Darwin Initiative Evaluation of Closed Projects Seychelles, Mauritius and Rodrigues

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The Darwin Initiative

The Darwin Initiative is a UK Government small grants programme whic was launched at the Rio Earth Summit in 1992. It aims to assist countries rich in biodiversity but constrained by financial resources to implement the Convention on Biological Diversity (CBD). The Initiative is funded and managed by the UK Department of Environment, Food and Rural Affairs (Defra). This is the UK Government's main support to other countries (including the UK's Overseas Territories) in their implementation of the CBD, and more recently the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) and the Convention on the Conservation of Migratory Species of Wild Animals (CMS), through the funding of collaborative projects which draw on UK biodiversity expertise.

Monitoring and Evaluation

The Darwin Initiative has a comprehensive Monitoring and Evaluation (M&E) programme in place which is central to informing on the progress of the Darwin Initiative against its goal – 'to support countries that are rich in resources but poor in financial resources to meet their commitments under one or more of the major biodiversity conventions: the Convention on Biological Diversity; the Convention on Migratory Species; and the Convention on International Trade in Endangered Species'.

The M&E programme is used in a number of ways to help inform on best practice, to support ongoing projects in their delivery, to strengthen the Darwin Initiative itself, and to demonstrate the gains Darwin Initiative projects have made in conserving biodiversity through partnerships between the UK and developing countries.

The Darwin Initiative M&E programme is essentially centred on performance monitoring and impact evaluation. The M&E programme assesses legacy and impact at different levels with lessons drawn out from each level:

- At the project level – in terms of host country institutions and local partners and beneficiaries, and in terms of conservation achievements;
- At the national and ecoregion level – in terms of host country policies and programmes, and, if relevant, at a cross-boundary and eco-region level;
- At the international level – in terms of emerging best practices, and the conventions themselves;
- At the UK level – in terms of legacy and impact within UK institutions.

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Cover Photo Credit: Anna Karp

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Abbreviations

Abbreviation	Definition
CBD	Convention for Biological Diversity
DAC	Darwin Advisory Committee
DWCT	Durrell Wildlife Conservation Trust
DEFRA	Department for Environment Food and Rural Affairs
ECP	Evaluation of Closed Projects
ECTF	Edinburgh Centre for Tropical Forests (Managing the Darwin Initiative Monitoring and Evaluation Project)
GoM	Government of Mauritius
GoS	Government of Seychelles
M&E	Monitoring and Evaluation
MSIRI	Mauritius Sugar Industry Research Institute
MWF	Mauritian Wildlife Foundation
NHM	Natural History Museum UK
NHMS	Natural History Museum Seychelles
NBSAP	National Biodiversity Strategy and Action Plan
NPCS	National Parks and Conservation Service (Mauritius)
OECD	Organisation for Economic Cooperation and Development
OPC	Optical Plankton Counter
RBGE	Royal Botanical Gardens Edinburgh
RRA	Rodrigues Regional Assembly
SCMRT-MPA	Seychelles Centre for Marine Research Technology - Marine Parks Authority
SNPCS	Seychelles National Plant Conservation Strategy
SIDS	Small Island Developing States
SoCMRP	Shoals of Capricorn Marine Research Programme

Executive Summary

The objective of the evaluation of closed projects was to review the outcomes of Darwin Initiative projects in view of their original proposal and logical frameworks. Seven projects were reviewed during a field visit to Seychelles, Mauritius and Rodrigues which took place during the 20th to the 30th of November 2006. The executive summary describes key lessons from projects as well as programme level conclusions.

'Mauritius Ferns' (DI Ref 05-199) was a project implemented by the RBGE in collaboration with the National Parks and Conservation Service (NPCS) of the Ministry of Agro Industries and Fisheries. The main activities of the project were field surveys to identify endangered species, training two staff of NPCS in fern taxonomy, ecology, conservation and propagation and contributing to the establishment of a modern fern and orchid propagation unit. As a result of the project, two ferneries have been established, and are critical to supporting species under threat.

'Information systems for biodiversity conservation and management in Mauritius' (DI Ref 8-064) proposed to develop an information base for the future management of conservation and biodiversity in Mauritius. This pivotal project was led by the University of Reading in collaboration with the Mauritian Wildlife Foundation. Electronic databases were produced to catalogue information for the monitoring of Mauritian flagship bird species such as the Kestrel (*Falco Punctatus*), the iconic Pink Pigeon (*Clumba mayeri*[1]) and the Echo Parakeet (*Psittacula eques echo*), all of which are endangered. Information in the databases has helped to establish baseline data for further research including a Mauritian PhD thesis on conservation of Round Island seabirds.

'Propagation, nursery and establishment protocols for Seychelles endemic plants' (DI Ref 10-006) led by the Eden Project in collaboration with the Seychelles Botanic Gardens. This highly successful project scoped the entire endemic flora of the island and focused resources on species that were not known, or that were expected to be almost impossible to propagate with existing knowledge. Propagated species are now used in the new Barbarons Botanical Centre, which is dedicated to Seychellois flora. The Eden project continues to raise funds for the Seychelles Botanic Garden through the sale of a new ornamental hybrid developed using the endemic '*impatiens gordonii'*; 50% of revenue generated for each plant is fed back to the Gardens.

Darwin Projects have influenced policy within the area as evidenced by their being referenced in the Mauritius and Rodrigues NBSAPs as well as in the Seychelles Plant Conservation Strategy.

Projects implemented in Small Island Developing States (SIDS) provide an opportunity for incremental institutional development. Coherent funding that clearly addresses island particularities (such as invasive species) and that builds on SIDS key agencies and staff, is recommended. Conservation institutions in SIDS have limited numbers of biodiversity specialists. The manner in which new projects can consistently build on the successes of previous Darwin Initiative projects should be a criterion for selection.

[1] Now renamed Nesoenas mayeri

Recommendations

- Documentation submitted to the Darwin Initiative by project leaders within the projects' timescales should to be stored and easily accessed for longer time frames, or at least until project reviews have taken place. The lack of logical frameworks and project documentation makes it very hard to measure projects' impact, legacy and sustainability
- The length of time since the end of some projects and the limited preparation time made it difficult to put in place good contacts with some UK project leaders but all the relevant people in the host country nations were met. A minimum of six weeks lead-in time to such a visit would be appropriate and yield a more effective review.
- To increase 'good value for money' the decision making on technical assistance from UK partners is a critical step during DI project design. Targeted technical assistance facilitates delivery of outputs that are satisfactory for both parties. This is particularly the case in island states where NGO and Government staff are highly qualified and UK expertise is expensive in real economic terms. As such, technical assistance is to be demand driven whenever possible.
- Common capacity building themes across all projects included: scarce human resources in the fields of taxonomy, requests for appropriate continuous training and an emphasis on supporting advanced degrees for young, leading conservationists. These are all areas that the Darwin Initiative could consider highlighting to people considering preparing a project application.

1. Introduction

1.1 The Darwin Initiative evaluation of closed projects

The Darwin Initiative seeks to help the safeguard of the World's biodiversity by drawing on UK biodiversity expertise to work with local partners in countries that are rich in biodiversity but poor in financial resources.

The Evaluation of Closed Projects (ECP) is primarily intended to provide an external perspective on the legacy and impact of Darwin Projects, and to draw out lessons learned for the programme. Details of the criteria for legacy and impact are included in Appendix 1.

Seychelles and Mauritius hosted seven closed Darwin Initiative projects. Two ongoing projects are discussed under the scope of the closed projects review, but were not evaluated; these are:

15-038, 'Restoring island biodiversity: the reintroduction of endemic Mauritian reptile communities', a project run by the Durrell Wildlife Conservation Trust and the Mauritian Wildlife Foundation, which started in June 2006 and is to be completed by May 2009.

13-027 'Developing reserves for biodiversity conservation and sustainable fisheries in Rodrigues', which is implemented by the University of Newcastle and Shoals Rodrigues. This project underwent a Mid Term Review, details of which can be found in the report (Abbot, 2006c)

1.2 Methodology

The Evaluation of Closed Projects (ECP) reviewed outcomes of Darwin Initiative funded projects against the original logical framework (when available) and Darwin proposals, project reports and products. The achievements and developments arising since the end of Darwin funding are also evaluated. The review methodology uses the OECD evaluation criteria with an emphasis on, relevance, efficiency, effectiveness, impact and sustainablity.

The field visit to host institutions in Seychelles took place from 20 to 22 of November, Mauritius from 3 to 27 November and finally Rodrigues from 28 to 30 November. These visits were preceded and followed up by communications with relevant UK institutions. Interviews were conducted with other key stakeholders, such as Government Departments, when feasible.

Full Terms of Reference for the ECP are presented as Appendix 1. Lists of individuals and documents consulted are provided as Appendices 2 and 3. A table with projects reviewed can be found in Table 1.

Post Project Evaluation	Evaluation of Closed Darwin Initiative Projects located in Seychelles and Mauritius						
Project Reference	5-199	7-055	8-064	8-076	9-004	10-006	12-005
Country	Mauritius	Seychelles and Rodrigues (Mauritius)	Mauritius	Seychelles	Seychelles and Rodrigues (Mauritius)	Seychelles	Mauritius
Project Title	Mauritius Ferns (continuation from 3-199)	Marine environmental training in Seychelles and Mauritius	Information System for biodiversity and conservation management in Mauritius	Training courses for the staff of the Seychelles Natural History Museum	Plankton biodiversity: training, sampling, taxonomy and data evaluation in Seychelles & Mauritius	Propagation, nursery and establishment protocols for Seychelles endemic plants	Rediscovering the neglected insects of Mauritius
UK Institution and Project Leader/Contact as per Darwin Records	RBGE Stuart Lindsay	Royal Geographical Society Juliet Burnett (nee Larcombe)	University of Reading, Statistical Services Centre Bob Burn	NHM, Dept of Entomology Nigel Fergusson	Royal Geographical Society Shoals of Capricorn Programme and Centre for Coastal and Marine Science Dave Robins	Eden Project Anthony Kendle	University of Plymouth Sarah Donovan
Partner Institution(s)/ Contact(s) per Project	Department of Forestry, Ministry of the Environment	Shoals of Capricorn Programme/Shoals Rodrigues	Mauritian Wildlife Foundation and University of Mauritius	Seychelles Natural History Museum	Shoals Rodrigues	Botanic Gardens, Ministry of the Environment and Transport and the National Parks Section of the Dept of Forestry	Mauritian Wildlife Foundation
Project's Start / End Date	1/4/96 -	1/5/98 – 31/3/01	1/9/99 – 31/8/02	1/6/99 – 31/7/99	1/4/00 – 31/3/03	1/7/01 – 31/1/03	1/7/03 – 30/9/06

Table 1 Closed projects

2. Context

The Seychelles Archipelago and the islands of Mauritius and Rodrigues are located within the Indian Ocean, the world's third largest ocean, and within the Madagascar and Indian Ocean Islands biodiversity hotspot.

Seychelles

The Seychelles attained independence from the United Kingdom in 1976. The Ministry of the Environment and Natural Resources is most relevant for this evaluation. Its Conservation Section deals with the CBD, with the strong interest of the Principal Secretary. The National Biodiversity Strategy Action Plan was drafted in 1997.

The Darwin Initiative has a high profile within the Seychelles; there is evidence that the results of its projects have effectively linked into policy making processes, for example by influencing the Seychelles National Plants and Conservation Strategy 2005-2010 and through contact with civil society advocacy network, Plant Conservation Action Group[2]. Darwin Initiative Stage 1 proposals are reviewed by the Government of Seychelles, prior to submission, to ensure policy coherence.

Mauritius

Mauritius gained independence in 1968. The Ministry of Agro Industry and Fisheries, in particular the National Plants and Conservation Service agency is directly relevant to the Darwin Initiative and deals with the CBD.

The Draft of the first National Biodiversity Strategic Action plan was produced in 2006. The Darwin Initiative is mentioned in relation to Biodiversity Identification and Monitoring including insect baselines and the setting up of database systems for information management.

The terrestrial biodiversity of the small islands, islets and atolls of Mauritius has developed a high degree of species endemism and diversity because of isolation. This has resulted in their designation as a centre of plant diversity by the IUCN. Examples of islands which are currently undergoing restoration include Round Island and Ile aux Aigrettes both managed in partnership by the National Plant and Conservation Service and the Mauritian Wildlife Foundation. The Foundation has been granted three Darwin Initiative projects, which have helped to set up systems for information management as well as conservation of species through insect identification and reptile relocation.

Rodrigues

In 2003 the island of Rodrigues obtained its autonomy from Mauritius, through the appointment of a Chief Executive of Rodrigues, giving more weight to the Rodrigues Regional Assembly (RRA) set up in 2001. It is an island with a land area of 109 km2, which is located 560 km east of Mauritius, and is surrounded by a large lagoon flanked by a coral reef.

Darwin Initiative projects on the island are mainly related to marine biology conservation. The strongest legacy is partly contributing to the set up of Shoals Rodrigues; an NGO active in Environmental Awareness activities. Rodrigues has drafted its National Biodiversity Strategic Action Plan. Direct reference to Darwin Initiative projects is made under the Marine and Freshwater Biodiversity section, an indicator of the presence the Initiative has on the island.

[2] Plant Conservation Action Group is a Seychellois NGO.

3. Project Level Reviews

3.1 05-199 'Mauritius Ferns (continuation from 3-199)'

There is little documentation for this early project, outcomes of which have continued to be useful to the Forestry Department and the National Parks and Conservation Service of the Ministry of Agro Industry and Fisheries, Government of Mauritius. The recorded purpose in the original application form was:

> Ensuring the survival of the rarest fern in the world [*Adiantum asarifolium*]

Effectiveness

Because the UK project leaders were flexible, the above purpose changed as a result of discussions following the project's initial field trip when more unrecorded populations of ferns were found. Discussions with the host country counterparts, NPCS, resulted in the project's purpose being broadened to encompass all rare and endangered fern species on Mauritius and the enhancement of scientific and horticultural expertise in Mauritius to launch a more appropriate and flexible fern conservation program. This flexibility has yielded positive results.

The main activities of the project were field surveys to identify endangered species and possible reintroduction sites. These were carried out by training two staff of NPCS in fern taxonomy, ecology, conservation and propagation in the Royal Botanical Garden Edinburgh (RBGE) as well as in Mauritius, and by contributing UK expertise and funds to the establishment of a modern fern and orchid propagation unit. This was a part of the NPCS Native Plant Propagation Centre, which was at the time under construction. A focus on orchids also arose as a request from the NPCS. This was technically feasible as ferns and orchids can grow in the same environment.

Funds channelled for the Native Plant Propagation Centre were used to build a large breeze-block shade house with a spore sowing room and misting system in which to propagate ferns and orchids. This was designed by horticultural staff from the RBGE.

Impact

The techniques applied at the NPCS Native Plant Propagation Centre have resulted in a fernery being set up by the Forestry Department. Ferns are now reintroduced as population enhancement efforts in two protected areas. A technical review of the propagation project *'Review of the Darwin Mauritius Fern Project'* was published by Mr Tezoo and Mr Bachraz trainees who attended the study session at the RBGE.

The Forestry Department's Fernery comprised a propagation area, an open air lecture room, a visitor's centre, in which the endemic ferns as well as wider conservation issues are exhibited and a learning room where videos are screened and presentations are given to visitors. A handbook for endemic fern propagation has also been collaged for public use. These can be considered to be project off-shoots. Both the NPCS and the Forestry Department consider that public awareness raising and education on ferns is critical.

Figure 1 Mauritian ferns in the Forestry Department's Fernery

Because of their ornamental value, which places them distinctly under threat, ferns have attracted considerable attention from the Mauritius Forestry Department and NPCS. Fern poaching is common; it also remains difficult to reintroduce them in the wild, partly because appropriate areas are privately owned and national parks have not got the right ecosystem. It is because of these threats to the species that the project has been very well received and continues to thrive.

Sustainability

The Ferneries are now used to grow endangered species which are for sale to the public for use in private land and gardens. The ex-situ propagation strategy has clearly worked; however not many plants have been re-introduced to conservation sites mainly because only two protected areas are suitable environments for ferns.

Suggestions to improve performance of DI projects made by NPCS include the comprehensive, continuous training of staff in order to overcome technical problems.

3.2 7-055 Marine environmental training in Seychelles and Mauritius

This project was implemented by the Royal Geographical Society with the Institute of British Geographers (RGS-IBG) in Seychelles and Mauritius, starting in May 1998 and finishing in March 2001. The purpose of the project was:

> To provide marine biodiversity assessment and protection training to key host government nominated personnel and to assist the host governments in fulfilling their obligations under the Biodiversity Convention

Information found in the reports indicates that the project's purpose was achieved in both countries. The project closed a number of years ago and despite the little institutional memory remaining in country, it was corroborated during the field visit that in some respects, objectives were achieved to a greater level, such as the 'training of trainers' in Rodrigues.

Effectiveness

The objectives of the original Darwin Proposal were, broadly, to provide theoretical and practical training both on marine research techniques (including taxonomy) and marine conservation. Training was given to a larger number of people from local organizations. More people were trained than originally planned. Swimming and diving lessons, theoretical and 'hands on' taxonomic training for technicians and researchers provided an underwater resource and monitoring capability for the Shoals team. On both islands, these training components were Darwin's contribution to the wider SoCMRP (Larcombe, 2006b).

From discussions with key partners it is understood that the project served to set up building blocks for the subsequent Darwin Initiative project 9-004 'Plankton biodiversity: training, sampling, taxonomy and data evaluation in Seychelles & Mauritius', and to put it's purpose into context (see section 3.5).

Both projects (7-055 and 9-004) formed part of the wider Shoals of Capricorn Marine Research Programme (SoCMRP), run by the RGS-IBG, which aimed at gathering scientific information of marine biodiversity in the Mascarenes via baseline data gathering and sampling, alongside wider marine training and education programmes.

SoCMRP initially operated through three research stations in Mauritius, Seychelles and Rodrigues.

Due to logistical and financial issues in Mauritius, it was decided that the best avenue to achieve tangible gains in terms of scientific research, capacity-building and educational outputs, would be to operate solely in Rodrigues. Consequently, the SoCMRP research station in mainland Mauritius was closed. The Darwin Initiative was made aware of the closing down of the Mauritius base (Defra Record, 2001).

The project application form states that, 'one month (30 days) of training will be provided each year' in three centres in Seychelles and Mauritius' (RGS - IBG, 1997). However, as pointed out by Burnett, the projects' training programme was not compromised as, 'scientists and trainees from mainland Mauritius were still brought to Rodrigues for involvement in all projects' (Burnett, 2007).

In Seychelles, the base which was originally located in St Anne, was re-housed in Cap Ternay and is now known as the SCMRT-MPA.

In Rodrigues, after completion of the SoCMRP, Shoals Rodrigues, a locally run NGO was set up.

It seems that the Darwin Initiative project 7-055 was a critical training component of the wider SoCMRP, in terms of host country human capacity building.

Impact

The main relevant impact is the contribution of the Darwin Initiative to the set up of key conservation institutions in Seychelles and Rodrigues.

The SCMRT-MPA and Shoals Rodrigues became hosts for the follow up Darwin Initiative project which, overlapped with 9-004 during part of the year 2000. The total contribution of Darwin Initiative projects to the SoCMRP is c. 20% of the total value of the programme, worth c. £1.2 million (Burnett, 2006).

The SCMRT-MPA was founded in April 2003 as a result of the merging of the Seychelles Centre for Marine Research and Technology with the former Marine Parks Authority (SCMRT-MPA, 2006). Marine Research was the remit of the SCMRT when it was created in October, 2001 to continue the work of the Shoals of Capricorn Marine Research Programme.

The SCMRT-MPA primary focus is on projects and programmes focused on marine species and habitat conservation, marine research, eco-tourism, environmental education, biodiversity, and the protection and management of the marine environment. As reported through discussions with the Government of Seychelles, the Darwin Initiative contributed to the set up of this organization, which is largely driven by research activities which were instigated by the SoCMRP (Payet, 2006).

Because of the lack of a University in Seychelles, the Government of Seychelles sees a role for SMRT-MPA to become a regional centre of excellence in marine research (Payet, 2006).

From a human capacity perspective, marine research is an area of critical interest for the Government of Seychelles: the lack of a University in the country makes the training of public servants overseas a priority, a need identified in the purpose of the project.

Shoals Rodrigues is a Marine Research, Training and Education organisation which houses the Shoals Centre which provides facilities and equipment for marine research for visiting scientists. This organisation was established in September 2001, 'to continue the work which had been started by the Shoals of Capricorn Programme' (Shoals Rodrigues, 2006). Detailed information on the organisation and current activities can be found on the Mid Term Review report, produced for the Darwin Initiative in January 2007 (Abbot, 2007).

An objective of the project was to 'Provide training for future trainers, enabling the continuation of work after the completion of Shoals' (RGS, 1997). In Rodrigues, trainers continue to train others, through established environmental education activities, such as Club Mer (see Abbot, 2007). In this sense, the achievement of this objective has served as a catalyst for conservation.

Sustainability

In terms of dissemination outputs, posters were produced and distributed in schools and continue to be used in both Seychelles and Rodrigues, as clearly seen during the visit

Shoals Rodrigues has a current Darwin Initiative project[3].

The project contributed to the set up of SCMRT-MPA and Shoals Rodrigues; institutions which have achieved financial sustainability.

The success of the 'training of trainers' aim of the project was apparent. Team members trained within the project 7-055, such as Mr Jude Bijoux now in SCMRT-MPA, and Mr Eric Blais and Mrs Sabrina Meunier, now in Shoals Rodrigues have remained in these key marine research institutions, which is very positive.

3.3 8-064 Information System for biodiversity and conservation management in Mauritius

The UK partner for this project was the University of Reading, the main host country partner was the Mauritian Wildlife Foundation (MWF), in collaboration with the University of Mauritius. The MWF has hosted three Darwin Initiative projects, two of which are subject to this evaluation. According to records, the project ran from September 1999 to August 2002; with a final report submission in 2006. The project's purpose was:

> To develop an information base for the future management of conservation and biodiversity in Mauritius

This project generated a great deal of impact, which helps to practically implement a series of new projects by both the MWF and the Government of Mauritius. It was designed because new information management systems were needed for the storage and processing of data from two and a half decades of MWF's work in Mauritius.

Effectiveness

MWF is the main non-governmental organisation in Mauritius to be exclusively concerned with the conservation of endemic species and their habitats, such as endangered endemic birds, reptiles and insects, it is strongly linked to the UK based Durrell Wildlife Conservation Trust (DWCT).

[3] DI 13-027: "Developing reserves for biodiversity conservation and sustainable fisheries in Rodrigues', which underwent a Mid Term Review at the time of this closed project review.

The MWF works in close co-operation with the Government of Mauritius with whom a Memorandum of Agreement was signed in 1994. A close relationship with GoM has enabled MWF to jointly manage conservation areas such as Round Island. The MWF has also gained a long term conservation land lease[4] to conduct the ecosystem restoration of the Ile aux Aigrettes Nature Reserve.

Electronic databases were produced to catalogue information for the monitoring of flagship species such as the Mauritius Kestrel (*Falco Punctatus*), Mauritius Pink Pigeon (*Clumba mayeri*[5]) and the Echo Parakeet (*Psittacula eques echo*), all of which are endangered species.

Databases allow for the storage of information which can help monitor changes in species population, as well as understanding their 'lifestyle' patterns and nesting habits, amongst others. Because the bird populations of certain species such as the Round Island Petrel *(Pterodroma arminjoiana)* have been almost entirely ringed, the databases produced as a result of this Darwin Initiative project help to provide a comprehensive source of information which is actively used in species management (see below).

Impact and Sustainability

Information systems set up include databases for birds: 'Kessie 1.0' for kestrels, 'Echo 1.0' for echo parakeets, 'PPDB 2.00' for pink pigeons and 'RIPD 1.0' for petrels; also a 'nursery database' for endemic plants. These databases are used by the National Parks and Conservation Service.

NPCS staff has been trained in the use of information systems and databases, albeit not in how to develop or modify them, an issue which needs to be addressed (Gopal, 2006). Stakeholders can now use standard databases to share information.

Information in the databases has helped to establish baseline data for further research. For example, Vikash Tatayah's, MWF Conservation Manager, is using RIPD 1.0 as an information management tool for his PHD thesis on conservation of Round Island seabird species. A few years down the line project resources are still supporting biodiversity management.

The Mauritius Research Council has provided two successive grants to continue the development of the information management systems.

Figure 2 Tagged Round Island Petrel chick (Pterodroma arminjoniana), and Vikash Tatayah on Round Island holding a Bulwer's Petrel (Bulweria bulwerii) chick

[4] These are when government forgoes management practices for a certain area by leasing its management to a private actor or NGO.

[5] Now renamed Nesoenas mayeri

3.4 8-076 Training courses for the staff of the Seychelles Natural History Museum

The Department of Entomology from the Natural History Museum in London led this project, which consisted of a series of training courses implemented by Museum staff in Seychelles and a three week study trip from NHMS staff to London. The project was conducted during June and July 1999. Its purpose was:

> To enable the Seychelles Natural History Museum to fulfil its potential as the key resource for conservation education and biodiversity documentation in the Seychelles.

Effectiveness

A discussion with the majority of trainees who participated in this project was held on 21 November. Background documentation for this project was scant, bar a final report, of which the NHMS did not have a copy and had reportedly not seen. The document was well received within NHMS as well as by staff from the Botanical Gardens, as access to conservation education material is difficult.

Correspondence with the UK project leader did not facilitate communication with the in country partner, an indicator of the lack of sustainability of this project.

Impact

There is little impact as a result of this project. Unfortunately, the NHMS is very under-resourced. Staff at NHMS have unsuccessfully tried to push forward an MoU with the NHM UK, an effort which they perceive has failed due to administrative reasons.

Sustainability

NHMS staff are still applying what they learnt during this brief course, however, the purpose of this project was decidedly overambitious; much more could have been done to set up a continuous training programme to enhance its skills sustainably.

Planning for continuous training, even when Darwin Initiative projects have finished, is a need that was identified by the NHMS and the NPCS staff in Mauritius. Interviewees expressed an interest in continuous learning, and a certain level of frustration from not having access to it. Expectations need to be managed in terms of what can be done in terms of maintenance of infrastructure or staff development after projects conclude.

3.5 9-004 Plankton biodiversity: training, sampling, taxonomy and data evaluation in Seychelles & Mauritius

This project was implemented by the Centre for Coastal Marine Science, Plymouth in collaboration with the Royal Geographical Society from April 2000 until March 2003. Host country partners in Seychelles were, after the closure of the SoCMRP the SCMRT-MPA and Shoals Rodrigues in Seychelles and Rodrigues respectively. The background of these institutions is discussed in Section 3.2. The purpose of the project was:

> To identify keystone zooplankton species in the waters around the Seychelles and Mauritius

Effectiveness

The project's purpose was clearly achieved in both countries.

Impact

The institutional context for this project is addressed in Section 3.2.

Part of the legacy of both 7-055 and 9-004 was the donation of the equipment to both the SCMRT-MPA and Shoals Rodrigues.

In both countries the project generated great enthusiasm because it helped to unleash the discovery of the marine environment from both a marine research and an environmental awareness and education perspective which is excellent.

In the case of the Seychelles, because of logistical issues with SCMRT-MPA being located in Cap Ternay and the administrative branch located in Victoria, Mahe, the use of the laboratory, and its resources, has not been maximised. Use of the database seems to have stalled: it has not been updated since 2004.

More frequent use of the lab facilities is expected when the administrative branch and the Marine Research Centre will be merged into one building to be located at Providence (Stravens, 2006). At this point the SCMRT-MPA staff will be better positioned to make use of the lab. For example when Jude Bijoux, a Darwin Initiative 9-044 trainee, commences his PhD, SCMRT-MPA's laboratory facilities will be much better used.

In Rodrigues, the database and facilities are used continuously by visiting researchers, who find the use of the guidelines, produced as an output of the project, very useful. Microscopes, plankton samples and other educational materials developed as a result of the plankton project are used by Shoals Rodrigues staff for research, educational and awareness raising purposes.

The zooplankton project is quoted in the NBSAP as '[a project implemented] to provide training in collection and identification of zooplankton was funded by the UK Darwin Initiative' (Government of Rodrigues, 2006).

Sustainability

Identification of plankton samples is done through an Optical Plankton Counter (OPC). Use of this technology is a rather time consuming task (only 5 samples can be processed within a day). The high levels of human resource inputs that this requires is an issue that was pointed out as a constraint within SCMRT-MPA and Shoals Rodrigues alike.

The OPC seems to be an expensive technology that yields limited results. Whether the legacy of this technology constitutes value for money in real terms is questionable. Perhaps the use of an OPC could have been procured by the UK partner (i.e. through a lease), leaving host country institutions with more appropriate technology that could be used on an ongoing basis.

3.6 10-006 Propagation, nursery and establishment protocols for Seychelles endemic plants

The UK partners for this project are the UK's Eden Project, in partnership with the Botanic Gardens, Seychelles. It started in July 2001 and was concluded in January 2003. Its purpose, which arose from a clearly identified need between UK and host country partners, was:

> To produce protocols for effective propagation and nursery culture suitable for recovery programmes for 90% of the Seychelles endemic flora and to build skills and capacity to manage these programmes.

The need for the project was first identified by Dr Anthony Kendle, from the Eden project, who has a long standing academic relationship with Mr Didier Dogley, Director General of Nature and Conservation, Ministry of the Environment. The running of the project was managed by Dr Juliet Rose and Mr Alistair Griffiths on behalf of Eden and Mr Denis Matatiken, Director of the Seychelles Botanical Garden.

Effectiveness

Overall, the project was highly successful; the need was clearly understood and the purpose was defined by both parties, collaboratively. The legacy of the project is confirmed by its contribution to the development of policy, human capacity and institutional development.

The project's purpose aimed at scoping the entire flora, to then focus on propagation of species that were not known or expected to be almost impossible to propagate with existing knowledge. It was recognised that some plants, such as the *Medusagyne spp*., had very unusual characteristics that would need a dedicated research programme, beyond the scope of the Darwin Project. The project therefore had a 'triage' for the endangered plants, ie concentrating on those that could be rescued and leaving the very difficult cases for specialist work (Kendle, 2007).

The timing of the project was right, as it coincided with the development of the Barbarons Botanical Centre, to host indigenous and endemic flora.

In terms of outputs, host country partners would have preferred to have the best practice propagation handbook published rather than in an electronic or web based format because it is easier to distribute to people such as herbalists or para-taxonomists who may find access to the internet very difficult.

Because information for this handbook has already been compiled in themes such as keeping genetic diversity, collecting of seedlings, and what works and does not in terms of *ex-situ* propagation, a suggestion is that Eden supports the Botanical Gardens to find a way forward to publish in the UK, as the cost is lower. Delivery of this output would strengthen the projects' effectiveness.

In terms of implementation, the host country partners learnt that they prefer a 'hands on' approach. They found effective communications challenging and prefer a model where a UK team member spends a minimum of 50% of their time in Seychelles. This is now their Human Resources model for Darwin Applications which is a positive lesson learnt.

Impact

A very relevant offshoot is that the purpose of the DI project has been replicated in the Seychelles National Plant Conservation Strategy (SNPCS). The SNPCS is the Seychelles response, to the Global Strategy for Plant Conservation which was adopted by the Convention on Biological Diversity (CBD) in April 2002, with the aim of putting an end to the loss of plant species globally. It is the first to be produced within Small Island States (PCA and The National Botanic Gardens, 2005).

Target 4 of the Seychelles National Plant Conservation Strategy which reads 'Conserving threatened plants: conservation of threatened flowering plant taxa *in-situ* and *ex-situ*; in particular sub target 4a '*Ex-situ* conservation: Conservation of 95% of threatened flowering plant taxa *ex-situ*' is similar to the purpose of the Darwin Initiative project. This is evidence that the project was perfectly in line - or at the very least helped to identify - host country needs.

Sustainability

Follow up work from 10-006 by Mr Denis Matatiken has helped dispel some of the assumption that certain plants allegedly did not regenerate in the wild, including species such as *Medusagyne oppositifolia, Vateriopsis spp, Craterispermum spp.* etc. Through sampling in the field Mr Matatiken is also re-evaluating the validity of the categorisation of Seychellois endemic plants within the IUCN red list.

Technical collaboration between the Eden project and the Botanical Garden continues to date through the study of the critically endangered *Impatiens gordonii*, which feeds into Mr Griffiths' further studies. But also on a wider scale, with the intent of continuing to grow plants *ex-situ* until they are reproductively mature enough to be reintroduced to the wild (PCA and The National Botanic Gardens, 2005 pg 18).

Figure 3 Ex-situ propagation at Barbarons Botanical Centre (pictured right)

Education and awareness raising outputs have been very interesting and successful in terms of sustainability. Fifty percent of the profits from the sale of a new ornamental hybrid, using the endemic endangered Seychelles *Impatiens gordonii*, which was developed in the UK, are being channelled towards a fund managed by the Seychelles Botanical Garden, to assist in the conservation of their rare and endangered plants (Eden project website, 2006). The Eden Project has also used project experience to curate the Eden's Tropical Islands area, featuring information on the Coco de Mer, the largest seed in the world, which is originally from the Seychelles, facilitating learning processes about the Seychelles biodiversity within the UK.

3.7 12-005 Re-discovering the neglected insects of Mauritius

This project was implemented by the University of Plymouth in collaboration with the Mauritian Wildlife Foundation. Other main partners included the Mauritian Sugar Industry Research Institute (MSIRI) and the NPCS. The project was expected to run from July 2004 to September 2006, however, three outputs remain outstanding. The purpose of the project is:

To initiate an insect conservation programme within the Republic of Mauritius, led by in-country capacity based within the Mauritian Wildlife Foundation (MWF).

The project has fitted into the MWF programme of work, as it has enabled research into these understudied yet important endemic species both on the mainland and in the flagship islands managed by the organization.

Effectiveness

This small project's funding was primarily channelled to sponsor a MWF staff member, Mr Saoud Motala, to study for an MSc at Imperial College London. Upon completion of the MSc, Mr Motala returned to MWF to support the implementation of the rest of the project in Mauritius. Mr Motala has now returned to the UK on a Darwin Fellowship with the Natural History Museum in London.

Throughout the lifetime of the project there have been staff changes, including the UK Project Leader (Dr Linton Winder was replaced by Ms Sarah Donovan) and MWF Project Coordinator (Dr John Mauremoto, was replaced by Mr Vikash Tatayah). These changes were detrimental to stakeholder relationship management throughout the duration of the project and have challenged the delivery of planned outputs.

The 'Inventory of specimens sampled' (Output 4) which would result on a CD ROM to be distributed to stakeholders has not been completed, partly because of the high costs of specimen identification. There is a high proportion of undescribed species and a lack of a full reference collection on Mauritius. The closer links with the NHM means that there will be a slow but continuous trickle of identified beetles being returned to Mauritius to facilitate the identification work (Donovan, 2007). The specimens identified so far have been collated into a CD and distributed to partners (Tatyah, 2007).

The 'Insect conservation strategy document including future-funders' (Output 5) which would result in a Conservation Strategy to be drafted in a participatory fashion, has not been published and distributed to stakeholders yet. The drafting of a strategy to be discussed with stakeholders was an agreed way forward, to be led by MWF.

Communication with other key stakeholders, such as the MSIRI, host to the best kept collection of insects in Mauritius, has been sporadic. The expectations of external stakeholders could have been better managed.

Impact

A very positive outcome is that the project has helped to raise the profile of the insects, a critical component for ecosystem balance in islets that are currently being restored.

Understanding of insect biodiversity has been critical for training activities for current project DI 15-038, as insects provide the food base for relocated reptile species.

Sustainability

In terms of impact and sustainability, the MWF system for staff professional development has delivered outstanding field, training and education offshoots. The insects project has enabled Mauritian conservationists to spend time in the field, gathering and analysing data. Such students are encouraged to pursue higher education in their areas of interest. Such interest can be taken further through advanced studies, a gap which the NGO helps to bridge (see section 3.3 and the case study in Section 6).

Case study: The story of Zayd Jhumka

Darwin Initiative field staff from Rose Hill, Mauritius

'Now we know how the water beetles can help control the larvae of the mosquitoes, which are a pest; the Darwin Initiative helped us to acquire the knowledge and we now have to apply it in Mauritius to control diseases such as chikungunya'

Zayd is a 26 year old former student of the University of Mauritius, where he was awarded a BSc in Biology. Whilst in University, Zayd attended a lecture where Mr Saoud Motala talked about the importance of Mauritian insects in terms of conservation. A field visit to the forest which was part of a workshop inspired Zayd to volunteer for MWF. Zayd maintained his interest by carrying out a BSc project on insects in collaboration with MWF. When funding became available, Zayd was hired to work as a para-taxonomist in the Darwin Insect project, mainly looking at mainland Mauritius but also those on islands such as Round Island and the island of Rodrigues. Whilst conducting the field aspects of the Darwin Project in Round Island, where he was primarily responsible of collecting and identifying Zayd 'fell in love with the island' because he 'liked the geology of the place, the animals, the birds and the reptiles and the insects communities which are different to those on the mainland'.

Such was his enthusiasm, that after the Darwin Initiative job was completed, Zayd applied to become a Warden of Round Island; 'this (job) was perfect because I wanted to continue studying the insects of Round Island'. Zayd recounted that at the beginning of the DI project, there were 37 species of beetles identified; now there are more than 50 and that this figure will keep increasing partly because some of the insects are seasonal. 'My plans for the future are to do a PhD in entomology, studying insects. I have started contacting British universities to see if there is interest in further work in Round Island insects, because I want to complete the study which started with the Darwin project…. I want to study the different aspects of the rural effects of conservation in insects, how conservation helps invertebrates and the insects. I am now an amateur entomologist.'

Zayd continued to relate the challenges faced, 'the insect fauna in Mauritius is not well known, the project was a good thing because we got to collect all specimens in the islands (islets), we have sampled practically everything even the small ones (atolls). That was the first step of the island plan to study insect diversity. How we can step this up is to see the role of the insect in the ecosystem. We are building upon the Darwin Project'. Because of the lack of formally trained taxonomists in Mauritius, it is increasingly important to step up continuous training.

Source: (Jhumka, 2006)

4. Conclusions

- Lack of logical frameworks and project documentation makes it very hard to measure projects' impact, legacy and sustainability. Clearly, documentation submitted to the Darwin Initiative by project leaders within the projects' timescales should to be stored and easily accessed for longer time frames, or at least until project reviews have taken place.
- The length of time since the end of some projects and the limited preparation time made it difficult to put in place good contacts with some UK project leaders but all the relevant people in the host country nations were met. A minimum of six weeks lead-in time to such a visit would be appropriate and yield a more effective review.
- The impact of Darwin Initiative projects in these Indian Ocean Islands is potentially high because they are small island states with limited human resources. As in many locations, local sensibilities play an important role in project achievements. Project implementation needs to be sensitive and consultation with relevant Government bodies is critical throughout project execution, to support policy coherence and achievements.
- Appropriate technology is key in terms of sustainability; equipment which is demanding of both human and financial resources can quickly become redundant, such as the Optical Plankton Counter. On the other hand appropriate technology, such as a microscope, can become a fundamental pre-requisite for taxonomic work.
- To increase 'good value for money' the decision making on technical assistance from UK partners is a critical step during DI project design. Targeted technical assistance facilitates delivery of outputs that are satisfactory for both parties. This is particularly the case in island states where NGO and Government staff are highly qualified and UK expertise is expensive in real economic terms. As such, technical assistance is to be demand driven whenever possible.
- Common capacity building themes across all projects included: scarce human resources in the fields of taxonomy, requests for appropriate continuous training and an emphasis on supporting advanced degrees for young, leading conservationists.
- The MWF professional development system provides an interesting model for low cost continuous field based training model. It includes an element of 'training of trainers' and a building block to support host country staff members further academic studies. As such, it bridges the gap from conservation action into the development of scientifically sound biodiversity conservation.

5. Contribution to the Darwin Initiative's Goal

5.1 Institutional capacity building

The context of a small island environment provides an opportunity for institutional capacity building. NGOs that have a conservation mandate are likely to remain as host country partners within Darwin Initiative projects. Such is the case with Government agencies such as the Botanical Gardens.

In Seychelles, Mauritius and Rodrigues the Darwin Initiative has a high profile. In the Seychelles in particular, government staff who have previously been involved in Darwin Initiative projects are now in posts which enable them to make critical decisions in terms of conservation. These decision makers are now enabling younger professionals to take on Darwin Initiative activities; which is creating a 'trickle down' effect of knowledge and resources in the conservation sector.

Coherent funding, which builds on institutional development of key agencies in islands, and that clearly addresses islands biodiversity particularities, is recommended. How new projects can build on previous Darwin Initiative projects could become a parameter for grant making.

Because of scarce land resources, the prioritising of funding for established conservation NGOs on islands, who have clear, longstanding communications with Government, can help minimise risks during implementation. An indicator for decision making when considering funding for projects is whether the institutions have a 'mature' Memorandum of Agreement or Memorandum of Understanding or equivalent, with the relevant Government department.

Established host country NGO-Government partnerships can be key for the management of isolated ecosystems. For example, MWF has relied greatly on logistics facilitated by the GoM, such helicopter transport, for the restoration of islets and atolls that would otherwise have been very difficult to access and much less conservation work would have been done in Mauritius.

The sustainability of marine research projects can be compromised by the high costs of maintenance of skilled human resources (ie divers), equipment such as boats and costs of petrol. Maintaining databases and applying information gathered during Darwin Initiative projects, after the project has closed, was a challenged faced by both SCMRT-MPA and Shoals Rodrigues.

5.2 Training and Research

In the case of Mauritius, the lack of human capacity in areas such as entomology and taxonomy were discussed. In the case of Seychelles, the problem is wider due to the absence of a university on the island which renders human resources scarcer in environmental management.

Human capacity challenges in host country institutions are partially addressed by practical conservation activities; such is the case of Shoals Rodrigues and MWF. A good case study of how to upscale learning through a charitable institution is recounted below.

Figure 4 Serpent's island, view from Round Island

Case study of Round Island: how Darwin Initiative projects are contributing to the Mauritian Wildlife Foundation's conservation agenda

Round Island (Ile Ronde) is a Mauritian satellite island located in the Indian Ocean. It is the largest tropical island that has never been plagued with rats. However, goats and rabbits caused the destruction of the vegetation community and therefore widespread erosion. By 1979 goats had been eradicated: by 1986 rabbits were eliminated partly through efforts from Durrell Wildlife Conservation Trust (DWCT) with the help of the New Zealand Department of Conservation and what is now the Government of Mauritius National Parks and Conservation Service.

DWCT first intervened in conservation as a result of the first expedition to Round Island in 1976, however the first time a field station was set up was 25 years later, in 2001. It took a network of conservationists led by what became MWF all this time to identify what was needed in terms of: finances, logistics, staff and its development, refining a vision and coming up with a conservation strategy that could be sustainable. This included recognising the need to help to set up a Mauritian Institution. As a result, MWF was founded in 1984.

The Darwin Initiative has contributed to the conservation process of the island since 1999, when the first of three grants supported the set up of information systems to monitor species, which is used to date.

Round Island is a complex environment to work in because of constraints such as harsh climate, water deficit and inaccessibility. The latter has been solved by using police helicopters which is now the standard method of transport.

Relationships with the Government of Mauritius are critical for the MWF work. This relationship has fluctuated over time, over disparate views on the type of management that was suitable for Round Island. The Government has increasingly recognized MWF work through a Management Agreement with the Ministry of Agriculture, which is in preparation, for Round Island. The field station in Round Island is shared by both institutions.

The Government of Mauritius trust in the MWF capacity to manage Mauritian natural resources has increased. MWF recognises that Government Departments have longstanding sustainability and access to resources. Staff trained in MWF has moved to Government and staff from Government has moved into MWF. Strong relations are also nested in the long term presence of MWF in the country,

MWF relies greatly on a volunteer system, which enables Mauritian and international people to become members of the organization. In order to achieve long term aims, volunteers are supported to train to higher levels. As part of the professional development strategy, committed volunteers spend time looking at practical aspects of projects.

MWF uses its links to academia to make practical field research viable because its volunteer model enables low cost research and management of projects.

Figure 5 Round Island Warden, Martine Goder

Because MWF volunteers develop strong field capacity, they can in turn move into academia. Research aspects of their Masters or PhDs focus on areas of interest for MWF. Because MWF has good data collected in its databases (DI project 8-064) universities have the assurance that a good thesis can result from supporting MWF staff. MWF has links with international organizations such as DWCT, Chester Zoo, University of Reading, NHM and the University of Zurich, amongst others.

Currently, there are two British PhD students from the University of Reading and two post docs, all of whom began work on 8-064 as part of their MSc. Two Mauritians from MWF have studied at the University of East Anglia (DI 12-005). The volunteer model contributes to both research and continuous training of staff; such linkages can help support developing good science directly from conservation action.

The three Darwin Initiative projects have strongly contributed to the conservation of flagship species, raising the profile of unglamorous species (ie reptiles and insects), restoration of ecosystems, and in creating opportunities for young international conservationists.

Partly as a result of Darwin contributions MWF has had the opportunity to restore and preserve a critical ecosystem in the Indian Ocean, which is the nesting point for a variety of endangered sea bird species: Round Island.

Source: (Jones, 2006)

Because of a lack of human resources, incentives need to be in place to minimise brain drain: these include a clear career path for staff returning to the country, within host country institutions. However, this is often difficult due to constraints of budgets that are primarily project funded.

Appendix 1 Terms of Reference

Post Project Evaluation	Evaluation of Closed Darwin Initiative Projects located in Seychelles and Mauritius						
Project No's.	5-199 Mauritius	7-055 Seychelles & Mauritius	8-064 Mauritius	8-076 Seychelles	9-004 Seychelles & Mauritius	10-006 Seychelles	12-005 Mauritius
UK Institution and Project Leader/Contact as per Darwin Records	RBGE Stuart Lindsay	Royal Geographical Society Juliet Burnett (nee Larcombe)	University of Reading, Statistical Services Centre Bob Burn	NHM, Dept of Entomology Nigel Fergusson	Royal Geographical Society Shoals of Capricorn Programme and Centre for Coastal and Marine Science Dave Robins	Eden Project Anthony Kendle	University of Plymouth Sarah Donovan
Partner Institution(s)/ Contact(s) per project			Mauritian Wildlife Foundation and the University of Mauritius	Seychelles Natural History Museum	IBG & the NERC Centre for Coastal Marine Science, Plymouth	Botanic Gardens, Ministry of the Environment and Transport and the National Parks Section of the Dept of Forestry, Seychelles	Mauritian Wildlife Foundation
Project's Start / End Date:	1/4/96 - ???	1/5/98 – 31/3/01	1/9/99 – 31/8/02	1/6/99 – 31/7/99	1/4/00 – 31/3/03	1/7/01 – 31/1/03	1/7/03 – 30/9/06 FR due Dec 06
Reviewer	Anna Karp, ECTF						

INTRODUCTION

The Darwin Initiative seeks to help the safeguard of the World's biodiversity by drawing on UK biodiversity expertise to work with local partners in countries that are rich in biodiversity but poor in financial resources. Particular emphasis is placed on:

- Conserving biological diversity within the context of the Convention on Biological Diversity, including sustainable use and the fair and equitable sharing of benefits arising out of the utilisation of genetic resources;
- Improving collaboration with host country/ies and strengthening their capacity to carry forward Darwin funded initiatives;
- Enhancing the overall legacy of Darwin projects.

The Darwin Initiative supports projects led by UK institutions, in partnership with host country institutions, which support biodiversity conservation over a range of ecosystems and locations. Five priority areas for Darwin funding include:

- Institutional capacity building.
- Training
- Research
- Work to implement the Convention on Biological Diversity
- Environmental education and awareness

In order to inform on the impact and legacy of the Darwin Initiative, the Darwin ECTF Monitoring and Evaluation component is commissioning evaluations of projects that previously received funding from the Darwin Initiative (i.e. "closed" Darwin projects). Issues of sustainability are also integral components in the analysis of impact and legacy.

The approach applied by the Darwin Initiative M&E component is to select *clusters* of "closed" projects based on either a country, theme or eco-region. Such missions shall be undertaken in close consultation with UK based and host country institutions, and involve relevant in-country beneficiaries and stakeholders.

Objectives for the Evaluation of Closed Darwin Initiative Projects

The Evaluation of Closed Projects (ECP) is primarily intended to provide an external perspective on the legacy and impact of Darwin Projects, and to draw out lessons learned and best practices that account for positive legacy and impact.

Legacy and impact shall be accessed at different levels:

- At the **project level** – in terms of host country institutions and local partners and beneficiaries, and in terms of conservation achievements.
- At the **UK institutional level** – in terms of legacy and impact within UK institutions.
- At the **national & eco-region level** – in terms of host country policies and programmes, and if relevant at cross-boundary and eco-region level.
- At the **international level** – in terms of emerging best practice and case studies which can inform implementation of the CBD.

Within the context of the above, the evaluation shall comment on how the clusters of projects evaluated have contributed towards achieving Darwin Initiative objectives.

Background of Projects to be evaluated

The Seychelles and Mauritius have been the focus of a number of Darwin projects (see below). The 6 completed projects in addition to the project recently completed present an opportunity to evaluate the long-term impact and legacy of Darwin projects in the Seychelles and Mauritius.

Project No.	Title	Purpose
5-199	Mauritius Ferns (continuation from 3-199)	To establish low-cost facilities and apply UK-developed techniques to the survival of the rarest fern in the world.
7-055	Marine environmental training in Seychelles and Mauritius	To provide marine biodiversity assessment and protection training to key host government nominated personnel and to assist the host governments in fulfilling their obligations under the Biodiversity Convention.
8-064	Information System for biodiversity and conservation management in Mauritius	To develop an information base for the future management of conservation and biodiversity in Mauritius.
8-076	Training courses for the staff of the Seychelles Natural History Museum	To enable the Seychelles Natural History Museum to fulfil its potential as the key resource for conservation education and biodiversity documentation in the Seychelles.

Project No.	Title	Purpose
9-004	Plankton biodiversity: training, sampling, taxonomy and data evaluation in Seychelles & Mauritius	To identify keystone zooplankton species in the waters around the Seychelles and Mauritius
10-006	Propagation, nursery and establishment protocols for Seychelles endemic plants	Many endangered endemics among Seychelles flora will be recovered by improved storage and propagation in a new biodiversity centre. A nursery will be established for species recovery in degraded conditions. There will be training of plant conservation teams to maintain and continue the conservation.
12-005	Rediscovering the neglected insects of Mauritius	To initiate an insect conservation programme within the Republic of Mauritius, led by in-country capacity based within the Mauritian Wildlife Foundation (MWF).

Issues to be evaluated

The Evaluation of Closed Projects (ECP) shall review outcomes of Darwin Initiative funded projects against the original logical framework and Darwin proposal, project reports and products, and through the following evaluation criteria:

Relevance: The extent to which the project outcomes correctly addressed identified problems and needs at the time of design, and whether these problems and needs were addressed as a result of the project. Guiding issues include:

- Appropriateness of the project design to the identified problems and towards supporting the implementation of the CBD.
- Complementarity and coherence with other related programmes and activities at national or local levels.
- Overall design strengths and weakness as reflected in the original logical framework.
- Extent of participation by host country institution and beneficiaries in initial consultations, and identification of problems and needs.

Efficiency: An assessment of how well the projects transformed their available resources into intended outputs in terms of quantity, quality and timeliness. Guiding issues include:

- Appropriateness and suitability of the technical methodology applied by the project and overall delivery of the technical assistance
- Review of project costs and value for money.
- Level of Partner country contributions in the project
- Extent of monitoring systems to assess progress and impact.
- Extent of the project's ability to adapt its programme and approach in response to changing assumptions and risks.
- ***Effectiveness:*** To what extent the project outputs were achieved and to what extent they contributed to achieving the project purpose. In other words what difference the project has made in practice with the intended beneficiaries. Guiding issues include
- Extent of the technical advances made by the project.
- Extent of institutional change within beneficiary institutions as a result of the project outputs and purpose.
- Validity of the assumptions and risks of the project at the purpose level, and how did these change during the course of the project
- Extent of the project's ability to adapt its programme and approach during the course of implementation in response to changing assumptions and risks.

Impact: To what extent the project purpose was achieved and thus contributed to the overall project goal (e.g. to work with local partners in countries rich in biodiversity but poor in resources to achieve the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources). Guiding issues include:

- To what extent has conservation of biological diversity benefited (or expected to benefit) from the achievements of the projects.
- Have there been unplanned impact resulting from the projects and what have been their consequences.
- Have there been gender-related or poverty related impacts rising from the project.
- Have there been impacts on host country ability to implement the Convention on Biological Diversity.

Sustainability: Extent to which the outcomes of the projects, at either output or purpose level, have continued on after the end of the project. Guiding issues include:

- Extent of the ownership of the project purpose and achievements, and means for ensuring this ownership.
- Extent of the policy environment being in support of the project purpose and achievements.
- Extent of the institution capacity of host country and beneficiary institutions to carry forward project outcomes post project support, at the level of scientific, technological and financial considerations
- Extent of the socio-cultural factors being in support of project outcomes, and whether the project outcomes are well grounded.

Methodology

The ECP shall be undertaken in close collaboration with Darwin Team Leaders and Host country team members and their institutions. Engagement is expected with larger project stakeholder groups and beneficiaries. Wherever possible, ECP consultants should establish contact with the CBD focal points.

The ECP consultant shall ensure that the ECP is informed through consultative and participatory work sessions and semi-structured interviews with the above stakeholders through the use of participatory assessment tools should be used where ever possible such as timelines, SWOT (Strengths, Weaknesses, Opportunities and Threats) and group discussions.

Timetable

The ECP in the Seychelles and Mauritius shall be undertaken according to the following schedule:

- Preparation and review of documentation – 1 day
- Field mission and travel inc UK interviews - 6 days
- Report preparation – 3 days

Reporting and Feedback

At the end of the field mission, the ECP consultant shall submit and present a concise ***Aide Memoire*** of the ECP to the Team Leaders and host country institutional partners which highlights the main findings and recommendations emerging from the ECP. The *Aide Memoire* should not be more than 2 pages in length.

No later than two weeks after the end of the field mission, the ECP consultant shall submit a **draft report** to the UK Team Leaders and the Darwin Programme Director. Thereafter, the Team Leader, host country institution(s) team members and the Darwin Programme Director shall have up to two weeks to submit comments to the ECP consultant. The ECP consultant shall finalise the ECP report no later than one week after receiving comments on the draft report.

As a guide, the ECP draft and final report should be no more than 15 pages (excluding annexes) and reflect the following outline.

- Executive Summary: A free-standing executive summary mainly on the key fey findings of the ECP. It should be short and no more than four pages.
- Main Text: Should start with an introduction describing the projects being reviewed and the evaluation objectives. The body of the report should follow the five review criteria described in the methodology with emphasis on describing status of project outcomes and achievements.

- Conclusions on lessons learned and best practice.
- Annexes should include:
  - The TORs for the ECP
  - Logical Framework of projects evaluated indicating original intended purpose and outputs, actual achievements by the end of the project, and outcomes at the time of the ECP, if these are available.
  - Sources of evidence of achievement, impact and legacy from Darwin projects.
  - List of persons/organisation consulted
  - Documentation consultant
  - Other relevant annexes

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Appendix 3 Principal Institutions Consulted during the visit

Seychelles

Date	Institution	Individual	Post	Darwin Initiative Role
20 – 23 November 2006	Ministry of the Environment and Natural Resources	Dr Rolph Payet	Principal Secretary	7-055/9-004 Host country partner
	Nature Seychelles	Mrs Rachel Bistro	Flycatcher Research Officer	Project Officer
	SCMRT-MPA	Mrs Mary Stravens Mr Jude Bijoux	Managing Director Manager SCMRT-MPA	7-055/9-004 Darwin Trainee
	Seychelles National History Museum	Mr Mary – May Tirant Museum Staff	Director Variety of posts	8-076 Darwin Trainees
	Ministry of Environment	Mr Dennis Matatiken, Mr Didier Dogley Mr Mougal	Director Botanical Gardens Director General for Nature Conservation Ministry of Environment Staff	10-006 Darwin Project Coordinator 10-006 Host country Darwin Project Leader 10-006 Darwin Trainee

Mauritius and Rodrigues

Date	Institution	Individual	Post	Project Reference
24-30 of November	Mauritius Wildlife Foundation	Dr Carl Jones Mr Vikash Tatayah Mr Zayd Jhumka	Scientific Director MWF UK 12-005 Coordinator Conservation Manager, MWF Round Island Warden	15-038 Darwin Project Leader 12-005 Trainee
	National Parks and Conservation Service, Ministry of Agro-industry and Fisheries	Mr V Tezoo Mr V Gopal	Forestry Department NPCS	5-199 Trainee, stakeholder in 8-064 and 12-005 Idem
	Shoals Rodrigues	Mr Eric Blais Dr Emily Hardman Ms Sabrina Meunier	Shoals Rodrigues Director Science Coordinator Shoals Centre Manager	7-055 and 9-004 trainee, 13-027 Project leader 13-027 7-055 and 9-004 trainee