



# **Evaluation of Closed Darwin Initiative Projects in Madagascar**

**August 2009  
Final Report**

## The Darwin Initiative

The Darwin Initiative is a UK Government small grants programme which 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.

Cover Photo: *Scotophilus Tandrefana* - a new species of bat collected during project 10-024/EIDPO010 and formally identified in 2005. Photo credit: Richard Jenkins

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## List of acronyms

CBD	Convention on Biological Diversity
CITES	Convention on International Trade of Endangered Species
CMS	Convention on Migratory Species
DEA	Diplômes d'études Approfondies
DGEF	Direction Générale des Eaux et Forêts
DI	Darwin Initiative
DICE	Durrell Institute of Conservation and Ecology
GTI	Global Taxonomy Initiative
IHMS	Institute Halieutique et des Sciences Marines
IUCN	International Union for the Conservation of Nature
MAP	Madagascar Action Plan
Mybp	Million years before present
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organisation
ONE	Office Nationale pour l'Environnement (National Environment Office)
QMM	QIT Madagascar Minerals

## Executive summary

The evaluation of closed projects allows the opportunity to review the wider contribution of Darwin Initiative (DI) projects to the three conventions covered under the Darwin Initiative, the Convention on Biological Diversity (CBD), The Convention on Migratory Species (CMS) and the Convention on International Trade of Endangered Species (CITES). ECPs also provide the opportunity to boost the profile of the Darwin Initiative within target countries.

Madagascar was selected for an Evaluation of Closed Projects (ECP) in 2008 because of the substantial number of DI projects in the country (nine projects and one Fellowship to date), Madagascar's high biodiversity importance and because eight of the projects have been the subject of an earlier focused assessment as part of the DI Thematic Review on Islands. This meant that substantial information was already available and could easily be built upon to encompass the elements required of an ECP.

**Table 1 Closed DI Projects in Madagascar relevant to the ECP**

Ref	Title
4-104	MSc training at DICE, University of Kent
5-174	Chameleon surveys; DICE, University of Kent
7-027	Fruit bats and Biodiversity; University of Aberdeen
7-113	Wetlands conservation; Royal Holloway College, London
9-006	Conservation of threatened littoral forests in SE Madagascar; University of Oxford
10-021	Marine environmental monitoring; Society for Environmental Exploration
10-024	Conservation and Management of Malagasy Microchiroptera ; University of Aberdeen
EIDPO010	Bat conservation; University of Aberdeen

The review was conducted by consultants based in Madagascar who had previously undertaken the Madagascar assessment for the Thematic Review on Islands, thus facilitating contact with UK project coordinators (the majority of whom are also long-term residents) and beneficiaries and capitalizing on the earlier review. The evaluation was based on the Darwin Initiative monitoring and evaluation criteria of relevance, efficiency, partnerships, effectiveness, impact and sustainability.

The Madagascar DI projects constitute a close cluster of projects led or coordinated by members of the zoology department of the University of Aberdeen and/or DICE, University of Kent (five projects), all focusing on small vertebrates, and several 'one-off' projects by other organizations covering wetlands, forests and marine ecosystems. As a whole, they constitute a diverse and complementary group of projects.

While the overall DI investment in Madagascar (about £650,000 or \$1 million) has been small (< 1%) in comparison to the total environmental investments in Madagascar over the same timeframe, they appear to have had relatively high impact and profile in relation to their size. Of the eight projects evaluated, at least six have had lasting impact in Madagascar, while the remaining two have the potential for long term impact once the information and capacity they have generated are fully mobilized. The projects collectively have made important contributions to biodiversity conservation in Madagascar and therefore to implementation of the Convention on Biological Diversity.

Highlights of the legacy of the DI Madagascar projects include:

- Training and empowerment of four Malagasy biologists, three of whom have become leading biodiversity conservation practitioners in the country;
- Empowerment of two British conservation scientists who have chosen, since coordinating DI projects, to remain as long term residents in Madagascar to continue conservation work;
- Contribution of substantial data on biodiversity to national conservation planning (especially data on small vertebrates) through the biodiversity database project, REBIOMA;
- Establishment of a viable national NGO (*Madagasikara Voakajy*) which brings together a dynamic corps of Malagasy biologists and a future force for conservation).

Of the two projects that have had a lesser impact at national level so far (7-113, 9-006), both projects nevertheless developed significant intellectual capital which has the potential to be exploited in the future, and these project leaders retain an active interest in conservation in Madagascar. National-level impact of the littoral forests project (9-006) was compromised in part because its conclusions about forest loss in SE Madagascar conflicted with those of the private sector partner it had aimed to influence and support. The national impact of the wetlands project (7-113) has not been especially apparent because of the little known status and small size of the target site (Lake Sahaka), but remains an important example of wetland assessment and management planning which has had a significant influence on wetland conservation practice in Madagascar and may eventually contribute directly to conservation of the target site itself when conservation NGOs find the necessary funding to implement its recommendations. In addition, Project 7-113 was led by an individual who went on to join BirdLife International and supported the development of an all-Malagasy bird conservation NGO, Asity, to become BirdLife international's affiliate in Madagascar.

From the evidence provided, the projects reviewed were – in general – well managed, and delivered valuable outcomes that contributed to the development of biodiversity conservation knowledge in Madagascar and represented good value for money.

The long term impacts of the projects have varied. The small vertebrate projects stand out as having contributed valuable data for biodiversity conservation and having led to the establishment of *Madagasikara Voakajy*, both highly tangible, long term, impacts. The other terrestrial projects have contributed valuable data and information, although impacts may be considered latent. The marine project injected valuable capacity into a region that has since become a hotspot for marine conservation and small scale fisheries management investments in Madagascar. The first of all the DI projects (MSc training in conservation at DICE) demonstrates that a relatively simple training project can have far reaching impact and that it is people, as well as data, that make biodiversity conservation happen.

The training and research activities carried out under the Darwin Initiative projects in Madagascar, and the management tools and methodologies generated have been entirely relevant to Madagascar's needs and priorities.

## Innovations, lessons learned & best practices

Certain projects made identifiable innovations. Project 5-174 was innovative by providing training for national park guides, enabling them to improve tourist visits. It was also innovative by focusing on a flagship group of species (chameleons) that had previously only been subject to taxonomic studies. Project 10-021 was innovative by introducing a practical marine conservation programme tailored to meet the needs of the project region, and to mix university trainees with motivated community conservationists, thus promoting exchange between academics and local people.

All of the projects, individually or collectively, have yielded useful lessons. The clearest technical lesson relevant to achieving CBD goals has undoubtedly been the immense value Madagascar has gained from the continuity of several interrelated DI projects. DI projects (5-174, 7-027, 10-024 and EIDPO010) funded between 1996 and 2007 have had the time to ensure in-depth training of a substantial group of students, to influence the national and international legal status of various taxa, to contribute to protected areas management and location and to assist with increasing capacity in national training institutions. Projects that have been ‘one-off’ (e.g. 9-006, 10-021) (as differentiated from consecutive projects that build on one another) have tended to have less lasting impact unless they are relatively well linked into national institutions or involve UK personnel with a sustained professional connection to Madagascar.

A second relevant lesson has been that having the DI project leader or co-ordinator resident over the duration of the project amplifies the support that the DI project makes to achieving CBD goals. Three DI projects in Madagascar have had the benefit of a resident DI UK fellow (7-027; 10-024 and EIDPO010); the resident DI UK fellow has the time to develop strong relationships within the national institutions through which they can assist with policy development which contribute to implementing the CBD. Projects without resident project leaders or fellows (e.g. 9-006) appear to have more modest impacts although the effect can be mitigated where the project leader or fellow maintains professional links, allowing follow up (7-113, 10-021).

Supporting the genesis of a national NGO (e.g. *Madagasikara Voakajy*) which has both the capacity to undertake field research and to support national education systems has also made a valuable contribution towards the CBD goals and targets. It has provided an important source of employment for DI project trainees who might otherwise have remained unemployed after training.

## Recommendations

### General recommendations

The projects re-visited under this evaluation were delivered under different circumstances than prevail for current projects. Recommendations arising from this review support many of the changes that have already taken place as the Initiative has evolved over the last 17 years. For example, the reviewer commented that:

- Interrelated projects were more effective because they generated a greater momentum so long as they fulfilled a specific role in national processes. With the introduction of Post Project funding, this continuation of inter-related project activities should support greater impacts.
- Projects that were explicitly linked into national plans and priorities were more successful. This is now an expectation of **all** Darwin Initiative projects. This point also has great relevance to the Paris Declaration on Donor Harmonisation.
- For some projects there is a need for greater emphasis on consultation and communication with major stakeholders from the design phase onwards, including the administration, the national CBD and other designated authorities. This is now encouraged for all Darwin projects, but it is particularly beneficial for projects looking to influence policy on issues of biodiversity conservation.
- Lessons learned from projects should feed the project design process itself. The lessons should be reflected in the overall DI programme strategy and in the project selection criteria.



### Specific Recommendations

The following specific recommendations arising from the evaluation are broken down into the following categories:

- technical recommendations for Darwin Initiative project implementation;
- recommendations relating to the management of DI projects;
- recommendations for future Madagascar DI projects.

#### *Specific technical recommendations*

- For Madagascar, where technical capacity is limited, a stronger support presence from the UK institution appears to have been particularly beneficial. Dependent on the cultural situation, **it may be necessary for projects to build in a stronger UK role in initial projects to support the development of capacity;**
- In developing capacity to address biodiversity conservation, creating the new host-country institution *Madagasikara Voakajy* has been particularly beneficial in securing and carrying forward the DI legacy. This scenario is of course dependent on the capacity of the current host-country institutions and the openness for civil society engagement in conservation issues, but in Madagascar this strengthened the outcomes of a number of projects – **and may be useful to consider for other DI projects in similar situations;**
- Those projects that had developed closer ties with host country partner institutions were stronger. **Where possible projects should be encouraged to utilize mechanisms such as Scoping Awards to ensure a strong base upon which to develop a project.**

#### *Specific recommendations for project management*

- **UK institutions and host-country partners should establish clear guidelines concerning the authorship of publications** arising out of DI projects to avoid conflict;
- To accommodate local training cycles, **project plans need to take into consideration that trainees may not have completed their training within the allotted 2-3 years of Darwin Initiative funding.** There may be other opportunities available, such as Post Project funding, but this cannot be relied upon **therefore careful consideration should be given to the support of these trainees post-DI funding;**
- **Project Leaders are encouraged to ensure project plans are realistic within the finances secured.** Matched funding should be sourced to avoid financial short-comings. Alternatively, project leaders should scale back projects to ensure they remain financially viable.
- **Reduce the number of deliverables to focus on those that are really important for project impacts and legacy.** Logical frameworks that have no more than 4-5 outputs have been proven, in a recent study for DFID, to be far more successful.

#### *Recommendations for future Madagascar DI projects*

Darwin Initiative support for work in Madagascar remains relevant today – perhaps even more so, given the strongly reaffirmed commitment of the previous Madagascar government to biodiversity conservation, and more particularly, the current severe attrition of threatened endemic species in protected areas.

Nevertheless, consideration of comments made during interviews with members of the national administration and the priorities of the Madagascar Action Plan, would suggest that DI projects could advantageously address the following additional issues:

- Developing capacity & tools for the sustainable use and management of natural resources, including for those occurring outside protected areas;
- Developing mechanisms for sharing benefits from genetic biodiversity;
- Improving the assessment, management or ranching/cultivation of species subject to trade;
- Providing assistance and training for the management and demarcation of protected areas;
- Placing increased emphasis on capacity building for institutions as well as for individuals.

National authorities concerned with CBD implementation (both the CBD focal point and the Secretary General for Environment) proposed that more complete communication should be established between DI projects and the national administration. Future DI Madagascar projects should make full use of the national clearing house mechanism (CHM) recently established at ONE.

The following further recommendations for future Madagascar DI projects arise from the reviewer's own further analysis of the information gathered:

- Projects focusing on high quality MSc training outside Madagascar for multiple trainees should continue to be encouraged where not covered by other sources (eg Darwin Fellowship scheme);
- DI projects linked to the Universities should include support to help the Universities make the transition to the internationally recognised Degree-MSc-PhD cycle.

#### *Advice on communications*

The Madagascar DI experience suggests that communication of key DI messages requires:

- Communication to project designers / protagonists, beneficiaries and relevant sectors of the public;
- Communication to protagonists should ensure that lessons learned are fed into project design and built into selection criteria;
- Communication with host country beneficiaries and partners is essential;
- Communication with local communities is beneficial;
- DI should develop long-term relationships with key media outlets;
- Local journalists should be involved.

# 1 Introduction to DI projects

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The Darwin Initiative was announced by the UK government in 1992 at the Rio Convention. Its key objective is to draw on expertise from within the United Kingdom, to work with 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 benefits arising out of the use of genetic resources. It does this through awarding grant funds for a range of biodiversity conservation projects.

A typical project lasts for up to three years and has Darwin-funded costs of about £50,000 to £80,000 a year. Project activities are diverse, including:

- Producing strategies and management plans for specific areas and species.
- Delivering best practice in conservation (producing field guides, local keys or databases), in research methods and fieldwork, or in environmental impact assessments.
- Tackling key issues such as data access and repatriation, and benefit sharing.
- Providing training, education and awareness raising to people at all levels and ages.
- Enabling early career and mid career professionals from developing countries to access training, expertise and facilities.
- Monitoring and evaluation of biodiversity, taxonomy and species descriptions.

Initially, Darwin projects had a strong focus on ‘pure’ science, technical management planning and training. Quite quickly, projects evolved to place more emphasis on local stakeholders, communication and links to policy. This reflects the wider change in best practice in conservation and extends the legacy of Darwin projects. Since September 2002, there has been an increased funding commitment and three new types of Darwin funding (Darwin Fellowships, Darwin Scoping Awards and Post Project funding) have been introduced. These aim to enhance the legacy and impact of the Darwin Initiative.

In April 2008 the remit of the Darwin Initiative was expanded to include the Convention on Migratory Species (CMS) and the Convention on International Trade in Endangered Species (CITES). There was also a shift of focus to encourage projects to adopt an ecosystem-based approach to conservation (where relevant and applicable).

In order to provide information on the impact and legacy of the Darwin Initiative, the Darwin ECTF Monitoring and Evaluation component has commissioned 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, a theme or an eco-region. Such missions are being undertaken in close consultation with UK based and host country institutions, and involve relevant in-country beneficiaries and stakeholders.

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 innovations, lessons learned and best practices that account for positive legacy and impact. Legacy and impact are assessed 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 **national & eco-region 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 CBD itself.
- At the **UK level** – in terms of legacy and impact within UK institutions.

Within the context of the above, the evaluation aims to determine how the clusters of projects evaluated have contributed towards achieving Darwin Initiative objectives. Account is also taken of how later projects have built on earlier projects or how they have been mutually supportive.

The present evaluation concerns the evaluation of the “cluster” of eight relevant Darwin projects undertaken in Madagascar between 1995 and 2008. The Terms of Reference for the work appear at Annex 1.

## 2 Overview of Madagascar

Madagascar is the world's 4<sup>th</sup> largest island in the world (after Australia, Greenland and Borneo) and is considered an 'island continent'. It is also one of the longest isolated in geological time, having split with India from Gondwana/Pangea at about 150 mybp and then from India around 120 mybp. Long isolation combined with variable climate within Madagascar has resulted in a unique set of flora and fauna that exhibits high endemism to both generic and species level, including considerable local endemism. On average 80% of all taxa are endemic to at least species level. Endemism to genus level averages around 40%. This diversity has led conservationists to class Madagascar a 'megadiversity' country

This biodiversity, however, is under severe threat from deforestation and fragmentation, with the result that Madagascar has been designated a global conservation priority. Since the 1980s, a concerted effort by Malagasy and international conservation professionals has been underway to improve knowledge of the biodiversity and human impacts and address the threats.

A key issue for Madagascar has been the lack of national capacity in conservation. The DI projects, in particular, have focused on enhancing both knowledge about biodiversity and developing national capacity for conservation and ownership of conservation issues. The DI objectives, therefore, lend themselves well to the needs of Madagascar, in particular during times of political instability.

Environmental action in Madagascar during the life of the DI projects under review has primarily been driven by the National Environmental Action Plan (NEAP) established in 1990. The plan came into force through Law 90-033 on 21 December 1990. The plan provided predictions and strategies for a period of 15 years, up to 2008, divided into three phases known as EP1, EP2 and EP3. While EP3 has just drawn to a close, a follow-on plan is being developed to take environmental action forward well into the 21<sup>st</sup> century.

### **Box 1. NEAP – Madagascar's National Environmental Action Plan**

The National Environmental Action Plan (NEAP), promulgated by the Charter for the Environment of 1990, is a national plan of action to reconcile human development with the environment, based on three tenets – man's place in the environment, the need to advance knowledge of the environment and human impacts and the need for behavioural change. NEAP was conceived as a 15-year plan in three five year programmes (Environment Programme (EP) 1 1991-1996, EP2 1997-2002 and EP3 2003-2008). Initially coordinated under a specially established National Environment Office (ONE) attached to the Prime Minister's office, the program is now coordinated by the Ministry for Environment and Forests (MEEF) while ONE (now under MEEF) retains a role in policy development and EIA administration. EP1 (1991-1996) focused primarily on putting in place the necessary institutions for environmental management. EP2 (1997-2003) focused on developing approaches and tools for sustainable environmental management, including the regional/spatial approach, protected areas and ecotourism, community-based management, integrated coastal management and forestry management. EP3 (2004 to date) has focused on mainstreaming the tools and approaches into sector programmes, notably in priority intervention zones (ZPI) important for biodiversity. DI projects in Madagascar have directly supported NEAP over the years primarily in biodiversity conservation, and have also complemented NEAP by focusing on taxonomic groups not covered by NEAP activities.

Formerly an independent kingdom, Madagascar became a French colony in 1896, but regained its independence in 1960. Since that time, the country has navigated through several distinct political phases – post colonization with close affiliation to France (1961-1972); revolutionary socialism with partial affiliation to the Soviet Union (1972-1983), reorientation towards Western powers and structural adjustment (1984-2001) and, finally, deregulated modern democracy (2002 to date) with the election of Marc Ravalomanana as President. Mr Ravalomanana has had a significant influence on biodiversity conservation in Madagascar, beginning with his declaration at the IUCN World Parks Congress at Durban in 2003 of his government’s intention to triple the coverage of protected areas in Madagascar from about 2 to 6 million hectares, or 10% of the land surface. He subsequently launched a national development plan, the Madagascar Action Plan 2007-2011 or ‘MAP’, sub-titled ‘Madagascar – Naturally’, clearly placing Madagascar on an environmentally-based path for sustainable development.

**Box 2. MAP – Madagascar Action Plan – 2007 to 2012**

The Madagascar Action Plan, associated with the slogan “Madagascar Naturally”, was conceived as a national plan for rapid and sustainable development. The MAP vision, based on conservation of the environment and the sustainable use of natural resources, makes eight main commitments on governance, infrastructure, education, rural development, health & family planning, rapid economic growth, environmental conservation and national unity. Commitment 7 (cherish the environment) addresses four main challenges – increase protected areas, reduce resource degradation, develop the environmental reflex and improve forest management – each through a set of goals, strategies and actions. The plan has been driven by a specially established presidential commission, although is currently suspended because of a political crisis. DI projects have supported MAP objectives, particularly in relation to increasing protected areas, but also in relation to developing the environmental reflex, by catalyzing the development of new environmental conservation institutions

The most recent presidential and National Assembly elections were held in 2006 resulting in the re-election of Marc Ravalomanana as president. Political events this year (2009), however, have seen Ravalomanana deposed and an interim authority take power, and the country has entered another phase of instability. The lack of clear leadership, coupled with halted donor support, reduced private sector investment and soaring unemployment has resulted in a resumption of uncontrolled exploitation of natural resources and regrettably places in jeopardy the extensive environmental investments of past years, including those by DI projects. For the benefit of both the people of Madagascar and their environment, a rapid return to stability and the rule of law can only be hoped for.

A map of priority areas for biodiversity conservation is included at Annex 2.

## 3 DI projects in Madagascar

### 3.1 Description of projects

The Darwin Initiative has funded eleven projects to date in Madagascar as well as one recent Darwin Fellowship being awarded to a Malagasy student. This report covers eight projects which are closed and were undertaken between 1995 and 2007. With one exception (project 4-104, which provided overseas MSc training in conservation biology for twelve students including five Malagasy) all projects involved applied biodiversity conservation in Madagascar. The majority (five projects) related to terrestrial biodiversity (bats or chameleons) and the remaining three projects to ecosystem management (wetlands, forests, marine). Most (with the exception of the wetlands and marine projects) included a strong biodiversity research component and all aimed to deliver capacity improvements at some level (although the approach and targets for capacity reinforcement varied considerably between projects). A key feature of the DI projects is their distinctive nature. Rather than attempt to address generalized issues, they have sought to match specific British expertise with gaps in existing programmes, focusing on specific endangered taxa or sites. Most (five out of eight projects) have been 'one-off,' whereas three (centred around bat conservation) have been implemented as a series by the University of Aberdeen.

Madagascar DI projects have focused primarily on training, applied research for biodiversity conservation and on conservation planning. The first project (4-104) provided MSc training and supported a follow-up applied research project for four Malagasy conservation professionals. A significant suite of related projects originating from the University of Aberdeen (7-027, 10-024, 14-006) have focused on the conservation of bats and other small vertebrates. One project focused on the conservation of wetlands (7-113), one project on the conservation of littoral forests (9-006) and one on the monitoring of coastal marine ecosystems (10-024).

The DI Madagascar projects, which span the period 1995 to date, have tended to anticipate general trends in DI projects, placing emphasis on local stakeholders, communication, links to policy and supporting the implementation of CITES. One Darwin Fellowship has been funded so far (EIDPS019, not evaluated in this report).

One of the DI Madagascar projects (5-174) addressed species affected by wildlife trade (chameleons) with a view in part to helping Madagascar meet its obligations under CITES, and the two projects on bats (7-027, 10-024) have both contributed to CITES implementation. Most of the Madagascar DI projects have adopted an ecosystem-based approach. For example, the projects on fruit bats (7-027) examined their role in maintaining biodiversity, while several projects have focused on the management of biomes (7-113 on wetlands, 9-006 on forests and 10-021 on marine ecosystems).

DI projects in Madagascar have been of moderate cost – total project budget from DI of £56,650 to £151,125 (average £87,894) over seven projects - (not counting 4-104 which was a multi-country project). They have included all the categories of activities covered in DI projects, including strategies and management plans for areas and species, delivering best practice, aiding data access, providing training to stakeholders and professionals and monitoring of biodiversity.

The closed projects funded in Madagascar between 1995 and 2007 and evaluated here are presented in Table 2 below.

**Table 2 Madagascar's Closed DI Projects showing project dates and budget**

Project No.	Budget (£)	Title	Purpose
<b>4-104</b> 04/95 - 12/98	123,678	Biodiversity Management Training	Twelve trainees (4 from Madagascar) to undertake MSc in Conservation at DICE, University of Kent
<b>5-174</b> 05/96 - 12/98	84,958	Chameleons, Conservation and Local Communities	To provide information on the chameleons of Madagascar, a neglected area of research.
<b>7-027</b> 01/99 - 12/00	108,857	The Role of fruit bats in maintaining biodiversity in Madagascar	To establish the role of endemic fruit bat <i>Pteropus rufus</i> in pollination and seed dispersal of endemic Malagasy forest trees. To produce a national and species action plans for the conservation of Malagasy fruit bats.
<b>7-113</b> 04/98 - 03/00	62,699	Darwin Madagascar Wetlands Project	To promote the sustainable management of wetland biodiversity in Madagascar through demonstration of the full range of benefits brought by this biodiversity at a demonstration site.
<b>9-006</b> 10/01 - 04/03	56,650	Towards sustainable development of SE Madagascar's biologically unique littoral forests	To define an effective biodiversity monitoring and conservation strategy
<b>10-021</b> 05/00 - 04/02	79,169	Madagascar Marine Biodiversity Training Project	To aid marine resource security by providing skills to monitor and manage marine biodiversity.
<b>10-024</b> 09/01 - 08/04	151,125	Conservation and Management of Malagasy Microchiroptera	To ensure that bats are included in the conservation agenda in Madagascar, as part of the Malagasy implementation of the Convention on Biodiversity.
<b>EIDPO010</b> 04/05 - 03/07	71,800	Bat Conservation in Madagascar	To establish a national conservation organisation, specialising in bats, that is self-sufficient and maintains the Malagasy student training programme with research projects focused on assessing forest dependency in bats and wider awareness raising activities

### 3.1.1 Collective context of the DI Madagascar projects

The DI Madagascar projects share the common context of a megadiversity island developing country with acute information and capacity needs for effective biodiversity conservation or ecosystem management.

Geographic isolation has made Madagascar a centre of endemism, with levels approaching 90% for many taxa. Chronic deforestation over the last 50 years has made Madagascar one of the top international conservation priorities and has been the catalyst for a range of conservation projects and research studies. Considered by the United Nations to be the world's 26<sup>th</sup> least developed country, institutional capacity and the lack of availability of national research scientists have been perceived as a factors limiting the implementation of Madagascar's obligations under the Convention on Biological Diversity (CBD).

At the time the series of Darwin projects first arose, the lack of baseline information on biodiversity and research capacity were perceived as primary obstacles to effective biodiversity conservation. As knowledge was gathered and the number of competent Malagasy field biologists grew, the priority shifted towards institutional and management capacity and the fuller participation of stakeholders. This trend is clearly reflected in the Madagascar DI projects, which began in 1994 with MSc training in conservation and most recently concerned the establishment of a national conservation institution, *Madagasikara Voakajy*.



### 3.1.2 Methodology

The present evaluation is an expansion of on an earlier review of projects in Madagascar for the Islands Thematic Review carried out by ECTF in 2007 which included the following steps:

- Review documents relating to the eight identified DI Madagascar projects;
- Conduct direct personal interviews with project leaders and stakeholders in Madagascar;
- Conduct similar exchanges by e-mail or telephone with those not available for interview;
- Analyse information gathered and prepare the report.

Both the original and current review were undertaken in close consultation with Darwin project leaders, former DI UK fellows and host country institutions, and engaged with project stakeholders and beneficiaries. The National CBD focal point was also consulted. Information was gathered through a combination of documents review and semi-structured interviews with project team members, project beneficiaries and other project stakeholders.

A list of documents reviewed in the preparation of this ECP is available at Annex 3.

A table of persons interviewed or consulted for the earlier Islands Review and for the present evaluation is presented in Annex 4. Their responses were examined, and where necessary for clarity on the closed projects evaluation, further communication was undertaken.

Finally, journalists working in Madagascar were consulted for their suggestions about how key messages of DI projects should be communicated through the written media.

## 4 Project evaluations

### 4.1 Project 4-104 - Biodiversity Management Training

Project Reference No:	4-104
Lead Institution:	University of Kent, DICE
Partner Institutions:	n/a
Grant value:	£123,678 (multiple countries)
Start / finish date:	April 1995 – December 1998

#### 4.1.1 Project implementation

This project was a regional (Africa wide) project proposed and implemented before Madagascar had ratified the CBD. The project originated from gaps and opportunities as perceived by the UK-based teaching institution, DICE, which understood that the development of national scientific capacity was critical to effective biodiversity conservation. The project complemented programmes going on in Madagascar by providing qualified conservationists to contribute to such programmes. The project was coherent with the Environmental Action Plan for Madagascar initiated in 1992 and with Madagascar's obligations under the CBD.

**Project purpose** - *To provide a programme of formal training in biodiversity management in Britain with a follow up period of implementation in the target countries that is monitored and evaluated by in-country expertise. To focus the implementation phase on understudied taxonomic groups. To provide a nucleus of highly trained practitioners well-versed in the science of conservation and its application to problems in the field. To ensure that trained individuals are integrated and well-positioned in the wildlife management structure of the host country for maximum impact.*

This project was a strategic investment in high-value training which, given the lack of well-trained national conservation biologists, was highly appropriate. The approach was also novel in that it included a monitored post-training component and deliberately aimed to ensure that the trainees were integrated and well-placed in conservation for maximum impact. DI 4-104 originated from gaps and opportunities as perceived from the UK-based teaching institution, DICE, which had several UK research students operating in Madagascar and understood that the development of national scientific capacity was critical to effective biodiversity conservation.

#### 4.1.2 Project Delivery

All four Malagasy students satisfactorily completed their UK-based training, and three of the four also successfully conducted post-training research in Madagascar which was monitored from DICE.

The project assumed that all students would return to Madagascar as conservation professionals whereas only three out of four did so, the fourth remaining in the UK for personal reasons. No response was made to address this unique case.

#### 4.1.3 Project impact & legacy

The three returning DI Trainees are currently employed in Madagascar by international NGOs, managing projects, increasing public awareness and contributing to further training of national biologists and conservationists.

The project did not aim to achieve institutional change, although the three returning trainees have undoubtedly had a substantial influence in the institutions within which they have worked and on conservation policy in Madagascar as a whole.

DI students from the project have created a base upon which conservation organisations have been able to develop their personnel and programmes, thus boosting Madagascar's ability to meet its obligations under the CBD. Listed below are brief profiles of the three returning DI students:

- Mr Lanto Andriamampianina (MSc), Director of the Terrestrial Conservation Programme for Wildlife Conservation Society (WCS) in Madagascar since 1998, has played a key role in the management and establishment of terrestrial protected areas, including Cap Ste Marie, Sahamalaza (now a biosphere reserve), Masoala National Park, Makira forest and other sites, which collectively represent a broad section of Malagasy biodiversity. Lanto regularly provides technical support to the Ministry of Environment and Forests, as well as to other local NGO partners;
- Ms Tiana Rahagalala (MSc), Coordinator of the Network for Conservation Educators and Professionals (REPC) at WCS and an acknowledged GIS expert for conservation planning. The REPC is a well established and active network of conservationists which, linked to the global programme run from New York, has developed its own national critical mass;
- Dr Marius Rakotondratsima (MSc, Dr 3ème cycle), formerly WCS, now Scientific Coordinator for the Peregrine Fund to Prevent the Extinction of Endangered Raptors, coordinates the conservation of essential habitat, including creation of Madagascar's first Wetland Biosphere Reserve which will protect the last remaining wetland stronghold of the Madagascar Fish Eagle. Also expert in GIS, Marius made substantial contributions to national conservation planning while at WCS.

One of the trainees stated: “[the]...personal impact on my career was immeasurable, especially in the way it opened horizons including learning many useful skills such as GIS” (Mr Lanto Andriamampianina, DI Trainee 4-104: Biodiversity Management Training).

The project contributed directly to implementation of Articles 6 (general measures), 7 (identification and monitoring), 12 (research and training) and 13 (public awareness) of the CBD. DI Trainees are employed in management positions in conservation and are part of a continuing impact on the ability of Madagascar to implement the CBD (Terrestrial Projects Coordinator for WCS, Coordinator of the Network for Conservation Educators and Professionals at WCS, and Scientific Coordinator for the Peregrine Fund).

### Box 3. DI 4-104 Project success summary

**Relevance:** This project was entirely relevant to conservation needs at the time. The project complemented programmes in Madagascar by providing qualified conservationists to contribute to them. The project was coherent with the Environmental Action Plan for Madagascar initiated in 1992 and with Madagascar’s obligations under the CBD.

**Efficiency:** The project appears to have been very efficient, complementing other work by providing qualified conservationists later able to run or contribute to such programmes and having additional impact by including post-training in country projects promoting conservation of Malagasy biodiversity.

**Effectiveness:** The students appear to have been well trained and to have gained professional confidence. They have undoubtedly had an influence in the institutions within which they have worked and on conservation generally.

**Impact:** The benefits to conservation of biodiversity have been substantial through the subsequent work of the trainees, their participation in conservation activities and in their participation in the training of others.

**Sustainability:** The policy environment has remained supportive of the type of training received, and received a particular boost in 2003 when President Ravalomanana declared his country’s intention to triple the protected areas system to 10% of the land surface. The DI Trainees are carrying forward the outcomes of the project through participation in training and in current conservation activities and planning. The socio-cultural context has also remained positive, as belief in the importance of conservation and the recognition that it requires international partnership has been reinforced over the years.

**Innovations, lessons learned and best practice:** The project was innovative in including a monitored post-training phase and was strategic in preparing the trainees for conservation leadership. The lesson learned is that strategic masters-level training early on can have a highly beneficial impact, combined with a view often expressed that masters level training, especially when several are trained together, is more beneficial than PhD level training.

## 4.2 Project 5-174 – Chameleons, Conservation & Local Communities in Madagascar

Project Reference No:	5-174
Lead Institution:	University of Kent, DICE
Partner Institutions:	University of Antananarivo
Grant value:	£84,958
Start / finish date:	May 1996 - December 1998

### 4.2.1 Project implementation

This project was developed by DICE, and grew out of the research interests of the Project Leader, Dr Griffiths. Reflecting the Darwin objective of drawing on British expertise in the field of biodiversity, the project aimed to contribute survey data on a species group, chameleons, often neglected by biologists and a management plan for their conservation.

Assessing the abundance and distribution of species is fundamental to conservation planning. However, simple counts of individuals or occupied sites may bear little relationship to actual population sizes or site occupancies because of variation in how easily individuals or populations are detected. Reptiles and amphibians pose particular challenges in this regard as a wide range of variables may affect how easily they are observed and detected.

The project aimed to improve capacity for accurate surveys of chameleons and to promote their contribution to ecotourism through training wildlife guides. The project was also relevant to CITES implementation in Madagascar, which was having difficulty at the time in respecting export quotas.

**Project purpose** - *To provide information on the chameleons of Madagascar, a neglected area of research.*

### 4.2.2 Project Delivery

The project directly delivered the following:

- Chameleon surveys completed in 4 regions of Madagascar;
- Local community surveys in 2 areas;
- 6 Malagasy students and research guides (number unknown) trained in herpetofauna survey and questionnaire techniques;
- T-shirts, posters.

The objective of establishing a chameleon management plan appears to have been ambitious for a project of such short duration. However, the chameleon conservation plan was delivered after project completion with support from IUCN. The project duration was also too short, at 20 months, to cover the time required for students to complete their masters' degrees. One scientific commentator suggested that the project missed an opportunity to assess the status of the rarer and more endangered chameleon species (although in fact the project had deliberately focussed on traded species, which tend to be more widespread). This apparent weakness did not significantly detract from the principal aims of the project (surveys, student & guide training).

### 4.2.3 Project impact & legacy

The main immediate impact of the project was to provide training opportunities for five highly talented Malagasy students. Each of these is now engaged in conservation (Madagascar National Parks [1], WWF [1], Madagasikara Voakajy [2] and Association Vahatra [1]). The legacy with respect to the project objective (conservation of chameleons) was rather weak until the creation of *Madagasikara Voakajy* which is now using the capacity created in 5-174 to address conservation and trade issues.

The methodology tested in 1993/94 by Jenkins et al. (1999) was refined during this project (Brady & Griffiths 1999) and has since become standard (e.g. Andreone et al 2005; Brady & Griffiths 2003; Jenkins et al 2003; Jenkins et al 1999; Karsten et al, in press).

While not achieved during project lifetime, the project did, with IUCN support, eventually result in the elaboration of a national chameleon conservation plan (Brady & Griffiths, 1999) which has been used in national conservation planning. A French version was subsequently provided for distribution in Madagascar.

While the duration was too short for students to complete their masters' training (the average time for a masters' student from start of fieldwork to defending a thesis is 4 years), the project leader managed to re-tailor the project exit strategy and arrange (with some difficulty) that students still involved with writing their DEA (Masters equivalent) degrees could be given logistical support, including computer access and working space, by other NGOs operating in the country.

The project officer employed under the grant - Dr Lee Brady - now runs his own ecological consultancy (Calumma Ecological Services) and is still involved with the supervision of Malagasy students.

A number of the trainees went on to follow PhDs ([herpetology [2], chameleons [1]) and to work as environmental consultants [2]. Since 2005, Christian Randrianantoandro has led the herpetology section of Madagasikara Voakajy and has obtained significant funding to pursue chameleon conservation projects.

#### **Box 4. DI 5-174 Project success summary**

**Relevance:** The project was an appropriate response to the shortage of information on chameleons and lack of professional conservation capacity in Madagascar, through the conduct of surveys and provision of training. Extending the training to research guides was appropriate given the importance of chameleons for eco-tourism in Madagascar.

**Efficiency:** The project drew on British expertise in the field of biodiversity and with regard to a neglected taxon, and appropriately employed local graduates as research assistants.

**Effectiveness:** The project made a significant technical advance as regards knowledge about the distribution of chameleons which was later inputted into REBIOMA and contributed to conservation planning.

**Impact:** The main impacts were to provide training for a group of talented Malagasy biologists and to refine the survey methodology which became a standard.

**Sustainability:** The project environment was supportive throughout and since, with the result that the data generated have all been used for conservation planning, via the REBIOMA database. At least some of the project trainees have been able to continue to work in conservation and carry forward the project outputs.

**Innovations, lessons learned and best practice:** The main innovation was to combine surveys with guide training. Lessons learned have been to ensure adequate duration, that objectives are realistic and to provide for stronger scientific leadership and institutional linkages. It was also innovative in focusing on a flagship group of species (chameleons) which had previously only been subject to taxonomic studies. The methods developed by the project (e.g. DISTANCE sampling) have since been used by other research groups in South Africa and Madagascar to obtain population densities of chameleons. The project did also demonstrate that the relative independence of the DI projects enables them to focus on taxa neglected by mainstream donor programmes or which are feared in local culture.

**Box 5. REBIOMA**

REBIOMA (*Réseau de Biodiversité de Madagascar* or Madagascar Biodiversity Network) is a project developed by the Wildlife Conservation Society of New York (WCS) which has become the principal repository for biodiversity data in Madagascar. International NGOs, scientific institutions and the national forestry administration all participate in the initiative. Objectives of the project include providing easy access to data and information on biodiversity in Madagascar, as well as tools for conservation planning. A core project activity has been the development of on-line geo-referenced databases on Madagascar's biodiversity. Initially focused on terrestrial biodiversity, a marine biodiversity database is now being added. Established in 1997, REBIOMA acquired particular importance following the announcement by President Ravalomanana in 2003 of a plan to triple the coverage of Madagascar's protected areas system. REBIOMA played a key role in providing the data needed to determine the selection of sites for future protected areas. REBIOMA is also regarded by the administration as the information base of choice for CITES implementation and wildlife protection in Madagascar. DI projects have made significant contributions of data to REBIOMA, notably as regards chameleons, bats and small vertebrates, and DI project trained personnel have been very active within REBIOMA.

### 4.3 Project 7-027 - The role of fruit bats in maintaining biodiversity in Madagascar

Project Reference No: 7-027  
 Lead Institution: University of Aberdeen  
 Partner Institutions: University of Antananarivo, University of Tulear, ANGAP (the Malagasy National Parks authority), and the Ministry of Waters and Forests  
 Grant value: £98,396  
 Start / finish date: January 1999 – December 2000

#### 4.3.1 Project implementation

The University of Aberdeen has been closely linked with biodiversity research on mammals in the western Indian Ocean since 1983, resulting in a considerable output of peer-reviewed publications many of which have been co-authored by Professor Paul Racey (Project Leader of this 7-027 DI project) and, in many instances, co-authored by Malagasy national biologists. This history of research and equitable sharing of publication credit ensured that good links with several Malagasy institutions were already in place years before the start of the project, most notably the formal Protocol of Collaboration with the University of Antananarivo.

The project was initiated in response to the publication of a regional action plan for the conservation of fruit bats co-authored by the Project Leader of this Darwin Initiative funded project (Mickleburgh, S, Hutson, SM & Racey, PA, 1993. *Old World Fruit Bats: an action plan for their conservation*. 223 pp IUCN, Gland). This action plan revealed that:

- Fruit bats are more important than birds or primates in reseeding cleared forest in Africa;
- Many tropical forest trees have co-evolved with fruit bats and depend on them for pollination;
- Malagasy fruit bats have been neglected in research and conservation. All three species are endemic and there are no recent introductions. All are thought to be declining in numbers due to loss of habitat.

**Project purpose:** *To establish the role of endemic fruit bat *Pteropus rufus* in pollination and seed dispersal of endemic Malagasy forest trees. To produce a national and species action plan for the conservation of Malagasy fruit bats.*

Specific objectives included (taken from project final report):

- To initiate and drive by active participation a countrywide survey of the status of the three endemic Malagasy *Megachiroptera*, and to incorporate the results, together with the existing patchy and anecdotal information, into a national bat database;
- To encourage conservation of fruit bats through a programme of conservation education and encouragement of local ownership of roosts;
- To produce a National Action Plan for the conservation of Malagasy fruit bats;
- To produce Species Action Plans for Malagasy fruit bats;
- To train staff and students of the Universities of Antananarivo and Toliara, The National Botanical Garden and Zoological Park and the Libanona Ecology Centre in Fort Dauphin in the methods of field research, survey, database management and conservation through workshops and by direct personal involvement in order to build their capacity to continue the initiative after cessation of Darwin Funding.

### 4.3.2 Project Delivery

The project provided extensive field and research training to 12 Malagasy students, two of whom were successfully employed as Research Assistants and made important contributions to the project through communication with national institutions as well as villagers, and by helping with the training of other students. The project team undertook field research that resulted in a National Action Plan for the conservation of Malagasy fruit bats, and also included action plans for individual species. This plan presents the project's findings, including a list of plants for which fruit bats may be seed dispersers and pollinators, and an assessment of the conservation status of each bat species in light of their population sizes and current hunting levels. It further presents a series of recommendations for the national conservation of fruit bats.

A significant and positive aspect of project delivery was that the DI UK post-doctorate fellows were permanently resident in Madagascar. The main shortfalls on project delivery were the short project duration, which was insufficient to allow for the full masters' training of students. Cutbacks on the budget (amounting to about 17%) were also a significant constraint.

### 4.3.3 Project impact & legacy

A limitation on project impact was the fact that no institutional mechanism existed for implementation of the national bat conservation plans other than within national parks where all resident species were protected in any event. However, this shortfall was compensated for by other impacts.

*Pteropus rufus*, was originally listed as vermin under Malagasy law in 1961 (Decree No. 61-096). In 2006 *Pteropus rufus* was reclassified as a 'game' species which can be hunted only in season and with a permit (Decree 2006-400).

The project also had an impact at community and village level, through open discussion and through distribution of leaflets and stickers in Malagasy explaining the role of bats in the forest cycle with the message 'Protect bats, protect forest'. In particular, posters, pamphlets and stickers were presented to schools, local government offices (Communes/Mayors' offices), police stations and to villagers at meeting places. Similar materials were sent to all National Parks offices in protected areas, to all Ministry of Waters and Forests offices (responsible for biodiversity conservation outside protected areas) and to the offices of environmental NGOs. Where possible, these materials were given by project staff in person, with a detailed explanation.

#### 4.3.4 Discussion

One of the features of this project which had a major impact on its success was the residency of the two Darwin UK fellows in Madagascar throughout the term of the project. The decision of the DI UK fellows to then remain in the country, subsequent to the completion of the project, also had beneficial impacts. Their permanent presence gave continuing support to the trainees and students and also helped to facilitate the development of two further DI projects (10-024 and EIDPO010) from the same UK institution. The genesis of this initial project into a cluster of projects has enhanced project legacy in terms of biodiversity conservation and employment prospects for trained Malagasy biologists.

At a practical level, the Landrover purchased by DI 7-027 was used by project 10-024, EIDPO010 and by *Madagasikara Voakajy* and has been very important in maintaining the various conservation projects supported by DI.

The development of a national plan for bat conservation was also a significant advance, being the first species-based plan of its kind in Madagascar. This action plan presented the conservation value of bats in the ecosystem suggesting the value of a more dynamic species-based approach to biodiversity conservation not restricted to protected areas. The project also highlighted the difficulty of achieving species conservation across an entire country (the protected area approach being simpler to achieve).

##### Box 6. DI 7-027 Project success summary

**Relevance:** The project design was appropriate to address the lack of data on a neglected endemic taxon, namely fruit bats, and the paucity of professional conservation capacity in Madagascar. The project developed from pilot studies, and was linked to global projects on the same taxon. The project complemented existing programmes by focusing on a “less favoured” taxon and by adopting an ecological approach (role of bats in maintaining plant diversity).

**Efficiency:** The project drew on British expertise in the field of an endangered taxon (bats) and their ecological role in maintaining plant biodiversity. The project employed appropriate and suitable research methodologies to collect and analyse data. The project employed local graduates as research assistants. The project assessed the status of fruit bats nationally, produced a National Action Plan for fruit bats and provided training for 12 DI Trainees over a two year period, indicating good value for money.

**Effectiveness:** The project made an important technical advance by demonstrating that bats helped to maintain the diversity of other species.

**Impact:** The main benefit to biodiversity conservation was to highlight the importance of a “less favoured” taxon in maintaining biodiversity and to pioneer a species-based approach as a complement to the protected areas approach.

**Sustainability:** There is evidence that the participating Malagasy ecologists enjoyed substantial ownership of the project and its processes. The project has had some socio-cultural impact in dispelling the notion of bats as undesirable species. At the local level, the project found that local people understood the role of fruit bats promoting seed germination, and were supportive of the project objectives.

**Innovations, lessons learned and best practice:** The project was responsible for several innovations, in particular taking a species-based, ecological, approach to biodiversity conservation. Lessons learned included the need to ensure adequate project duration (especially where University training is concerned), avoid over-ambitious project design and avoid making assumptions about financing. Best practices included the taxon-based approach (as a complement to protected areas) and choice of an otherwise neglected taxon. The continuity afforded by having a resident DI fellow and developing follow-on project was highlighted by the Malagasy administration as representing best practice.



## 4.4 Project 7-113 - Darwin Madagascar Wetlands Project

Project Reference No:	7-113
Lead Institution:	Royal Holloway Institute, University of London
Partner Institutions:	Ministry of Waters and Forests
Grant value:	£62,699
Start / finish date:	April 1998 – March 2000

### 4.4.1 Project implementation

Wetlands have long been important to the Malagasy people for fishing, hunting and agriculture. However, under the changing circumstances of recent decades, resource use has changed, becoming more intensive and less discerning, to a degree that seriously threatens native biodiversity. The most grave and widespread threats are conversion of wetland habitat to intensive rice production or drainage for upland crops, hunting of birds, particularly at nesting and moulting sites and overfishing, particularly using fine-mesh nets, affecting birds and freshwater turtles as well as endemic fish. Invasive alien species, especially plants and fish, have also become abundant locally, altering the character and species composition of many wetlands, as well as contributing to extinctions of some endemic fish.

The complex nature of threats to wetlands and their importance to human communities require an integrated “wise use” approach to their conservation. The project sought to promote such an approach in Madagascar through the assessment of a significant north-eastern wetland, Lake Sahaka as a demonstration site.

The project was originated by a British scientist, Dr Roger Safford, based at the Royal Holloway Institute for Environment, an institution that was subsequently dissolved. Dr Safford then moved to BirdLife International and has continued to be active in wetlands and bird conservation in Madagascar.

**Project purpose:** *To promote the sustainable management of wetland biodiversity in Madagascar through demonstration of the full range of benefits brought by this biodiversity at a demonstration site.*

### 4.4.2 Project Delivery

The principal output of the project was a comprehensive assessment of this important wetland including an overview of the wetlands of Madagascar, a description of the north eastern region and its wetlands and detailed studies of Lake Sahaka itself covering hydrology, vegetation, birds, mammals, reptiles, fish and management recommendations which included a presentation of the case for the designation of Lake Sahaka as a Ramsar site.

The project identified a total of 37 species of non-marine wetland bird species out of 65 wetland species known for Madagascar. Interestingly, the project identified four species typically found only on the west coast (*Plegadis falcinellus*, *Nettapus auritus*, *Actophilornis albinucha* and *Ardea humbloti*).

**Table 3** Showing % of birds from east and west domains recorded at Lake Sahaka

Distribution in Madagascar	No. of species	% of total seen at Lake Sahaka	% of the total known for Madagascar	Number of endemic species
Limited to the east	0	0	0	0
Limited to the west	4	11	29	2
Known from both east and west	33	89	79	6
TOTAL	37	100	57	9

The project results supported the hypothesis that the Lake is an important bird area (IBA) in accordance with criteria developed by BirdLife International.

The project also delivered a valuable first example of an assessment of a Madagascar wetland from a wetland management perspective which was subsequently adopted by the ZICOMA (Important Bird Areas of Madagascar) project for other wetlands.

Project 7-113 had significant local impact as regards the awareness of local leaders (mayors, foresters' associations etc.) of the importance of wetland conservation.

#### 4.4.3 Project impact & legacy

The project has had several subsequent long term impacts.

The approach to wetland assessment and survey, based on the linkage between hydrology and geomorphology on the one hand, and wetland functions (biodiversity, socio-economic goods and services) on the other, was adopted by BirdLife International via the ZICOMA survey project (Important Bird Areas survey) and this informed a major nationwide site survey programme.

The project has also helped lay the foundations for a broader conservation area in the surrounding area between the Loky and Manambato Rivers, known as Daraina. The protection of the mosaic of forests in this region is centred around a flagship species, the locally endemic Golden-crowned lemur (*Propithecus tattersalli*). The fragmented distribution of natural ecosystems in the Loky-Manambato region necessitated an eco-regional approach. The DI project provided base-line information in a clear, usable form in support of one element in the ecosystem network. The Loky-Manambato Daraina region gained protected area status in 2005, supported by the work of the Malagasy conservation NGO, Fanamby.

One of the unexpected benefits of the project was to send the Director from the Ministry of Waters & Forests (Mme Fleurette Andriatsilavo) to an international Ramsar meeting. This had a positive influence on Madagascar's ratification of the Ramsar Convention and the eventual development of a national Ramsar committee and strategy for wetlands.

It is important to note that the continuing personal professional engagement of the project initiator in Madagascar has been a contributory factor in assuring project legacy.

#### Box 7. DI 7-113 Project success summary

**Relevance:** The project was complimentary to Madagascar's National Environmental Action Plan (NEAP), which lacked any wetlands component. The project contributed to Madagascar's implementation of the Ramsar convention and approaches to the assessment and management of wetlands in Madagascar.

**Efficiency:** The project adopted a demonstration approach in order to catalyse improved conservation of wetlands in Madagascar and thus represents an efficient use of resources for large potential environmental benefit.

**Effectiveness:** The project produced a comprehensive assessment of the Lake Sahaka wetland sufficient for its eventual designation as a Ramsar site and to prove its status as an Important Bird Area (IBA) according to BirdLife International criteria. It contributed to the eventual designation of the entire Loky-Manambato Daraina region as a multi-level protected area. It also contributed to the training of Malagasy biology students and scientists from the national administration.

**Impact:** The assessment method piloted was adopted by the ZICOMA project (BirdLife International) which identified important bird areas in Madagascar. It has contributed to the foundations for a broader conservation programme in the Loky-Manambato-Daraina area and it has contributed to Madagascar's implementation of the Ramsar convention.

**Sustainability:** The wetland assessment report and method, designation of Lake Sahaka as part of the broader Loky-Manambato-Daraina protected area and Madagascar's implementation of the Ramsar convention are sustainable impacts of the project.

**Innovations, lessons learned and best practice:** The project was innovative in its integrated assessment approach for a Malagasy wetland. Lessons learned include the importance of the continued personal professional connection of project protagonists to ensure that project impacts and legacy are fully realised. The Lake Sahaka assessment is an example of best practice in wetlands conservation planning.

## 4.5 Project 9-006 - Towards sustainable development of Southeastern Madagascar's biologically unique littoral forests

Project Reference No: 9-006  
 Lead Institution: Environmental Change Institute, University of Oxford  
 Partner Institutions: QIT Minerals Madagascar, WWF Madagascar, *Azafady*, Libanona Ecology Center (LEC) plus other stakeholders involved (from AR1)  
 Grant value: £79,169  
 Start / finish date: May 2000 – April 2002

### 4.5.1 Project implementation

Madagascar is singled out by the international scientific and conservation community as one of the richest countries in the world in terms of biodiversity, endemism and range of habitats. Its flora is diverse and unique. Of approximately 10,000 native higher plant species, about 8,000 species are thought to be endemic to the island. As a comparison, Madagascar is about 2.5 times as large as Britain, which has about 1,200 plant species, of which only 10-20 are endemic<sup>1</sup>. The vegetation in the project region - coastal SE Madagascar - is a subtype of rainforest, known as littoral forest on white sand, and has been identified as a particular national conservation priority due to its limited extent and due to high concentrations of national and local endemic plant species<sup>2</sup>.

This DI project focused on the region of south-eastern Madagascar in proximity to Tolagnaro (Fort Dauphin), where in the late 1980s QIT Madagascar Minerals (QMM) began exploring with a view to extracting ilmenite-rich sand for separation into rutile, titanium and other minerals. Extensive debate, in both national and international forums, grew up around the potential positive development aspects and the potentially negative impacts on the environment and social conditions in the region; the EIA was publicly presented as a Social and Environmental Impact Assessment in 2001. Although, after examination of the SEIA document, the national government awarded the environmental permit, international NGOs such as the World Wildlife Fund, Conservation International, and Friends of the Earth were sceptical of many the findings and propositions for conservation management presented in the SEIA<sup>3</sup> which suggested that existing local uses were leading to rapid degradation of forests while the conservation of the forests could be assured by the investor as part of a series of mitigation measures.

The project originators therefore designed the project to develop a rigorous method for the assessment and monitoring of forest cover and the factors responsible in order to review the assumptions in the EIA and help identify optimal management options.

***Project purpose as stated in Final Report – The overall purpose of the project was to assist with biodiversity conservation in an area challenged by competing pressures from local exploitation of forest resources and exploitation associated with a future mining project.***

<sup>1</sup> Legume Project, Royal Botanic Gardens, Kew.

<sup>2</sup> J. C. Ingram and Dawson, T. P., 2006, Forest Cover, Condition, and Ecology in Human-Impacted Forests, South-Eastern Madagascar, in: *Conservation and Society*, Pages 194–230, Volume 4, No. 2, June 2006

<sup>3</sup> <http://www.minesandcommunities.org/article.php?a=1475>

The project, which had developed in partnership with both NGOs and with the mining company, proposed to address the question of conservation of small forest patches by (a) undertaking a critical examination of the Environmental Impact Assessment (EIA) process and assess its role in contributing to the conservation of biodiversity 'hotspots', and (b) using alternative, but complimentary methods to collect data which would contribute to the identification and conservation of forest biodiversity, and which would inform the conservation planning process.

The project focused on high-impacted forests in south-east Madagascar, where despite regular use by local people, littoral forests still possess high abundance and diversity of endemic tree species of importance for both conservation and human livelihoods. Although little attention has traditionally focused on the assessment or conservation of human-impacted forests, these stands could represent valuable opportunities for protecting biodiversity while providing important resources and ecosystem services to local communities. The DI project proposed that a more holistic or landscape perspective, combined with an understanding of the local human and environmental context, would be crucial for understanding the nature and impact of human pressures on forest resources and determining optimal management options. The project was particularly concerned to assess the feasibility of conserving small forest patches used by local communities.

#### **4.5.2 Project delivery**

The project developed an alternative approach to the mapping and analysis of the dynamics of community composition of forest fragments. The project also provided a database of the most common and endemic plant species of the region by matching scientific and vernacular names. The project also examined the integrity, completeness and scope of the EIA and conclusions reached, finding agreement and disagreement with the many findings and conclusions of the EIA. Finally, the project delivered a limited amount of training to Malagasy students and Ministry technicians in plant identification and survey techniques.

#### **4.5.3 Project impact & legacy**

The principal impact of the project has been the publication of the forestry assessment techniques developed by the project. The project provided new insights into the forest degradation process, and should be useful for developing forest conservation strategies for SE Madagascar and elsewhere. The biodiversity data generated have contributed directly to knowledge of the SE littoral forests and have been input to REBIOMA, thereby contributing to national conservation planning. The project had limited impacts on the EIA process undertaken by QMM as a result of disagreements between the project and QMM on the status and causes of forest degradation. The non-appropriation by QMM also compromised the capacity building objectives of the project and national appropriation of the techniques developed. Nevertheless, the project protagonists have continued to review and refine the methods developed which have been published and presented at international forums, with the result that they maintain potential to be used in Madagascar or elsewhere.

#### **4.5.4 Discussion**

This project seems to have been driven by valid academic interests of the project leaders and the lead institution, and their interest in a commercial project. The academic interests of the participating scientists resulted in publications which further the discussion of management of forest fragments and the methodology of determining species richness and density. The commercial partner was not led into a position favourable to apply for or support further studies subsequent to this project which contradicts the original intention. Malagasy national scientists provided much of the basic identification of samples and facilitated the research work in many ways, but were not authors of publications arising from the project.

**Box 8. DI 9-006 Project success summary**

**Relevance:** The project employed appropriate and suitable research methodologies to collect and analyse data. The development of mapping tools, plants database and capacity building were also all appropriate responses. The effort to link plant identification to vernacular taxonomy applicable by local taxonomists and foresters was innovative and appropriate.

**Efficiency:** In general, the project aimed for improved assessment and monitoring of the conservation value of forests as compared with the generally simpler methods used in EIA studies.

**Effectiveness:** The project made significant technical advances in the domain of forest mapping and monitoring, demonstrating the multiple causes of forest change and the particular challenge of determining the conservation value of forests at an intermediate stage of degradation. The findings have been presented at international forums and published and represent a significant contribution to the field.

**Impact:** The project has provided new insights into the forest degradation process, and should be useful for developing forest conservation strategies for SE Madagascar and elsewhere. The biodiversity data generated have contributed directly to knowledge of the SE littoral forests and have been input to REBIOMA, thereby contributing to national conservation planning.

**Sustainability:** Ownership of the project has remained primarily with the responsible researchers, who have authored publications and are well placed to carry forward the project's findings at the international level. The establishment of national protected areas of SE littoral forest is now almost certain, although not as a result of this project, and it is likely that the information and methods developed by the project will eventually find application at some sites. The national policy on EIA has been maintained and refined, and the mining sector in particular has been the focus of environmental guidelines. While the project did not report active socio-cultural support for forest conservation, the project did find that deforestation rates were less than had been supposed, indirectly suggesting that there may have been a socio-cultural shift in favour of forest conservation in the project region, independent of the project.

**Innovations, lessons learned and best practice:** The effort to link plant identification to vernacular taxonomy applicable by local taxonomists and foresters was innovative and appropriate. The lesson learned that a project that seeks to examine the findings of an EIA risks coming into conflict with the investor and the concerned government institutions awarding the environmental permit. Best practices concerned the forest assessment methods developed.

## 4.6 Project 10-021 - Madagascar Marine Biodiversity Training Project

Project Reference No:	10-021
Lead Institution:	Frontier (Society for Environmental Exploration, UK)
Partner Institutions:	Institute Halieutique et des Sciences Marines, FIMIMANO
Grant value:	£56,650
Start / finish date:	October 2001 – April 2003

### 4.6.1 Project implementation

The project was based in the region of Anakao in south west Madagascar. The longest uninterrupted barrier reef in Madagascar is situated off this coastline and this, along with the inter-tidal ecosystem, is the location of a major artisanal fishery targeting a wide variety of marine fauna from crustaceans and molluscs, to dolphins and turtles. The area also supports about 320,000 ha of mangroves. It was from this coast that the most recent catch (March 2001) was made of the most sought after living fossil, the coelacanth (*Latimera chalumnae*). Many policy reports concerning the marine environment of Madagascar have recommended that coral reef surveys should be carried out to determine their status and that the establishment of marine parks should be seriously considered. Anakao has been identified as a high priority site for biodiversity protection and the development of eco-tourism.<sup>4</sup>

The only protected area in the Anakao region at the time of this DI project surrounds the small island of Nosy Ve. Frontier-Madagascar had been working closely over several years with FIMIMANO (a local community NGO), supporting their organisation of guides and tourist excursions to the island.

The project was coherent with the third phase (2003 – 2008) of the Madagascar National Environment Action Plan, which cites the successful management of coastal and marine ecosystems as one of its seven programme themes.

The project was developed from an existing partnership between IHSM, FIMIMANO and the UK-based partner, Frontier. One of the project strengths was the element of host country participation in project design, implementation and follow-up. The local marine research institute, the IHSM, identified the limitations on marine conservation imposed by the lack of resources allocated by the government and the lack of funding provided for Malagasy students to conduct practical field projects in marine resource monitoring and assessment.

**Project purpose as stated:** *To aid marine resource security by providing skills to monitor and manage marine biodiversity.*

### 4.6.2 Project Delivery

The project successfully trained a number of students, community members and fisheries officers in marine biodiversity and resource management, it produced a monitoring plan, and it disseminated the work widely through workshops and other media.

The project also produced a suite of different informative reports which provide an excellent resource for future training of people in Madagascar. Importantly, they could be very valuable reference resources for other tropical marine biodiversity projects. Among these outputs is a training manual, which provides a well-written series of notes that could be used to design future lectures, tutorials and discussions, covering a broad range of material from basic ecology and biology of marine systems through to monitoring and management issues.

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<sup>4</sup> Final Report DI 7-021

### 4.6.3 Project impact & legacy

One of the immediate results of the project was a core team of experienced stakeholders, having the necessary skills to collect marine baseline data, and to manage and monitor resources in the Anakao coastal region through implementation of a long-term monitoring plan. The project also produced a habitat monitoring plan for the Anakao area.

The quality of the training and the material collated for teaching of the various personnel were both as agreed in the initial application and of a good standard. Slightly more personnel received training than was originally proposed. Some of the streamlining of the training processes (e.g. tailoring training to people's requirements) allowed for a few extra individuals to receive tuition. A total of 29 people received training of one form or another.

### 4.6.4 Discussion

The success of the project, and in particular the training, came about because of the good working relationship that the Project Leader and her team had with IHSM.

The project seems to have done exceptionally well at advertising the Darwin Initiative. Darwin Initiative logos are found on all the paperwork, reports, newsletters, and the building where the training took place has been called the Darwin Initiative training centre.

#### Box 9. DI 10-021 Project success summary

**Relevance:** The strengths of the project design were to link the project to a local training institution and to provide training for skills likely to find a future need in the project region and elsewhere in Madagascar, through the environmental action programme. Responsive to the need for increasing capacity in marine ecosystem monitoring in Madagascar, the project complimented Masters' level training being provided by the partner institution (IHSM).

**Efficiency:** Drawing on British expertise in marine biodiversity conservation and training for students or younger people, the project training modules were based in part on the University of Newcastle's MSc programme in tropical coastal management, with adaptations to make it suitable for the local trainees. Feedback was sought from people at various stages throughout the project and this was used to hone activities and training programmes. The project tailored training to suit different levels, showing adaptability.

**Effectiveness:** The project made a technical advance by developing and testing the first training methodology and plan for marine habitat monitoring in Madagascar. The project did not aim to bring about institutional change, but did influence the training programmes and approaches of the partner institute, which has since sought to establish and fund a permanent training programme in practical marine conservation skills.

**Impact:** Through publication of a regional monitoring plan and a comprehensive training manual, the benefits are transferable elsewhere in Madagascar.

**Sustainability:** The tailored training which has ensured the increased capacity of a corps of local stakeholders and biologists to monitor marine habitats and to design management interventions which may address the changes in the local marine ecosystem, is a strong contribution to sustainability.

**Innovations, lessons learned and best practice:** The principal innovation of the project was to have introduced a practical marine conservation programme tailored to meet the needs of the project region, and to mix university trainees with motivated community conservationists, thus promoting exchange between academics and local people.

## 4.7 Project 10-024 - Conservation and Management of Malagasy Microchiroptera

Project Reference No:	10-024
Lead Institution:	University of Aberdeen
Partner Institutions:	Min of Water and Forests; ANGAP; University of Antananarivo; University of Tulear; WWF-Madagascar; WCS-Madagascar
Grant value:	£151,125
Start / finish date:	September 2001 – August 2004

### 4.7.1 Project Implementation

Malagasy zoologists have directly benefited from the high interest shown by overseas research groups and NGOs in the island's biodiversity. However, because the research interests of visiting scientists determine the training agendas of Malagasy biologists, the field of expertise of Malagasy zoologists falls in a range of vertebrate groups that often excludes bats, despite the fact that bats comprise 25% of the mammalian biodiversity in Madagascar. Of the approximately 30 species of bats in Madagascar, 27 species are insectivorous and 55% of these are endemic. Until this project started, little or no information was available about virtually all of the species of insectivorous bats. This problem was identified by a previous Darwin project by Aberdeen University to study fruit bats in Madagascar. The fruit bat project highlighted the role of fruit bats in maintaining biodiversity and revealed the overwhelming lack of Malagasy zoologists trained to monitor and survey bat populations.

**Purpose as stated in the project application:** To ensure that bats are included in the conservation agenda in Madagascar, as part of the Malagasy implementation of the Convention on Biodiversity.

### 4.7.2 Project Delivery

The project was extremely successful in achieving its objectives. The training aspect of it was successfully completed and seven students were trained at the DEA (Diplômes d'études Approfondies) level in several aspects of bat survey and monitoring. Six of these students have completed their degrees while one is awaiting examination.

The project also surveyed insectivorous bats in 16 sites. Although the majority of the survey sites were not included in the initial proposal, these changes responded to the emerging conservation agenda in Madagascar. Surveys revealed low species diversity and abundance in the initially proposed survey areas (humid forests), and a higher abundance in the western part of the country. The change of survey sites to the latter meant more fieldwork training opportunities for students, so the training aspect of this project benefited from these site changes.

- National Action Plan for the conservation of *Microchiropteran* bats.
- National Database for *Microchiropteran* bats, including data on insectivorous bats.
- Bat management plans for individual protected areas were produced.
- Brochures for tour guides and tourists in cave areas – including in the Bemeraha Biosphere Reserve.
- Substantial contributions of data to REBIOMA, which contribute to the proposition of new protected areas (see map in Annex 2).
- Malagasy graduates trained to continue surveys and maintain databases.



### 4.7.3 Project impact & legacy

The most important legacy of this DI project is the local NGO *Madagasikara Voakajy*, which was developed as a result of an application by the project team for Post Project funding. *Madagasikara Voakajy* has concentrated a significant part of this capacity and is helping to further consolidate the DI legacy by providing Malagasy biologists with the career opportunity to use their training and experience to participate in the national biodiversity arena and help Madagascar to meet its CBD commitments. This project also provided employment for five of the trainees from 10-024 [4 of whom required close supervision to complete their DEAs]

The project was very effective in linking the training and research activities to its conservation goals, and Prof Racey has been extremely successful in networking the project to educational and government institutions as well as NGOs, and ensured that bats were widely and successfully included in protected area and non-protected area research. These links are crucial to ensuring the continuity of the project in Madagascar.

The outstanding success of this project resulted in leverage of substantial funds from other sources and an application (successful) for a DI Post Project grant (EIDPO010) which supported the establishment of the local NGO *Madagasikara Voakajy*.

The most substantial and measurable impacts and legacy arising from this and the related Madagascar DI projects (14-006; EIDPO010) are: 1) the creation of a cohesive corps of trained Malagasy biologists, most of whom have pursued active careers in conservation; 2) further funding enabled the number of Darwin assistants to be increased, employing people experienced in their fields (some of them participated in the previous Darwin project 7-027 on bat ecology) and were involved in managing budgets, writing project proposals and leading fieldtrips. Engaging Darwin assistants in these activities promoted the continuation of the project by competent and experienced people.

### 4.7.4 Discussion

One of the most successful DI projects in Madagascar, this project owes its success to several pertinent facts including that the host national institutions were instrumental in inception of project. A further design element contributing to success lay in the permanent residency of a DI UK Fellow in the country, rather than relying upon periodic visits by the Project Leader. This ensured that enthusiasm was maintained in national institutions. The Project Leader, Prof Paul Racey, has a wealth of experience working with bats in Madagascar, which is reflected in the wide scope of the project and the remarkable success of the training programme.

The project was very effective in linking the training and research activities to its conservation goals, and Prof Racey was extremely successful in networking the project to educational and government institutions as well as to NGOs. These links were crucial to ensuring the continuity of the project in Madagascar.

**Box 10. DI 10-024 Project success summary**

**Relevance:** The project was an appropriate response to the lack of professional conservation capacity in Madagascar. The project was coherent with the IUCN Global Action Plan for Microchiroptera. Establishing the status of endemic species and the production of management plans for species groups is a priority of the Environmental Action Plan for Madagascar. The conservation requirements of bats will be incorporated into the management plans for individual protected areas.

**Efficiency:** The project drew on British experts in the field of biodiversity and with regard to a neglected taxon. An important shift in the exit strategy developed during 2003 and saw the project's team in Madagascar make a commitment to maintaining the bat specialist group after the end of the Darwin Initiative funding, and they secured pump-priming funding from BP and subsequently a Post Project grant from the DI.

**Effectiveness:** The project made substantial advances with the development of a corps of Malagasy trained biologists, enthused by international relationships and able to make an impact on biodiversity conservation in their own country. The project ensured that bats were included in conservation planning and management decisions.

**Impact:** The project affected change in host country institutions because ex DI Trainees are now working within the Madagascar National Parks Service as well as lecturing or supporting students at the Universities of Antananarivo and Toliara. Data compiled by the project contributed to the Madagascar on-line database REBIOMA. The project developed appropriate keys for future identification work.

**Sustainability:** The project proposed to promote the establishment of a national NGO to promote the conservation of small mammals and to provide support and an employment mechanism for Malagasy biologists. The DI UK fellow and Project Leader secured funding from other funding bodies (BP) and catalyzed a subsequent DI grant (EIDPO010).

**Innovations, lessons learned and best practice:** The value of funding a cluster of projects working on similar taxa has an incremental benefit to the UK institution of improved communications and host country relationships, to beneficiary institutions of having continued support which gives time for techniques, proposals and recommendations to be absorbed and implemented, and to the Trainees of having sufficient time and opportunity to complete their studies. The second lesson was in concurrence with DI 7-027, concerning the value of the DI UK fellow being resident in the country during the length of the project.

As part of a cluster of projects working on small mammals the project has been recognized by Malagasy administration as implementing best practice.

## 4.8 Project EIDPO010 - Bat conservation in Madagascar

Project Reference No:	EIDPO010
Lead Institution:	University of Aberdeen
Partner Institutions:	ANGAP; University of Antananarivo; WWF-Madagascar; CI Madagascar; WCS Madagascar; ACCE
Grant value:	£71,800
Start / finish date:	April 05 – March 07

### 4.8.1 Project implementation

This was a Post Project designed to consolidate two successful capacity building projects on bat conservation funded by the Darwin Initiative in Madagascar. Darwin project leaders, assistants, trainee, reviewers and host country partners all recognised the need to sustain the progress made in providing Madagascar with a group of highly motivated and well trained bat biologists. The proposition to support the establishment of a national NGO came from the DI UK fellow who had been involved with three previous Darwin Initiative capacity building projects that had successfully trained Malagasy students and generated enthusiasm and optimism, only for there to be very little support available after the Darwin funding ended. The idea to create a new organisation was discussed with host country partners and leading NGOs. A resounding need was identified because of the lack of Malagasy NGOs in biodiversity conservation and the need for a permanent team of bat experts.

Few objectives were explicitly defined in the original proposal because the project team wanted to be able to respond to emerging conservation needs.

**Project purpose as stated:** *To establish a national conservation organisation, specialising in bats, that is self-sufficient and maintains the Malagasy student training programme with research projects focused on assessing forest dependency in bats and wider awareness raising activities*

The main purpose of the project was to create a Malagasy biodiversity organisation to provide a permanent bat conservation team and consolidate the previous capacity building projects whilst also meeting the aspirations of Darwin assistants and trainees.

### 4.8.2 Project Delivery

A Malagasy biodiversity organisation called *Madagasikara Voakajy* (translated as Madagascar Conserved) was formed on 10 May 2005. This new biodiversity organisation, created by the project, defined its remit as 'endemic vertebrates' and gives the organisation greater flexibility whilst allowing it to retain and focus on its bat expertise. *Madagasikara Voakajy* levered funds to support work on threatened chameleons and amphibians, including work on conservation of endangered *Mantella* frogs at a site where a previous DI project (07-027) had established good community relations.

Most of the research work was led by senior Malagasy staff (Daudet Andriafidison, Julie Razafimanahaka, Radosoa Andrianaivoarivelo and Amyot Kofoky) and building on these staff and other national staff to initiate, seek funds and manage conservation projects.

During the two-year project period the team published 15 research papers in peer-reviewed scientific journals on bats. Three of these were collaborative efforts on taxonomy with the Chicago Field Museum. Of the 12 that consisted of project primary research and survey results, Malagasy Darwin assistants/students were first authors on nine.

The main research activities of DI EIDPO010 are listed below:

- i. Pollination of endangered baobabs in western dry forests by fruit bats and in
- ii. the importance of landscape ecology;
- iii. Assessing the forest dependency of microchiropterans in deciduous and humid, littoral forests;
- iv. Movement and habitat use of fruit bats in a fragmented anthropogenic landscape in eastern Madagascar;
- v. Diet and feeding ecology of bats: seasonality, seed dispersal and selection of habitats;
- vi. Roosting ecology of bats.

Indicators of success included the legal registration of the new organisation *Madagasikara Voakajy*, formation of new host country partnerships, coverage of the project or of bats on national media and the inclusion of the new organisation as participants in conservation planning. A good example of the latter was the involvement of the team in surveying bat roosts near four proposed new protected areas. Having an established office, team and identity has enabled the new organisation to become involved in the post-survey work such as planning and delimitation.

### 4.8.3 Discussion

Prior to this project, little or no information was available about virtually all of the species of insectivorous bats known from Madagascar. This problem was identified by a previous Darwin project with Aberdeen University to study fruit bats in Madagascar. The fruit bat project highlighted the role of fruit bats in maintaining biodiversity and revealed the overwhelming lack of Malagasy zoologists trained to monitor and survey bat populations. The 3 Aberdeen bat projects supported large number of trainees and employed a small number of promising biologists. These people are now involved in creating protected areas for bats (6 sites included as provisional protected areas), are prominent in a western Indian Ocean bat initiative and provide advice to government, NGOs and tourists on bats in Madagascar.

*'Although it is crucial that Darwin projects receive the endorsement of host country governments, they benefit from being independently identified and funded. For example, it is unlikely that staff at Ministry of Environment, Water and Forests would have identified bats as a priority in 1998.'* (Richard Jenkins, EIDPO010)

**Box 11. DI EIDPO010 Project success summary**

**Relevance:** The appropriateness of the project design is reflected in the continued existence of the Malagasy biodiversity organization *Madagasikara Voakajy* (MV) which was established through the project, its continued employment of DI trained biologists and its involvement with conservation planning and implementation projects in Madagascar. The project consolidated the previous capacity building projects and met the aspirations of Darwin assistants and trainees.

**Efficiency:** The project appropriately limited its expression of objectives in order to be able to respond to emerging conservation needs. As suitable, the project employed technical and research methodologies to publish taxonomic descriptions of three new species, as well as to respond to numerous requests to participate in conservation planning and surveying projects, including bat projects related to ecotourism, education and habitat management.

**Effectiveness:** The pivotal technical advance made by the project was the establishment of a national NGO *Madagasikara Voakajy*, which would focus on conservation of small mammals, as well as offering employment to trained Malagasy biologists. The project made advances working with small, community-level Associations to encourage public involvement with conservation and to limit environment-human conflicts. The ability to respond to changing needs was designed into the project.

**Impact:** The main assumptions of the project were that a national NGO would sustain long-term support for small mammal conservation and provide employment for relevantly trained national biologists. The validity of the assumptions has been resoundingly confirmed by the involvement of the NGO *Madagasikara Voakajy*, in current conservation monitoring and planning activities and the regular demand for their participation in projects national and even regional projects.

**Sustainability:** The project has had a major impact on ownership of conservation knowledge and capacity by national biologists. A motivated, committed and partially DI trained corps of conservation biologists exists primarily within the NGO sector, fully able to carry capacity forward through their involvement with training programmes and sharing of acquired skills.

**Innovations, lessons learned and best practice:** The most important lesson learned is the value of supporting the genesis of a national NGO which can ensure employment of biologists trained through previous projects, as well as further the legacy of the DI funding and at the same time be an immense benefit to the host country in its capacity to contribute and take ownership and stewardship of its national biodiversity. The second lesson was in concurrence with DI 7-027, concerning the value of the DI UK fellow being resident in the country during the length of the project.

The success of the project post funding, as well as the national and international support for its work and involvement in conservation indicates that it represents best practice.

## 5 General Assessment

### 5.1 Conclusions & recommendations

#### 5.1.1 Partnerships

The partnerships developed between DI projects and national institutions support the CBD in particular (capacity strengthening), through developing national capacity. DI project 7-027 established collaborative accords between the University of Aberdeen and the Universities of Antananarivo and Toliara. The project then went on to develop a formal MoU of collaboration with the Ministry of Water and Forests and an MoU on research with ANGAP which gave training to institutional staff and facilitated the training of students.

Project 7-113 achieved some synergy with the Ministry of Water and Forests supporting implementation of the Ramsar convention and gave support to governmental involvement at the Ramsar CoP and the Global Biodiversity Forum. It also helped strengthen capacity of institutional staff through their involvement in project activities. Because of the continued professional involvement of the UK DI fellow in Madagascar, the project contributed to the eventual development of the national NGO Asity and its affiliation to BirdLife International.

Projects 7-027, 10-024 and EIDPO010 have achieved an increased profile for bats in conservation and protected area projects through the work of the new national organisation *Madagasikara Voakajy*, and through synergies with international conservation NGOs active in Madagascar (WWF, CI and WCS).

#### 5.1.2 Relevance

The first DI project funded for Madagascar was highly relevant to conservation needs at the time, and complemented programmes ongoing in Madagascar by providing qualified conservationists to contribute to such programmes. Subsequent projects, especially 5-174, 7-027, 10-024 and EIDPO010, consolidated the previous capacity building projects and eventually resulted in the genesis of the national biodiversity organisation *Madagasikara Voakajy (MV)*. The continued employment by *MV* of DI trained biologists and its involvement with conservation planning and implementation projects in Madagascar is a good indicator of the relevance of the previous projects.

Projects 5-174, 7-027, 7-113, 10-024 and EIDPO010 were an appropriate response to the gaps in data and knowledge of neglected Malagasy taxa. Data compiled by these projects was contributed to the Madagascar online database REBIOMA.

Project 7-113 was relevant due to the fact that wetland ecosystems had been previously under-supported and wetland birds were not the focus of conservation efforts in Madagascar.

Project 10-021 supported practical training in marine surveying and stewardship. Practical training was relevant to the needs of the community of marine scientists who had opportunities to study academic aspects but not the practical, and local stakeholders who had no opportunity.

#### 5.1.3 Efficiency

Most of the DI projects undertaken in Madagascar were efficient with funds; project 4-104 provided high quality training to MSc level at an expert training institution for four Malagasy biologists. As a project operating in Madagascar shortly before the country ratified the CBD (1996), the project purpose of offering formal training was highly appropriate.

Providing practical training and academic support for student national biologists was a feature of many of the projects (4-104, 5-174, 7-027, 10-024, EIDPO010); this activity was highly appropriate for the conservation needs of Madagascar. However, the short duration of the DI funds limited the efficiency of the projects in their offer of training to DEA level.

Project 10-021 produced a training manual which may be used to provide further training for marine scientists.

#### 5.1.4 Effectiveness

The assumption that the provision of training would support the country's ability to respond to its CBD obligations was valid, the DI trainees are currently employed in Madagascar by international NGOs, managing projects, increasing public awareness and contributing to further training of national biologists. However, no trainees are employed by the national administration.

#### 5.1.5 Impact

The benefits to conservation of biodiversity have been substantial through the subsequent work of the trainees and partners from projects 4-104, 5-174, 7-027, 7-113, 10-024 and EIDPO010, their participation in conservation activities and in their participation in training of others. Further, the research work undertaken by many DI trainees has been contributed to the online database RIEBIOMA and influences the identification of Key Biodiversity Areas.

DI projects in Madagascar have directly supported NEAP over the years primarily in biodiversity conservation, and have also complemented NEAP by focusing on taxonomic groups not covered by NEAP activities.

One limitation on the impact of project 7-027 was the fact that no institutional mechanism existed for implementation of the national bat conservation plans other than within national parks where all resident species were already protected. This has now been resolved through the establishment (with DI support for EIDPO010) of the national organisation *Madagasikara Voakajy*.

#### 5.1.6 Sustainability

The DI trainees are carrying forward the outcomes of the DI projects (4-104, 5-174, 7-027, 7-113, 10-021, 10-024 and EIDPO010) through continued participation in training and in current conservation activities.

### 5.2 Innovations, lessons learned & best practices

Project 5-174 was innovative by providing training for national park guides, enabling them to improve tourist visits.

Project 10-021 was innovative by introducing a practical marine conservation programme tailored to meet the needs of the project region, and to mix university trainees with motivated community conservationists, thus promoting exchange between academics and local people.

The clearest technical lesson relevant to achieving CBD goals has undoubtedly been the immense value Madagascar has gained from the continuity of several interrelated DI projects. DI projects (5-174, 7-027, 10-024 and EIDPO010) funded between 1996 and 2007 have had the time to ensure in-depth training of a substantial group of students, to influence the national and international legal status of various taxa, to contribute to protected areas management and location and to assist with increasing capacity in national training institutions. Projects that have been 'one-off' (e.g. 9-006, 10-021) have tended to have less lasting impact unless they are relatively well linked into national institutions and programmes (eg 7-113). It may be observed, however, that in the particular case of Madagascar, the one-off projects have been less costly on average (5-174 - £84,958; 7-113 - £62,699; 10-021 - £56,650) than the cluster projects (eg the three bat projects which cost approximately £330,000 (7-027 - £108,857; 10-024 - £151,125; EIDPO010 - £71,800), partly due to less expenditure on capital items like vehicles.

A second relevant lesson has been that having the DI UK fellow resident over the duration of the project amplifies the support that the DI project makes to achieving CBD goals. Three DI projects in Madagascar have had the benefit of a resident DI UK fellow (7-027, 10-024 and EIDPO010); the resident DI Research Fellow had the time to develop strong relationships within the national institutions through which they can assist with policy development which contribute to implementing the CBD. Projects without resident fellows (e.g. 9-006) appear to have more modest impacts although the effect can be mitigated where the fellow's institution maintains links, allowing follow up (7-113, 10-021).

Supporting the genesis of a national NGO (e.g. *Madagasikara Voakajy*) which has both the capacity to undertake field research and to support national education systems has also made a valuable contribution towards the CBD goals and targets. It has also provided an important source of employment for DI project trainees who might otherwise have remained unemployed after training. Projects without resident DI UK fellow tended to be associated with reduced impact.

## 5.3 Recommendations

### General recommendations

The projects re-visited under this evaluation were delivered under different circumstances than prevail for current projects. Recommendations arising from this review support many of the changes that have already taken place as the Initiative has evolved over the last 17 years. For example, the reviewer commented that:

- Interrelated projects were more effective because they generated a greater momentum so long as they fulfilled a specific role in national processes. With the introduction of Post Project funding, this continuation of inter-related project activities should support greater impacts.
- Projects that were explicitly linked into national plans and priorities were more successful. This is now an expectation of **all** Darwin Initiative projects. This point also has great relevance to the Paris Declaration on Donor Harmonisation.
- For some projects there is a need for greater emphasis on consultation and communication with major stakeholders from the design phase onwards, including the administration, the national CBD and other designated authorities. This is now encouraged for all Darwin projects, but it is particularly beneficial for projects looking to influence policy on issues of biodiversity conservation.
- Lessons learned from projects should feed the project design process itself. The lessons should be reflected in the overall DI programme strategy and in the project selection criteria.

### Specific Recommendations

The following specific recommendations arising from the evaluation are broken down into the following categories:

- technical recommendations for Darwin Initiative project implementation;
- recommendations relating to the management of DI projects;
- recommendations for future Madagascar DI projects.

#### *Specific technical recommendations*

- For Madagascar, where technical capacity is limited, a stronger support presence from the UK institution appears to have been particularly beneficial. Dependent on the cultural situation, **it may be necessary for projects to build in a stronger UK role in initial projects to support the development of capacity;**
- In developing capacity to address biodiversity conservation, creating the new host-country institution *Madagasikara Voakajy* has been particularly beneficial in securing and carrying forward the DI legacy. This scenario is of course dependent on the capacity of the current host-country institutions and the openness for civil society engagement in conservation issues, but in Madagascar this strengthened the outcomes of a number of projects – **and may be useful to consider for other DI projects in similar situations;**
- Those projects that had developed closer ties with host country partner institutions were stronger. **Where possible projects should be encouraged to utilize mechanisms such as Scoping Awards to ensure a strong base upon which to develop a project.**



*Specific recommendations for project management*

- **UK institutions and host-country partners should establish clear guidelines concerning the authorship of publications** arising out of DI projects to avoid conflict;
- To accommodate local training cycles, **project plans need to take into consideration that trainees may not have completed their training within the allotted 2-3 years of Darwin Initiative funding.** There may be other opportunities available, such as Post Project funding, but this cannot be relied upon **therefore careful consideration should be given to the support of these trainees post-DI funding;**
- **Project Leaders are encouraged to ensure project plans are realistic within the finances secured.** Matched funding should be sourced to avoid financial short-comings. Alternatively, project leaders should scale back projects to ensure they remain financially viable.
- **Reduce the number of deliverables to focus on those that are really important for project impacts and legacy.** Logical frameworks that have no more than 4-5 outputs have been proven, in a recent study for DFID, to be far more successful.

*Recommendations for future Madagascar DI projects*

Darwin Initiative support for work in Madagascar remains relevant today – perhaps even more so, given the strongly reaffirmed commitment of the previous Madagascar government to biodiversity conservation, and more particularly, the current severe attrition of threatened endemic species in protected areas.

Nevertheless, consideration of comments made during interviews with members of the national administration and the priorities of the Madagascar Action Plan, would suggest that DI projects could advantageously address the following additional issues:

- Developing capacity & tools for the sustainable use and management of natural resources, including for those occurring outside protected areas;
- Developing mechanisms for sharing benefits from genetic biodiversity;
- Improving the assessment, management or ranching/cultivation of species subject to trade;
- Providing assistance and training for the management and demarcation of protected areas;
- Placing increased emphasis on capacity building for institutions as well as for individuals.

National authorities concerned with CBD implementation (both the CBD focal point and the Secretary General for Environment) proposed that more complete communication should be established between DI projects and the national administration. Future DI Madagascar projects should make full use of the national clearing house mechanism (CHM) recently established at ONE.

The following further recommendations for future Madagascar DI projects arise from the reviewer's own further analysis of the information gathered:

- Projects focusing on high quality MSc training outside Madagascar for multiple trainees should continue to be encouraged where not covered by other sources (eg Darwin Fellowship scheme);
- DI projects linked to the Universities should include support to help the Universities make the transition to the internationally recognised Degree-MSc-PhD cycle.

## 5.4 Advice on communications

The ToR requested the consultants' views on how key messages about DI projects should be communicated and to which audiences (e.g. press release in the UK or briefing to local FCO staff).

Key messages to be communicated in this context include *what* results DI projects are achieving (impacts and legacy) and *how* they are achieving those results (lessons learned, innovations). The present evaluation has highlighted the following key messages:

Messages about *what* DI projects are achieving (impacts & legacy):

- The importance of the empowerment of individuals (both Malagasy & British DI Fellows);
- The value of gathering biodiversity data for national conservation planning;
- The importance of establishing national entities and ownership;
- The fact that simple MSc training investments are very effective (linked to empowerment).

Messages about *how* DI projects are achieving those results (lessons learned, innovations):

- The benefits of the project cluster approach;
- The value of having project leaders or DI UK fellows with a sustained connection to Madagascar.

The main *audiences* to consider are *protagonists* (project designers and executing organisations, to ensure well designed and implemented projects), project *beneficiaries* (including host country institutions, to promote stakeholder appreciation and ownership) and the *public* (in the UK, host country or elsewhere, including the media). Consideration should also be given to project *facilitators* (persons or institutions in a position to facilitate project implementation, such as FCO officials).

The Madagascar evaluation has highlighted the need for dissemination of lessons learned to ensure appropriate project design and implementation and the particular need for making host country institutions aware of DI projects, their objectives and their impact. Certain projects have highlighted the importance of public awareness, at local and national levels.

The Madagascar DI projects have generated lessons learned and best practices that could be useful internationally. The projects have, however, had only limited exposure at international forums. DI should consider how best to ensure that DI programme lessons are made available to the international conservation community.

At the *protagonist* level, lessons learned from projects should feed the project design process itself. The lessons should be reflected in the overall DI programme strategy and in the project selection criteria. As far as possible, project designers should be aware of all relevant lessons learned and best practices before embarking on project design. The present and other reviews clearly contribute to this, but the DI could consider developing a DI project design manual that synthesises all relevant experience for the benefit of future project designers and their prospective partners.

At the *project beneficiary* level, the evaluation has demonstrated that DI projects need to ensure good communication with both project partners and concerned national institutions. This would suggest the need for every project to develop and implement a communication strategy. Targets should include national partners and responsible government agencies (e.g. the focal institutions for the relevant conventions).

At the *public* level, the projects have shown that communication with the local public (e.g. local communities) is beneficial and that communication at the national level (e.g. bird fairs etc.) can also be beneficial. As regards the media, the journalists we consulted recommended:

- at the international and UK level, the projects or DI should develop personal contacts with the target news outlets;
- news outlets should include specialist wildlife and conservation magazines such as BBC Wildlife Magazine;
- projects with a human angle may usefully be reported to agencies with a marked human interest such as the UN news agency, IRIN;
- stories based on DI projects should always be set in a global context - specifically, the stories should focus on what the projects in Madagascar (for example) can tell the audience about the environmental / conservation risks, challenges and opportunities worldwide;
- quirky, newsy items, such as “exploding giant palm trees” (recently used to highlight the work of Kew Gardens), are useful to attract media interest and can help carry a story to a wider public.

Local journalists should also be considered, to ensure that the national population is equally knowledgeable about projects or events occurring in their country.

# Annex 1 Terms of Reference

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## 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 provide information 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 (ie "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, a theme or an 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 innovations, 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 **national & eco-region 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 CBD itself.
- At the **UK level** – in terms of legacy and impact within UK institutions.

Within the context of the above, the evaluation shall comment on how the clusters of projects evaluated have contributed towards achieving Darwin Initiative objectives. Comments shall include how later projects have built on earlier projects or how they have been mutually supportive of each other.

### Background of Projects to be evaluated

Madagascar has been the focus of a number of Darwin projects (see below). The 8 completed projects present an opportunity to evaluate the long-term impact and legacy of Darwin projects in Madagascar.

Project No.	Title	Purpose
4-104	Biodiversity Management Training	Twelve trainees to undertake MSc Conservation course at DICE
5-174	Chameleons, Conservation and Local Communities	To provide information on the chameleons of Madagascar, a neglected area of research.
7-027	The Role of fruit bats in maintaining biodiversity in Madagascar	To establish the role of endemic fruit bat <i>Pteropus rufus</i> in pollination and seed dispersal of endemic Malagasy forest trees. To produce a national and species action plans for the conservation of Malagasy fruit bats.
7-113	Darwin Madagascar Wetlands Project	To promote the sustainable management of wetland biodiversity in Madagascar through demonstration of the full range of benefits brought by this biodiversity at a demonstration site.
9-006	Toward sustainable development of Southeastern Madagascar's biologically unique littoral forests	To define an effective biodiversity monitoring and conservation strategy
10-021	Madagascar Marine Biodiversity Training Project	To aid marine resource security by providing skills to monitor and manage marine biodiversity.
10-024	Conservation and Management of Malagasy Microchiroptera	To ensure that bats are included in the conservation agenda in Madagascar, as part of the Malagasy implementation of the Convention on Biodiversity.
EIDPO010	Bat Conservation in Madagascar	To establish a national conservation organisation, specialising in bats, that is self-sufficient and maintains the Malagasy student training programme with research projects focussed on assessing forest dependency in bats and wider awareness raising activities

### 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 (ie 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.

**Innovations, lessons learned and best practice:**

- Report on any innovations developed by the project.
- What lessons do the project implementers report.
- Is the project implementing best practices, has it any indicators that it will do so?

## Methodology

The ECP shall be undertaken in close collaboration with Darwin Project Leaders and host country institutions, and engage with project stakeholders and beneficiaries. Wherever possible, ECP consultants should consult with National CBD focal points.

The ECP consultant shall ensure that the ECP is informed through consultative and participatory work sessions and semi-structured interviews with project team members, project beneficiaries and other project stakeholders. Use of participatory assessment tools should be used where ever possible (eg timelines, mapping, stakeholder analysis)

## Special Considerations

The consultant undertook a review of projects in Madagascar for the Islands Thematic carried out by ECTF in 2007. He was contracted for 7 days to complete the following terms of reference:

### Terms of Reference – Islands Thematic

#### Introduction

The Darwin Initiative has funded to date over 450 projects since 1992 centred on supporting biodiversity conservation in countries rich in biodiversity but poor in resources.

Over 100 of these projects have focused on aspects relating to Island Biodiversity specifically noted as a thematic programme of the CBD during the 8<sup>th</sup> Conference of Parties (COP-8). The target of “substantive reduction of the current rate of bio-diversity loss by 2010 at global, regional and national levels” was set at the CBD COP-6. The importance of Islands in achieving this target is fundamental. The isolation of island environments results in the evolution of endemic and characteristic flora and fauna and islands alone account for 10 out of the 34 biodiversity “hot-spots”, and are part of many others. Climate change and variability together with sea level rises, invasive alien species and overexploitation of resources all contribute to the challenges faced by Islands.

The Edinburgh Centre for Tropical Forests (ECTF) supports the Darwin Initiative through the Monitoring and Evaluation of programme implementation. This includes monitoring ongoing Darwin Initiative projects and supporting dissemination of progress reports, best practice guides, impact assessments and lessons learned from Darwin Projects and from the Programme as a whole. In order to identify impacts and the lasting legacy of the Darwin Initiative, ECTF also carries out thematic reviews of the Darwin Initiative. The contribution and impact of DI projects to island ecosystems has been selected as the theme for one of the thematic reviews in the year 2006-07.

The intention of this review is to analyse how past and current DI projects have contributed to CBD implementation in island ecosystems and to identify best practices and lessons learned. The outcome of the thematic review will inform relevant practitioners on islands and in UK as well as the DI Advisory Committee, DEFRA and wider Darwin Initiative partners.

For the purpose of this review, the United Nations’ definition of islands has been adopted, as any landmass surrounded by water that is smaller than a continent. This definition specifically includes Darwin projects on large land masses including New Guinea, Borneo and Madagascar.

The review is being implemented through a combination of desk reviews and field visits. Four islands or island groups have been selected for field visits to provide contrasts in size (small / large) and governance (island state / province). These are Borneo, Madagascar, Galapagos and the Seychelles.

These TOR relate to of the inclusion of Darwin Initiative Projects on the large island of Madagascar to supplement the lessons learnt from other island groups.

**Objectives**

The primary objective of this thematic review is to analyse and document the contribution of the Darwin Initiative towards the CBD Programme of Work for Island Biodiversity. It will also identify best practices and lessons learned, and formulate recommendations on how the DI can most effectively support CBD objectives and work plan while concurrently achieving its own objectives.

**Tasks**

The in-country review in Madagascar is designed to define the contribution of a group of seven projects (5 closed and two active). The thematic review will make use of reports and other project outputs together with informal interviews with key stakeholders in country.

- Analyse and present an overview of the content of DI supported, Island relevant projects and map these against the Goals and Targets reported from COP 8, noting any gaps and priority areas that have not been supported;
- Review the impact and legacy of completed and ongoing projects against the CBD 2010 goals and targets for Island Ecosystems and determine the overall relevance of the DI supported projects against these;
- Identify and detail synergies within the DI supported projects and between DI projects and other programmes in respect of securing better impact and sustainability, including comment on unexpected outcomes);
- Review the dissemination and related outputs from the projects and the extent to which this has been helpful to Madagascar and more widely, including the extent to which material has been disseminated by partners and others after completion. Specific note should be taken of the extent to which Darwin support is flagged in dissemination material during and after projects;
- Draw out key lessons learned and make recommendations if appropriate for best practice, identifying, relevant for island biodiversity, lessons and practices for projects, project management and the wider DI programme;
- Assess how DI's projects have generated information needed for improved decision-making on conservation and sustainable use of biodiversity and its components in islands. This should also refer to CBD thematic work programmes (e.g. Forest, Marine & coastal, dry and sub-humid lands biodiversity) and socio-economic considerations with regard to benefits from use and access to biodiversity;
- Make specific comment on the extent to which DI projects have facilitated and supported improved information, public education and awareness raising and institutional capacity building within islands;
- Elucidate how DI's projects have supported improved and effective information systems, institutional capacity and, where relevant, socio-economic aspirations.

**Approach**

The reviewer will be provided with relevant materials from the projects in Madagascar and contacts for the UK and local project team (where currently available). Guidance on the information to be obtained from semi-structured interviews will be provided (attached) and the reviewer will be asked to complete and report a structured assessment for the contribution of each project to the CBD's Island Biodiversity Programme of Work (attached). The reviewer will be responsible for making contacts with project leaders and host country partners, assess their willingness to share information related to their projects. Collecting this information is occurring towards the end of the data collection time frame, and project participation is completely voluntary but presents the opportunity for projects to contribute to the Island Thematic review and the Briefing Note that will accompany it. The reviewer will communicate the voluntary nature of project's participation. A field visit will be made to at least one project if possible.



**Timing**

The reviewer will keep in close contact with ECTF staff and provide data in batches. The assignment and final report will need to be completed and submitted to ECTF by Friday 16 February 2007. A total of five days has allocated for this assignment.

Thus the consultant has a certain level of information available to him to complete the assignment. It is the understanding that a certain level of repackaging and analysis of information will be required and the assignment may require some contact with projects to cover aspects not covered in the initial assignment.

**Timetable**

The ECP in Madagascar shall be undertaken according to the following schedule:

- Preparation and review of documentation – 2 days
- Field mission and travel - 1 day
- Report preparation – 2 days

**Reporting and Feedback**

The ECP consultant should submit a draft report to the **Darwin Programme Director (DPD)** no later than **two weeks** following the end of the field mission. Within a week of submission, the DPD will review the draft report and once satisfied with it, will forward it to Defra for comment. On receipt of Defra's comments, normally within two weeks, the draft report will be returned to the **Project Leader** for comment. The Project Leaders have two weeks to submit their comments on the draft report and are encouraged to share it with their partners. On receipt of these comments the ECP consultant then has a further week to complete the report and **submit it to the DPD** along with the Completion Summary. The DPD will review the final report and forward it to Defra. Once final sign off has been received from Defra, the final report will be shared with the Project Leaders.

Please note that all reporting to the Darwin Programme Director should be sent to [Darwin-Projects@ectf-ed.org.uk](mailto:Darwin-Projects@ectf-ed.org.uk)

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 covering the key purpose and issues arising from the MTR; an outline of the main analytical points and the main conclusions, lessons learned, best practice and recommendations. It should be no more than two pages.
- *Main Text*: Should start with an introduction describing the projects being reviewed, collective context and the evaluation objectives. The body of the report should follow with a project by project description the review criteria described in the methodology describing the facts and interpreting them in accordance with key questions for the review.
- *Conclusions and Recommendations* according to partnerships, relevance, efficiency, effectiveness, impact and sustainability criteria.
- *Innovations, lessons learned and best practice* of the projects individually and collectively as well as the Darwin Initiative programme.
- *Advice on communications*: the ECP Consultant's views on how key messages about the project should be communicated and to which audience (eg press release in the UK or briefing to local FCO staff)

- Annexes should include:
  - the TORs for the ECP
  - the Logical Framework of the project indicating original intended purpose and outputs, actual achievements by the end of the project, and outcomes at the time of the ECP
  - A map of the project areas if relevant
  - A list of persons/organisation consulted
  - Documentation consulted (ie bibliography)
  - Other relevant annexes as appropriate.

The *Completion Summary* should be a one page checklist of key issues from the ECP, pulling together the recommendations, lessons learned, best practice and the advice on communications. A template will be provided by the Darwin Programme Director.

### Timetable for ECP

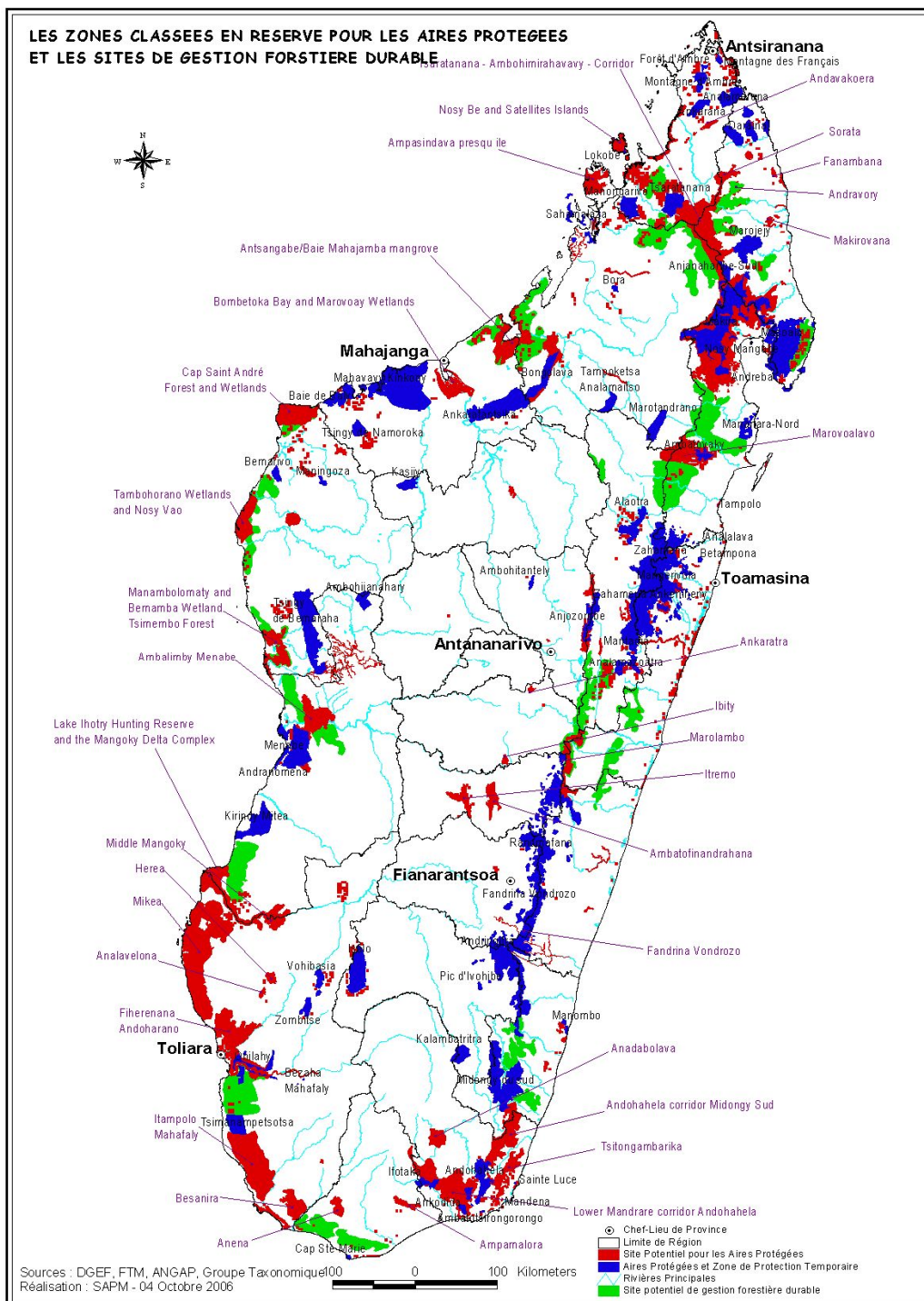
Latest Deadline	Activity
March 2009	Field visit carried out
31 March 09	Draft report sent to DPD
7 April 09	Draft report sent by DPD to Defra
21 April 09	Draft report sent by DPD to PLs for comments who forward to host country partners
5 May 09	Comments received from PLs, host institutions and DPD
12 May 09	Final report and Completion Summary submitted to DPD
19 May 09	Final report accepted by DPD and submitted to Defra for approval
26 May 09	Final report accepted by Defra and circulated to PLs by DPD

While you are not required to review these projects, you should be aware that the following projects have closed very recently:

Project Ref	Title	PL	Organisation	Partners	Dates
EIDPS019	Hanta Razafimanahaka Julie	Diana Bell	University of Aberdeen		Sept 07 – August 08
14-006	Conservation of small vertebrates in the Tsingy Bemaraha National Park, Madagascar	Paul Racey	University of Aberdeen	Madagasikar a Voakajy	Oct 05 – Sept 08

## Annex 2 Map of priority areas for biodiversity conservation

Map of existing and proposed protected areas and sustainable forest management sites in Madagascar amounting to 10% of Madagascar's land surface (DI Madagascar project data and DI trained Malagasy biologists contributed significantly to the production of this map which will serve as the basis for implementation of the environmental component of the Madagascar Action Plan 2007-2012)



## Annex 3 List of documents reviewed

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### DI Project documents

DI Thematic Review - Conservation of Biodiversity on Islands: The contribution of the United Kingdom's Darwin Initiative for the Survival of Species 1993-2006, March 2007. Written by Paul van Gardingen and Rob Wild

Final reports for DI Projects 7-027, 9-006, 10-021 & 10-024

Project evaluations for DI Projects 7-027, 9-006, 10-021, 10-024

Draft National Plan for the Conservation of Bats in Madagascar (output of project 7-027).

*Etude environnementale et écologique du Lac Sahaka, Madagascar.* Written by Dr. Roger Safford. Published by Royal Holloway Institute for Environmental Research, London, UK, 2000. 71 pp.

### Policy documents & declarations

*Madagascar Action Plan 2007-2012. A Bold and Exciting Plan for Rapid Development.* Government of Madagascar. 112 pp.

Global Symposium 2006 Madagascar. *Defying Nature's End – the African Context.* Final Declaration. 6 pp.

### General reference documents

*The Natural History of Madagascar.* Edited by Steven M Goodman & Jonathan R Bensted. The University of Chicago Press, 2003. 1709 pp.

### Other documents

*Madagasikara Vokaji.* Annual Report 2005-2006.

### Web sites

Birdlife	<a href="http://www.birdlife.org">www.birdlife.org</a>
CBD Secretariat	<a href="http://www.cbd.int/secretariat">http://www.cbd.int/secretariat</a>
Critical Ecosystems Partnership Fund	<a href="http://www.cepf.net">www.cepf.net</a>
Fanamby	<a href="http://www.fanamby.org">www.fanamby.org</a>
REBIOMA	<a href="http://www.rebioma.net">www.rebioma.net</a>
RBG, Kew, Legume Project	<a href="http://www.rbgkew.org.uk/science/directory/projects/BiogeogLegumes">www.rbgkew.org.uk/science/directory/projects/BiogeogLegumes</a>

## Annex 4 DI Madagascar ECP - Contacts Table

	Contact	Institution	Position / Title	DI projects	Address	Exchange	Tel (fixed)	Mobile	E-mail
1	Dr Daniel Rakotondravony	University of Antananarivo	Senior Lecturer, Department of Animal Biology	Beneficiary 7-027, 10-024, 14-006	University of Antananarivo	Interview		+261 (0) 331163039 or 87731	<a href="mailto:drakotondravony@si-micro.mg">drakotondravony@si-micro.mg</a>
2	Dr Emilienne Razafinahatratra	University of Antananarivo	Lecturer, Department of Animal Biology	Beneficiary 7-027, 10-024, 14-006	University of Antananarivo	Interview		(261)(0)3204629 79	<a href="mailto:emiarisoa@yahoo.fr">emiarisoa@yahoo.fr</a>
3	Dr Joélisoa Ratsirarson	Ministry of Environment, Waters & Forests	General Secretary	Government 4-104, 5-127, 7-027, 10-024	General Secretariat, MEEF, Ampanridanom by	Interview		+261 (0) 331187731	<a href="mailto:j.ratsirarson@simicro.mg">j.ratsirarson@simicro.mg</a> ; <a href="mailto:meef.sg@wanadoo.mg">meef.sg@wanadoo.mg</a>
4	Mr Rakotondrasoa Raymond	Directorate for Biodiversity Conservation, DGEF	Director, Biodiversity Conservation	Government 5-127, 7-027, 7-113, 9-006, 10-024, 14-006	Directorate General for Waters & Forests (DGEF), Nanisana	Interview		+261 (0) 320268305	<a href="mailto:dgforets@wanadoo.mg">dgforets@wanadoo.mg</a>
5	Mme Sahondra Rabesihanaka	Directorate for Biodiversity conservation <i>ibid</i>	Chief of Service, Flora & Fauna	Government 5-127, 7-027, 7-113, 10-024, 14-006	Directorate General for Waters & Forests, Nanisana	Interview			-
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