Activity 2.1 Fishers' knowledge of fish abundance trends: own catch and size data, recollection of decadal trends, data on fishers themselves</p>	<p>Data on changes in abundances of reef finfish families and fishery target species has been gathered for four sites. Statistical modelling and analysis is awaiting the completion of data gathering for Honda Bay, Palawan, to get a more robust data and thus model across sites.</p>
<p>Activity 2.2 Underwater survey and landings data: new data from 1.2, previous underwater visual data (e.g. Danajon Bank 1997-present, Lanuza Bay 2002-2009), landings data normalised by effort data (data from BFAR/NFRDI)</p>	<p>Accessing landings data underway, underwater surveys being planned including extra funding being sought.</p>
<p>Activity 2.3 Fish abundance trends analysed across methods, among locations, writing and submission of papers for peer-reviewed publication</p>	<p>Data on changes in abundances of reef finfish families and fishery target species has been gathered for four sites. Statistical modelling and analysis is awaiting the completion of data gathering for Honda Bay, Palawan, to get a more robust data and thus model across sites. Complete data gathering and statistical modelling and analysis across sites aim to draft a more impactful paper than one based on singles site data.</p>
<p><b>Output 3.</b> Capacity of LGUs and POs for local resource management in conservation site enhanced</p>	<p>Output indicators:</p> <ul style="list-style-type: none"> <li>3.1 Training in marine ecology, fisheries and conservation conducted</li> <li>3.2 Workshops on management needs and training on fisheries monitoring conducted</li> <li>3.3 Communication plan and materials (ie. posters, fliers, radio ads) produced and future funding plan drafted</li> </ul> <p>Training needs analysis showed KAAMPAKA have sufficient marine ecology and fisheries management knowledge but lacks knowledge and skills in sustainable livelihoods and social enterprise management including marketing and finance, thus training to focus on these in YR3-4. Communication planning conducted in YR2, implementation to commence YR3 to coincide with National Fish Conservation Month.</p>
<p>3.1 Training sessions: in Lanuza Bay, marine ecology/fisheries, participatory monitoring</p>	<p>Based on training needs analysis, trainings on these topics had been done in Lanuza and therefore a redirection towards trainings and capacity building related to conservation-sustainable livelihoods and social enterprise as it relates to species depletion will be done in the third and fourth years of project implementation.</p>
<p>3.2 Workshops on management needs and training in fisheries monitoring, participatory management, indicators in Lanuza Bay</p>	<p>Social enterprise training will be conducted in YR3/4, services to KAAMPAKA members to match social enterprise development.</p>

3.3 Communication planning, production and distribution of posters, flyers, radio plugs etc in Lanuza Bay area		While communication, education and public awareness activities are being done at the national level, communication planning at the local level will be done in the third year while full blown communication implementation will be done on the third and fourth year of project implementation.
<b>Output 4.</b> Conservation needs reconciled with sustainable livelihoods	<p>Output indicators:</p> <p>4.1 Human behavioural drivers of any diversity losses assessed</p> <p>4.2 Existing conservation-livelihood agreements with fishers' organizations; initiatives and new options including continuity mechanisms evaluated;</p> <p>4.3 Any new livelihood options with conservation agreements (e.g. low-impact mariculture) installed; management system reviewed and improved;</p> <p>4.4 Economic impact of livelihood options of participant groups surveyed</p>	<p>Socio-economic drivers of depletion analysis well under way. Cross sites analysis awaiting Honda Bay (Palawan) survey.</p> <p>Conservation-livelihood agreements and initiatives to be installed in YR3, preliminary evaluation in YR4.</p> <p>Activities towards new livelihood options commenced YR2, to be continued in YR3.</p> <p>Economic impact of livelihood options of participant groups to be surveyed in YR4.</p>
4.1 Social-economic drivers of diversity losses assessed		Socio-economic drivers of depletion analysis under way but full cross-site trends await data from fifth site.
4.2 Conservation-livelihood agreements assessments, options and training needs		Conservation-Sustainable Livelihood Agreements to be developed to formalize roles of KAAMPAKA in marine conservation and fisheries management and assistance with development of a social enterprise project.
4.3 Installation of new livelihood option under conservation agreement set up with peoples organisation(s) in Lanuza Bay		Subsector analysis, value chain analysis, development planning had been done to be able to proceed to feasibility and market study this year. Additional resource mobilization will be carried out in the third year. Also, pre-commercial installation to be carried out in the third year
4.4 Surveys to compare income and savings levels of participants at start of project and following project		Pre-livelihood intervention income and social surveys had been carried out to compare with end of project income levels in the fourth year.
<b>Output 5.</b> Policy recommendations made at local, national and international levels	<p>Output indicators:</p> <p>5.1 Lanuza Bay policy paper completed</p> <p>5.2 National level policy paper completed</p> <p>5.3 Recommendations made to IUCN</p>	Actions taken towards all three
5.1 Formulation with LGUs and POs in Lanuza Bay of local policy, submission of policy paper on Lanuza Bay		Due for YR4

5.2 Formulation with government agencies of paper targeting national policy including NBSAP, National Fisheries Strategy Plan, submission to BFAR/NFRDI, DENR-PAWB etc	Contributions to workshops updating NBSAP 2025 and on Action Plan to Prevent Species Extinction
5.3 Recommendations to IUCN Red List Authority: e.g. status of species/families to be revised	Action taken with IUCN towards using the project results for National Red Listing of fishes.

## Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Goal:</b>			
Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.			
Sub-Goal: New knowledge gained, stakeholder-led management capacity built and new conservation action taken to conserve marine biodiversity in Philippines hotspots	<ul style="list-style-type: none"> <li>* Threatened marine finfish added to national and international listings</li> <li>* Management measures taken in response</li> <li>* Ongoing research and outreach activity on species trends and distributions and their drivers</li> <li>* Key personnel training level increased</li> </ul>	<ul style="list-style-type: none"> <li>* Uptake of lists by NBSAP, IUCN Red List</li> <li>* Planning of new actions e.g. marine protected areas motivated by project outputs</li> <li>* New project proposals, papers and other means of dissemination</li> <li>* Increased competence and skills of key staff</li> <li>* More positive management attitudes</li> </ul>	
Purpose: Identify vulnerable reef finfish species, model changes in reef finfish abundances, enhance local capacity in local resource management, reconcile any conservation needs with sustainable livelihoods, recommend policy from local to international levels	<ul style="list-style-type: none"> <li>* Vulnerable species identified</li> <li>* Relevant policy derived and delivered at international, national and a local area</li> <li>* Resource management capacity in Lanuza Bay enhanced</li> <li>* Training and experience required to sustain project outputs in future achieved</li> </ul>	<ul style="list-style-type: none"> <li>* Progress and final reports, peer-reviewed scientific papers</li> <li>* New projects planned and proposals to funding agencies submitted</li> <li>* Popular articles, related outreach materials and their uptake</li> <li>* Support for future biodiversity conservation science and actions</li> </ul>	<ul style="list-style-type: none"> <li>* LGU and other government agencies continue to be supportive of the project</li> <li>* PO and other community groups continue to be receptive of the project</li> <li>* Funding schemes remain available for local and national studies in future</li> </ul>
Outputs			
1. Vulnerable marine finfish species identified in 5 key marine biodiversity areas,	1.0 Inception workshop and database/statistics training	* Workshop minutes, copies of trainee-completed database	<ul style="list-style-type: none"> <li>* Fishers are amenable to survey</li> <li>* Agencies permit access to further data</li> </ul>

	<p>conducted</p> <p>1.3 Fishers' knowledge of threatened species surveyed, data processed and analysed</p> <p>1.4 Underwater visual census conducted, presence/absence data gathered and analysed</p> <p>1.5 List of vulnerable species drafted</p>	<p>and statistical assessments</p> <ul style="list-style-type: none"> <li>* Data and technical reports</li> <li>* Paper submitted for peer-review publication</li> </ul>	<ul style="list-style-type: none"> <li>* Weather conditions do not impede underwater data gathering</li> </ul>
<p>2. Changes in abundance of reef finfish families and fishery target species modelled for 5 key marine biodiversity areas</p>	<p>2.4 Fishers' retrospective perceptions of abundance trends surveyed and analysed;</p> <p>2.5 Abundance trends in underwater visual census and landings data analysed;</p> <p>2.6 Trends compared between methods within and among sites, drivers analysed; revised vulnerable species list</p>	<ul style="list-style-type: none"> <li>* Data and technical reports</li> <li>* Papers submitted for peer-reviewed publication</li> <li>* Popular articles, other outreach materials</li> </ul>	<ul style="list-style-type: none"> <li>* Fishers are amenable to survey</li> <li>* Agencies permit access to further data</li> <li>* Weather conditions do not impede underwater data gathering</li> </ul>
<p>3. Capacity of LGUs and POs for local resource management in conservation site enhanced</p>	<p>3.4 Training in marine ecology, fisheries and conservation conducted</p> <p>3.5 Workshops on management needs and training on fisheries monitoring conducted</p> <p>3.6 Communication plan and materials (ie. posters, fliers, radio ads) produced and future funding plan drafted</p>	<ul style="list-style-type: none"> <li>* Minutes and feedback from sessions on local competence and awareness of conservation actions</li> <li>* Progress and final reports</li> <li>* Seminar training materials</li> <li>* Communication plan</li> </ul>	<ul style="list-style-type: none"> <li>* Political conditions do not substantially impede project or deliverables</li> <li>* LGUs and POs continue to be receptive to training and materials</li> </ul>
<p>4. Conservation needs reconciled with sustainable livelihoods</p>	<p>4.1 Human behavioural drivers of any diversity losses assessed</p> <p>4.2 Existing conservation-</p>	<ul style="list-style-type: none"> <li>* Minutes of consultations with LGUs and POs on livelihoods initiatives/options for Lanuza Bay</li> </ul>	<ul style="list-style-type: none"> <li>* LGUs and POs continue to be receptive to training, seminars and conservation-livelihood agreements</li> <li>* Extreme weather does not substantially</li> </ul>



	<p>livelihood agreements with fishers' organizations; initiatives and new options including continuity mechanisms evaluated;</p> <p>4.3 Any new livelihood options with conservation agreements (e.g. low-impact mariculture) installed; management system reviewed and improved;</p> <p>4.4 Economic impact of livelihood options of participant groups surveyed</p>	<p>* Paper on socio-economic drivers of any losses</p> <p>* Report on design and management of new conservation-livelihood agreement project and agreed funding plan, aim to involve ≥25 families</p> <p>* Surveys of income and savings levels of participants before and after project; aim for ≥20% savings by target families</p> <p>* Enforcement reports for marine protected areas</p>	<p>affect any conservation-compatible livelihood project(s)</p>
<p>5. Policy recommendations made at local, national and international levels</p>	<p>5.1 Lanuza Bay policy paper completed</p> <p>5.2 National level policy paper completed</p> <p>5.3 Recommendations made to IUCN</p>	<p>* Papers taken up by LGUs and/or POs in Lanuza Bay</p> <p>* Policy paper taken up by government agency, used to inform next NBSAP</p> <p>* Report to IUCN Red List Authority</p>	<p>* Local and international stakeholders remain receptive of project outcomes</p> <p>* Weather and political conditions do not substantially impede project or deliverables</p>

**Activities** (details in workplan)

- 1.0 Inception workshop: in Manila, review of proposal, preparation for Newcastle training, inception of field work planning
- 1.1 Training in database and statistical modelling: in Newcastle University, introduction and application of Access, application of R to time-series and multivariate data
- 1.2 Fishers' knowledge, socio-economic and underwater surveys conducted: presence-absence data by site, socio-economic variables derived for Output 5
- 1.3 Analysis of vulnerable species: entry, processing and statistical analysis of data, technical report
- 2.1 Fishers' knowledge of fish abundance trends: own catch and size data, recollection of decadal trends, data on fishers themselves
- 2.2 Underwater survey and landings data: new data from 1.2, previous underwater visual data (e.g. Danajon Bank 1997-present, Lanuza Bay 2002-2009), landings data normalised by effort data (data from BFAR/NFRDI)
- 2.3 Fish abundance trends analysed across methods, among locations, writing and submission of papers for peer-reviewed publication
- 3.1 Training sessions: in Lanuza Bay, marine ecology/fisheries, participatory monitoring
- 3.2 Workshops on management needs and training in fisheries monitoring, participatory management, indicators; in Lanuza Bay
- 3.3 Communication planning, production and distribution of posters, flyers, radio plugs etc in Lanuza Bay area
- 4.1 Social-economic drivers of diversity losses assessed: analysis of socio-economic data from Output 1, relationships across the sites, writing of report and paper
- 4.2 Conservation-livelihood agreements assessments, options and training needs: workshops, iterative feedback etc in Lanuza Bay

- 4.3 Installation of new livelihood option under conservation agreement (e.g. low-impact mariculture, conservation-compatible fishing gear) set up with peoples organisation(s) in Lanuza Bay, funding agreement e.g. as in some existing projects materials covered by LGUs and/or the POs
- 4.4 Surveys to compare income and savings levels of participants at start of project and following project, including participants in any livelihood project
- 5.1 Formulation with LGUs and POs in Lanuza Bay of local policy, submission of policy paper on Lanuza Bay
- 5.2 Formulation with government agencies of paper targeting national policy including NBSAP, National Fisheries Strategy Plan, submission to BFAR/NFRDI, DENR-PAWB etc
- 5.3 Recommendations to IUCN Red List Authority: e.g. status of species/families to be revised

## Annex 3 Standard Measures

**Table 1 Project Standard Output Measures**

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for reporting period	Total planned during the project
Established codes								
3	Number of people to attain other qualifications (e.g. Rescue Diver)	0	0	2	0	0	0	2
4A	Number of undergraduate students to receive training	0	0	15	0	0	0	15
4B	Number of training weeks to be provided	0	0	4	0	0	0	4
4C	Number of postgraduate student to receive training	0	1	0	0	0	1	1
4D	Number of training weeks to be provided	0	90	0	0	0	90	90
5	Number of people to receive at least one year of training (which does not fall in categories 1-4)	3	3	5	5	3	3	5
6A	Number of people to receive other forms of education/training (which does not fall in categories 1-5)	0	64	134	64	64	64	194
6B	Number of training weeks to be provided	0	1	2	1	1	1	4
8	Number of weeks to be spent by UK project staff on project work in the host country	1	0	4	8	1	0	13
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	0	0	1	1	0	0	2
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	1	0	1	0	1	0	2
11A	Number of papers to be published in peer reviewed journals	0	0	1	1	0	0	2
11B	Number of papers to be submitted to peer reviewed journals	0	0	2	2	0	0	4
12A	Number of computer based databases to be established and handed over to host country	3	4	5	5	4	1	10
14A	Number of conference/seminars/workshops to be organised to present	0	0	1	1	0	0	2

	disseminate findings							
14B	Number of conferences/seminars/workshops attended at which findings from Darwin project work will be presented/disseminated	0	5	2	1	5	5	8
15A	Number of national press releases in host countries	5	2	3	5	7	2	10
15C	Number of national press releases in UK							
15D	Number of local press releases in UK							
16A	Number of newsletters to be produced	0	0	1	1	0	0	2
16B	Estimated circulation of each newsletter in the host countries	0	0	1000	1000	0	0	2000
16C	Estimated circulation of each newsletter in the UK							
17A	Number of dissemination networks to be established	0	4	1	1	4	4	5
18A	Number of national TV programmes/features in host countries	0	2	3	3	2	2	4
18B	Number of national TV programmes/features in UK							
18D	Number of local TV programmes/features in UK							
19A	Number of national radio interviews/features in host countries	1	0	3	3	1	0	7
19B	Number of national radio interviews/features in UK							
19C	Number of local radio interviews/features in host countries	0	0	2	2	0	0	4
19D	Number of local radio interviews/features in UK							
20	Estimated value (in British pounds) of physical assets to be handed over to host countries	£1945	£1486	0	0	£3431	£1486	£3431
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased							
23	Value of resources raised from other sources (i.e. in addition to Darwin funding for project work)	£8108	0	£24324	£4054	£8108	£0	£36486
New - Project specific measures								

**Table 2**                      **Publications**

<b>Type</b> (eg journals, manual, CDs)	<b>Detail</b> (title, author, year)	<b>Publishers</b> (name, city)	<b>Available from</b> (eg contact address, website)	<b>Cost £</b>

#### **Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)**

This may include outputs of the project, but need not necessarily include all project documentation. For example, the abstract of a conference would be adequate, as would be a summary of a thesis rather than the full document. If we feel that reviewing the full document would be useful, we will contact you again to ask for it to be submitted.

It is important, however, that you include enough evidence of project achievement to allow reassurance that the project is continuing to work towards its objectives. Evidence can be provided in many formats (photos, copies of presentations/press releases/press cuttings, publications, minutes of meetings, reports, questionnaires, reports etc) and you should ensure you include some of these materials to support the annual report text.

## Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	Yes
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	No
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	