

Management of Avian Ecosystems in Seychelles
GEF Medium Size Project Grant
 Grant No. 020564

Implementation Completion Report

Project Description	
1. Date of Preparation of Completion Report: February 5, 2003	
2. Title of GEF MSP: Management of Avian Ecosystems in Seychelles	3. Grant Recipient: BirdLife Seychelles through Implementation Agreement with the Government of Seychelles
4. GEF Allocation: \$740,000	5. World Bank Task Manager: Michel Simeon

6. Goals and Objectives of the MSP grant

Introduction

The Management of Avian Ecosystems in Seychelles was a 42 month cooperative project involving BirdLife Seychelles as the executing agency and the Ministries of Environment and Transport, Foreign Affairs and Finance representing the Government of Seychelles; and funded by the Global Environment Facility through the World Bank. The project improved the understanding of, and contributed to the management of endangered ecosystems and species of the granitic Seychelles islands Endemic Bird Area (EBA)¹. It consisted of several components including island assessments and ecological studies of some of the data deficient endemic birds of the Seychelles.

The grant agreement covering the above project was signed in September 1998. Disbursement of funds commenced in February 1999. With the delayed disbursement of funds, physical project implementation was also delayed and implementation was later extended by 5 months. Implementation of all project components progressed well. Furthermore, by joining an additional project and with the extension of the project

¹ EBA – Endemic Bird Areas are discrete areas less than 50,000km² that hold concentrations of restricted – range bird species and are hence global priorities for conservation

SCANNED FILE COPY		
Accession No.	Box No.	
F P N	Date 03/12/03	Log No.
Action	CC	
FILE (Co/alpha/Pname or #) Lr/Cr GR/TF EBW Co/Rg Adm Proc		
P057191		

closing date, BirdLife Seychelles was able to exceed planned achievements in the components of Initial Island Restoration and Translocation Preparation and undertook the following additional activities:

1. Restoration of an island through habitat management;
2. Translocation of endemic taxa to a restored island.

Project goal and objectives

The goal of the project was to manage threatened ecosystems in Seychelles with the objective of restoring the Granitic Seychelles Endemic Bird Area and associated biodiversity. The corresponding operational objectives were:

- Improvement in the conservation status of threatened endemic birds and associated biodiversity;
- Establishment of a program of habitat and island restoration.

Expected Project Outcomes and Corresponding activities

The outcomes expected from the project Management of Avian Ecosystems in Seychelles were:

- Improved management and restoration of three ecosystems and their threatened endemic bird taxa in order to have a global impact on threatened endemic biodiversity;
- A short list of potentially restorable islands and initial action taken to restore at least one of these. Preparations made for the successful translocation of at least one endemic bird taxa;
- Provision of replicable management models for tropical island habitat and bird conservation;
- Training and partnerships to increase the capacity for field-based management of threatened ecosystems throughout the Western Indian Ocean;
- Socio-economic values of biodiversity measured, modeled and used to integrate conservation within future Government decisions on island development.

In order to achieve project objectives, the following activities were to be implemented:

- Input into ecosystem management for upland forest, coastal wetland and coastal plateau forest through action plans for seven threatened endemic bird taxa and recovery programs for Seychelles scops owl, Seychelles black paradise flycatcher and Seychelles magpie-robin;
- Socio-economic model of island restoration and management for biodiversity;
- Production of an assessment of the potential of islands to support translocated populations of threatened biodiversity, especially endemic bird taxa. Part of this assessment was a desk study to produce a short list of about 10 islands. A large part

of the work involved collection of data on soils, habitats, invertebrate biomass, disease profiles, predator numbers, physical, technical and human constraints and reports prepared;

- Restoration of one island initiated by eradication of exotic predator and initiation of habitat management plan;
- Translocations prepared for two 'critically endangered' species to the restored island;
- Public awareness campaigns including workshop/seminars, media coverage, public outreach activities and regular periodic newsletters prepared by BirdLife Seychelles;
- Project monitoring and administration ensured by a Project Co-coordinator paid by the project and assisted by staff in the Ministry of Foreign Affairs.

7. Project Impact

Global Environmental Impact

Global environmental objectives have been achieved. Key information on globally threatened bird species and their ecosystems have been gathered and analyzed which led to better management and information about necessary habitat improvements. Habitats for globally threatened taxa have been established on Denis Island. The project also undertook the translocation of the critically endangered Seychelles magpie-robin as well as the vulnerable Seychelles fody to Aride Island. ***The establishment of a population of Seychelles Fodies is demonstrated to be successful on Aride Island, this bird species will be eligible to be downgraded from the global list of endangered birds. This will be the first species to be downgraded from the endangered list in the Seychelles.***

Institutional Development

The project has led to excellent institutional development. Recruitment of the project coordinator, lead ornithologist, assistant ornithologist and field assistants, lead island assessor and assistants, restoration leader and assistants, translocation specialist, veterinary and captive management specialist resulted in reinforcing the scientific and managerial capacity of BirdLife Seychelles. The project coordinator in particular has taken the lead in improvements in managerial and financial abilities of the entire organization. Skills in database management, scientific monitoring and biodiversity assessments have been improved.

The project to date has been highly successful in building scientific capacity in Seychelles. Twenty-one staff including 16 Seychellois in BirdLife Seychelles, Ministry of Environment and Transport as well as four other organizations (Marine Parks Authority, Ministry of Tourism, Natural History Museum and Seychelles Broadcasting Corporation) have been trained in ecosystems assessment and bird translocation techniques.

In addition, BirdLife Seychelles has provided significant expert input into implementation. BirdLife's Chief Executive provided much needed steering and

overview of the overall project and commented on all aspects of the various components; the Scientific Coordinator made substantial contributions by coordinating the different scientific elements of the project, implementing the coastal plateau forest endemic bird component, and attending steering committee meetings; the Education Coordinator's work program was well integrated into the project and was responsible for production of educational and awareness material associated with the project.

The scientific value of the island assessment work carried out under the project is demonstrated by the fact that it has been as a special issue of the Atoll Research Bulletin (Bulletin No. 495, July 2002) issued by the National Museum of Natural History, Smithsonian Institution, Washington DC, USA.

8. Project implementation performance

Overall Implementation and Project management

Overall implementation has been satisfactory.

All planned activities have been delivered in the given time frame. As planned, the project has been executed and all activities managed by BirdLife Seychelles. A Project Coordinator was recruited by BirdLife Seychelles to manage and oversee all aspects of the project. A project Steering Committee was set up consisting of members from BirdLife Seychelles, Ministry of Foreign Affairs, and Ministry of Environment and Transport. Advice regarding strategies and approaches for design and implementation of project activities was ratified by the Steering Committee, as recommended in the project proposal. Criteria for awarding of subcontracts and procurement of equipment were determined at the start of the project by BirdLife Seychelles and the Ministry of Foreign Affairs and ratified by the Steering Committee. All sub-contracts and key staff appointments were subject to a tender process and or advertisement. Project Accounts were maintained by BirdLife Seychelles and Ministry of Foreign Affairs and an annual audit was carried out. The Ministry of Foreign Affairs and Ministry of Finance have facilitated project implementation. However, processing of payments through the Ministry of Finance were found to be slow.

Physical Objectives

Physical objectives have all been met. A vehicle was purchased and was in operation. Office, scientific and field equipment and materials were acquired for project management, research, island assessment and translocation work. Reports and papers have been released in a timely manner. Creation and dissemination of awareness and educational materials have exceeded project expectations.

Costs and Implementation Timetable

The project was operational for 42 months. It was approved in June 1998, legal documents were signed in October 1998 and physical implementation started in February 1999 with the transfer of the initial deposit to Seychelles. The closing date of the project was extended to June 2002 to cater for the delay of five months between signing of all legal documentation and start of physical implementation. All original and additional project components were completed within the project budget and prior to the closing date.

Incremental cost analysis

The benefits derived from this GEF funded project are primarily global in nature. The endemic avian fauna has significant intrinsic value globally – the birds are classified as “Globally Threatened” - and required significant resources to be stabilized at sustainable levels. The project brought in resources to enable translocation of two endangered bird species, one of which, as a result, will be removed from the endangered list.

It was unlikely that BirdLife Seychelles and Government would have been able to allocate any of their own scarce resources to finance any of the project components or to secure financing for this purpose without GEF assistance. To ensure sustainability of the achievements, BirdLife Seychelles has committed itself to continue management of the translocated bird species and other project outputs for the benefits of local and international research communities.

9. Implementation outcomes by component

Upland forest endemic bird area action plans and research

All planned outputs of this component have been delivered in the given time frame. It yielded exciting results including finding for the first time nests and eggs of scops owl; eight nests in three territories were found and several roosts have been identified. Pellets have been collected for the first time, to investigate diet. A repeatable survey method has been devised and implemented. There have been five radio tagging trials although this was the only failure of this component as radio tags did not stay on birds for more than one week even with specialized glue; using harnesses to carry the tags did also not work. Sound recordings of the birds to distinguish individuals were made and were analyzed. Twenty birds have been ringed, including for the first time a chick. Video recordings were made to investigate feeding behaviour, the territory size of the owl has been estimated. Two types of nest boxes have been constructed numbering 52 in total; eight territories have been covered with six nest boxes erected in each. A Species Conservation and Action Plan was written, 8 scientific papers published or are in press. These included important findings on ecology, breeding success, habitat requirements, diet and

conservation recommendations. The final report is in press as an edition of the BirdLife Seychelles Monograph Series.

Species Action and Conservation Plans for two other species namely the Seychelles kestrel and the Seychelles white-eye were also produced, the latter being the responsibility of the Ministry of Environment and Transport under a different project financed by the Dutch Trust Fund.

Coastal wetland endemic bird area action plans and research

All planned outputs of this component have been delivered in the given time frame. In depth information on the paradise flycatcher have been gathered. Twenty-one focal territories have been intensively studied for food availability and foraging success. Breeding success has been investigated in 32 territories. Over 200 breeding attempts have been studied. Over 130 birds have been ringed. The project delivered important findings on ecology and threats to species habitat requirements leading to a review of conservation priorities. A Species Conservation and Action Plan was written, four scientific papers published or are in press and the final report is in press as an edition of the BirdLife Seychelles Monograph Series.

The production of a Species Conservation and Action Plan for one other species, the Seychelles cave swiftlet, was also undertaken.

Coastal plateau forest endemic bird area action plans and research

All planned outputs of this component have been delivered in the given time frame. It was supported by baseline funding from BirdLife Seychelles. A repeatable and novel pitfall trap was devised to measure Seychelles magpie-robing food availability. Habitat studies have yielded extremely useful data – that there is a strong correlation between invertebrate prey abundance and territory occupancy by the magpie-robins. A re-analysis of existing data has led to a demographic model that explains population changes. This component moreover was part of teamwork involving several different islands and stakeholders. A Species Conservation and Action Plan was written.

The production of Species Conservation and Action Plans for two other species, the Seychelles warbler and the Seychelles fody, were also undertaken.

Socio-economic model of island restoration and management for birds

All planned outputs of this component have been delivered in the given time frame. The economic assessment complemented the biophysical assessment and added important criteria to help in ranking islands for potential restoration and translocation of rare bird species. The component demonstrated the value of island conservation from an island perspective (Cousin Island) and more broadly to the Seychelles economy; identified and analysed institutional and economic criteria for the island assessment programme to aid

in selecting one island for restoration; and identified financial mechanisms for sustainable conservation for the selected island. Five final reports on the above were written and circulated to island owners and managers and a scientific paper is in press.

Assessment of potential island habitats for restoration for 'globally threatened' birds

All planned outputs of this component have been delivered and exceeded in the given time frame. It proved to be logistically difficult, but highly motivated and experienced staff ensured that milestones have been met. A standard method assessing different islands' biodiversity has been devised and the report produced. The report is in press as an issue of the BirdLife Seychelles Monograph Series.

An island shortlist was agreed with the Steering Committee. Permission was sought and granted to visit these islands. A total of 10 islands have been assessed over both monsoons. Trip reports have been produced on a timely basis and circulated. Good relations and high interest have been generated with island owners or managers. Twenty-one local staff have been trained. Final reports on each respective island were circulated to island owners and managers. All findings of the 10 island assessments are in press as a special edition of the Atoll Research Bulletin, published by the Smithsonian Institution, Washington DC.

The initial Island Assessment process carried out in 1999 – 2000 concentrated on medium-sized islands, on the grounds that these would provide the largest area of suitable habitats and ultimately support larger populations of translocated species. However, the failure of rat eradication on two medium-sized islands (refer to the section below) suggested that smaller islands might offer some advantages over larger islands, although they could only support populations of small insectivores such as Seychelles warbler and fody. Rapid biodiversity assessments were carried out on four of the smaller islands in the inner Seychelles. Four final reports on those assessments were written and circulated to all stakeholders. This component also generated four scientific papers, which have been published or are in press.

Initial implementation of assessment recommendations on one island

All planned activities and outputs were undertaken and met. The project closing date was extended by five months to allow further works under this component. The component consisted of three areas of work:

1. Eradication of alien predators on three granitic islands;
2. Habitat restoration; and
3. Endemic bird translocation.

1. *Eradication of alien predators on three granitic islands*: In 2000, a joint project between Government, private islands and BirdLife Seychelles saw the eradication of alien predators on the three granitic islands of Denis, Fregate and Curieuse Islands. BLS

was involved through captive management of the entire Frégate population of Seychelles magpie-robins and a substantial number of Seychelles fody.

The captive management operation involving holding 100% of the Frégate magpie-robin population and over 300 fodies for over three months was highly successful. A total of 39 magpie-robins were caught. Captive breeding resulted in 46 at the end of the period. **This is the first time in the world that critically endangered species have been managed *in situ* during a predator eradication operation.** The captive operation was designed and led by a BirdLife Seychelles team working in close co-operation with Frégate Island Private and the Ministry of Environment. Frigate is still rat free to date.

Rats re-occurred on two islands, Denis and Curieuse, by early 2001. Denis Island has successfully undertaken a second round of rat eradication in December 2002, at their expense, and tightened measures to prevent accidental re-introduction. Unfortunately, the Marine Parks Authority, who is responsible for the management of Curieuse, has not been able to take similar action.

North Island (where a South African Company has built a 5 star hotel), Petite Soeur (small private island with no inhabitants but good for translocation) and D'Arros Island (private island in the Amirantes) are planning or are interested in eradication. BirdLife Seychelles is working with them and if successful would be looking at translocations. But this would also depend on them being able to secure co-funding for it.

2. *Habitat restoration:* Based on findings of the island assessments and the socio-economic modeling, a list of priority islands for restoration and endemic bird translocation was approved by the Steering Committee. Two islands were chosen for restoration and translocation, Curieuse Island and Denis Island. Curieuse had the advantages of larger size and protection as a marine park. Denis, while privately owned, already possessed a good area of forest dominated by native tree species. Rats had re-occurred on both islands, either through a failure to eradicate the animals completely, or through re-invasion.

The management of Denis Island expressed the wish to attempt another eradication in 2002. Habitat rehabilitation work began in June 2001 with the construction of a tree nursery and clearance of about 300 coconut trees and seedlings from approximately 40 hectares on Denis Island. Other alien vegetation was also removed. Two cats, probably the last individuals remaining on the island were killed in August 2001. The restoration team also controlled mynah birds, stocked the nursery with over 2000 seedlings and planted out over 1200 native trees. The nursery and management of the newly created habitat continues after project completion jointly between BirdLife Seychelles and Denis Island management.

In addition, a small amount of habitat management (alien plant removal) was carried out on Cousin Island, a small predator-free island under the management of BirdLife Seychelles.

3. *Endemic bird translocation*: The endemic bird translocation activity was closely related to the above. Work included writing of two translocation protocols and purchasing and building of translocation equipment and materials. The discovery of rats on Denis and Curieuse Islands prohibited the reintroduction of endemic birds during the project time frame. Denis Island management will attempt a second eradication in 2002, the success of which will facilitate the translocation of several species during 2003 (but outside this project time frame).

Translocation of birds under the project was nevertheless carried out and Aride Island was identified as being suitable for two species of endemic birds, the Seychelles fody and the Seychelles magpie-robin. A small number of magpie-robins from the Frégate Island population (15 individuals) and a group of Seychelles fodies (65 individuals) from the Cousin Island population were translocated. The magpie robins were translocated using captive management and delayed release with the assistance of avicultural and veterinary consultants. Fodies were translocated and released, with only veterinary input. Both populations have established well on Aride Island and BirdLife Seychelles has staff members monitoring both species.

Public awareness

All planned outputs of this component have been delivered and exceeded in the given time frame. The public awareness component has been extremely successful. It included the production of a book, a poster, 2 brochures, over 20 newspaper articles nationally and internationally, 16 TV and 22 radio spots and interviews, public talks and scientific public lectures, one 30 minute film and over 15 scientific publications. A logo and strap line for the project were designed. The project prominently featured in the BirdLife Seychelles newsletter, Zwazo and the BirdLife Seychelles web page. T-shirts with the logo and strapline were produced for all project staff and also distributed to key stakeholders. A publication containing all the Species Conservation and Action Plans for endangered bird species of the Seychelles written under the project is in press.

Summary of achievements

The original activities, index measures and outputs are listed below:

Activities	Index Measurement	Outputs
Upland forest endemic bird area action plans and research	2 pathfinder meetings Scops owl 100% population survey, habitat associations and 10% breeding survey Yr 1 & 2	2 action plans and 1 recovery program ²
Coastal wetland endemic bird area action plans and research	2 pathfinder meetings Flycatcher 100% breeding survey, habitat associations and feeding ecology reports Yr 1 & 2	2 action plans and 1 recovery program
Coastal plateau forest endemic bird area action plans and research	3 pathfinder meetings Magpie-robin feeding ecology and habitat associations Yr 1, 2 & 3	3 action plans and 1 recovery program updated
Socio-economic analysis of island restoration for biodiversity	1 report completed Yr 1	Report
Assessment of the potential of islands to support translocated populations of threatened biodiversity	100% desk survey Yr1 3 island reports Yr1 7 island reports Yr 2	One overall report and 10 island reports
Initial restoration phases of one island by eradication of exotic predators and initiation of habitat management plan	50% clearance of exotic mammals from 1 island Yr 2 Habitat plan prepared Yr 2	MOU with island owners and GOS Eradication undertaken
Preparation for translocation of two endemic taxa to restored island	2 translocations prepared Yr3	Donor birds identified; equipment established; personnel trained.
Awareness component	Yrs 1, 2, 3	Articles, TV programs, News
Project management	Yrs 1, 2, 3	Project properly implemented

10. Key Lessons Learned

- **General:** Conservation and restoration of remote tropical islands is difficult and problematic. Intensive planning and follow up, particularly by experienced

² Action and recovery plans are later in the document called Species Conservation and Action Plans to conform with recent international terminology

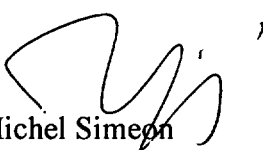
practitioners is a key to success. On the other hand, a successfully implemented project of this magnitude, if properly reported and publicized, functions as an advocacy tool.

- **Role of NGOs as project executing agency:** Without the input of BirdLife Seychelles resources the project could not have been implemented. The resource input was not adequately costed in the original project design. The key lesson learnt is that an organization carrying out a GEF funded project must have sufficient intrinsic capacity and institutional strengths to act as an executing agency. The ability of BirdLife Seychelles to get scientific and technical support from its parent organization (as part of BirdLife International) was of high value. Even if the NGO was limited in size and implementation capacity at the onset of the project, it had the capacity to develop.
- **Role of the private sector:** A win-win partnership between private island owners and conservation organizations is possible if both parties are sensitive to each other's conditions of operation. Those partnerships can provide long term sustainable financing for or support to nature conservation work. Implementing the project has demonstrated that many government agencies and others (even accountants and auditors) do not really understand the nature, role and operations of NGO's. This is perhaps because active NGO's are so few in number in Seychelles and none have implemented this scale of project previously. Key legislation makes little differentiation between private sector organizations and non-profit, charitable entities. A wider-level lesson learnt from this project is that greater attention to facilitating a stronger enabling environment for civil society is necessary.
- **Implementation aspects:** Recruiting and maintaining an experienced project coordinator was vital for successful project implementation and smooth co-operation between BirdLife Seychelles, Government and the World Bank. Consultants should not only be chosen on their scientific merits but also their dedication and socio-cultural adaptation abilities.
- **Sustainability:** BirdLife Seychelles has gathered sound experience in implementation of large donor funded projects, hence if large funding is secured in the future contracts can be made directly with external agencies. To ensure sustainability and momentum, it would be desirable that a future project carries forward the capacity developed for island assessment, conservation science, restoration and management of island ecosystems, particularly through a common vision multi-stakeholder approach.

11. Utilization of GEF Funds**MSP GEF Management of Avian Ecosystems – Disbursement Schedule – GEF Funds
(in USD)**

	Original Allocation	Mid-Term Review	Commitments	Disbursement
Goods	109,000	99,000	82,971	82,971
EBA's	29,000	35,000	35,067	35,067
Island Assessment	25,000	24,000	19,045	19,045
Restoration	30,000	30,000	11,057	11,057
Public Awareness	25,000	10,000	17,802	17,802
Works	34,000	15,000	0	0
Island Assessment	24,000	0	0	0
Restoration	10,000	15,000	0	0
Services	428,000	408,000	470,538	470,538
Project Management	48,000	48,000	65,000	65,000
EBA's	136,000	121,000	172,325	172,325
SMR	10,000	10,000	10,000	10,000
Socio-Economic Analysis	35,000	35,000	35,000	35,000
Island Assessment	99,000	99,000	102,863	102,863
Restoration	80,000	80,000	85,350	85,350
Translocation	15,000	15,000	0	0
Operating Costs	169,000	218,000	186,491	186,491
EBA's	15,000	44,000	65,255	65,255
Socio-Economic Analysis	0	10,000	11,740	11,740
Island Assessment	47,000	42,000	29,008	29,008
Restoration	61,000	61,000	63,753	63,753
Translocation	46,000	46,000	0	0
Public Awareness	0	15,000	16,735	16,735
Total	740,000	740,000	740,000	740,000

(in USD, exchange rate used 1 USD=5.50SR)



Michel Simeon
Team Leader, AFTES

Date: March 10, 2003

Willem van Eeghen
Acting Country Director for Seychelles

