



## **Darwin Initiative Overseas Territories Challenge Fund Final Report**

*This report should be completed and submitted within a month of agreed end date of project*

Darwin Ref Number	EID CF 020
Darwin Project Title	Biodiversity and ecosystem service assessment of South Georgia and the Falkland Islands
Country (ies)	South Georgia and South Sandwich Islands, Falkland Islands
Award holding Organisation	World Conservation Monitoring Centre (WCMC)
Partner Organisations	Government of South Georgia and the South Sandwich Islands Falkland Islands Government
Grant Value	£ XXX
Start/end date	Start: 01 May 2012 End: 31 May 2013
Author(s), date	Dr Megan Tierney, Dr Damon Stanwell-Smith, Ms Kerstin Brauneder, Dr Martin Collins, Dr Jennifer Lee, Mr Nick Rendell July 2013

### **1. Challenge Fund Background**

A scoping study was proposed to assess the feasibility and utility of an ecosystem assessment for South Georgia and the Falkland Islands. Ecosystem assessments are defined as "*social processes through which the findings of science concerning the causes of ecosystem change, their consequences for human well-being, and management and policy options are brought to bear on the needs of decision-makers*"<sup>1</sup>. They focus on the concept of ecosystem services<sup>2</sup> and therefore provide the connection between environmental issues and people, considering both the ecosystems from which services are derived and the people who depend on and are affected by changes in the supply of services.

The Challenge Fund enabled launching this process by engaging a diverse range of interest groups and stakeholders to discuss the need for an ecosystem assessment for South Georgia and the Falklands Islands, determine stakeholder priorities and assess the available evidence base.

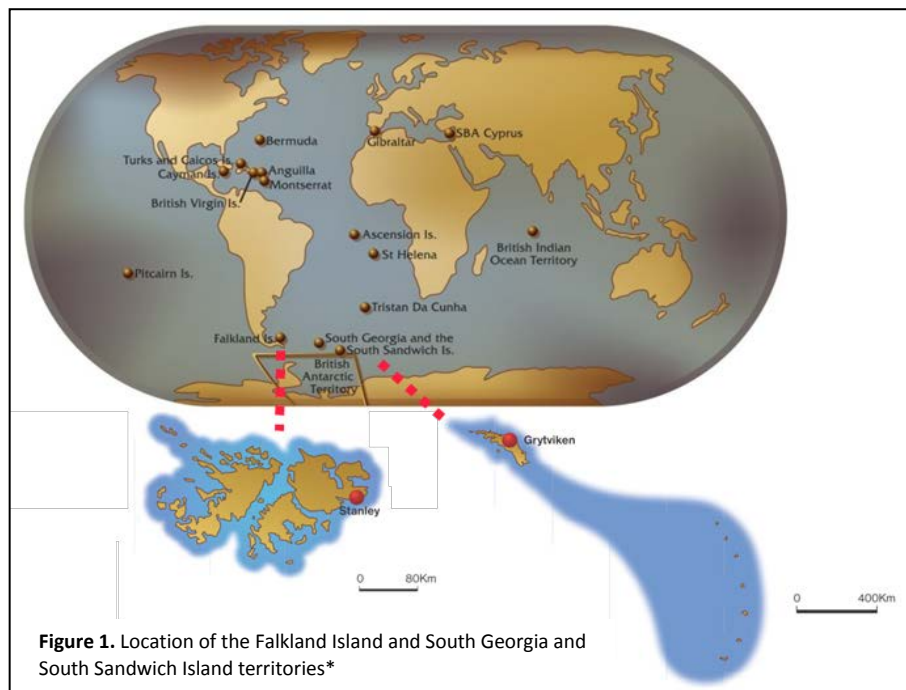
**Problems addressed:** South Georgia and the Falkland Islands are internationally recognized and cherished for their extraordinary biodiversity, exceptional environmental health, and unique locations (Figure 1). Their ecosystems provide ecosystem services to both local populations and the wider global community. However, many of these are not fully recognized but could be evaluated and valued for their contribution to local and global human well-being, both in the present and the future.

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<sup>1</sup> Millennium Ecosystem Assessment [MA]. 2005. Ecosystems and Human Well-being: Synthesis. Millennium Ecosystem Assessment. Island Press. Washington, D.C.

<sup>2</sup> The benefits provided by ecosystems that contribute to making human life both possible and worth living (MA, 2005).

The policy framework of both islands encourages consideration of environmental issues within decisions. This is also the case for commitments held by the UK at international level, which extend to the UK Overseas Territories (UKOT). At the UK level, such commitments have been addressed through the UK National Ecosystem Assessment (UK NEA3). The UK NEA was the first analysis of the UK natural



**Figure 1.** Location of the Falkland Islands and South Georgia and South Sandwich Island territories\*

environment in terms of the benefits it provides to society and the nation's continuing prosperity. It formed the basis of the first Government White Paper<sup>4</sup> on the environment in 20 years. Due to logistical constraints, the UKOTs were omitted from the UK NEA. Therefore an ecosystem assessment could provide decision and policy-makers of South Georgia and the Falkland Islands with information to: i) further demonstrate and understand the value of their natural environment from local to global scales; and ii) enhance the mainstreaming of these values into local, regional and international policies.

An ecosystem assessment for South Georgia and the Falkland Islands would enable a comprehensive understanding of the breadth of ecosystem services that these islands provide beyond the widely acknowledged services of fisheries, tourism and agriculture<sup>5</sup>. It would also build capacity of personnel involved from both South Georgia and the Falkland Islands in tools, methodologies and techniques of ecosystem assessments, complement international initiatives such as the Sub-Global Assessment Network (SGA Network) which is looking at how to improve these aspects at national and regional levels, and inform the programme of work of the newly formed Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES).

In addition, an ecosystem assessment would assist these UKOTs meet international commitments of global conventions which they are already report to through the UK – e.g. the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Migratory Species (CMS); or to those they are considering – e.g. the Convention on Biological Diversity (CBD). Evaluating and tracking ecosystem services is a central component of the CBD's new Strategic Plan for Biodiversity 2011-2020, specifically Aichi Target 14<sup>6</sup>. In this respect, an ecosystem assessment of these islands would also serve as a valuable case study for other UKOTs and small island states.

<sup>3</sup> UK NEA. 2011. The UK National Ecosystem Assessment: Technical Report. UNEP-WCMC, Cambridge. (<http://uknea.unep-wcmc.org/>).

<sup>4</sup> Defra. 2011. The Natural Choice: securing the value of nature. The Stationary Office, Norwich. (<http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf>)

<sup>5</sup> Note, agriculture is associated with the Falkland Islands only.

<sup>6</sup> Aichi Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable (<http://www.cbd.int/sp/targets/>).

\*Source: Pelembe, T. and Cooper, G. eds. (2011). UK Overseas Territories and Crown Dependencies: 2011 Biodiversity Snapshot. Peterborough, UK, Joint Nature Conservation Committee.

Further, the evidence base of the UK NEA is being used to underpin a comprehensive update of the UK biodiversity indicators being led by the World Conservation Monitoring Centre (WCMC) on behalf of the UK Department for the Environment, Food and Rural Affairs (Defra)<sup>7</sup>. It is anticipated that a similar influence of the South Georgia and Falkland Islands ecosystem assessment on high latitude indicators could be achieved and again serve as a valuable regional case study for both national and global indicators being developed for the CBD through the Biodiversity Indicators Partnership (BIP).

**Objectives of the Scoping Study:** The scoping study carried out under the Challenge Fund equates with the exploratory stage of an ecosystem assessment<sup>8</sup>. The exploratory stage aims at defining the scope and boundaries of a potential assessment.

Specifically, we aimed to assess the feasibility of undertaking a biodiversity and ecosystem assessment for South Georgia and the Falkland Islands, with the objectives of:

1. Exploring the policy context in which the South Georgia and the Falkland Islands' ecosystem assessment would be set, and how such an assessment would assist the South Georgia, Falkland Islands and UK governments meet both their wider policy goals and international commitments.
2. Developing a framework for how the South Georgia and the Falkland Islands ecosystem assessment could be undertaken, making best use of current monitoring and assessment processes.
3. Identifying feasible options for undertaking an ecosystem assessment of South Georgia and the Falkland Islands, identify associated costs and benefits, and formulate recommendations on how to take the planning and inception process forward.

## **2. Challenge Fund Activities**

**Summary:** The scoping study undertaken by WCMC, in partnership with the Government of South Georgia and the South Sandwich Islands (GSGSSI) and the Falkland Islands Government (FIG).

To meet the overarching objectives outlined in Section 1, we wanted this scoping study to address the following questions:

- Which ecosystem services should be assessed?
- How will the role of biodiversity be considered in the systems and services covered by the assessment?
- Who are the beneficiaries, what are the user needs?
- Is sufficient data available, and where are gaps?
- Who are primary and secondary stakeholders and what are their needs?
- Is there a consensus among stakeholders on the connection between ecosystems and people?
- What should the scope of the assessment include?
  - Drivers of change in systems and services
  - Impacts of change in services on human well-being
  - Options for responding/interventions to the trends observed

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<sup>7</sup> Defra Contract WC1031.

<sup>8</sup> The Ecosystem Assessment process includes three fundamental stages - exploratory (scoping), design and implementation - which are generally sequential, but also overlapping and iterative. Other elements, such as communication, user engagement and building capacity, are also important and occur throughout the process (Ash et al. 2010. Ecosystems and Human Well-being: A Manual for Assessment Practitioners. Island Press. Washington, D.C.).

To address these questions, we held preliminary discussions with GSGSSI, FIG and the Joint Nature Conservation Committee (JNCC) to gauge initial interest and identify potential synergies. We then held two stakeholder workshops to both inform and seek input on the proposed assessment, and attended relevant UKOT meetings to enhance knowledge, make contacts and raise awareness of the project, including the annual SGSSI Stakeholder meeting at the Foreign & Commonwealth Office (September, 2012) and the UK Overseas Territories Conservation Forum (UKOTCF) meeting on the Environment and UKOT White Paper (October, 2012).

Therefore the main activities of the scoping project can be summarized as:

- Identification and engagement of relevant stakeholders
- Workshop planning and development
- Workshop execution
- Compilation and communication of workshop results
- Initial planning of Darwin Plus – Overseas Territories Environment and Climate Fund application.

The primary activity of the scoping study was the facilitation of two multi-stakeholder workshops. The first 1-day workshop was held on the 12th of December 2012, at WCMC in Cambridge, UK. The second workshop was held over 1.5-days, on the 22nd and 23rd May 2013, at the Chamber of Commerce, Stanley, Falkland Islands. WCMC facilitated both workshops with substantial input from the project partners – GSGSSI and FIG – as well as from the South Atlantic Environmental Research Institute (SAERI).

A total of 42 participants were brought together from 26 governmental institutions, research organizations and non-governmental organizations (NGOs) from the UK, South Georgia and the Falkland Islands. Experience and expertise of participants covered knowledge of the South Atlantic Ocean ecosystems and biodiversity, ecosystem service assessments (notably the UK NEA), environmental policy of the Falkland Islands and South Georgia and existing environmental initiatives on the islands.

The workshops started by providing background information on the environmental policy context and the ecosystem assessment process. The core of the workshops consisted of interactive exercises, wherein participants were split into two working groups according to their regional expertise (South Georgia or Falkland Islands) and asked a series of key questions relating to a potential ecosystem assessment framework:

Q1: Who would an ecosystem assessment be useful for?

Q2: Why undertake an ecosystem assessment?

Q3: What type of questions could be answered by an ecosystem assessment?

Q4: What are the focal ecosystem services?

Q5: What kinds of data would be required, does it exist?

Q6: Where do you foresee conflicts between users of ecosystem services (i.e. where might trade-offs need to be made)?

Outputs and achievements: The main output from these activities is a scoping report (submitted separately – see note in Section 6) which provides a concise summary and analysis of the information and opinions gathered during both workshops in order to facilitate taking the ecosystem assessment process from the exploratory to the design stage under a Darwin Plus project. To do this, the scoping report presents key policy questions based on discussions and a review of local environmental policies and commitments, and aligns key ecosystem services and user needs based on workshop results.

The project's main achievement is that many of the relevant or potential stakeholders are engaged and primed to undertake the assessment. Extensive links were made with individuals and institutions within South Georgia, Falkland Island and UK communities, which allowed project personnel to tap into unique local knowledge, facilitate an accurate assessment of local user needs and obtain an initial overview of the current knowledge and evidence base, as well as gaps therein.

Additional work conducted under the project: The project expanded from the original plan, and some additional activities were undertaken, as outlined below:

1. Originally, only GSGSSI was approached to partner WCMC in this project. However, given the geographic proximity of the Falkland Islands to South Georgia, plus complementary work being conducted on the Falkland Islands (see next point), the geographical range of the scoping study was expanded to include the UKOT of the Falkland Islands, with FIG becoming a partner on the project.
2. Discussions with FIG and JNCC highlighted potential synergies between this scoping project and the Falklands Islands Environmental Mainstreaming Project being coordinated by JNCC on behalf of the Foreign & Commonwealth Office (FCO) and in partnership with the Institute for European Environmental Policy (IEEP), Kew Gardens and SAERI. The Environmental Mainstreaming Project aims 'To work with each UK Overseas Territory Government to understand the economic value of its natural environment, the threats posed and options available for managing these threats, and to enable environmental issues to be integrated into strategic decisions'. To achieve this objective, there needs to be stronger integration (mainstreaming) of environmental issues into UKOT government processes, which in turn relies, in part, on a better appreciation of the role and value of ecosystems in delivering those natural assets which are key economic drivers in the UKOTs. Therefore the second stakeholder workshop of the scoping project was conducted alongside a three-day training workshop on ecosystem services and ecosystem assessments, convened by WCMC for the Environmental Mainstreaming Project<sup>9</sup>.

Challenges encountered: Three challenges were encountered during the life of the scoping project.

1. Logistically, the engagement with stakeholders from the Territories was challenged by the geographic distance between Cambridge (UK) and Stanley (Falkland Islands). Officers from GSGSSI and FIG are highly sought-after during their limited UK visits. This is all the more true for the GSGSSI, composed of only four officers. The presence of GSGSSI and FIG during the UK-based December 2012 workshop, was however deemed essential to demonstrate to UK stakeholders of the legitimacy of the undertaking. It was also felt that GSGSSI and FIG officers could also benefit more effectively from direct conversation with ecosystem assessment experts from the UK on lessons learned during the UK NEA. These problems were overcome by establishing a remote link-up with Stanley (Falkland Islands), and enabled a Question & Answer session between workshop participants and Jennifer Lee, Richard McKee and Katherine Ross from GSGSSI, Nick Rendell from FIG, and James Fenton from Falklands Conservation.
2. The second workshop was originally planned for January 2013. However key personnel from South Georgia and the Falkland Islands had field-work commitments at this time. Therefore, the date of the second workshop was changed to May to ensure that a fully populated stakeholder workshop could be held. This necessitated an extension to the project lifetime.
3. Falkland Island stakeholders in the first workshop highlighted two issues to bear in mind during execution of the project: a) that Falkland Island-based stakeholders would not necessarily appreciate a UK NGO 'telling them what to do', and that an assessment will be more successful (in terms of involvement and uptake) if territory-led; and ii) Falkland Islanders had recently invested a lot of time into workshops under the pre-existing Environmental Mainstreaming Project, which could potentially undermine the enthusiasm for a new UK-led exercise. Both of these issues were taken on board by the project team; and in particular, substantial time was spent at the second workshop

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<sup>9</sup> The report from the three-day training workshop can be provided upon request from WCMC.

clarifying how this project and the Environmental Mainstreaming Project fitted together. Although not a tangible indicator of success, the high participation rate and encouraging feedback received from Falkland Island-based stakeholders at the second workshop indicated an understanding and acceptance of the synergies between the projects.

### 3. Outcome & Impact of Challenge Fund

Outcomes and impacts: The projects main outcomes are:

1. *There is a clear and strong rationale for undertaking an ecosystem assessment for South Georgia and the Falkland Islands.*
  - Many of the ecosystem services provided by South Georgia and the Falkland Islands are not fully recognized but could be evaluated and valued for their contribution to local and global human well-being, both in the present and the future.
  - Ecosystem assessment results could be used in decision-making from the regional to global scale.
    - At the regional level, a South Georgia and the Falkland Islands ecosystem assessment could synthesize existing data to provide information for effectively mainstreaming biodiversity and ecosystem service indicators into decision-making.
    - At the global level, ecosystem assessment results could increase the representation of ecosystems of the South Atlantic Ocean in the global conversation on ecosystem services, for example by fulfilling obligations to global conventions such as the CBD (if UKOTs were to sign up to them), feeding into the development of global high-latitude indicators and contributing to other fora such as the SGA Network and IPBES.
  - Further benefits for undertaking an ecosystem assessment for South Georgia and the Falkland Islands that were identified would include:
    - Highlighting the value of South Georgia and the Falkland Islands. This could then be used as a political tool to leverage funds in support of environmental work. Perennially UKOTs have been a lower priority than UK mainland funding.
    - Identifying any important data gaps and leading to the development of a strategic framework for research.
    - Contributing to the UK governments' requirement to report at the international level – e.g. CBD.
    - Act as a test case/role model for how ecosystem assessment can be undertaken for other UKOTs and small island states.
    - In addition to this, there was general support from all participants for an assessment to be undertaken and an indication that they would either support or be interested in becoming involved.
2. *It would be feasible to undertake such an assessment. The following over-arching approach is recommended for doing so:*
  - The approach used for the UK NEA should be used as template for an ecosystem assessment for South Georgia and the Falkland Islands (see further details below). This template could be tailored to meet the specific objectives of South Georgia and the Falkland Islands.
  - Separate, but parallel (aligned) assessments should be undertaken for South Georgia and the Falkland Islands. This will allow objectives specific to each island to be met, but at the same time a) enable important comparisons between two different UKOTs to be made; b) enable a comparison of methods/processes that can be used for UKOTs/small island states that have a permanent/native population and those that don't; and c) demonstrate the value of undertaking assessments in the UKOTs and other small island states.
  - The assessment does not need to cover the full suite of ecosystems and ecosystem services – the assessment should be tailored to concentrate on

those seen as priority services; those identified in the workshops could be used a starting point for selection.

- The assessment should be coordinated by a dedicated Project Manager, working with relevant government officials, researchers and stakeholders – the majority of which have been identified and approached during the course of the scoping study.

*More specifically, and taking on board opinions expressed in workshop discussions around how and why an ecosystem assessment for these islands should be conducted, it is recommended that the ecosystem assessment includes the following key components:*

- Assessment of the current status and trends of priority ecosystems and ecosystem services
  - Explore the prospects of future change through the development and analysis of future scenarios
  - Valuation (monetary and non-monetary) of selected ecosystem services, and how these values may change under different scenarios.
  - Identification of different possible responses (policy and behavioural) in order to prevent deterioration of ecosystem services and to restore services that have been lost.
3. *The process employed for undertaking an ecosystem assessment for South Georgia and the Falkland Islands could be used as a test case/role model for how ecosystem assessments can be conducted for other UKOTs and small island states.*
  4. *There was general corroboration from participants for an assessment to be undertaken and an indication that they would either support or be interested in becoming involved.*

Further, tangential outcomes from the project include:

1. The initiation of a collaboration with the Falkland Islands Environmental Mainstreaming. A collaboration with the scoping study (and the full assessment, if the application for Darwin Plus funding is successful) is mutually beneficial, as both initiatives rely on the study of potential environmental, social and economic benefits of ecosystem services and the economic benefits of developing an ecosystem-service based approach to land and sea management. Coordination with existing initiatives are an essential feature of successful ecosystem assessments. This is therefore seen as a very positive development.
2. An important aim of the scoping workshops and the environmental mainstreaming training was capacity building. The second workshop under the scoping study was therefore scheduled to coincide with training on ecosystem assessment processes, including economic valuation, under the environmental mainstreaming project. The training was attended by 16 participants from 12 Falkland Islands Government departments/institutions/private businesses. Raising the confidence and expertise of small island communities with limited capacity is an important outcome.

Application for Darwin Plus: The project team are now in a position to prepare an application for the 2013 round of the Darwin Plus funding scheme. Potential partners have been identified and drafting of the application has begun.

Setbacks encountered: Other than the small number of challenges outlined in Section 2, no major setbacks were encountered.

#### 4. Lessons

As per the challenges described Section 2, the scoping process was also a valuable reminder of the diplomacy required in reassuring the Territories that the ecosystem assessment will be a stakeholder-led process, with the primary objective of satisfying needs at a devolved level. Among others, this has been addressed by proposing that the project, pending Darwin Plus funding, would be administered by a Falkland Island-based project manager, jointly appointed by project partners.

#### 5. Project Expenditure

Item	Budget for whole project*	Actual Expenditure	Variance** as a %	Comments
Travel Costs	XXX	XXX	-37%	See below
Subsistence costs	XXX	XXX	-79%	See below
Overhead costs	XXX	XXX	-	-
Operating Costs	XXX	XXX	-52%	See below
Capital Costs	XXX	XXX	-	-
Other: Consultancy	XXX	XXX		
Damon Stanwell-Smith	XXX	XXX	-56%	See below
Megan Tierney	XXX	XXX	+34%	See below
Kerstin Brauneder	XXX	XXX	+100%	See below
Salaries (specify by individual)	XXX	XXX		
Nadine Bowles-Newark	XXX	XXX	+100%	See below
Claire Brown	XXX	XXX	+100%	See below
Max Fancourt	XXX	XXX	+100%	See below
Lucy Wilson	XXX	XXX	+100%	See below
TOTAL	XXX	XXX	-7%	See below

\* please indicate which document you refer to if other than your project application or annual grant offer letter

\*\* please explain any variance of +/- >10%

#### Justification for variances between Budgeted and Actual Expenditure

**Travel Costs:** Four trips were budgeted for in the original proposal to enable two GSGSSI officers, and two WCMC staff to travel to the UK and the Falkland Islands, respectively. However, due to commitments of GSGSSI (and FIG) project team members, they were not able to travel to the UK to attend the first workshop (December 2012). Therefore funds were only required for to cover costs of two WCMC staff to travel to the Falklands to facilitate the second workshop (May 2013), and hence actual expenditure on travel costs was less than that budgeted.

It should be noted, that although it possible to purchase reduced fares through SAERI, the costs of the flights were more expensive than originally costed.

**Subsistence Costs:** Subsistence costs for two GSGSSI officers and two WCMC staff were budgeted to cover costs for planned trips (of up 10-days, including travel) to the UK or the Falklands Islands. However, as noted above, subsistence costs were only required for two WCMC staff while in the Falklands. Expenses on the Falklands were less than expected, and hence actual expenditure was less than that estimated in original budget.



**Operating Costs:** Operating costs included those required to host and facilitate two workshops. Funds to cover participant travel and subsistence were considerably less than expected (many participants for the UK workshop either did not need to, or did not claim for expenses; likewise for participants at the Falklands workshop). Hence, actual expenditure was less than that estimated in original budget.

**Other: Consultancy:** The balance of work that was to be shared between Damon Stanwell-Smith and Megan Tierney shifted so that Megan Tierney undertook a greater proportion of the work. Therefore, actual expenditure for Damon Stanwell-Smith was less than budgeted for, while that for Megan Tierney was greater.

In addition to this change, as the project evolved, it became evident that additional team members would be required to assist with background research, workshop organization and facilitation, plus analysis and write up of the results from the scoping project. Therefore an additional consultant, Kerstin Brauner, who has relevant experience and expertise in the subject matter of this project, was hired by WCMC to assist with a number of these tasks, and which explains the additional costs under this budget line.

**Salaries:** As noted above additional team members would be required to assist with background research, workshop organization and facilitation, plus analysis and write up of the results from the scoping project. Therefore additional relevant and experienced WCMC staff were brought onto the project to assist with these tasks, and which explains the additional costs under this budget line.

It should be noted that both Consultancy fees and Salaries of WCMC are for actual salary costs only – i.e. they do not include any overheads that are included in normal WCMC charge-out rates.

**Total:** total costs of the project are within 10% of proposed budget.

## **6. Other comments not covered elsewhere**

A more substantial report entitled 'Scoping the feasibility of undertaking an ecosystem assessment for South Georgia & the Falkland Islands' detailing objectives, activities and outcomes of this Challenge Fund project has been produced by the project, and been submitted as a separate document to support this Challenge Fund Final Report.

## Darwin Challenge Fund Reporting Guidelines

All Darwin projects are required to report on the work they have undertaken with Darwin funds and this offers you the opportunity to report on your achievements and lessons learnt and on any other issues you would like to raise. Your report should show how you have progressed against the activities outlined in your application, or clearly explain any changes and the reasons why these changes were necessary.

You are expected to prepare the report in conjunction with your partners and you are expected to submit a Final Report within 1 month of completion of the agreed dates for the award (max 6 pages excluding annexes).

We will acknowledge and read all reports submitted, but will only contact you about your report if there are specific concerns.

If you have any additional queries about reporting, please feel free to email or call on 0131 440 5181.

### *Checklist for submission*

	Check
<b>Is the report less than 5MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project reference number in the Subject line.	Yes
<b>Is your report more than 5MB?</b> If so, please advise <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> that the report will be sent by post on CD, putting the project reference number in the Subject line.	No
<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.	Yes
<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.	