Evaluation of Closed Projects in Morocco and Egypt

Final report - May 2009

The Darwin Initiative

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

Monitoring and Evaluation

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

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

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

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

This report was undertaken by Lesley Brown on behalf of the Darwin Initiative

Cover Photo: *Chaetodon fasciatus,* Ras Mohammed National Park

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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
DI	The Darwin Initiative
EEAA	Egyptian Environmental Affairs Agency
GEF	Global Environment Facility
GTI	Global Taxonomic Initiative
IPA	Important Plant Areas
IUCN	International Union for the Conservation of Nature
MP	Member of Parliament
MPA	Marine Protected Area
NBSAP	National Biodiversity Strategy and Action Plan
NGO	Non-Governmental Organisation
PA	Protected area
PL	Project Leader
RSPB	Royal Society for the Protection of Birds
S Sinai	South Sinai Peninsula
SEMCLIMED	Impact du Changement Climatique sur la Flore Mediterranéenne et Actions de Conservation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

Executive Summary

North Africa was selected for an Evaluation of Closed Projects in 2008 following discussions between ECTF and the Darwin Secretariat at Defra. An Evaluation of Closed Projects provides an opportunity to review the legacy of projects after the end of Darwin Initiative (DI) funding. ECPs also allow the opportunity to review the wider contribution of DI projects to national efforts to implement and report against the 3 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). Finally ECPs provide the opportunity to boost the profile of the Darwin Initiative within host countries. North Africa was chosen as an area for an ECP due to observed geographic clusters of closed projects. To date there have been two projects in Morocco and five projects in Egypt, whose DI funding had ended at the time of the ECP. These were:

1. Inventory of Moroccan plants and the conservation of priority species (8-066)
2. The Darwin Plant Information System for Morocco (10-028)
3. Action Plans for conservation of globally threatened birds in Africa (10-019)
4. Darwin Initiative for sustainable use of sea-cucumbers in Egypt (10-027)
5. Darwin Initiative for sustainable use of sea-cucumbers in Egypt and the Red Sea (EIDPO008)
6. Egyptian Sea Turtle Conservation project (insert project reference)
7. Conservation of Coral Reef Fish Biodiversity (insert project reference)

The reviewer undertook in-country consultations in Morocco and Egypt from 3rd to 10th March 2009, and met with key project stakeholders of 7 projects, 5 of which were in Egypt. Contact was made with all project leaders prior to the evaluation and where there was limited project documentation available, telephone or face-to-face interviews were held. The ECP was based on the Darwin Initiative monitoring criteria of relevance, efficiency, partnerships, effectiveness, impact and sustainability.

The two Moroccan projects were successive projects under the same partnership and leadership. Both successively completed what was set out at application with strong quality training and work carried out. Whilst these were relatively small projects they have been successful in creating a base upon which the Moroccan partners have been able to secure a number of follow-on projects and by boosting Morocco's ability to partner with European institutes. As a result of these Darwin projects, Morocco has been able to substantially improve its botanical knowledge & capacity to operate in regional plant conservation initiatives.

Success of Darwin Initiative projects in Egypt was found to be variable. Of the 5 projects visited, 3 have had lasting impact and legacy and represent excellent value for money. They have made important contributions to conservation of biodiversity in Egypt and therefore helped Egypt implement the Convention on Biological Diversity.

Highlights of the outcomes of these three projects include:

- A ban on sea-cucumber fishing and export following stock assessments which revealed a decrease in stock levels.
- Establishment of a series of no-take zones in the South Sinai Peninsula to enable population recovery and improve sustainability of the fisheries in this region.
- Establishment of a biotechnology laboratory and teaching courses at Suez Canal University Marine Department.

Of the two projects that had a lesser degree of success, a number of issues contributed to this. These issues included a lack of follow on funding, staff turnover in the host country institutions and the inherent difficulties for NGOs operating in Egypt.

The marine turtle project was partially successful with the research carried apparently useful for regional turtle strategies as it is the only data available on marine turtle nesting and mortality in northern Egypt and has implications for management of turtles in the Mediterranean.

The RSPB project, whilst successful in other target African countries, had limited engagement in Egypt and was hampered due to a lack of institutional capacity for bird conservation in Egypt at the time of the project. There is hope however, with the creation of a new conservation NGO, Nature Conservation Egypt, in 2007, that some of the skills gained by other Birdlife Africa partners as part of the project can be transferred back to Egypt in the future.

From the evidence provided, the projects reviewed delivered valuable outcomes that contributed to the development of biodiversity conservation knowledge in the countries concerned. The long-term impacts of the projects were varied. The level of institutional buy-in to the problem and the simplicity of solutions derived from the projects, as well as the provision of ongoing funding to take forward findings, all affected the degree to which findings were taken up and used.

The Moroccan projects have been very successful at leveraging technical support and securing funds as a result of the work carried out under the Darwin Initiative whereas all bar one of the Egyptian project partners have found obtaining continuation funds and support far harder. It appears operating as an NGO can be difficult in Egypt.

The research carried out under all these Darwin Initiative projects and the practical options and methodologies generated have been entirely relevant to the target country's needs and priorities. Indeed, due to its high quality, much of this research is still, after many years in some cases, relevant and utilised in biodiversity conservation nationally and regionally. So, whilst immediate funding has not been available to continue activities (such as the Marine turtles) the results of projects are still relevant and can be utilised in future ventures. Finally the skills obtained by the host country institutions appear to have largely been retained within their original institutions. For those most part therefore, skills and experience gained through the Darwin Initiative projects are continuing to be used and contribute to conservation of biodiversity in Egypt and Morocco.

Introduction

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 utilisation of genetic resources. It does this through awarding grant funds for a range of biodiversity conservation projects. Applications for work in the UK Overseas Territories are particularly welcomed under the Darwin Initiative.

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.

Darwin projects range from having a strong focus on 'pure' conservation science, technical management planning and training to also place emphasis on local stakeholder engagement, knowledge management and communication and inform biodiversity conservation policy formulation. Since September 2002, there has been an increased annual funding commitment and three new types of Darwin funding (Darwin Fellowships, Darwin Scoping Awards and Post-Project). These aim to enhance sound project planning, strengthened capacity building for conservation professionals and secure lasting outcomes 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).

1.1 North Africa & the Darwin Initiative

The North Africa region was selected for an Evaluation of Closed Projects in 2008. Evaluation of Closed Projects provide an opportunity to revisit previously funded DI projects with a view of identifying outcomes and impacts arising post-project and to inform on the wider legacy of the DI. ECPs also provide the opportunity to boost the profile of the Darwin Initiative within target countries. North Africa was chosen as an area for an ECP due to observed geographic clusters of closed projects. To date there have been two projects in Morocco, two projects in Tunisia and five projects in Egypt, all of which had finished at the time this ECP was commissioned. Unfortunately 1 of the projects in Tunisia did not respond to requests for inclusion in the ECP and as the other Tunisian project was part of a multi-country approach, one of whom was based in Egypt, (17 countries in total under 1 project); it was decided to only include Egypt and Morocco in this closed projects evaluation.

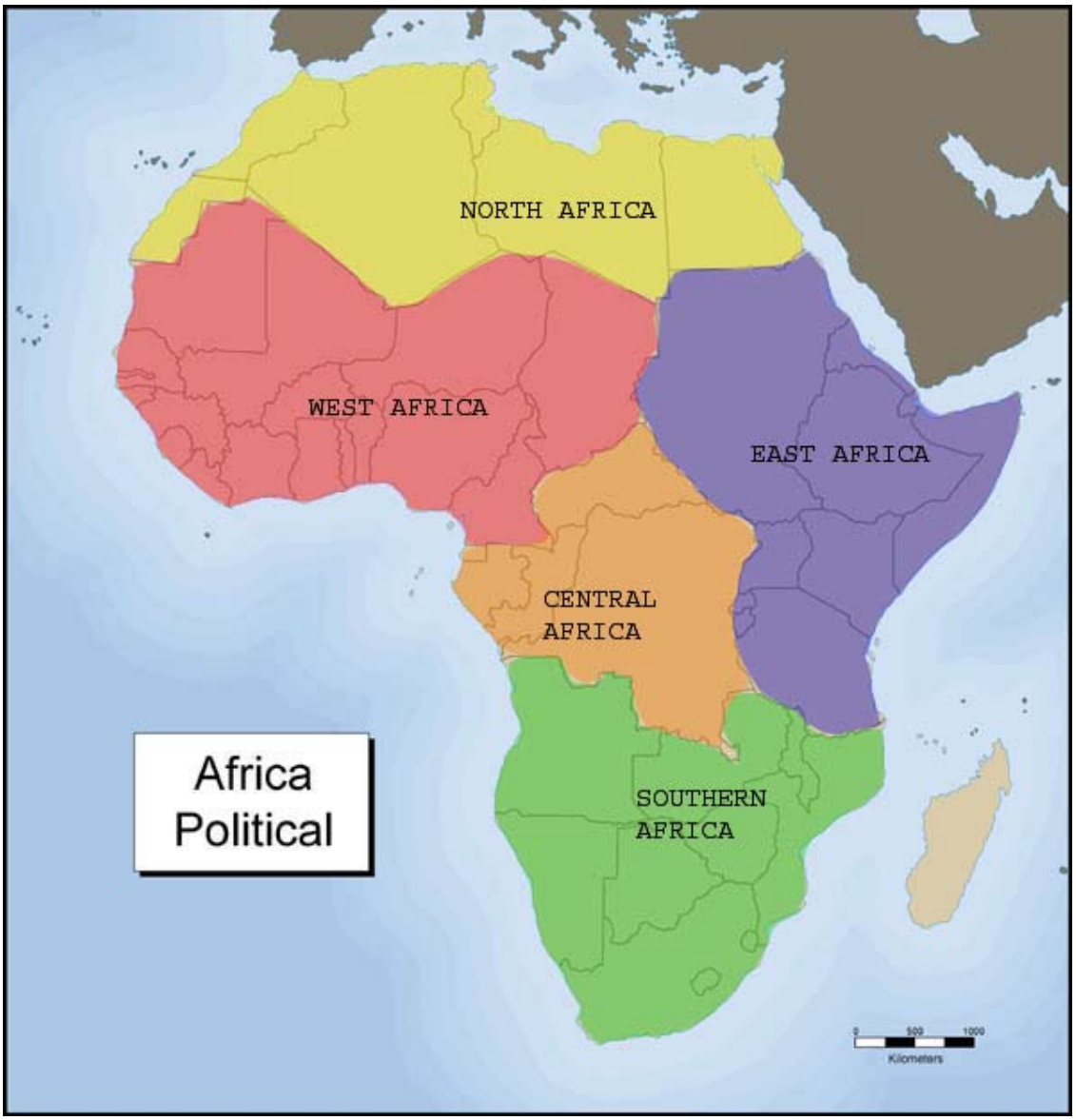

Figure 1: North Africa is generally classed as Morocco, Algeria, Tunisia, Libya and Egypt[1]

[1] Addicted to travel http://www.addictedtotravel.com/travel-guides/regions/north-africa-travel-guide

1.2 Morocco Country overview

Figure 2: Morocco ands it main cities[2]

A former French protectorate, Morocco successfully obtained independence in 1956 and is now a constitutional monarchy. Located in Northern Africa, bordering the North Atlantic Ocean and the Mediterranean Sea, between Algeria and Western Sahara, Morocco has a mountainous northern coast and interior, with large areas of bordering plateaus, intermontane valleys, and rich coastal plains. The northern mountains are geologically unstable and subject to earthquakes and there are periodic droughts. Current environmental issues include land degradation/desertification (soil erosion resulting from farming of marginal areas, overgrazing, destruction of vegetation); water supplies contaminated by raw sewage; siltation of reservoirs; oil pollution of coastal waters.

Morocco benefits from various types of ecosystems due to its proximity to Europe and sub-Saharan Africa. Morocco is home to species that have disappeared from other parts of the world, such as the Mediterranean monk seal, the bald ibis, and the argan tree. Arthropods dominate Morocco's fauna and constitute 73% of inventoried species with 40.5% of these threatened (CBD Status and trends of biodiversity[3]). Regarding Morocco's flora, 4500 plants are known to exist in the country and 1000 of them are endangered species. 3% of the forest cover is currently protected and the country has 24 Ramsar sites.

Morocco is a signatory of CBD, CMS and CITES.

[2] Maps and Distribution of the Birds of the Western Palearctic
http://digilander.libero.it/avifauna/w_palearctic/saving/morocco-mao.jpeg
[3] Convention on Biological Diversity, Status and Trends of Biodiversity
http://www.cbd.int/countries/profile.shtml?country=ma

Since the start of the Darwin Initiative, 2 projects have been funded in succession in Morocco. These have both been under the same partnership of Reading University and the Institut Agronomique et Vétérinaire Hassan II of Rabat. These projects have been centred on improving capacity and access to plant taxonomy information

1.3 Egypt country overview

Figure 3: Egypt and its main cities[4]

A rapidly growing population (the largest in the Arab world), limited arable land, and dependence on the Nile all continue to overtax resources and stress society. The government has struggled to meet the demands of Egypt's growing population through economic reform and massive investment in communications and physical infrastructure. Environmental issues for Egypt include agricultural land being lost to urbanization and windblown sands; increasing soil salination below Aswan High Dam; desertification; coastal development and oil pollution threatening coral reefs, beaches, and marine habitats; other water pollution from agricultural pesticides, raw sewage, and industrial effluents; limited natural fresh water resources away from the Nile, which is the only perennial water source; rapid growth in population overstraining the Nile and natural resources.

Due to its position between Eurasia and Africa, Egypt has a unique variety of ecosystems and wildlife that ranges from Eurasian species to purely sub-Saharan species[5]. As Egypt's climate is generally hot and dry arid terrain much of the terrestrial fauna and flora is desert adapted and often hard to find. The Mediterranean coast is wetter and around the Nile delta important for agriculture and fishing. The Red Sea coast is very arid and mountainous in the Sinai Peninsula.

[4] Central Intelligence Agency, The World Factbook http://www.cia.gov/library/publications/the-world-factbook/geos/eg.html

[5] Biodiversity Monitoring and Assessment project, Egypt http://www.biomapegypt.org

The Red Sea is an important area for coral reef diversity with over 200 species of hard corals found in this region. Egypt is an important for migratory species such as birds and sea turtles. Egypt is a migratory corridor for birds, and attracts some 280 additional species of birds.

Egypt is a signatory of CBD, CMS and CITES.

Since the start of the Darwin Initiative 5 projects have been funded involving Egypt. These projects have focused on the conservation of birds, sea-turtles, sea-cucumbers and coral reefs using a variety of approaches including research, training and public awareness. These projects have been based primarily along the Mediterranean coast and the Red Sea coasts with 4 of the 5 projects having some form of base out of the Suez Canal University and the South Sinai protectorate.

1.4 Review format & location

The reviewer travelled to Morocco and Egypt in March 2009 in order to meet with participants of 7 projects, 5 of which were in Egypt. Contact was made with all project leaders prior to the evaluation and where there was limited project documentation available, telephone or face-to-face interviews were held. These initial interactions provided the reviewer with a good level of knowledge of all the projects prior to meeting project participants and enabled respondents to seek clarifications to help them prepare for the field visit phase of the evaluation. This was seen as important particularly as some participants had had limited interaction outside of their own activities with the wider context of the project or, in some cases, this interaction had been many years previously. In addition to the initial document and telephone reviews, the field visits, focus group sessions and semi-structured interviews with project team members and project stakeholders generated evidence for the evaluation.

As per the terms of reference all discussions and interactions were focused on obtaining information on projects relevance, efficiency, partnerships, effectiveness, impact and sustainability criteria. A brief synopsis of each area projects were assessed against is included in Box 1.

Box 1: Issues to be evaluated

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.

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

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.

Impact: To what extent the project purpose was achieved and thus contributed to the overall project goal (i.e. 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.)

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

Innovations, lessons learned and best practice: Any lessons learnt reported by the project implementers, any innovations developed by the project and any best practices implemented by the project.

2. Project Evaluations

2.1 Inventory of Moroccan plants and the conservation of priority species

Project Reference No:	8-066
Lead Institution:	University of Reading
Partner Institutions:	Institute Agronomique et Vétérinaire Hassan II, Rabat
Grant value:	£26,030
Start / finish date:	July 1999 – July 2001

2.1.1 Project implementation

This team delivered two Darwin Initiative funded projects back-to-back (8-066 and 10-028). Whilst delivery of each project is discussed separately from each other, the longer term impacts of the projects are discussed under one heading as they are interrelated and therefore need to be considered holistically.

Box 2: Project purpose as stated in the application

'To produce a flora and red data book for conservation purposes'

The project's objectives were to:

- Develop an on-line plant information system for Moroccan plant collections to allow Moroccan researchers easier access to plant data;
- Identify specimens (through illustrations, photographs and images) and to give the opportunity of generating inventories for areas and for categories of plants;
- To determine areas of rich species and endemic biodiversity and to highlight areas and species for action;
- To produce a virtual flora.

This project was proposed as it would be complementary to a larger project already underway in Morocco (see box 3). In 1996 discussions commenced between Dr Jury of Reading and Professor Rejdali of Rabat regarding securing some Darwin Initiative funding to support the delivery of the publication of the 'Flora of Morocco'. Professor Rejdali had completed a PhD at Reading University in the 1980's therefore there was already an established relationship between the two institutions prior to the Darwin funded project although this was the first opportunity to start an official collaboration between Reading and Rabat.

Box 3: The Flora of Morocco

During the 1990's the Institute Agronomique began a large project to produce a comprehensive guide to the Flora of Morocco from existing knowledge and material in addition to collection of new material evidence. This was in partnership with the University of Montpellier and the University of Marseille. A further project was developed in collaboration with the University of Reading, the Botanical Institute, Barcelona, the University of Rabat, and the University of Seville to create a checklist of North Moroccan plants. This project was delivered in parallel with the French collaborated project.

This initial Darwin Initiative funding was intended to develop a database at the Institute Scientifique, Rabat, to train 3 Moroccan botanists in examination of herbarium and systems at Reading for one month and to publish a catalogue of species. At the time there was extensive data held in the University of Reading on Morocco's flora and the project aimed to repatriate this data to Morocco.

Delivery

Five (rather than the three originally planned) Moroccan botanists completed the training course in database creation and manipulation at Reading University, staying for a total of three months. Of these, one student remained behind in Reading to work as a researcher under the supervision of Dr. Jury. The databases were shared via the internet on a webpage www.moroccanplants.net. Unfortunately this website is not longer functioning but can be found via Reading University's internal WebPages - www.herbarium.rdg.ac.uk/moroccan_plants/moroccan%20plants/main.asp

Around this period a bigger project was being discussed to include Morocco into a Mediterranean wide plant ecology project 'Euro + Med PlantBase'. Euro+Med PlantBase's purpose was largely similar to the Darwin project but on a wider scale. It was established as an information system and database for the plants of the Euro-Mediterranean region using modern bioinformatic techniques. The principle described aim of Euro+Med PlantBase is:

'*To organise, co-ordinate and make available in a collaborative electronic mode, information on the plants of the Euro-Mediterranean region and prove this against an evaluated consensual taxonomic core that is periodically reviewed. Euro+Med PlantBase will thereby provide a single rich resource and system for obtaining information on the plant diversity of Europe and the Mediterranean for a wide variety of users, including professional biologists, agronomists, foresters, horticulturalists, conservationists, environmental planners and national and international conservation organisations.*'

The inclusion of Morocco under this initiative was due, in part, to their increased capacity for such work following Darwin Initiative funding. Additionally Darwin Initiative funding had boosted the Moroccan partner's profile in plant taxonomy. Due to fortunate timing, and Dr Jury acting as Secretary for this group, the Moroccan botanists were able to attend the 1st meeting of this group as it coincided with one of the training visits.

2.1.2 Post project sustainability and impact

The impact for this project is discussed in conjunction with the follow-on Darwin Initiative funded project which is detailed below.

2.2 The Darwin Plant Information System for Morocco

Project Reference No:	10-028
Lead Institution:	University of Reading
Partner Institutions:	Institute Agronomique et Vétérinaire Hassan II, Rabat
Grant value:	£30,950
Start / finish date:	July 2001 – June 2003

2.2.1 Project Implementation

This project intended on using data and specimens collected and collated under the previous project to identify plant conservation needs in Morocco. Using this information the project intended to provide an inventory of the Moroccan flora and help the conservation of Moroccan plant diversity in accordance with the DI main objective.

Box 4: Project purpose as stated in the application

To help produce an inventory of Moroccan plants and select those most in need of conservation using literature, the Red Data Book and herbarium records, the Darwin plant information system (created under the previous project) and the expert knowledge of Moroccan botanists.

The main activities under this project were the production of lists of targeted species, verification of names; plant collecting expeditions, staff training, collection management, cultivation research, website development, database upgrading and writing research papers. According to its final report this project was successful in meeting all its original objectives. Six years later, the online database is still functioning successfully – the reviewer tested the online database and it was informative and easy to use (www.moroccanplants.net). Resources from the DI project provided materials and funds to begin digitising the herbarium records held in Morocco and Reading. Over a 1000 records were loaded onto the database and all species collected in Morocco during the project were placed on www.moroccanplants.net.

2.2.2 Post project sustainability and impact

Based on feedback from project collaborators, a number of long term positive outcomes from Darwin Initiative funding were identified:

Capacity

The Moroccan botanists included on these projects from the host country institution had strong capabilities in classic botany and taxonomy. However DI funding enabled these botanists to access and gain training in modern collation techniques such as the creation and manipulation of databases and on-line catalogues. Additionally these projects enabled repatriation of data held on the flora of Morocco in Reading and additionally through other European institutes holding material.

Figure 4: The herbarium at Institut Scientifique, Rabat was supported by the Darwin Initiative to digitise its records and repatriate data held at Reading University

The digitisation process started under Darwin funding has been extended under successive projects (with alternate funds). Technology advances have improved accuracy, but without the initial start given by Darwin Initiative funding; this levering of further funds would have been difficult or impossible.

These small Darwin Initiative funded projects have been successful in creating a base upon which the Institut has been able to secure a number of successional projects and by boosting Morocco's ability to partner with European institutes. Listed below are some of the projects and initiatives that the Moroccan team feel are attributable to the support given by the Darwin Initiative:

- The Flora of Morocco (Flore Pratique du Maroc) has been almost been finished – Dr. Jury, the DI project leader, is named as one of the authors of these volumes. This was the first comprehensive catalogue of plant species in Morocco with identification keys.
- The University of Reading and the Institut Agronomique and Institut Scientifique have and continue to collaborate on a number of botanical projects. The Darwin funding provided them with their first official collaboration.
- Morocco was included under the Euro+Med PlantBase project. This provided further resources and access to herbarium records for Botanists at Institute Agronomique and Institut Scientifique.
- Membership of and contribution to the African Plants Initiative. This initiative funded by the Mellon foundation, is an African-wide online digital library of more than 250,000 type specimens drawn from the estimated 60,000 plant species in Africa, Madagascar and other islands surrounding the African continent. The Initiative has provided some funds to the Institut Scientifique to continue the digitisation and database work commenced under the Darwin Initiative.
- Inclusion under the SEMCLIMED project which is focused on the effects of climate change on Mediterranean flora. The Institut Scientific is a full partner in this project which has a large North African component focusing on seed collection and banking and training.

Box 5: Project success summary

Relevance: The need for this project was identified by the host country for this project and was entirely relevant to plant conservation needs at that time.

Efficiency: The project appears to have been very efficient with targets well met and even in some cases overachieving what had been planned (such as the number of people trained).

Effectiveness: These were small interventions that were timely and necessary for the team to complete ongoing work on the 'Flora of Morocco'. The quality of work and training received under the Darwin project were more than sufficient to support this ongoing larger project.

Impact: Through obtaining support under the Darwin Initiative it appears that the team have been successful in leveraging support in other areas as a result of their increased capacity in plant taxonomy & plant conservation. Morocco's 4th Technical report to the CBD sees this investment of technical and scientific assistance as important to its protection of biodiversity.

Sustainability: The digitisation process has lasted and whilst techniques have improved there is an obvious legacy in the quality of material held by Morocco.

Innovations, lessons learned and best practice: The website in its heyday was an open access database of digital records held in Rabat of flora samples taken.

After the end of the Darwin Initiative funds, Reading had funds for some years to keep the two websites (a url in French and English available), but lack of funds meant it is now ran exclusively through the Reading site.

Also set up was NAFRINET by BioNET International (see http://www.bionet-intl.org and search NAFRINET) with partners from all the N. African countries, originally led by Rejdali.

2.3 Action Plans for conservation of globally threatened birds in Africa

Project Reference No:	10-019
Lead Institution:	RSPB
Partner Institutions:	Botswana, Burkina Faso, Burundi, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Nigeria, Rwanda, Sierra Leone, South Africa, Tanzania, Tunisia, Uganda, Zambia and Zimbabwe
Grant value:	£157,590
Start / finish date:	April 2001 – March 2004

2.3.1 Project implementation

This project was a multi-country project including participants from 17 countries in Africa under the Birdlife Partnership for Africa. Whilst the reviewer has followed up with individuals in the host partner (RSPB) and the Birdlife Africa Secretariat (Kenya), the focus of this evaluation will largely centre on Egypt.

Box 6: Purpose as stated in the application

'To establish capacity for participative action planning for globally threatened bird species in Africa'

Working through the Birdlife Africa partnership, the project was to build institutional capacity by training Species Interest Groups, Birdlife Partners and Government officials from 17 countries in species action planning.

The training aspect of this project was one of its major components. Birdlife Africa partners nominated government counterparts from each country to participate, as part of the process of obtaining government buy-in to the process. A total of 31 people from all the 17 mainland partner countries were trained in species conservation. Another 305 participated in the development of national and international species action plans.

Delivery in Egypt

From the evidence available, Egypt's involvement in this project appeared to be perhaps less than the project reports indicated. At the time, Egypt was a partner in the Birdlife Africa partnership however the Egyptian Birdlife (and Darwin Initiative) 'partner' was, uniquely in Africa, an individual rather than an institution. This individual, Sharif Baha el Din, had been more involved in the Birdlife work prior to the Darwin Initiative application but due to outside work pressures was not involved in the eventual project. It was decided however, to retain Egypt in the project as 2 of the focus species were found in Egypt. Wed Ibrahim of the Nature Conservation Sector of Government attended both international species workshops. Wed Ibrahim was not available for interview during this visit. Sherif was contacted via e-mail but had little recollection of the project. He has since relocated to Oman where his work is more herpetological based than ornithological.

2.3.2 Post project sustainability and impact

The lack of institution in the Egyptian partnership probably explains the limited impact the project has had in Egypt. The two individuals involved under this project were not solely ornithologists and, due to other work pressures, have been unable to take much of this work forward. The lesson may be that when involving individuals as opposed to institutions, they should be in a position to apply what they have learnt – in this case the development of action plans. Looking forward, there is hope from Birdlife Africa that with the establishment of a new NGO, 'Nature Conservation Egypt' (which is to act as the Egyptian Birdlife Africa Partner), that some of the training and skills gained by other African partners can be transferred to Egypt. Despite the lack of skills retained within Egypt there are Egyptian components in the two international action plans for Lappet-faced Vulture and Houbara bustard which can be implemented when the capacity is available to do so.

Whilst the impact in Egypt is limited there were reportedly more substantial outputs from this project from the other countries involved. In total 7 international action plans were produce which are listed in box 7.

Box 7: Wider successes under the project

In total 7 international action plans were produced for:

Grauer's Rush Warbler	Blue swallow
Grey-necked Picathartes	White-necked Picathartes
Spotted Ground Thrush	Lapped-faced vulture
Houbara Bustard	

15 national action plans were also produced for:

Blue swallow (South Africa)	Blue Swallow (Zambia)
Blue Swallow (Zimbabwe)	Cape Parrot (South Africa)
Grauer's rush warbler (Uganda)	Grauer's rush warbler (Rwanda)
Grey-necked Picathartes (Cameroon)	Grey-necked Picathartes (Nigeria)
White-necked Picathartes (Ghana)	White-necked Picathartes (Sierra Leone)
Spotted ground thrush (Kenya)	Spotted ground thrush (Tanzania)
White-winged Flufftail (South Africa)	White-winged Flufftail (Ethiopia)
Wattled crane (Botswana)	

In terms of the wider impact for 10-019, post-project funding was obtained from the Darwin Initiative for to support the implementation of these action plans in Africa **(EIDPO003).**

Box 8: Project purpose as stated in the application form

'Enabling implementation of threatened bird Species Action Plans in Africa'.

This project was intended to coordinate the implementation of the Species Action Plans produced under the former project. Further training and support was provided for Species Interest Groups involved under the first project to deliver Species Action Plans and to train others in the planning and delivery process. Whilst Egypt was again named as one of 18 partners due to a lack of institutional capacity its involvement was again limited. Osama Elgebaly attended both main training workshops. Osama is currently a manager in the Ras Mohammed National Park in Southern Sinai (see project 3-018). Osama was thankful for the training as he thought the processes learnt through the training were helpful, but had little awareness of the source of the funding or its place in the wider regional project.

Overall, the post project grant enabled progress in a number of partner countries.

For example:

- In Rwanda, Rugezi Swamp which contains a relatively large population of the Grauer's Swamp Warbler was designated a RAMSAR site in 2005.
- In Ghana, the Ghana Wildlife Society (GWS) is collaborating with the Forest Services Division to secure the nesting areas of the White-necked Picathartes from logging.
- Monitoring of the Spotted Ground Thrush and its habitats in the breeding grounds in southern part of Tanzania (Rondo FR), stop-over points (Pugu and Dondwe forests) and wintering grounds in Kenya (Arabuko Sokoke forest) is being undertaken.

Following the completion of the Darwin Initiative project and post-project funding, Birdlife Africa undertook an internal evaluation of progress and impact. The internal evaluation used a questionnaire distributed to each partner as a means of assessing progress – 22 responses from 13 countries were returned. In conclusion, the internal evaluation concluded that since 2004, obtaining conservation funding for single species has become quite difficult, unless those species are so called 'charismatic'. The evaluation also concluded that 'most of the international SAPs were developed in a manner that did not fully commit the governments of the range states to implement them'.

Discussion

Projects involving multi-country inputs of varying levels are difficult to evaluate through the production of reports and this visit served as one of the few opportunities to assess impacts at ground level. In Egypt, the scope for the trained individuals to influence the development of species action plans was limited in comparison with, for example, neighbouring Tunisia. In Tunisia individuals from an ornithological NGO, 'Les Amis des Oiseaux' (AAO), attended all the training sessions and have since used this to draft species action plans.

Managing such a complex project and therefore being able to report on its progress is equally difficult at times. Participants reported some difficulty in engaging with the project. E-mail communications were used to draw participants into the workshops where the communications were centred. It was the opinion of some of those involved that success in some countries can be, in part, attributed to the strong personalities involved as institutional capacity was often low.

This project used its resources to collaborate with a large number of the Birdlife Africa partners. Whilst some international relationships were built as a result of the project one cannot help thinking that to focus the project and its resources on those countries more capable of developing **and** implementing such plans, impact and legacy could have been greater. It is difficult to form a balanced opinion in this case as the country visited had little visible impact from either project. It is clear from the project's documents that impact is far greater in other countries.

Monitoring and evaluation of such a project from the perspective of the Darwin Initiative could potentially require more detailed breakdowns of country-by-country activities and impact in addition to reporting under each output. The annual and final reports were clear and concise suggesting that progress in each country was of the same level. Whilst 17 countries were invited to be involved in project activities it is clear that all 17 countries were not fully involved and therefore sweeping discussions of impact are impossible.

Box 9: Project success summary

Relevance: Overall there was little expertise held within Africa for species action planning prior to this project and capacity to deliver conservation support for birds in Africa varied.

Efficiency: Efficiency of the project for some countries was very high with the workshops reportedly well run. For Egypt, the project's broad-brush approach did not provide sufficient support to incorporate this training into effective strategies.

Effectiveness: This was variable within all the target countries. It appears there are core projects where the training and support provided under the project have been very effective however in Egypt, where the project has less effect.

Impact: Complex projects such as this make it difficult to make broad sweeping statements of impact. Impacts have been varied from this project – those countries where Birdlife partners are reasonably motivated and supported impact has been good, with action plans created for birds and implemented under the post project. For Egypt, impact has been negligible or zero.

Sustainability: Again levels of sustainability varied from country to country. There was little sustainability in Egypt due to a lack of institution being included. Individuals trained have limited ornithological outlets in their normal working roles.

Innovations, lessons learned and best practice: The process of species specific action planning is useful for understanding importance of sites. This process has helped to stimulate protected area planning in some of the target countries.

2.4 Darwin Initiative for sustainable use of sea-cucumbers in Egypt

2.4.1 Project implementation

Project Reference No:	10-027
Lead Institution:	University of Hull
Partner Institutions:	Suez Canal University
Grant value:	£160,700
Start / finish date:	October 2001 – October 2004

Project Reference No:	EIDPO008
Lead Institution:	University of Hull
Partner Institutions:	Suez Canal University
Grant value:	£80,176
Start / finish date:	May 05 – October 2007

The project was proposed in reaction to a relatively new but rapidly expanding fishery for sea cucumbers in Egypt. This fishery started in around 1995 as a largely artisanal affair but quickly expanded into a large commercial fishery. Due to the high returns of sea cucumber fishing many Egyptian dive staff working in the tourism sector of South Sinai instead became commercial sea cucumber fishers.

There was concern from a number of quarters (including the marine biology staff at Suez Canal University and the South Sinai Protectorate under the Egyptian Environmental Affairs Agency (EEAA)) over the possible impacts this fast growing fishery was having on the health of the Red Sea's coral reefs. The Red Sea is an important area for biodiversity with up to 10% of fish found here being endemic. As a result of this there is a strong tourism industry that has built up over the last 20 years. Tourism comprises the most important economic industry and brings 6.5 percent of Egypt's gross domestic product in 2007-08[6].

Box 10: Project purpose as stated in the application

10-027 To develop the first example of a sustainable sea cucumber fishery along the Red Sea coast of Egypt.

EIDPO008: To monitor recovery of sea cucumber stocks in Egypt and move towards a sustainable fishery in Egypt, Regionally in the Red Sea and East coast of Africa.

Prior to this project starting there was little expertise in sea cucumbers in Egypt and there was no baseline data of cucumber diversity or abundance prior to fishing. The team were aware of sea cucumber fishery collapses in the Indo Pacific with many species now commercially extinct. Sea cucumbers play a vital role in regulating sedimentation on coral reefs and the scientists were concerned that a loss of sea cucumbers would have a resultant affect on the coral reefs of the Red Sea which are already growing in a high sedimentation area.

Therefore the main objectives of this first project (10-027) were:

1. To assess sea cucumber stocks in the Egyptian Red Sea in order to make management suggestions;
2. Establish a mariculture venture to support the restocking of sea cucumbers and;
3. To carry out research on bioactive substances found in sea cucumbers.

The project took on 3 research students to take forward each of the three elements to the project which was overseen by Dr Andrew Lawrence of Hull and Dr Ashraf Ibrahim of Suez Canal University. To support the delivery of the management recommendations derived from the research of the three students, the project trained EEAA rangers and fishermen in stock assessment and mariculture techniques.

The follow on project (EIDPO08) looked to expand the work carried out on cucumber stocks, mariculture and bioactive substances on a more regional basis. Specifically this project looked to:

- Encourage the relevant agencies in Egypt to adopt the recommendations from the Sea Cucumber management and Monitoring plan and by initiating a post-project monitoring programme to assess the recovery of depleted stocks in Egypt during the period of the continued project. The monitoring was to be undertaken by EEAA rangers under the supervision of the previously trained student.
- Further examining and elucidating the relationship between some cucumbers' ability to modify the secondary compounds that they produce in different environments.
- Expand the knowledge and technology transfer through regional cooperation.

[6] TOURISM: Egypt, *Africa Research Bulletin: Economic, Financial and Technical Series* **45**(12): 18111-18113.

2.4.2 Post project sustainability and impact

In terms of impact, outcomes from the cucumber stock assessment and the research on bioactive substances found in sea cucumbers have made a significant and lasting impact on Egypt.

During the first project the team engaged with Dr Fouda, the CBD focal point and head of EEAA, regarding their findings of the stock assessment and fisheries management plan. As a result a ban was placed on sea cucumber fishing in the Red Sea. This met with some resistance from the fishing community, not surprisingly because of the high commercial value of sea cucumbers. This pressure caused the fishery to be reopened after a few months.

Under the post-project the team held further meetings with the CBD focal point, the EEAA and the Ministry of Environment and persuaded the government to enforce a complete ban on cucumber fishing. At this time cucumbers were shipped dried by plane to China so preventing export was relatively straight forward and the ban meant that no marine products from the Red Sea could be exported. Egypt is very restrictive in terms of export of coral reef products (fish, coral, and cucumbers) with no aquarium trade as such in Egypt. According to all sources consulted, the ban - which remains in force - has been successful with few incidences of poaching reported.

Institutional Capacity

The other strong impact that has been felt as a result of this project is the establishment of the biotech laboratory at Suez Canal University (see figure 5) within the Marine Sciences Department. One of the research students trained on the project, Rafat Affifi, has returned to the Suez Canal University and with the newly established biotechnology laboratory has established a teaching and research marine biotechnology component in the Marine Biology department. Prior to the Darwin Initiative there was a biotechnology course at the University, but only within the Medical Faculty. With the anticipated return of Mohammed Ahmed to the University upon the completion of his PhD at Hull in 2009, the Biotechnology Department shall be expanded further to include courses taught by Mohammed.

The research completed under the biotechnology component looked at sourcing bioactive substances in sea cucumbers. One of the surprising results of this research was the discovery that, in addition to genetic differences between species, there were inherent differences between species based on both genetics and their environments. This has important implications for cucumber management particularly for ex-situ hatcheries which are being investigated further by Mohammed Ahmed as part of his PhD partially funded by the Darwin Initiative.

Figure 5: Dr Rafat Affifi & the Biotech laboratory technician with some of the equipment bought with Darwin Initiative funding. Darwin Initiative funding has provided the University with a fully functional laboratory which is used by undergraduate students and postgraduate research

Using skills gained under the DI projects, Rafat Affifi has extended his search for bioactive substances into other reef creatures including corals and sponge looking for anti cancer, anti fungal and anti-leishmania substances. No other research into this is currently being carried out in Egypt and indeed the Biotechnology Department at Suez Canal University is now attracting regional attention for its research and teaching capabilities.

The mariculture related objective of establishing a fully functioning hatchery was not achieved for a number of reasons. Firstly (as discovered under the bioactive substances research) species translocated from their preferred habitat do not thrive well in alternative habitats, and secondly there is little or no breeding within species translocated from different habitats. Following the UN FAO workshop attended by the team in China, links have been made with groups in China that are experienced in sea cucumber mariculture. Progress is therefore being made towards establishing a fully functioning hatchery with the support of Chinese funds to support both the bioactive substances research and the restocking of the sea cucumber population.

The regional cooperation planned using the post-project fund was also less successful. The intended collaboration with Kenya did not materialise due to staff changes in Kenya. Secondly the team had intended on hosting a regional workshop inviting other Red Sea countries such as Saudi Arabia, Yemen and Oman to disseminate their findings and stimulate contact and interest in sustainable sea cucumber fisheries. Unfortunately the intended budget for this venture was not available due to an administrative error at Hull University. The team at Suez Canal still see this as a vital output of the project and are investigating options for this sometime in the future. The EEAA believe some sea cucumber fishing occurs in Saudi waters by displaced Egyptian fishers; therefore collaboration with Saudi Arabia is seen as a necessary extension of the stock assessment work already undertaken by the team.

Overall this project serves as a classic example of a problem-intervention-solution. This project was strongly demand driven with problem identification by the host country institution and buy-in from the relevant government departments. The regulatory system recommended could, in part, be simply applied. The team garnered strong support from the Egyptian government, largely as a result of the inclusion of the CBD focal point, Dr Fouda, in the delivery of the management recommendations.

It is the recommendation of the Darwin team at University of Suez Canal that the sea cucumber fishery remains closed for the foreseeable future, or until stocks have recovered. Given the difficulties the team have come up against in boosting stocks through ex-situ breeding programmes the recovery of this fishery is likely to take some time.

Box 11: Project success summary

Relevance: This project was entirely relevant in its problem identification and approach to address this problem. With local identification the project garnered strong support in Egypt.

Efficiency: In the first project the efficiency appears to have been strong. Some issues in the post project in the financial administration have impacted on its ability to translate a national approach to a more regional approach. .

Effectiveness: In one sense this was a relatively simple problem as the fishery was relatively immature in terms of social processes reliant upon the fishery. Imposing a ban was, despite the initial pressure, a reasonable approach and due to export restrictions relatively easy to enforce.

Impact: The impact of this project has been huge in 2 areas. 1) The ban on sea cucumber fisheries should mean that stocks recover and 2) the University has become a regional leader .

Sustainability: The results of this project have reached a strong sustainable end point in Egypt with strong support and buy-in from the government to keep a ban on fishing in place. Secondly the integration of biotechnology research and teaching within the University has reached a sustainable end-point with a fully equipped lab and teaching staff in place. Regional replication of this work is a challenge but the team are still looking at expanding their work elsewhere in the Red Sea region.

Innovations, lessons learned and best practice: Best practice is highlighted in this project in the form of project management undertaken by the team. The problem identification-intervention-result cycle was clear at outset with the problem being identified by the host country and the outputs of the project being fully integrated back into the host country.

2.5 Egyptian Sea Turtle Conservation Project

Project Reference No:	6-020
Lead Institution:	Queen Mary, University of London
Partner Institutions:	Suez Canal University
Grant value:	£143,632
Start / finish date:	June 1997 – October 2000

2.5.1 Project implementation

Figure 6: Egypt's Mediterranean coastline stretches from the Gaza strip in the east to Libya in the west[7]

[7] MSN Encarta http://encarta.msn.com/map_70156553/sinai_peninsula.html

The project aimed to look specifically at sea turtle conservation on the Mediterranean coast of Egypt (Figure 4). Whilst some turtle conservation work was being carried out within the Red Sea coast of Egypt, the status of sea turtles on the Mediterranean coast, aside from one small historical study, was largely unknown. Scientists at the Suez Canal University suspected that Egypt's Mediterranean coast could prove to be an important area for nesting turtles due to its close proximity to Cyprus, Turkey and Greece which are all known to host important turtle nesting populations. A secondary purpose for studying the populations of turtles on the Mediterranean coast was due to increasing intensities of jellyfish blooms which were causing problems for the tourism sector of northern Egypt (which largely caters for weekend influxes from Cairo) As jellyfish are a known food source of marine turtles – particularly juvenile green turtles – the team at Suez Canal University suspected that reduced numbers of turtles were causing this boom in jellyfish numbers.

Box 12: Project purpose as stated in the application form

To identify beaches currently used for nesting by Green and Loggerhead turtles and identify other suitable ones.

Understanding that international expertise could help the University with their investigations Dr. Ghoneim at Suez Canal University contacted Dr. Andrew Campbell of London University whom he knew through reputation and through papers he had published. Together, scientists at the two Universities developed a plan to support sea turtle conservation on the Mediterranean coast and prepared a proposal for Darwin Initiative with the intention of delivering four outputs:

1. Undertake sea turtle population surveys.

2. Establish a hatchery to support nesting beaches.

3. Boost public awareness of turtle conservation.

4. Engage with policy makers to support turtle conservation.

The project surveyed all 1500km of the Mediterranean coast of Egypt from the borders with the Gaza strip and Libya to collect evidence of nesting activity. Surveys showed that a small population of loggerhead turtles (*Caretta caretta*) and the occasional green turtle (*Chelonia mydas*), nest along this coastline. Prime nesting areas were concentrated in the eastern region of the Northern Sinai coast close to the border with the Gaza strip. Throughout the three year study, evidence was found of capture and slaughter of adult turtles at sea (both accidental and purposeful); disturbance of nests and eggs on the beaches; reduction in hatchling survival due to heavily polluted nesting beaches; and the loss of nesting sites due to widespread coastal development for tourism. Whilst no evidence of nesting in the Nile Delta region was found, dead turtles were found washed ashore suggesting that marine turtles congregate in the near shore waters to feed on continental shelf sea grass beds. Causes of mortality were largely anthropogenic with many turtles caught in ghost fishing nets & apparently drowning or starving before being washed ashore.

Figure 7: Ghost nets were found to be one of the causes of mortality of turtles found washed up on beaches in northern Egypt

From the surveys, it was concluded that North Sinai was the most important area in northern Egypt with respect to marine turtle nesting sites. The Darwin project team trained both the military and protected areas staff to identify turtle tracks and nests, and in turn, the staff reported sightings to the Egyptian project leader. Further training was given for 4 staff on the project which comprised of 2 students of the University and 2 technicians of the University. For this, 10 weeks was spent at the University of London learning turtle biology and ecology and 2 of the trainees went on to receive training in Cyprus in turtle tracking and conservation measures such as hatcheries.

A temporary hatchery was established with the intention of incubating eggs that had been laid below the high tide line. This was established within the protected area of El Arish in North Sinai with the support of the EEAA via the CBD focal point. The team reported some success releasing juvenile turtles but as none of these were tagged, it is not possible to estimate the impact of this on local populations. The hatcheries were used to carry out research on the effects of temperature on the sex of hatching turtles. Unfortunately, the University could not find funding to continue the operations of the hatchery and once the DI funding ceased, it was closed.

The public awareness campaign covered a large range of activities with the Egyptian project leader successfully engaging with journalists. Despite this high level of coverage of the project the public response was disappointing with few turtle sightings reported. The public awareness campaign focused on the children of the Mediterranean coast created materials for schools and a number of publicity materials such as nesting beaches signs, telephone books, calendars and t-shirts. The intention was to reduce nest disturbances by holidaying children and their family.

A survey found that whilst turtles are rarely consumed in Egypt there was one hotspot for consumption of these animals in Alexandria particularly by women for supposed youthful properties associated with turtle blood. The project worked with the EEAA and the CBD focal point to seek a ban on sales of turtle meat and blood in Alexandria. The team were successful in convincing the EEAA to close such operations down which was reportedly successful although there are limited reports from the period after the DI project. A MESASSET review of turtle trade in this market found that in a period of 6 months 135 turtles were slaughtered. Whether this cessation in trade of turtles will have any impact on those incidental captures of turtles is probably unlikely without further fisheries management interventions.

It was the intention of this project to create an NGO in Egypt specifically for Turtle Conservation. Unfortunately the team were unsuccessful with obtaining the necessary permits to establish an NGO in Egypt. Instead, the project formed a collaboration with a group operating out of Alexandria called the 'Friends of the Environment of Alexandria'.

2.5.2 Post project sustainability and impact

Whilst there is evidence that the project made substantial headway into a subject which had previously been largely ignored in Northern Egypt, few of the activities continued after the cessation of DI funding. Despite the inclusion of EEAA rangers and Military in the training to identify turtle tracks and nests, sightings are no longer being reported to Dr. Ghoneim. The hatchery at El Arish is no longer functioning with the technician having since returned to the Suez Canal University. The two Universities are also no longer collaborating on research and the extended network of the 'Friends of the Environment of Alexandria' is also no longer in contact with the host, Suez Canal University.

Of the trainees given the extensive training by the project 1 was available to discuss the project. Despite parting company from the project in its second year he retains an interest in turtle conservation. He has since completed a PhD in coral reefs and works as a lecturer at the University of Suez Canal where he teaches turtle ecology and conservation based on training he received under the original project. He has additionally written a book on turtle conservation in Arabic which he has had published with the support of the Saudi Arabian Environment Ministry.

The Egyptian members of the project are still keen to be involved with turtle research; Dr. Nada for example is pushing the turtle conservation agenda through the newly established NGO 'Nature Conservation Egypt' (see RSPB project 10-019). Whilst it is encouraging that the individuals involved are still enthusiastic for marine turtle conservation it seems a wasted opportunity that the partnership between Queen Mary and Suez Canal Universities did not last in any meaningful way.

Overall, this project provided vital information on the status of southern Mediterranean turtles, despite the challenges. Indeed, one of the papers published by the team in *Biological Conservation*[8] has since been cited by 14 papers published on Mediterranean turtles, which is an indication of its utility in turtle conservation. Given the support for marine turtle conservation in the northern Mediterranean and Red Sea, expansion by partnering with these conservation groups could be seen as a method for garnering support for conservation related activities in the Mediterranean coast of Egypt.

In terms of the scope for further work, given the results of the mortality study carried out by the team, it appears fishing methods on the northern coastline may be contributing significantly to turtle loss in the Mediterranean. It is unlikely this will only impact on Egyptian nesting turtles from tracking studies of Cypriot turtles who regularly ventured into Egyptian waters[9]. Therefore continued work on turtle conservation will have implications for much of the conservation measures being taken in the northern Mediterranean.

[8] Clarke, M, Campbell, A. C., Hameid, W. S., Ghoneim, S. (2000) Preliminary report on the status of marine turtle nesting populations on the Mediterranean coast of Egypt. *Biological Conservation* **94**:363-371.

[9] www.seatrutle.org

Box 13: Project success summary

Relevance: This project was entirely relevant in its problem identification and approach to address this problem. This was an area in which there was limited or no previous experience or knowledge in country therefore the training received was entirely relevant.

Efficiency: The project appears to have been very efficient in carrying out the research component with the team having delivered the only scientific survey data on turtle nesting densities in Northern Egypt. The public awareness component appeared during the project to be working well however upon cessation of funding has lost momentum.

Effectiveness: There are some aspects of this project that have been very effective such as the cessation of trade in turtle meat and blood in Alexandria. Unfortunately the partnership between the two partners has not continued and without funding the research has not continued.

Impact: Cessation of trade in turtle meat and blood in Alexandria was a good result for this project and it is reported by members of the team that this closure has remained. The team identified development and fishing on the Mediterranean coast as having an impact on marine turtles. Unfortunately this has not been taken further.

Sustainability: Whilst some elements of this project were not sustained, such as the reporting of sightings, this research still remains the most up-to-date data on turtle nesting in northern Egypt and has implications on management initiatives in the northern Mediterranean.

Innovations, lessons learned and best practice: The inclusion of the military on the training and survey work could be seen as a good innovation. The northern coast of Egypt is sparsely populated outside of the Nile delta. The Egyptian coast is routinely patrolled by the military therefore their inclusion was expected to boost survey results and engage the military in conservation.

2.6 Conservation of Coral Reef Fish Biodiversity

Project Reference No:	3-018
Lead Institution:	University of York
Partner Institutions:	Suez Canal University, Egyptian Environmental Affairs Agency (EEAA)
Grant value:	c. £180,000
Start / finish date:	November 1993 - 1996

2.6.1 Project implementation

Box 14: Project purpose as stated in the application form

To provide training for Marine Park staff in monitoring fish populations and cooperate with them in investigating management problems in selected parks.

This was one of the earlier Darwin Initiative funded projects (round 2) and as such little documentation was available for initial review prior to the field visit. Much of the background information on the project was derived from discussions with the Project Leader and staff of the South Sinai Protectorate. The project worked with a number of institutions funding the project leader and UK and Egyptian MSc and PhD students to complete coral reef research work in Egypt and, to a lesser extent, Kenya and the Seychelles. The Darwin Initiative, at the time was largely focused on supporting scientific conservation-orientated research and less on application of conservation science to management objectives. The UK institutions were also not required to detail a specific partner in-country. In addition, there was at this time scope to provide for UK graduate and undergraduate training, unlike the current situation where the emphasis is on the transfer of UK expertise to host institutions.

The project's activities in Egypt were intended to support the South Sinai Protectorate by training its rangers in coral reef ecology and survey methods and through carrying out research. At this time the Protectorate of South Sinai had few rangers and whilst these were all educated to degree level not all had any experience or knowledge of marine ecology and conservation. Thus the team identified 3 areas which were of concern to the Protectorate but for which there was little capacity to research. These research areas were:

(1) Effects of fishing on fish abundances in Nabq protected area;

(2) Effects of trampling and styles of walkways on coral health and;

(3) The biogeography of reef fish in the Red Sea: specifically why there was a difference in species between the Red Sea and the Indian Ocean.

Figure 8: Map of the Sinai Peninsula, the Gulf of Aqaba to the west and the Gulf of Suez to the east

Figure 9: Map of the Red Sea and its neighbours

Research components 1 and 2 were completed as expected, with the third partially completed. The research was led by the Project Leader, PhD students and MSc students from York University but supported by staff from the South Sinai Protectorate. At the time of the project in 1993/94 the South Sinai Protectorate consisted of 6 management staff and 10 rangers. The training of newly appointed rangers was completed yearly and this was the first marine biological training for some of them. The rangers included in the research components of this project however, had degrees in Marine Biology and some had MSc degrees but all were early career rangers (some in their first posts).

2.6.2 Post project sustainability and impact

Pressure on the coral reefs of the South Sinai Peninsula has increased dramatically since this Darwin Initiative project. Tourism has expanded immensely in the last 10 years with many new hotels being constructed. Some 90% of Egypt's tourism is now concentrated in the coastal resorts of southern Sinai. Today there are 50,000 hotel rooms in the Sharm el Sheikh region alone.

It was the expectation of the reviewer (and the project leader) that given the time lapsed and the support provided by the EU through a multi-million pound project to build the capacity of the South Sinai Protectorate, that little would be still visible of this early Darwin project. However contrary to expectations there are still visible impacts that can be accredited to this project.

The EU funding granted to the EEAA to support the protected areas of South Sinai came into effect after the first year of the Darwin project. This was a large grant which, given its long-term support to the protected areas of South Sinai (15 years), has disguised somewhat some of the Darwin Initiative funded project. For example by year 2 the training delivered to EEAA rangers was funded 50% by the EU. The South Sinai Protectorate has since expanded 10-fold and provides all the training for new protected areas staff for Egypt and the region including Yemen, Oman and Saudi Arabia. Of the original trainees of the Darwin Initiative funded project, some are now in Senior Management positions in the EEAA. Those interviewed credited this training (in conjunction with the EU funding) as supporting the expansion of the protected areas system in South Sinai.

The Darwin Initiative research into reef trampling and the establishment of walkways was done in response to concerns by York University and EEAA staff of the increasing numbers of tourists in South Sinai damaging the reefs. At this time South Sinai was largely a 'SCUBA divers getaway' but was becoming increasingly popular with non-divers looking for a cheap beach getaway. Whilst there are some sandy beaches on the peninsula, coral growth is very shallow on the fringing reefs of South Sinai. Hotel expansion therefore causes an increased risk of trampling and damage of corals from tourists. Walkways were proposed as a means of reducing this trampling, however, some of these planned walkways were highly ambitious. Following the research on the shade effects of walkways the project team provided recommendations to regulate the construction of walkways that would reduce trampling whilst minimising impacts on coral growth through shade effects. Some planned developments were prevented as a result of this work.

Figure 10: South Sinai's popularity as a tourist resort has increased in the last 10 years with dive tourism a lucrative business

Using this research, the protected areas department strictly regulates the construction of walkways in Egypt and, according to more recent research, this has resulted in slowing the degradation of fringing reefs from trampling. This is a long term outcome for the Darwin Initiative.

The other research programme looked into the effects of fishing on fish stock levels to support the Protectorate in the establishment of areas closed to fishing. This research looked into the impacts of fishing and closed areas on reef health and fisheries sustainability. Using this research a series of permanently closed areas were created in Nabq and enforced by the EEAA. The outcomes of this research is currently being used to replicate the establishment of no-take areas further up the coast in Dahab by one of the original research assistant who has subsequently become the Manager of the Protected Areas of Dahab and Nabq.

Whilst it cannot be attributed directly to the Darwin project intervention, (given the funding by the EU) South Sinai has become a regional centre of excellence for training of protected areas rangers. The management solutions derived as a result of the research carried out under the DI project (such as the use of walkways and closed fishing areas) are a direct and long-term benefit and are still used by the protected areas of South Sinai and, due to the training operations of S.Sinai (supported by the EU), have expanded to other countries in the region.

The collaboration between York University and the Protectorate of South Sinai following on from the Darwin funded project has been extensive. A number of rangers have since completed PhDs at York University with the original Project leader, Rupert Ormond. Dr. Ormond has continued to support the development of capacity in South Sinai. He runs training courses for graduates from UK, Egypt and other overseas universities yearly in coral reef research using the facilities of the S. Sinai protected area. This provides some financial income for the protectorate and enables them to use the training skills gained under the EU and DI funding.

Box 15: Project success summary

Relevance: This project was entirely relevant at the time of its design and indeed its research outputs are still relevant to pressures placed on the reef systems of the Red Sea.

Efficiency: There were some difficulties within the UK partner with regards to PhD committees which meant some of the intended research was not completed. Otherwise the project appears to have been carried out efficiently.

Effectiveness: Of the trainee rangers involved in this project some have moved into senior management of the South Sinai protectorate. Although EU funding has masked some of the results of this initial training credit can in part be given to the Darwin project for the expansion of the protectorate in South Sinai. The research on no-take areas and reef trampling are still evident 15 years later which is impressive.

Impact: Reef trampling was an increasing problem in South Sinai and as a result of this project's research the correct installation of walkways that do not directly impact on coral growth is a good result. Secondly the research into no-take zones has reportedly supported sustainable fisheries in the peninsula with this process being repeated further along the peninsula.

Sustainability: The addition of EU funding in the second year of the project has no doubt boosted the capacity of this project to boost capacity within the South Sinai Protectorate. However the research into the no-take zones and walkways was independent of this and demonstrate the strong sustainability of this work.

Innovations, lessons learned and best practice: By working directly with the government, the EEAA, at all times in this project the project was able to garner strong support from the host country. As a result there is a longstanding relationship between the original project partners with collaborations still ongoing.

3. General Assessment

3.1 Conclusions

From the evidence provided, the projects reviewed delivered valuable outcomes that contributed to the development of biodiversity conservation knowledge in the countries concerned. The long-term impacts of the projects were varied. The level of institutional buy-in to the problem and the simplicity of solutions derived from the projects, as well as the provision of ongoing funding to take forward findings, all affected the degree to which findings were taken up and used.

The Moroccan projects have been very successful at leveraging technical support and securing funds as a result of the work carried out under the Darwin Initiative (SEMCLIMED and African Plants Initiative amongst others). All of the Egyptian project partners, aside from the coral reef project (3-018) have found obtaining continuation funds and support far harder.

The research carried out under all these Darwin Initiative projects and the practical options and methodologies generated have been entirely relevant to the target country's needs and priorities[10]. Indeed, due to its high quality, much of this research is still, after many years in some cases, relevant and utilised in biodiversity conservation nationally and regionally. So, whilst immediate funding has not been available to continue activities (such as the Marine turtles) the results of projects are still relevant and can be utilised in future ventures.

Operating as an NGO can be challenging in Egypt (see below) and there are few networks available for academic groups to share ideas and knowledge. Many of the groups that were met in Egypt had similar objectives and ideas for future work, yet had had limited discussions of this nature with one another. In the case of EIDPO008 (sea cucumbers) for example, the abandoned dissemination workshop meant that the project missed an opportunity to bring expertise together and engender commitment to the findings of the work, although the team are still looking to complete this element at a later date.

3.2 Collaboration & Partnerships

Projects that were built around locally identified biodiversity conservation problems and that secured buy-in and commitment from local implementing agencies were more successful in engendering collaboration between groups. For example, the sea cucumbers projects demonstrate that strong support between the EEAA and the Darwin projects with the CBD focal point, Dr. Fouda, facilitating interactions between the project and government policy makers. In Egypt, the scope for academic collaboration between institutions appears limited without facilitation of networking and knowledge sharing processes that funding such as the Darwin Initiative can provide.

The UK project leaders all reported communication difficulties when not physically in Egypt. E-mail contact is sporadic and not the preferred method of contact. Meetings are difficult to arrange in advance making project planning difficult to say the least. However, as reported by Project Leaders and experienced by the reviewer under this review, once contact is made, support is readily provided by the Egyptian counterparts.

The engagement with Moroccan projects and partners was insufficient to comment more generally on ease of maintaining partnerships.

[10] Egypt National Strategy and Action Plan for Biodiversity Conservation. 1998
Strategie Nationale pour la conservation et l'utilisation durable de la biodivesritie biologique. 2004 (Morocco).

The Egyptian projects were based upon partnerships formed specifically for the purpose of the Darwin funded project, so it is encouraging that partnerships with UK organisations in 3 out of the 5 situations have remained strong, with many collaborating on projects since cessation of DI funding. These collaborations have resulted in exchanges of students and staff between the institutions, strengthening the relationships. For the RSPB project it is likely that, with the lack of Egyptian institutional capacity, the potential for expansion of activities in Egypt was limited. In the case of the sea turtle project, staff turn-over at the collaborating institutions and a lack of any subsequent follow-up funding probably contributed to the loss of momentum following the end of the DI funding.

Collaboration between UK and North African institutions under the Darwin Initiative has historically been low (compare 9 projects funded in North Africa with 34 for Kenya alone). There may be language and historical reasons, but cultural and political (see NGOs below) dimensions may play their part also.

3.3 Relevance

Of those projects that successfully achieved their purpose, the original problem was identified by the host country partner. Whilst the UK partners bolstered this problem identification the need for the project was driven by the host partner. All the projects appeared to be relevant to the wider National Biodiversity Strategy Action Plan (NBSAP) or environmental strategies in place at the time of delivery. Indeed some of the projects, despite a considerable passing of time, are still very relevant to current biodiversity priorities.

There was, for some projects, some naivety in what was possible in the time frame and budget of the projects. For example the turtle project was unable to establish an NGO specifically for turtle conservation which can be, in part, attributed to the challenging environment for NGO establishment in Egypt (see below). The team's alternative approach to include an already established NGO was the right one it is just unfortunate that this could not have been earlier to ensure their inclusion in the project from outset.

3.4 Efficiency

Efficiency for some projects was difficult to ascertain. This was particularly true for projects that had been finished for some time as there was limited project documentation to refer to and the reviewer was reliant on correspondence with project leaders and staff to gain an understanding of the efficiency of the projects.

For the most part, projects featured in this evaluation were largely efficient with one or two projects having smaller inefficiencies. For example an administrative error at Hull that cost the regional workshop which would have greatly improved the projects legacy. One could question the inclusion of Egypt under the RSPB project as it was clear when the project started that Egypt was not an ideal partner. Whilst I can understand RSPB's reasons for wanting to include Egypt as a partner under the project it was perhaps not the best use of funds given its lack of capabilities to use and implement the training received.

3.5 Effectiveness

Those projects that have been most effective were those where the outputs of the projects were fully integrated into the host country, and host country institution, by close of project. For example the sea cucumber research and training was largely completed at Hull University but the researchers were fully repatriated into their host institution by closure with a fully equipped lab which has enabled them to continue with their work. A further example of this is the repatriation of data from Reading University to Morocco as part of the Plant Information system.

Under the turtle project, problems with setting up an NGO meant that there was no secure vehicle for continuing the project's work post-Darwin Initiative funding. This and a lack of secure funding to continue the work meant, in essence, all activities started under the Darwin project stalled. There is still an opportunity to take up this work again in Egypt, particularly as there is strong enthusiasm for marine turtle conservation within the main collaborators although again this is dependent on sourcing a strong partner and securing funds.

3.6 Impact

For some projects visited there are strong impacts still felt in country as a result of the Darwin Initiative projects. A good example of this is the ban on sea cucumber fishing in Egypt which is still in place and is expected to be for the foreseeable future. Strong problem identification again is a feature of the projects that have had the strongest impact.

The skills and expertise gained by host institution staff through these Darwin Initiative projects has undoubtedly boosted the capacity of all the institutions involved. Of particular note is the enhanced capacity of the Institute des Sciences Rabat to engage with other Mediterranean institutions on plant conservation issues. Secondly the Suez Canal university has benefited immensely from its involvement with the sea cucumber project. The university now has the resources, both human and other, to carry out teaching and research in marine biotechnology. All of the people provided training through Darwin Initiative projects interviewed as part of this evaluation credited the Darwin Initiative as having a central role to their professional development.

For some, the creation of partnerships with UK and European institutions could be said to be one of the greatest impact. The Moroccan institutions cite their Darwin funding as a catalyst in some of their current initiatives in both Europe and Africa.

For other projects, such as the RSPB project, impacts have been small or negligible in some countries but far greater in other countries. The RSPB project used the same approach for all partners under the project despite there being great differences in capacity to use and implement this training post-project. The post-project was intended to bolster this training but unfortunately Egypt's lack of capacity hampered this.

3.7 Sustainability

Sustainability for all bar two of the projects featured was strong. Research carried out by all the projects appears to have been of a good technical quality and is still relevant to biodiversity conservation in country. The training provided under all these projects additionally appears to have been of a good quality with all those talked to indicating their happiness with the training they received. For some this training is fully integrated into their day to day work and thus is still useful such as under the ranger training in South Sinai.

The strength of those host country institutions has largely been boosted by their involvement in Darwin Initiative projects. Particularly as the skills and expertise in aspects of biodiversity conservation has been bolstered. An example of this is the original research assistants from the South Sinai Protectorate from the Coral Reef fish project are now in prominent positions within the South Sinai Protectorate. The skills and training received during the Darwin project have been shared with new rangers joining the protectorate in subsequent years, albeit supported by the EU.

In Egypt, inclusion of the CBD focal point and government in project activities was credited by the host institutions as having greatly boosted project sustainability. Those projects that were looking to provide policy recommendations and guidance benefited from this inclusion of the CBD focal point. In Morocco one of the project coordinators has since become an MP in the Moroccan government which the team hope will provide a stronger voice for plant conservation in Morocco.

3.8 NGOs in Egypt

NGOs feature little in Egyptian conservation. There has historically been a difficult relationship between NGOs and government in Egypt with NGOs having, until recently, been banned (see box below). This ban has now been lifted, but there are strict regulations on NGO operations compared to other states. As such, the larger international NGOs such as WWF, Birdlife International, IUCN, Conservation International, Wildlife Conservation Society have little foothold in Egypt. Care International is perhaps the one exception to this.

Box 16: The process of establishing an NGO in Egypt

The process of establishing an NGO in Egypt appears a bit of a catch 22. A number of restrictions by law have been placed on NGO operations with the most recent law passed in 2002. This law provides the Executive with a number of political controls over the work of NGOs, including restricting their access to foreign funding, restricting their ability to join international associations and wide powers of dissolution. To establish an NGO the group must be registered with the Ministry of Social Affairs. To do so the NGO must have an established base or office and have a minimum levels of funds and structure to operate. This law is widely considered as one of the most restrictive in the Arab world as a means of the state retaining control over civil society. The current law requires the licensing of any association of ten or more people from the Ministry of Social Solidarity, with a penalty of up to six months imprisonment for failure to comply. The registration process is time-consuming and subject to the full discretion of the Ministry of Social Solidarity. NGOs that do obtain licenses are not allowed to "join, participate with, or be affiliated to[11]" any organization outside of Egypt unless they notify the Ministry of Social Solidarity 60 days in advance and do not receive any objections. Similarly, NGOs are prohibited from collecting funds from abroad except with the permission of the Minister.

Therefore, groups intending on operating in Egypt under the Darwin Initiative should be aware that time taken to engage and submit an application may take far more time than planned. Indeed NGOs hoping to operate in Egypt should be encouraged to follow the correct channels of engagement. Academic groups should see fewer problems if partnering with another academic group as demonstrated in the York and Hull partnerships (3-018 and 10-027).

3.9 Protected Areas & Environmental Protection in Egypt

There are presently 27 protected areas in Egypt covering 15% of Egypt terrestrial and marine areas. However approximately 50% of these parks are paper parks existing in plans only. Under EU funding South Sinai previously provided training for all new rangers to the Protectorate. Since the cessation of EU funding, the protected areas system in South Sinai has degraded somewhat from its peak in the late 90's[12]. Staffing levels have dropped dramatically with many moving to Arab neighbouring states that are expanding their protected area system.

[11] The International Journal for Not-for-profit Law
http://www.icnl.org/KNOWLEDGE/ijnl/vol9iss2/special_4.htm
[12] Sowers, J. (2007) Nature Reserves and Authoritarian Rule in Egypt. *Journal of Environment and Development* **16** (4):375-397

New rangers are no longer provided formal training at the training centre established in Sharm el Sheikh. In the last 3 years the EEAA has lost 88 staff (of which 33 were from protected areas) which have not been replaced. Some published sources[13,14] see the Egypt's current political dispensation - which initially fostered nature conservation efforts - as now contributing to the degradation of the protected areas network through systematic under-investment and diversion of park revenues.

A regional initiative PERSGA, is an intergovernmental body dedicated to the conservation of coastal and marine environments found in the Red Sea, Gulf of Aqaba, Gulf of Suez, Suez Canal, and Gulf of Aden. Under PERSGA regional action plans (RAPs) for conservation of the marine environment have been issued. The priority actions under these RAPs are:

1. Integrated coastal zone management
2. Education and awareness
3. Marine Protected Areas (MPAs)
4. Ecological Sustainable Reef Fisheries
5. Impact of Shipping and Marine Pollution
6. Research, Monitoring and Economic Valuation.

PERSGA has received funding from The World Bank, The United Nations Development Programme and the United Nations Environment Programme and therefore in turn is working to support environmental protection in the marine environment of Egypt. Therefore projects looking to operate in this region in the future should be mindful not only of the national biodiversity strategies but of the regional action plans.

3.10 Advice on Communications

1. Support of the CBD focal point is evident in some of the featured projects. This support was crucial in some of the major successes of the projects therefore it would be reasonable to share this report with the corresponding CBD focal points. In both countries it was not possible for the reviewer to meet with the CBD focal points due to heavy workloads and busy schedules of the focal points. These individuals have supported much of the science to policy interventions of these Darwin projects therefore their role is seen as very important. The role of government in conservation in both Morocco and Egypt is stronger than for other countries perhaps, due to the weaker civil society agenda for biodiversity conservation.

2. It was the opinion of those interviewed that potentially one of the reasons so few projects had been funded in North Africa was that the Darwin Initiative selection process was biased in favour of other countries. In terms of application success, under the Darwin Initiative, Egypt and Morocco have been relatively successful. Looking at the applications submitted versus the applications successful over the last 5 years shows that for every 3 applications submitted for these countries, 2 are successful. When looked at in comparison to countries that have had a large number of projects funded such as Kenya and Tanzania this number drops to 1 in 2 applications being successful. Thus the calibre of applications submitted for Northern African projects is unlikely to be an issue.

[13] Wilkinson, C. (2008). *Status of coral reefs of the world: 2008*. Global Coral Reef Monitoring Network and Reef and Rainforest Research Centre, Townsville, Australia, 296 p.

[14] Shackley, M. (1998) Tourism development and environmental protection in South Sinai. *Tourism Management* **20** (4): 543-548.

Reasons for fewer applications are probably varied including fewer working collaborations between UK institutions and North African institutions, lower biodiversity and lower poverty rates. For example, Kenya has a much higher biodiversity than Egypt with approximately 7,847 species in Kenya to 2,700 species in Egypt[15]. Secondly GDP per capita in Egypt is wealthier than Kenya with a GDP per capita[16] of $4,337 to $1,240 respectively. therefore in terms of pressure on resources Kenya could be said to be in more need of conservation support. Despite a lower level of biodiversity critical conservation issues do exist in North Africa and UK expertise has demonstrated that it has the skill and experience to contribute productively.

3. From discussions with North African organisations, it appears that Darwin Initiative funding aside, networking between North African institutions rarely occurs. Despite the two countries having Arabic as the primary language, and having Mediterranean coastlines, there are reportedly limited collaborations of a conservation nature. This appears to be true for most of the North African Arabic states, although there is reportedly more co-operation between the Middle East states. It may be possible to improve co-operation between UK institutions working in northern Africa. **Informal networks stimulated by the Darwin Initiative could reinforce the movement to increase UK collaborations in northern Africa.**

[15] http://earthtrends.wri.org/country_profiles/index.php?theme=7 total number of known species of higher plants, mammals, breeding birdsm, reptiles, amphibians and fish.
[16] UNDP Development Reports http://hdrstats.undp.org/countries/#E

Annex 1 Terms of Reference for the ECP

Post Project Evaluation	Evaluation of Closed Darwin Initiative Projects located in North Africa					
Project No's.	6-020	10-027	EIDPO08	10-019	10-028	8-066
UK Institution and Project Leader/Contact	University of London	University of Hull Andrew Lawrence, University of West Indies	University of Hull Andrew Lawrence, University of West Indies	RSPB Paul Buckley and Dieter Hoffmann	University of Reading Dr Stephen Jury	University of Reading Dr Stephen Jury
Partner Institution(s)/ Contact(s) per project	Suez Canal University	Suez Canal University	Suez Canal University	Egypt - Sherif Baha el Din Dr Hala Barakat Tunisia - AAO	Institut Agronomique et Vétérinaire Hassan II Rabat	Institut Agronomique et Vétérinaire Hassan II Rabat
Project Grant Values/project	£143,632	£160,700	80,176	157,590	30,950	26,030
Project's Start / End Date:	June 1997 – October 2000	Oct 2001 – Oct 2004	May 2005 – Oct 2007	April 2001 – March 2004	July 01 – June 03	July 99 – June 2001
Reviewer	Lesley Brown					

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, theme or eco-region. Such missions shall be undertaken in close consultation with UK based and host country institutions, and involve relevant in-country beneficiaries and stakeholders.

Objectives for the Evaluation of Closed Darwin Initiative Projects

The Evaluation of Closed Projects (ECP) is primarily intended to provide an external perspective on the legacy and impact of Darwin Projects, and to draw out 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 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 may have been mutually supportive of each other.

Background of Projects to be evaluated

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

Project No.	Title	Purpose
6-020	Egyptian Sea Turtle Conservation Project	To identify the beaches currently used for nesting by Green and Loggerhead turtles and identify other suitable ones.
10-027	Darwin Initiative for the sustainable use of sea cucumbers in Egypt	To develop the first example of a sustainable sea cucumber fishery along the Red Sea coast of Egypt
EIDPO08	Darwin Initiative for the sustainable use of sea cucumbers in Egypt and the Red Sea	To monitor recovery of sea cucumber stocks in Egypt and move towards a sustainable fishery in Egypt and Regionally in the Red Sea and East coast of Africa
10-019	Action plans for conservation of globally threatened birds in Africa	To establish capacity for participative action planning for globally threatened bird species in Africa.
10-028	Inventory of Moroccan plants and the conservation of priority species	To identify which species of Moroccan plants are the most rare and which are most threatened with extinction and to produce a list of priority taxa and to get a proportion of these successfully into cultivation for ex situ conservation. Special attention will be paid to the wild relatives of crop plants. It is also proposed to provide data for completing the inventory of Moroccan plant species and to assist indirectly with the production of the Flore practique du Maroc. To set up the IAV botanical garden as a major ex situ conservation resource.
8-066	The Darwin Plant Information System for Morocco	To produce a flora and red book for conservation purposes

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 consultant 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)

Timetable

The ECP in North Africa shall be undertaken according to the following schedule: Field work completed by 15th March 2009

- Preparation and review of documentation – 2 days
- Field mission and travel - 5 days
- Report preparation – 3 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

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 ECPs

Latest Deadline	Activity
Feb 2009	Field visit carried out
13th March 09	Draft report sent to DPD
24th March 09	Draft report sent by DPD to Defra
7th April 09	Draft report sent by DPD to PLs for comments who forward to host country partners
21st April 09	Comments received from PLs, host institutions and DPD
28th April 09	Final report and Completion Summary submitted to DPD
5th May 09	Final report accepted by DPD and submitted to Defra for approval
19th May 09	Final report accepted by Defra and circulated to PLs by DPD

Annex 2 Project logframes

Logical frameworks are not available for the earlier projects 3-018, 6-020 or 8-066 as at this time the Darwin Initiative did not require projects to submit a logical framework.

10-019 Action Plans for Conservation of globally threatened birds in Africa (RSPB)

Project summary	Measurable indicators	Means of verification	Important assumptions
Overall Goal To assist countries rich in biodiversity but poor in resources with the conservation of biological diversity and implementation of the Biodiversity Convention	I OG1 Populations of 10 globally threatened species increased I OG2 17 African countries benefit from project I OG3 Additional financial resources mobilised	1. Monitoring reports 2., 3. Project reports	• Continued financial support from governments and donors
Purpose Capacity established for participative action planning for globally threatened bird species in Africa	I PP1 BirdLife Strategy for species based conservation programme in Africa in place I PP2 Out of a total of 8 high quality cross-border species action plans, 5 are collaboratively produced without outside support I PP3 Co-operative implementation of at least 2 high quality cross-border species action plans initiated by 2003	1. Strategy document 2., 3. Project report, species action plans	
Outputs 0 Project management structure in place	I 0.1 Annual workplans agreed I 0.2 Tasks implemented on time I 0.3 6 monthly steering committee meetings attended by 2/3 membership	Progress reports	• Additional funding secured

Project summary	Measurable indicators	Means of verification	Important assumptions
1 A priority list of species for which species action plan approaches would enhance their conservation	I 1.1 Final list of species list agreed July 2001 I.1.1 Final list of species to be included in project agreed by July 2001	Project report	
2 Priority countries that CAP should endeavour to recruit into the partnership based on their importance to the conservation of birds identified	I 2.1 Prioritised list of African countries to be recruited into partnership presented to CAP by August 2001	Minutes of CAP	
3 Training programme for BirdLife Africa partnership implemented	I 3.1 Training programme developed by 2001 I 3.2 17 national species co-ordinators receive 1 week participative training on species action plan I 3.3 45-50 people from 17 African countries trained in species action planning	Project report Workshop reports	
4 Network of species interest groups functioning	I 4.1 Five additional species interest groups created I 4.2 Workplans for 2 species interest groups agreed I 4.3 45-50 people from 17 African countries trained in single species conservation (cf. I 4.3) I 4.3 Experts from each respective country contribute to SIG annual report	Project report	
5 International (cross-border) and national species action plans for priority species produced	I 5.1 Eight international (cross-border)species action plans published by June 2003 I 5.2 15 national action plans produced and endorsed/adopted by national governments by 2003	Species action plans	
6 Process for securing funding for action plan implementation is initiated	I 6.1 5 Funding proposals submitted to donors by March 2004	Letters of acknowledgement from donors	

Project summary	Measurable indicators	Means of verification	Important assumptions
Activities 0.1 Establish steering committee & meeting schedule 0.2 Recruit administrator 0.3 Agree roles & responsibilities & annual workplans 0.4 Identify & deliver project staff training needs 0.5 Produce activity and financial reports 0.6 Produce project brief (with objectives, roles and responsibilities) in English and French 0.7 Establish/ populate databases (species action plans/ species) 0.8 Carry out annul review & end of project evaluation 0.9 Produce strategy for species conservation in Africa 1.1 Consult with other experts over criteria for spp selection 1.2 Agree criteria for selection of species priorities 1.3 Prepare species list 2.1 Identify countries with no BirdLife representation but significant numbers of GT birds 2.2 Report to CAP and ASWG the relative importance of different countries in terms of species 3.1 Identify the training needs for all people involved 3.2 Hold 3 sub-regional training workshops 3.3 Exchange/share experience at all stages of the project and between SIL co-ordinators 3.4 Assess quality of species action plans	**Activities (continued):** 4.1 Identify potential SIG members for each priority spp 4.2 Identify existing species interest groups 4.3 Develop contacts for all countries in spp range and involve them in the AP process 4.4 Where appropriate start new SIGs for priority species 4.5 Hold training workshops in single species conservation (cf. 4.2) 5.1 Review experience of SAP 5.2 Hold consultative workshop to develop species action plan outline and planning process 5.3 Promote benefits of SAP approach to National. governments & International Institutions 5.4 Review previous work & contact stakeholders for each species 5.5 Hold workshops & draw up draft plans for consultation & endorsement 5.6 Finalise and publish/launch/distribute/promote cross-border plans 5.7 Hold national species action planing workshops 5.8 Support National species co-ordinators to write, publish and promote national plans 5.9 Produce species action planning manual 6.1 Identify resources needed to implement international and national action plans 6.2 Identify donors and develop database 6.3 Promote the benefits of the SAP approach to potential donors 6.4 Submit project funding proposals for implementation of international and national action plans to appropriate donors	• Security situation allows to work in 17 countries • Governments in at least 17 countries willing to collaborate

10-027 Darwin Initiative for the sustainable use of sea-cucumbers in Egypt (University of Hull)

Project summary	Measurable indicators	Means of verification	Important assumptions
Goal To help Egypt, a country rich in biodiversity but poor in resources, meet its obligations under the Biodiversity Convention.	• After 12 months provide checklist of holothuria. • From 1-24 months, one species reference collection • After 24 months provide recommendations for sustainable fishery and biomedical properties • After 36 months, 10 EEAA rangers and 30 locals trained in stock assessment/ mariculture	• Information included in NBUs NBS • Fieldguide to Holothuria of the Red Sea • Computer database and GIS system • Final Report of project Scientific Committee • 3 MSc theses • Publications in scientific literature • Minutes and reports of all progress meetings	• EEAA to continue monitoring beyond Darwin funding • Mariculture not only to prove viable but local communities to develop and operate their own systems based on training • Additional funding/ sponsor found to support work on bioactive substances
Purpose To develop the first example of a sustainable sea cucumber fishery along the Red Sea coast of Egypt	• After 24 months, fishery management plan • After 24 months, primary analysis of biomedical benefits completed • After 36 months, pilot mariculture system in operation/ feasibility study completed • After 36 months, trained rangers and fishermen	• Sea cucumber management plan • 3 MSc theses related to the fishery resource, mariculture and biomedical compounds • Publications in the scientific literature • Final report of project scientific committee • Press releases/ newsletter articles	• Recommendations are accepted and incorporated into policy • Information generated ie: species, economic value, rational use accepted and incorporated into NBU's NBS • Mariculture to offer a viable alternative to fishing for local communities
Outputs • Produce a fishery management plan for sea cucumbers • Produce a pilot mariculture system • Identify secondary compounds of potential biomedical value • Train EEAA rangers and local fishermen in stock assessment and mariculture respectively	• After 12 months species list and reference collection established • After 24 months stock assessment, database and GIS system established • After 24 months bioactive compounds and their activity identified • After 36 months, pilot mariculture system operating	• 3 MSc theses • Field guide to Holothuria of Red Sea • Papers published in scientific literature • Final report of Scientific Committee • Minutes and reports of all progress meetings • Press releases/ newsletter articles	• Recommendations of the management plan accepted/ incorporated into policy • EEAA to continue monitoring beyond Darwin funding • Mariculture to prove economical and therefore expanded by the trained fishermen

Activities • Stock assessment for Holothuria along Red Sea • Development of mariculture system for sea cucumbers • Isolation of bioactive compounds and their specific activity • Training of Egyptian scientists, EEAA rangers and local fishermen	• £160, 700 requested from Darwin Initiative • £170, 308 donated by partner institutions • species list and collection established • After 24 months database and GIS system established • After 24 months bioactive compounds and activity identified • After 36 months, pilot mariculture system operating	• Cost statement for grant will be available from Hull University Research Office • Minutes and reports of all progress meetings • Press releases/ newsletter articles • Final report of Scientific Committee • Papers published in scientific literature	• Secondary compounds with potentially useful bioactivity are found • In vitro fertilisation and culture of plankton stages proves successful in mariculture

10-028 Inventory of Moroccan Plants and the Conservation of Priority Species (University of Reading)

Project summary	Measurable indicators	Means of verification	Important assumptions
Goal To assist Moroccan botanists provide an inventory of their flora and help the conservation of Moroccan plant diversity in accordance with the Darwin Initiative main objective.	Project completed with goals met.	Reports approved of work.	Moroccan government remains stable and continues to develop its present policies towards the environment.
Purpose The project aims to set up the IAV botanical garden as a major *ex situ* conservation resource with trained staff to serve Moroccan conservation needs and to assist in inventory and Flora production at the IS	Garden is recognised as an important facility with a substantial number of species in cultivation with trained staff; a provisional list of Moroccan plants published; Flora accounts written.	Users visiting to consult collections for research and education; staff running garden and herbarium competently after training; inventory and plant lists published; Flora accounts written.	The IS continues to maintain a herbarium, library and botanical staff; the IAV maintains a botanical garden and keeps to its plans to look for means to develop seed bank facilities, staffing is maintained.
Outputs Trained staff competent in *ex situ* plant conservation and collection management; provisional inventory of Moroccan plants; floristic accounts, research papers and enhanced database with search facilities over the www.	Inventory produced; lists of target species selected; plants collected and successfully cultivated; collection with well-managed data; research papers written and submitted; database enhanced and searchable over the www.	Published inventory, species lists selected and approved, plants collected and cultivated with good data, research papers in press, database enlarged and enhanced, searchable over the www.	Staff available; records are reliable; field work can be undertaken satisfactorily.
Activities Production of lists of target species; verification of names; collection expeditions; staff training; collection management; cultivation research; website development; database upgrading and research paper planning and writing.	Budget correct and activities all taking place according to plan.	Published inventory, species lists selected and approved, plants collected and cultivated with good data, research papers in press, database enlarged and enhanced, searchable over the www achieved within the budget guidelines.	Availability of appropriate staff, students, collection resources (vehicle remains roadworthy), library continues to be accessible, access to web continues to develop.

EIDPO008 Darwin Initiative for sustainable use of sea cucumbers in Egypt and the Red Sea

Project summary	Measurable indicators	Means of verification	Important assumptions
Goal: To draw on expertise relevant to biodiversity from within the United Kingdom 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			
Purpose To monitor recovery of sea cucumber stocks in Egypt and move towards a sustainable fishery in Egypt and Regionally in the Red Sea and East coast of Africa	Updated Species List and GIS Database Updated Species Reference Collection Darwin Project 6 month, Annual & Final Report. Stock Monitoring Final Report GTA Final Report Research Fellow Final Report Regional Workshop Reports Production of Project Website	Additional information included in NBUs NBS Updated Fieldguide to Holothuria of the Red Sea Region Updated Computer database and GIS system Final Report of project Scientific Committee Final Reports from the Monitoring, Bioactive Substances & Regional Workshop groups Publications in scientific literature Minutes and reports of all progress meetings	Recommendations from the original Management Plan are adopted in part or in full by the relevant agencies in Egypt That stock recovery is detectable with a 2 year period That Agencies in neighbouring countries show a commitment to the project That enough additional funding can be found to support the attendance at workshops of those with insufficient funding to cover own expenses.
Outputs Stock Monitoring Final Report & Modified Management Plan Field Guide to the Holothuria of the Red Sea and East African Region GTA Species Diversity & Population Genetics Final Report Research Fellow Final Report on Bioactive Substances Publication of a Status Reports and Proposed Strategic Plan for Sustanable Use and Conservation of Sea Cucumber in the Red Sea/ East African Region Production of a project website Further training of EEAA Rangers in Stock Monitoring.	Annual and Final report from the monitoring Team GTA project report and a minimum of two Scientific papers GTA research report on species diversity and population genetic structuring Research Fellow report and publication of a minimum of 4 scientific papers Workshop reports Workshop final report and recommendations Strategic Plan for Regional Cooperation in the Sustainble Use and Conservation of Sea Cucumber	Final Reports from the Monitoring, Bioactive Substances & Regional Workshop groups Publications in scientific literature Minutes and reports of all progress meetings Final report of project scientific committee Press releases/ newsletter articles A Representative from the Darwin Initiative Secretariat and/or Monitoring Team given access to the Merlin internet management system Copies of all Publications sent to Darwin Initiative	That a publisher for the modified field guide can be found That a publisher for the Regional Status Report and Strategic Plan can be found. That publishable data can be generated quickly enough to allow publication of scientific papers within the time-frame of the project That Agencies in neighbouring countries show a commitment to the project That, if required, enough additional funding can be found to allow participants from other countries to collect or provide a level of baseline information or samples from their countries.

GTA trained in appropriate Molecular Genetic Methods			

Activities

To initiate and embed a monitoring programme for sea cucumber in Egypt

To elucidate the genetic/ environmental drivers of modified metabolite production between species populations

To run regional workshops and move toward a Red Sea/ East African Regional Strategy for the Sustainable use of Sea Cucumber

To train additional EEAA Rangers in sea cucumber monitoring and embed these skills into the individuals through an on-going monitoring programme

To train the GTA in molecular genetic techniques and for the Darwin Research Fellow to pass on current training to others in Egypt

To update the Merlin system and develop a Project Website

Activity Milestones (Summary of Project Implementation Timetable)

	Year 1				Year 2			
Yr Quarters from May	1	2	3	4	1	2	3	4
Scientific Cttee Meets	■			■		■		■
Monitoring Project	■	■	■	■	■	■	■	■
Genetic Study	■	■	■	■	■	■	■	■
Bioactivity study	■	■	■	■	■	■	■	■
Project Progress Repts		■		■		■		■
Website launched			■					
Regional Workshops				■				■
Draft & Final reports				■				■
GIS/ collection update			■	■	■	■	■	■
Scientific submissions								■
Darwin Reports		■		■		■		■

Annex 3 Persons Consulted

Project	Person	Role on project (if known)
3-018	Dr Rupert Ormond Formerly of York University Save Our Seas	Project Leader
	Ayman Mabrouk Protected Area Manager for Nabq & Dahab National parks South Sinai Protectorate	Trainee & Research Assistant
	Saadalla Essam Protected Area Manager for Ras Mohammed National Park South Sinai Protectorate	Research Assistant
	Emperor Divers	Dive Operator in Red Sea
6-020	Dr. Andrew Campbell Queen Mary, University of London	Project Leader
	Dr. Samir Ghoneim Suez Canal University	Egyptian Project Leader
	Abdu Ibrahim Suez Canal University	Research assistant & Hatchery Manager
	Dr. Mohammed Nada Formerly of Friends of the Environment Alexandria CARE International	Collaborator
	Dr. Magdy Alwany Suez Canal University	Trainee
8-066 & 10-028	Dr Stephen Jury Reading University	Project Leader
	Dr. Mohammed Fenane Institute des Sciences Rabat	Host Partner
	Dr. Jalal El Oualidi Institute des Sciences Rabat	Department Head, Institut of Science
10-019 & EIDPO03	Paul Buckley RSBP	Post-Project Leader
	Paul Ndanganga Birdlife Africa Secretariat	Birdlife Africa Secretariat
	Dr Hala Barakat Nature Conservation Egypt	Representative of Nature Conservation Egypt the current Birdlife Egypt representative
	Sherif Baha el Din	Ex-Birdlife Egypt representative

	Osama el Gebeley Protected Areas Manager Ras Mohammed National Park South Sinai Protectorate	Trainee
10-027	Dr Andrew Lawrence Formerly of Hull University University of the West Indies	Project Leader
	Dr Rafaat Afifi Suez Canal University	Researcher & Coordinator
	Dr. Ashraf Ibrahim Suez Canal University	Egyptian Project Leader
	Dr Howaida Gabn Suez Canal University	Researcher & Coordinator
	Sadaalla Essam Protected Area Manager of Ras Mohammed National park South Sinai Protectorate	EEAA representative

Annex 4 Documentation consulted

Convention on Biological Diversity, Status and Trends of Biodiversity

http://www.cbd.int/countries/prfile.shtml?country=ma

Central Intelligence Agency, the World Factbook http://www.cia.gov/library/publications/the-world-factbook/geo/eg.html

Biodiversity Monitoring and Assessment Project, Egypt http://www.biomapegypt.org

www.herbarium.rdg.ac.uk/moroccan_plants/moroccan%20plants/main.asp

The International Journal for Not-For-Profit Law
http://www.icnl.org/KNOWLEDGE/ijnl/vol9iss2/special_4.htm

Sowers, J. (2007) Nature Reserves and Authoritarian Rule in Egypt. *Journal of Environment and Development* **16**(4):375-397

Wilkinson, C (Eds) (2008) Status of Coral Reefs of the World 2008: Global Coral Reef Monitoring Network and Reef and Rainforest Research Centre, Townsville, Australia, 296p.

Shakley, M. (1998) Tourism development and environmental protection in South Sinai. *Tourism Management* **20**(4):543-54

http://earthtrends.wri.org/country_profiles/index.php?theme=7

UNDP Development Reports http://hdrstats.undp.org/countries/#E

EEAA National Action Plan – Biodiversity

South Sinai Environmental and Development profile

Quatrième Rapport National sur la Biodiversité. Morocco's 4th National Report to the CBD.

8-066 The Darwin Plant Information System for Morocco

Application form

Annual report review 1

10-028 Inventory of Moroccan Plants and the conservation of priority species

Application form

Final report review

Flyer: SEMCLIMED

Flyer: Euro + Med PlantBase

Flyer: The Africa Plants Initiative

3-018 Conservation of Coral Reef Fish Biodiversity

Working paper: Status of Marine Environmental Protection in Eritrea. Lynne Barratt. Part funded under the Darwin Initiative and by UNESCO. TMRU Reports and Papers No. 94/13

General Expedition Report: Kisite Marine National Park and Mpunguti Marine National Reserve. 1993.

Habitats and Species of the Diani Coast, Kenya. TMRU reports and Paper No. 94/4. Supported by Kenya Wildlife Service, Royal Geographical Society and the Darwin Initiative.

Report of the Universities of York and London Expedition 1996. Seychelles Coral Reef Conservation Project Curieuse Marine National Park. TMRY Reports and Paper No. 97. Supported by Darwin Initiative and others.

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MRes thesis: D. M. Bailey. Baseline data collection and survey methods assessment for populations of Groupers (Serranidae) in the National Parks of Egypt South Sinai Sector. 1996

6-020 Egyptian Sea Turtle Conservation Project

Draft final report

Course Notes: Biology and Conservation of Mediterranean Marine Turtles

Conference Proceedings: First International Conference on Animal Production & Health in Semi Arid Areas, El Arish, Egypt, 1-3 Sept. 1998. Marine Turtle Conservation on the Mediterreanan Coast of Egypt. Michael Clarke, Andrew Campbell, Samir Ghoneim and Waheed Salama.

Presentation notes: Incidences of Marine Turtle Mortality along the Mediterreanean Coast of Egypt. Samir Ghoneim, Andrew Campbell, Michael Clarke and Waheed Salama Hameid.

Presentation notes: Preliminary Report on the Status of Marine Turtle Nesting Populations on the Mediterranean Coast of Egypt.

Flyer: Help Us to Protect the Marine Turtles of Egypt.

Marine Turtle Newsletter: Status of the Sea Turtle Trade in Alexandria's Fish market. M. A. Nadia. Save the Sea Turtle Project, Friends of the Environment Association, Alexandria., Egypt.

Briefing note: Trade in Endangered Species. Darwin Initiative Egyptian Sea Turtle Conservation Project.

Nada, M. (2001) Sea Turtles in Egypt – Status of the Sea Turtle Trade in Alexandria's Fish Market (Part II), Proceedings of the 21st Annual Symoposium in Sea Turtle Biologu and Conservation.

Clarke, M., Campbell, A. C., Hameid, W. S., Ghoneim, S. (2000) Preliminary report on the status of marine turtle nesting populations on the Mediterranean coast of Egypt. *Biological Conservation* **94**:363-371.

10-027 Darwin Initiative for the Sustainable Use of Sea Cucumber in Egypt

Application Form

Half Year report 2 & 3

Annual report & supporting annexes 2 & 3

Final Report & supporting annexes

Annual Reviews of reports 2 & 3

Final report review

EIDPO8 Darwin Initiative for the Sustainable Use of Sea Cucumbers in Egypt and the Red Sea.

Application form

Annual report & reviews 1

Half Year report 1 & 2

Final report & supporting annexes

Final report review

10-019 Action Plans for conservation of globally threatened birds in Africa

Application form

Annual report review 1 & 2

Annual report 2 & supporting annexes

Half Year report 2

Final report review

EIDPO3 Enabling implementation of globally threatened bird Species Action Plans in Africa

Application form

Annual report 1

Half year report 1

Annual report review

Final report & supporting annexes

Final report review

Single Species Action Plans (SAPS) for Birds in Africa: An Evaluation of the level of Implementation of Existing SAPs. Draft may 2008.

Flyer: Nature Conservation Egypt.