



Darwin Initiative Annual Report



Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders – it is expected that this report will be about 10 pages in length, excluding annexes
Submission deadline 30 April 2012

Darwin Project Information

Project Ref Number	17-011
Project Title	A Participatory Conservation Programme for the Comoro Islands
Country(ies)	Union of the Comoros
UK Contract Holder Institution	Bristol, Clifton and West of England Zoological Society (BCWEZS)
Host country Partner Institution(s)	The Ministry for Agriculture, Fishing and the Environment; the University of the Comoros
Other Partner Institution(s)	Durrell Wildlife Conservation Trust; Agronomes et Vétérinaires Sans Frontières
Darwin Grant Value	£238,805
Start/End dates of Project	01/04/09 – 31/03/12 – extended to 31/12/12 following change request
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 April 2011 – 31 March 2012 Annual report number 3
Project Leader Name	Neil Maddison
Project website	www.bcsf.org.uk/comoros www.ecddcomoros.org
Author(s) and main contributors, date	Hugh Doulton (HD), Kitty Brayne (KB), Katie Green (all BCSF) and Bronwen Daniel (Durrell) wrote the bulk of the report by 19/04; contributions from the local team were translated from the latest report submitted to the FDA. The report was then reviewed by the project management committee: Neil Maddison, Christoph Schwitzer (both BCSF), Andrew Terry and Rich Young (both Durrell) by 26/04. HD and KB then did final edit and collated the annexes written by different members of the team. Government partners discussed and commented on the French FDA report during the latest steering committee meeting, but did not contribute to writing.

Acronyms and abbreviations

AVSF - Agriculteurs et Vétérinaires Sans Frontières
 BCSF – Bristol Conservation and Science Foundation
 CBD – Convention on Biological Diversity
 Durrell – Durrell Wildlife Conservation Trust
 FAO – Food and Agriculture Organisation of the United Nations
 FDA – French Development Agency / Agence Française de Développement
 IUCN – International Union for the Conservation of Nature
 PMC – Project Management Committee (of the project, see organogramme in annexe)
 PoWPA – Programme of Work on Protected Areas
 REPC – Réseau des Educateurs et Professionnels de la Conservation (Madagascar)

1. Project Background

The project “A participatory conservation programme for the Comoro Islands” run in partnership by Bristol Conservation and Science Foundation (BCSF, an operating unit of Bristol Clifton and West England Zoological Society) and Durrell Wildlife Conservation Trust (Durrell) now completes its third year of Darwin Initiative funding. A no-cost project extension has been agreed until the end of 2012 to match with the programme of the other main funder, the French Development Agency (FDA).

The project’s work focuses on the Moya region of the island of Anjouan in the Comoro Islands. Anjouan is the poorest and most densely populated of the islands, and has suffered from some of the highest deforestation rates in the world in the last twenty years according to the FAO. Poverty, lack of alternative economic options, increasing population pressure, a lack of governance, and unsustainable agricultural methods are the main factors contributing to ongoing deforestation. The deforestation puts at risk the endemic terrestrial biodiversity, including the flagship Livingstone’s fruit bat, and is causing acute problems for the human population, particularly through loss of water resources and soil fertility, leading to increased poverty and vulnerability.

The project aims to protect endemic terrestrial biodiversity and its forest habitat and to contribute to improving the livelihoods of the human population. To achieve this, the project works to engage communities living around remaining forest in the implementation of an integrated landscape management process. Livelihood improvement at the individual level is focused on agricultural support, with communal natural resource management centring on water resources – areas of intervention prioritised by the local communities during the engagement process. The implementation of an ecological monitoring system will provide biodiversity data to support conservation planning within the project intervention zones and more widely throughout the Comoros. Sustainability of the project is based around the development of a local NGO to lead conservation and sustainable development activities into the future with support from international project partners. Project co-funding comes through an agreement with the FDA for €750,000, signed in March 2010, USD 40,000 from the Global Environment Facility through the Comoros Programme of Work on Protected Areas (PoWPA) proposal, and partner commitments.

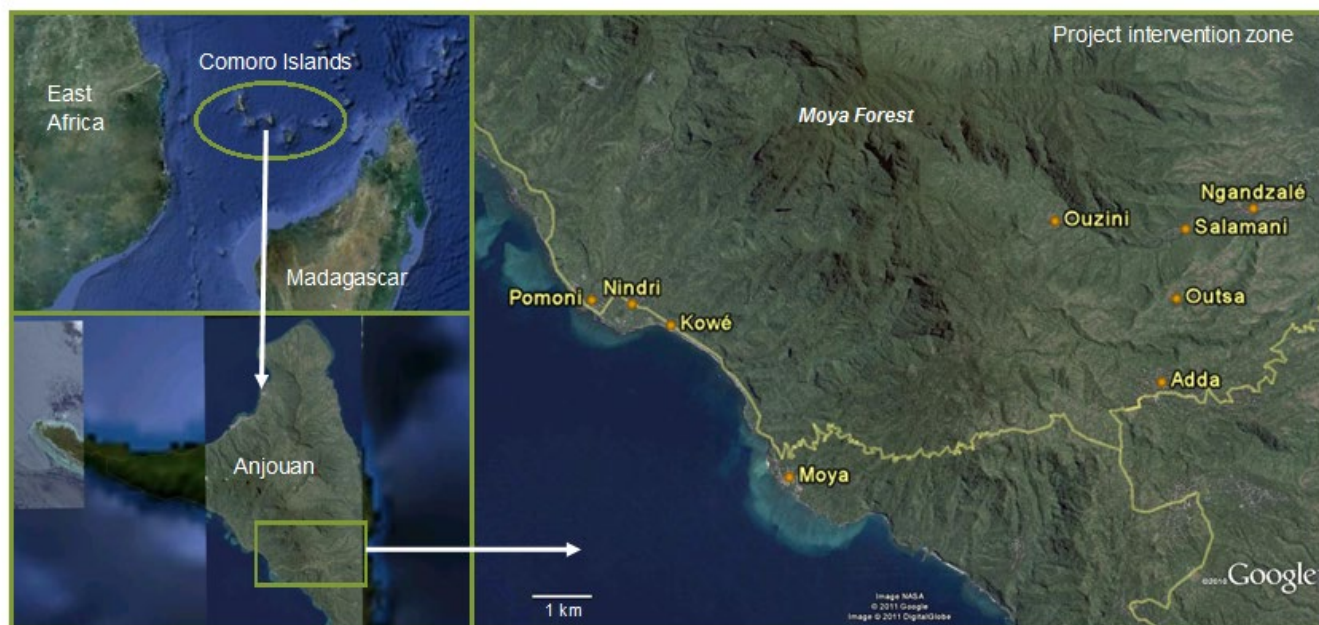


Figure 1: Images taken from Google Earth highlighting the Moya forest and the surrounding villages where the project’s community actions are focused. Ecological monitoring and research is carried out on Grande Comore, Anjouan and Mohéli.

2. Project Partnerships

Management structure: The Senior Management Team described in the Year 2 report has been converted into a Project Management Committee to reflect greater involvement in project delivery. The current project organogramme is annexed.

Local Partners: Two steering committee meetings were held during the year, chaired by the General Secretary for the Ministry for the Environment of the Government of the Union of the Comoros (the main project partner). The first in May 2011 was used as an opportunity to update partner institutions on the project's progress and strategy developments through an open morning of presentations and discussions which received wide publicity in the media. The second, held in January 2012, included a field visit for members of the committee to evaluate activities and results in Anjouan.

UK Partners: The project has continued to benefit from the partnership with Durrell Wildlife Conservation Trust, with Dr Richard Young overseeing the ecological monitoring activities including visiting the project to review progress in November 2011, Dr Andrew Terry visiting the project in April 2012 to support the development of the NGO, and UK expat project staff undergoing species distribution modelling training via Durrell in Madagascar in June 2011. Dr Andrew Terry and Dr Richard Young also support general project delivery through membership of the Project Management Committee.

Dr Tim Brewer of Cranfield University has continued to support the development of habitat mapping using satellite images. The project also exploited its links with Cranfield University to take on a volunteer for six months from the student-run NGO 'SAFAD' to study water resources and develop GIS mapping.

Other Partners: An important partnership agreement with AVSF was signed in December 2011, with the project receiving three technical support missions in the period January – March 2012. AVSF are providing technical expertise on agricultural development and landscape management processes.

3. Project progress

3.1 Progress in carrying out project activities

Output 1: Innovative participatory biodiversity conservation and community sustainable development model defined for the Comoro Islands, integrated into local policy, and publicised locally and internationally.

Activity	Year 3			
	1	2	3	4
1.1 Model elaborated based on community engagement during first two and a half years of project	X	X	X	
1.2 Creation of government-led project steering committee and regular meetings	X		X	
1.3 National communication strategy launched and implemented	X	X	X	X
1.4 Publication of academic articles			X	X

The model for biodiversity conservation and community sustainable development evolved into an integrated landscape approach during the first two years of the project. In this third year, the agricultural component of the landscape model has continued to evolve through the implementation of new agro-ecology techniques with the support of AVSF (see 4.2). Two French agronomy students have recently started studies of the ecological and economic importance of different agro-forestry regimes and a characterisation of farmers designed to assist with targeting of interventions, both of which will help to further improve the agricultural support provided. The project team are also currently undertaking a programme of research to better understand the uses of wood and non-timber forest products in the landscape, the results of which will contribute to the development of activities designed to reduce the impact of these activities on the forest. A new expatriate staff member will join the project in May to guide the finalisation of a landscape management plan, working to deliver different GIS layers, as well as the participatory planning process with the villagers.

The government-led steering committee, which meets twice a year, continues to be a very useful tool for integrating policy makers into the project's work. The third meeting was held in May and we took the occasion to combine it with an open-morning to publicise the project's progress to a range of partners through presentations and displays. Coverage was secured in all the major national media outlets. The second meeting was held in January, and included the first review of activities in the field. As President of the Steering Committee, the General Secretary for the Ministry of Environment and Agriculture expressed his support towards the project's approach towards environmental protection, novel for the Comoros, and was particularly interested in the introduction to the Comoros for the first time of new agro-ecological techniques with pilot farmers.

Communication activities continued as identified in the project communication strategy, including at the national and international levels the production of two project newsletters, publication of seven articles in the Comorian press and an article in a specialist newsletter for environmental issues in the Comoros, blog updates, a contribution to the Darwin newsletter, and engagement activities at the local level. The communication strategy developed in 2010 was improved for use at the local through the development of appropriate planning models to translate the overall project strategy into engagement activities in the villages, and training in adult education from the REPC. A strategic plan for the agro-ecology support has been elaborated from this basis. Activities identified for the rest of 2012 include targeted campaigns at the village level, including the creation of a film covering the agro-ecological approach, the presentation of the results of the habitat mapping and species distribution modelling to national partners as part of a workshop (a booklet will also be prepared outlining these results), continued media coverage and the development of the newly launched project website. Communication activities will also be organised to support the launch of the new NGO towards the end of the year.

In the final stage of the project, the results and overall model developed will be written up in an accessible 'how-to' guide targeted at local audiences, and a shorter brochure-style publication. We will also look for wider dissemination opportunities through presentations at international conferences and submission of papers for publication.

Output 2: At least 9 local communities surrounding remaining forest on Anjouan empowered to develop sustainably in a manner compatible with forest conservation and management

Activity	Year 3			
	1	2	3	4
2.1 Training in participatory approaches to community work				
2.2 Awareness raising, rapport-building and engagement interactions with forest adjacent communities				
2.3 Facilitating communities' to analyse the forest conservation and sustainable livelihood situation, and to envision and develop 'win-win' solutions that reduce poverty and protect forest habitat for biodiversity, with the support of community facilitators;	X	X	X	X
2.4 Support for self-implementation of community pilot actions and self-development plans, including strengthening of support networks and creation of links with funders and the necessary expertise at all levels	X	X	X	X
2.5 Creation of community conserved areas			X	X

Support to reduce the need for forest clearance through improving agricultural yields and developing alternative revenue streams has continued to expand during year 3 (see Year 2 report for descriptions of these activities). Tree cuttings to prevent erosion and improve fertility have been planted in a further 244 fields (a reduction from Year 2 as the focus shifts to introducing agro-ecological techniques from Madagascar). 126 new villagers were supported to grow market garden crops, bringing the total to over 300 since the start of the project; this included the introduction of potatoes as a trial new crop in three villages. Over 30 new food-crop demonstration plots were created (improved techniques already demonstrated in Anjouan), and over 150 farmers received training as well as seeds and tubers. A further six cows were placed into integrated livestock and crop production demonstration plots.

The agricultural support offered to farmers has also continued to evolve and improve, especially since the arrival of a Malagasy Technical Assistant, Christian Rakotoarinivo, in October, and the support missions from AVSF-Madagascar since January. Madagascar has a long experience with conservation agriculture techniques that improve yields, reduce labour, and protect the soil and other natural resources by maintaining a permanent vegetative cover throughout the agricultural calendar. The project is now working to introduce these techniques and crop associations to the Comoros for the first time, adapting the itineraries to the Anjouan context. Persuading farmers to adopt new techniques for which they have not seen the benefits is not easy, so the project has started by establishing 40 demonstration plots across the nine villages in our intervention zone, for which yields and other impacts such as the amount of labour required are being closely monitored. At the end of the crop cycle in August-October these first results will be used as a basis for a communications effort to attract a much larger number of beneficiaries to the work.

At the communal level, collective work to improve water infrastructure has been completed in four villages, and is underway in a fifth. Traditional power structures involving elected village heads have broken down in Anjouan over the last twenty years, with the only replacement being appointed mayors who usually have little support from the communities they represent. With no legitimate structure on which to base intervention communal activities are thus especially hard to develop. These clearly-defined projects bringing short-term benefits have thus been designed to test ways to achieve collective results as a first step towards achieving more complex collective natural resource management. Close integration between project staff and the inhabitants of each village is essential, and successful completion of activities in all four villages on a voluntary basis shows that the relationships are working and will provide a solid foundation for more complex interventions in the future.

A postgraduate volunteer from the Cranfield University-affiliated NGO SAFAD has also developed detailed GIS maps of the water resources within the project intervention zone, studying the flow of these resources from catchment areas into villages and areas used for agriculture (see annex 2). Based on this data a monitoring system for water will be developed to monitor the quality and quantity of water entering the pipes in each village, and historic data on rainfall is being collated from the network of national meteorological stations. This work will be completed through a mission by a hydro-geological expert from AVSF in August, with the aim of identifying the causes of water loss in the region.

As introduced above, two French students have recently started six-month research projects. One will identify the ecological and economic role of different agro-forestry systems, thus identifying which regimes should be more widely promoted for adoption. The second will identify a characterisation of different farmers so that different interventions can be better targeted to those who will most benefit, and have the capacity (whether financial, technical, labour...) to adopt certain innovations.

During the next nine months this work will be brought together into a participatory landscape management planning process:

- The maps of water resources, forest, and biodiversity identify priority management areas for these resources, to be fed into discussions;
- The different agricultural techniques implemented (with impact monitoring) will serve as examples of different innovations that can be applied in different zones to improve yields, protect soil and water, and reduce pressure on forest, with the results of the study on the characterisation of different farmers showing which farmers in which zones are best able to adapt the proposed innovations;
- Digitisation of soil maps from the 1970s combined with the land cover maps will help to identify appropriate areas for expansion of the different agricultural innovations;
- The results of the forest-use studies will identify actions that can be implemented in different zones to improve sustainability of these resources;
- These different elements will be introduced into participatory planning workshops in the villages which will result in the creation of landscape management plans that highlight actions to implement in different zones, including forest protection;
- The water committees created and strengthened based on the lesson learning from the collective water infrastructure work will serve as the basis for institutional support to the implementation and management of the landscape management plans at the village level.

Table1: Numbers of beneficiaries of agricultural support

Activity	Indicator	Total Apr 10 - Mar 11	Total Apr 11 - Mar 12	Total Year 2 + 3
Structural fertility and anti-erosive field improvements	People engaged and trained	497	244	741
	Relay trainers engaged and evaluated	19	12	31
	Improved fields	476	244	720
Staple crop production	People engaged and trained	53	190	243
	Demonstration plots installed (old techniques)		30	51
	Demonstration plots installed (new techniques from Madagascar)	21	40	40
Market gardening	People trained and receiving support	83	126	209
Livestock (cattle)	Cows placed into guardianship	1	6	7
Total no. beneficiaries of agricultural support:		634	566	1200

Output 3: Protected area zoning plan produced from a biodiversity perspective, and biodiversity and habitat quality monitoring system created

Activity	Year 3			
	1	2	3	4
3.1 Training in biodiversity and habitat monitoring techniques	X	X	X	
3.2 Annual surveys of forest quality, butterflies, birds, mammals and reptiles			X	X
3.3 Development of models and gap analysis based on monitoring data		X	X	
3.4 Development of zoning proposal based on models and gap analysis			X	X
3.5 Publications of survey results and model participatory ecological monitoring system	X	X		X

The field surveying skills of the field team have been the primary focus for capacity development activities and have improved greatly over the past three years. Capacity building for the technicians this year has focused on logistical management, report-writing, presentations, and reviewing scientific papers. A one-week intensive training session on GIS (Quantum GIS) was delivered by the GIS volunteer working within the project, which has been followed by support for simple statistical and spatial analysis of the Livingstone's fruit bat dataset. The two expatriate team members also received external training on species distribution modelling through Durrell in Madagascar.

Annual surveys of habitat, butterflies, birds, mammals, and reptiles have continued during the wet season (Feb-March 2012). Having already completed a full dataset for the three islands, the focus this year was to establish further transects within the Moya forest to enable future intensive surveying of the project intervention zone. Six new transects have been established and the species presence data collected will be added to the species distribution modelling analysis. A particular research effort was also developed around Livingstone's fruit bat. From Dec 2011 – Jan 2012 the team conducted counts at each of the previously known 17 roost sites in Anjouan. The results of these surveys found that two of the previously known roosts no longer exist and one is inaccessible (see annex 3 for initial report). The estimated population size for the 14 roost sites surveyed in Anjouan was calculated to be 749 individuals; down from the last known count which indicated the presence of 1050 individuals. Counts will be repeated and extended to Mohéli in June-July 2012 to gain an overall species population estimate and provide enough data for robust comparison with historical data collected by a local NGO.

The development of species distribution models for all three islands is now in its final stages. Land cover maps for all three islands have been produced (see annexe 4), and the issues over cloud cover resolved using further satellite images procured through the collaboration on reptile work with researchers from Munich University. Remaining tasks to complete include accuracy assessments and improvements to the maps through the use of alternative imagery of less than 15m resolution for the clouded zones.

Using these maps and other environmental GIS layers such as slope, height and rainfall, species distribution models for all the taxa surveyed have been developed with the software MaxEnt (see annexe 4 for some examples). These results will be used to support the zoning of protected areas and aid the design of long-term biodiversity monitoring for the Comoros. A workshop is being developed between the project and the Ministry to bring together the results of different ecological work performed in the last three years in the Comoros (the project's work, floral studies by the University, studies of lesser known taxa like dragonflies and spiders by the CNDRS, and a forest inventory by the FAO). The aim is to produce one set of conservation recommendations for the implementation of terrestrial protected areas across the three islands.

For publications, the Head of Ecological Monitoring Katie Green was an author on a paper on the distribution and status of Comorian reptiles. A paper on the full results of the research into the Anjouan scops owl is currently being prepared for submission to a peer-reviewed journal.

Other major outputs planned for the coming months include a report of the Livingstone's fruit bat survey findings, national and international dissemination of the land cover maps and species distribution models, and a technical report of the methods employed.

Output 4: New local NGO created and shows commitment to be developed into a major independent force for conservation in the Comoros

Activity	Year 3			
	1	2	3	4
4.1 Personalised development plans created for local team members	X			
4.2 In-house training programme developed, with higher-level training delivered through Madagascar networks	X	X	X	X
4.3 Engagement of further local, regional and international partnerships through development of steering committee and Madagascar exchange visits	X	X	X	X
4.4 Strategic planning workshops			X	

In-house training during the year focused on needs identified in the personal development plans including agricultural generalities and specific techniques, computer skills, database management, GIS modelling, report-writing, management skills. External training was organised through Madagascar networks partners, with regular missions from experts from AVSF to deliver training on various agricultural techniques and approaches, and a training workshop delivered by the REPC on active teaching methods for adult education.

A series of meetings were held with Comorian NGOs considered to be effective in order to learn from their experiences, and to build links with dynamic figures in Comorian civil society. The results of these discussions were presented at a planning workshop during Andrew Terry's visit in April, during which the structure for the NGO was decided and a calendar for its creation put in place (see annex 4). The team is currently working to identify key people to involve in the discussions and development process this year. It is expected that these people will take a dynamic role in the organisation as potential board members, and be key resources in its creation. A final strategic planning workshop will be held around the date of the creation of the NGO.

Monitoring and evaluation:

5.1 Participatory community livelihood, institutional and attitude monitoring

See table of indicators in section 3.1 for data on the uptake of community activities. Monitoring of the impact to yields and incomes is being undertaken with a selection of beneficiaries of the new test plots.

5.2 Annual analysis of biodiversity and habitat data by Durrell

Richard Young reviewed data collection during his visit in November, and Durrell has since employed a consultant to support final production of species distribution models.

3.2 Progress towards Project Outputs

Output 1: Innovative participatory biodiversity conservation and community sustainable development model defined for the Comoro Islands, supported by local policymakers, and publicised locally and internationally

The model has developed considerably since the start of the project, and these final nine months until the end of the current project will be focused on developing further sets of support for agriculture, identifying ways to improve efficiency of wood-use, and bringing the different elements of the project together to implement a participatory landscape management planning process for the Moya region. Local policymakers have been integrated into the process through participation in the project steering group and field visits. Ongoing media coverage at the national level has been secured covering the project's approach and activities. In the final stage of the current project, communications are focusing on the project's achievements and overall model, with an article already featured in the Comoros environmental magazine Habari za Ulanga. A leaflet and poster describing the overall model and a longer 'how to' guide will be developed for national and international audiences. The new project website will also serve as a useful dissemination tool.

Output 2: At least 9 local communities surrounding remaining forest on Anjouan empowered to develop sustainably in a manner compatible with forest conservation and management

To date over 1200 farmers have benefitted from agricultural and revenue-generating activities developed to improve livelihoods whilst reducing impact on remaining forest. New conservation agricultural techniques are being tested in over 40 plots, with a communications campaign towards expansion of beneficiaries based on the results of these tests planned for later in the year. The impact of these activities on livelihoods is being closely followed in all new demonstration plots.

Output 3: Protected area zoning plan produced from a biodiversity perspective, and biodiversity and habitat quality monitoring system created

The project is working with government partners to organise a national workshop in mid-2012 to present the results of ecological studies undertaken by different organisations in order to discuss the production of one set of conservation recommendations to be submitted to the government. The projects' land cover maps and species distribution models will be critical to the development of an agreed protected area zoning plan. Non-spatial data analysis of the data from monitoring will also be used to design the field aspect of the long-term monitoring scheme, which local technicians will be able to continue at the end of the project.

Output 4: New local NGO created and shows commitment to be developed into a major independent force for conservation in the Comoros

Decisions on the NGO structure and membership were made during Andrew Terry's visit in April 2012, guided by a research phase during which relevant lessons were gathered from NGOs in Madagascar and the Comoros. Key steps towards its creation and a timeline are presented in annex 4. Before the end of the current project (end 2012) the NGO will have been launched formally, and a strategic plan will be in place for the development of the organisation over the next five years. A second-phase project will support this structure's development should funding applications be successful.

3.3 Standard Measures

Code No	Description	Year 1 Total	Year 2 Total	Year 3 Total	Total
2	Number of Masters Students research dissertations supported	2	4 (1 French, 1 British, 2 Comorian)	2 (ongoing – French)	8
4A	Number of undergraduate students to receive training	0	4 (Comorian)	0	4
4B	Number of training weeks to be provided		4	0	4
5	Comorian project staff trained in participatory engagement methodologies	6	8	2	16
	Comorian project staff trained in agricultural support	8	8	10 (8 same; new techniques)	18
	Comorian project staff trained in ecological monitoring techniques	2	3	1	6
6A 6B	Comorian project interns trained in participatory engagement methodologies	2 staff x 2 weeks	3 staff x 2 weeks		76 wks
	Comorian project interns trained in agricultural support	6 staff x 1 week	3 staff x 2 weeks		
	Comorian project interns trained in ecological monitoring techniques	4 staff x 2 weeks	3 staff x 6 weeks		
	Comorian project staff with improved IT skills	6 staff x 1 week	11 staff x 2 weeks		
8	UK project leader visits	4 weeks	2 weeks	2 weeks	413 wks
	UK Project Manager	49 weeks	45 weeks	37 weeks	
	UK Head of Ecological Research and Monitoring	29 weeks	47 weeks	37 weeks	
	UK Field Biologist (Durrell post)	n/a	4 weeks (first recruit) 7 weeks (new recruit)	47 weeks	
	UK Communications and Outreach Officer	n/a	47 weeks	47 weeks	
	Durrell staff visits	3 weeks	1 week	1 week	
	UEA – project evaluation and livelihood consulting	2 weeks	0 weeks	0 weeks	
	IUCN – project evaluation and orientation	n/a	2 weeks	0 weeks	
12A	Ecological monitoring and agricultural support monitoring databases established	2	0	1	3
15A	Number of national press releases in Comoros	3	0	2	5
15B	Number of local press releases in Comoros	5	0	7	5
15C	Number of national press releases in UK	2	0	0	2
15D	Number of local press releases in UK	2	0	0	2
16A	Number of newsletters produced	0	1	2	3
16B	Est circulation of each newsletter in host country		80	150	230
16C	Est circulation of each newsletter in the UK		50	111	161

Code No	Description	Year 1 Total	Year 2 Total	Year 3 Total	Total
	(Est circulation to regional institutions)		80		80
18A	Number of national TV programmes/features in Comoros	1	0	1	2
18C	Number of local TV programmes/features in Comoros	3	0	1	4
19A	Number of national radio interviews/features in Comoros	2	0	1	3
19C	Number of local radio interviews/features in Comoros	3	0	1	4
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	45 transects			45
23	French Development Agency – €750,000 signed	~ £25,000	~ £250,000	~ £150,000	£662,950
	Bristol	£36,000	£25,000	£25,000	
	Durrell	£18,500	£12,250 £20,000 new post	£28,000	
	Global Environment Facility	£13,000	£9,000		
	Planet Action – satellite images and software	~ £12,000			
	Birdlife International – scops owl research	£8,700			
	Comorian government	£8,500	£8,500	£8,500	
	British High Commission Mauritius	£5000			

Table 2: Publications

Type (e.g. journals, manual, CDs)	Detail (title, author, year)	Available from (e.g. contact address, website)	Cost £
Newsletter	Mahabari – the ECDD project newsletter, Issues 2 and 3	http://www.bcsf.org.uk/bcsf/publications-and-reports	n/a
Peer-reviewed Paper	Integrating field surveys and remote sensing data to study distribution, habitat use and conservation status of the herpetofauna of the Comoro Islands Hawlitschek O, Brückmann B, Berger J, Green K , Glaw F (2011). ZooKeys 144: 21.	http://www.pensoft.net/journals/zookeys/article/1648/abstract/integrating-field-surveys-and-remote-sensing-data-to-study-distribution-habitat-use-and-conservation-status-of-the-herpe	n/a
Blog	Two articles on Durrell field blog	http://blog.durrell.org	n/a

3.4 Progress towards the project purpose and outcomes

1. Threatened forest areas managed more sustainably by communities in Anjouan

Threatened forest areas have been identified through GIS mapping; collective action capacity has been built through the work to improve water infrastructure; priority areas for water management have been identified; and livelihood options compatible with forest conservation have been demonstrated and adopted by beneficiaries. Research during the next semester will identify the best agro-forestry regimes to promote as well as ways of optimising wood-use, and mechanisms to achieve management of important forest areas. All these activities and information will be brought together into participatory landscape management planning; the buy-in of communities, partner institutes, the government and funders will be critical to their uptake.

2. To ensure forest based livelihoods of at least 9 communities surrounding the remaining forest are more compatible with forest conservation

Pressure on forest areas has been reduced through the development of a package of agricultural and livelihood activities compatible with forest conservation that have engaged over 1200 villagers. These will

be extended to further beneficiaries over the last year of the project, with further activities developed as described above.

3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The work on intensifying agriculture aims to improve sustainability of use of natural resources – forest, water and soil. The project has promoted the use of techniques applied in others areas of the island where the benefits have been clear, and there has been wide uptake of these in a relatively short time period (over 700 farmers taking up techniques to reduce erosion in under 3 years). The emphasis is now moving to introduce techniques from Madagascar that have not been applied before in the Comoros, and these we expect to have a greater impact on both yields and the sustainability of the agro-ecological system in the long-term. These efforts now need to be tied to protection of key forest areas for biodiversity and people, one of the aims of the landscape management planning underway.

4. Monitoring, evaluation and lessons

With the support of AVSF, the Technical Assistant has now put in place systems to monitor labour, financial outlay and income, and yields for the demonstration plots that the project has put in place this year. These will thus monitor directly the impact of the project's agricultural and revenue-generating activities on livelihoods, with data used in communications to attract more farmers to use the novel techniques. Assessing impact of these activities on forest destruction is only possible through long-term monitoring of forest areas and extraction levels. The forest maps produced a baseline for future monitoring at a regional scale, with long-term indicators for the local level to be identified through the forest resource-use surveys underway. A separate set of indicators will be developed surrounding forest management once landscape development plans have been created.

5. Actions taken in response to previous reviews (if applicable)

N/A

6. Other comments on progress not covered elsewhere

The lack of candidates for higher-level local posts continued to cause problems, with the project steering committee and the FDA eventually agreeing to the recruitment of a local coordinator (technical assistant) and a head of administration from Madagascar in October 2011 and February 2012 respectively. These two appointments have taken a large burden off the project coordinator, and combined with their technical expertise, have allowed the project to make great progress over the last four months. They are tasked with transferring their skills to Comorian staff members before the end of their current contracts at the end of 2012.

The lag in the signing of the AVSF partnership following their evaluation mission in June led to delays in the introduction of new conservation agriculture techniques and the continuation of the landscape management planning. A full programme of missions since January means that activities are now going forwards smoothly.

7. Sustainability

The project has developed a good profile in country due to a sustained media presence and strong integration with relevant host country institutions, notable through the creation of the project steering committee headed by the General Secretary for the Environment and Agriculture Ministry. The approach of livelihood improvement towards conservation outcomes is the opposite of the general approach of environment initiatives in the country to-date, and is appreciated by the Ministry.

The local NGO will be created in the next semester, and the project partners are committed to supporting this NGO by accessing further funding for a transfer period of at least three years. Discussions are underway with local partners and project donors to renew funding at the end of 2012. The FDA recognise that the project is one of the few to have developed a successful strategy and a reliable and committed team in the Comoros, and are thus keen to continue funding. The current outlook for sustainability is therefore strong.

8. Project Expenditure

Table 1 Project expenditure during the reporting period (Defra Financial Year 1 April 2011 to 31 March 2012)

Item	Original budget	Accepted budget changes	Expenditure	Variance	Notes
Salaries					
Richard Young					
Hugh Doulton (PM)					< +/- 10%
Anjouan coordinator					< +/- 10%
Anjouan facilitators					< +/- 10%
Moheli salaries					£XXXX on Katie Green salary, £XXXX on Kitty Brayne in Oct 11 change request; £XXXX onto Katie Green, £XXXX on Kitty Brayne in Jan 12 change request
Katie Green (Ecol)					< +/- 10%
Kitty Brayne (Comms)					< +/- 10%
Overheads - UK					£XXXX put onto Hugh Doulton's salary in Jan 12 change request
Comoros					< +/- 10%
Audit					NB Final audit in April, so payment still to be effected
Travel and subsistence - UK					< +/- 10%
Comoros					< +/- 10%
Operating costs - Comoros					
Consultancy - Dr Oliver Springate Baginski (UEA)					£XXXX put onto Kitty Brayne's salary in Jan 12 change request
GIS support					£XXX put on Hugh Doulton's salary in Jan 12 change request
Conferences, seminars, etc - UK					< +/- 10%
Comoros					< +/- 10%
TOTAL					

9. Dissemination

- Two editions of project newsletter produced and distributed to 150 contacts within the Comoros and 110 in UK and internationally
- 7 articles in national press
- National TV and radio coverage – two news mentions on TV and radio
- Local TV and radio coverage
- Article in Habari za Ulanga (newsletter produced by environmental NGO Ulanga Ngazidja)
- 2 articles on Durrell blog (<http://blog.durrell.org>)
- Stand-alone project website developed for launch in May (to be transferred to NGO)
- Article in Darwin Newsletter

10. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

Report of progress and achievements against Logical Framework for Financial Year: 2011/12

Project summary	Measurable Indicators	Progress and Achievements April 2011 - March 2012	Actions required/planned for next period
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</p> <p>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</p>			(do not fill not applicable)
<p>Purpose</p> <p>1. Threatened forest areas managed more sustainably by communities in Anjouan</p> <p>2. To ensure livelihoods of 9 communities surrounding the remaining forest are more compatible with forest conservation</p>	<p>Agreements on natural resource management of remaining forest operational by End of Project</p> <p>Livelihood monitoring shows improved sustainability and reduced poverty by End of Project</p>	<p>Maps of forest and water resources completed for landscape zoning.</p> <p>Over X further beneficiaries engaged in livelihood activities, making X in total.</p> <p>Monitoring of impact of new agricultural techniques in place.</p>	<p>Development of landscape management plans for three priority villages.</p> <p>Development of proposals to improve sustainability of wood-use.</p> <p>Expansion of current and new livelihood activities.</p>
<p>Output 1 Innovative participatory biodiversity conservation and community sustainable development model defined for the Comoro Islands, supported by local policymakers, and publicised locally and internationally</p>	<p>Process recorded and evaluated by partners;</p> <p>Government participation in process development;</p> <p>Successful local awareness campaign established in partnership with local media</p>	<p>Field visit by project steering committee.</p> <p>Meetings with government about development of follow-on project.</p> <p>Continued production of publicity material and sustained media presence.</p> <p>Input of new partner AVSF into landscape model</p>	<p>Arrival of head of landscape management planning in May.</p> <p>Development of television and radio programmes.</p> <p>Elaboration of trial landscape management plans for three villages.</p>
<p>Activity 1.1 Participatory conservation model elaborated and published based on community engagement during first two and a half years of project</p>		<p>Agro-ecological components of landscape model developed with support of AVSF. Forest maps and species distribution models completed.</p>	<p>Landscape level zoning to be carried out and plans developed for three villages.</p> <p>Publication of model and results in manual, leaflets and posters</p>
<p>Activity 1.2 Creation of government-led project steering committee; discussion of wider application of project results</p>		<p>Two meetings held, including field visit.</p> <p>Integration into wider government programmes improved.</p>	<p>Further meetings will be held in July and December, to focus on lessons learnt, NGO development and follow-up funding.</p>
<p>Activity 1.3 National communication strategy launched</p>		<p>Continued strong media presence: X articles, clips on television. Second and third project bulletin produced and distributed. Stand-alone website developed.</p>	<p>Website launched. Development of films and hosting media visits.</p> <p>Production of final project outputs.</p>

Project summary	Measurable Indicators	Progress and Achievements April 2011 - March 2012	Actions required/planned for next period
Activity 1.4 Publication of academic articles			Identification of potential outlets with Dr Gill Shepherd (IUCN). Write-up. This indicator may have to be revised however.
Output 2 At least 9 local communities surrounding remaining forest on Anjouan empowered to develop sustainably in a manner compatible with forest conservation and management	Success of micro-solutions implemented by each community; Operational agreements active on natural resource management; Livelihood monitoring shows empowerment progress	Further X beneficiaries engaged in livelihood activities, taking total to X. New agricultural intensification techniques from Madagascar being trialled. Mapping of water resources completed.	Continued support to current activities and expansion of new techniques. Development of landscape management plans for three targeted communities.
Activity 2.1 Training in participatory approaches to community work		Training on adult learning delivered by REPC – Madagascar	Training from new head of landscape approach on participatory workshops. Potential for further training from REPC.
Activity 2.2 Awareness raising, rapport-building and engagement interactions with forest adjacent communities		Series of events to mark completion of communal work on water infrastructure. Promotion work on agro-ecological techniques. Support to development of water management committees.	Outreach programme on agro-ecological techniques. Participatory workshops towards landscape management. Support institutional development for natural resource management.
Activity 2.3 Facilitating communities' to analyse the forest conservation and sustainable livelihood situation, and to envision and develop 'win-win' solutions that reduce poverty and protect forest habitat for biodiversity, with the support of community facilitators		Training on agro-ecological techniques and installation of over 40 test plots to evaluate impact of different innovations. Research on wood-use towards identifying more sustainable use.	Completion of forest-use surveys and identification of potential actions to improve sustainability of wood-use. Testing of bee-keeping.
Activity 2.4 Support for self-implementation of community pilot actions and self-development plans, including strengthening of support networks and creation of links with funders and the necessary expertise at all levels		A further X beneficiaries engaged in livelihood activities. Communal improvements to water infrastructure facilitated in four villages	Expansion of agro-ecological techniques. Continued support to market gardening.
Activity 2.5 Creation of community conserved areas		Mapping of water catchment areas and water resources in the project intervention zone. Identification of priority areas for biodiversity.	Development of landscape management plans around agricultural intensification, water and forest management.
Output 3. Protected area zoning plan produced from a biodiversity perspective, and biodiversity and	Full set of monitoring manuals produced in French; Data collection and analysis	Species distribution models for Grande Comore and Anjouan produced and reviewed by Durrell consultant. Handout prepared for	Government workshop to integrate results into a set of recommendations for protected areas. Development of

Project summary	Measurable Indicators	Progress and Achievements April 2011 - March 2012	Actions required/planned for next period
habitat quality monitoring system created	reviewed and published annually; Zoning plan created in consultation with government and local communities	government workshop.	proposal for long-term monitoring.
Activity 3.1 Training in biodiversity and habitat monitoring techniques		Ongoing training for three local technicians, including on GPS and GIS. Training in modelling for expatriates by Durrell.	Continued, with emphasis on GIS and data analysis
Activity 3.2 Annual surveys of forest quality, butterflies, birds, mammals and reptiles		Full two-year data set completed for the three islands. Targeted surveying of zone around the project's community activities. First in-depth survey of Livingstone's fruit bat population started with wet season surveys.	Dry season counts of Livingstone's fruit bat roosts to complete survey. Continued habitat and biodiversity surveying in project's intervention zone.
Activity 3.3 Development of models and gap analysis based on monitoring data		Forest maps for the three islands completed. Species distribution models for reptiles, butterflies, birds and key mammal species completed for Grande Comore and Anjouan.	SDMs to be completed for Mohéli. Accuracy assessment and improvements to be made to forest maps.
Activity 3.4 Development of zoning proposal based on models and gap analysis			Workshop to be held early May with all other local institutions producing ecological data so that they can be combined into one set of protected area recommendations for the government.
Activity 3.5 Publications of results and model participatory ecological monitoring system		Anjouan scops owl paper being written. Handout created for May meeting	Scops owl paper sent for publication. Full brochure with results produced. Development of long-term surveying proposal based on results to-date.
Output 4 New local NGO created and shows commitment to be developed into a major independent force for conservation in the Comoros	Capacity building of local project team; Development of partnerships with Comorian, regional and international institutions Strategic pathway for NGO creation elaborated	Timeline of key steps towards creation elaborated. Regional and local partners contacted and developed. External training delivered by REPC and AVSF; ongoing internal training.	NGO officially created, members voted, transition plan proposed for next-stage of project. Capacity development programme elaborated.
Activity 4.1 Personalised development plans created for local team members		Full annual evaluations completed for each local staff member including identification of ongoing training needs.	Further development of training plans. Capacity needs assessment for NGO to be completed.

Project summary	Measurable Indicators	Progress and Achievements April 2011 - March 2012	Actions required/planned for next period
Activity 4.2 In-house training programme developed, with higher-level training delivered through Madagascar networks		Training on adult teaching and community natural resource management delivered by REPC Madagascar network. Agriculture training delivered by new Technical Assistant and through three missions from AVSF Madagascar. Training on GPS and GIS from SAFAD volunteer. Ongoing in-house training: presentations, computer skills, project management etc.	Further training on agriculture techniques and landscape management planning from AVSF. Potential second trip from REPC. Ongoing in-house training – technical and management skills.
Activity 4.3 Engagement of further local, regional and international partnerships through development of steering committee and Madagascar exchange visits		Two further steering committee meetings. Meetings with a range of Comorian NGOs to learn lessons and develop contracts.	Four Malagasy and two Comorian NGOs selected for exchanges and lesson-learning. High-level Comorian individuals to be contacted for important roles in NGO development.
Activity 4.4 Strategic planning workshops		Planning workshop organised during Andrew Terry's trip in April 2012. Organisational and membership structures proposed. Key steps towards creation identified and timeline created.	Creation of a steering committee to lead NGO development involving team members and key external high-level Comorians. Development of key documents and organisation of first General Assembly.

Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.			
Sub-Goal: Anjouan endemic forest biodiversity conserved through sustainable management of remaining forest	GIS monitoring shows reduced forest loss; Ground habitat surveys show forest regeneration; Biodiversity monitoring surveys show stable populations (all within 2 years of End of Project)	Data from local NGO's annual ground surveys and government and NGO's annual GIS models	
Purpose: 1. Threatened forest areas managed more sustainably by communities in Anjouan 2. To ensure livelihoods of 9 communities surrounding the remaining forest are more compatible with forest conservation	Agreements on natural resource management of remaining forest operational by End of Project Livelihood monitoring shows improved compatibility with forest conservation by End of Project	Accords signed and published; community conserved areas created Data published from locally-adapted livelihood monitoring in each engaged community at halfway stage and End of Project	Political situation remains stable; Government remains committed to project; Remaining unengaged communities support project following initial contact
Outputs: 1. Innovative participatory biodiversity conservation and community sustainable development model defined for the Comoro Islands, supported by local policymakers, and publicised locally and internationally	Process recorded and evaluated by partners; Government participation in process development; Successful local awareness campaign established in partnership with local media	Evaluations published and reviewed by external consultants; At least 2 academic papers published; Steering committee minutes; 'How-to' guide published locally, and regionally/ internationally if demand At least 3 films shown and 10 articles published in local press	Sufficient alternatives to unsustainable actions can be defined and implemented; Government remains committed to learning from new approach, and integrating lessons into conservation and rural development plans
2. At least 9 local communities surrounding remaining forest on Anjouan empowered to develop sustainably in a manner compatible with forest conservation and management	Success of micro-solutions implemented by each community; Operational agreements active on natural resource management; Livelihood monitoring shows empowerment progress	Internal project reports on communities' progress; Evaluation reports by consultants at halfway stage and End of Project; Data from livelihood monitoring	Communities commit to long-term empowerment for sustainable development following engagement; Macro-level issues do not cancel out local-level improvements
3. Protected area zoning plan produced from a biodiversity perspective, and biodiversity and habitat quality monitoring system created	Full set of monitoring manuals produced in French; Data collection and analysis reviewed and published annually; Zoning plan created in consultation	Protocols printed and available electronically on partner websites; Biodiversity data published annually; Data analysis reviewed annually; At least 2 scientific papers published;	Levels of capacity within local team to carry out biodiversity assessment work maintained and developed Issues surrounding cloud cover over highland forest areas on satellite images can be

	with government and local communities	Zoning plan published	resolved
4. New local NGO created and shows commitment to be developed into a major independent force for conservation in the Comoros	Capacity building of local project team; Development of partnerships with Comorian, regional and international institutions Strategic pathway for NGO creation elaborated	Personal development plans and training reports; Partnership agreements and records of collaboration, participation in steering committee; Workshop reports, strategic plan for NGO development	Local project team remains committed to development route; Local and regional partners remain committed to supporting development of a new local NGO
Activities (details in workplan)			
<p>1.1 Participatory conservation model elaborated and published based on community engagement during first two and a half years of project</p> <p>1.2 Creation of government-led project steering committee; discussion of wider application of project results</p> <p>1.3 National communication strategy launched</p> <p>1.4 Publication of academic articles</p> <p>2.1 Training in participatory approaches to community work</p> <p>2.2 Awareness raising, rapport-building and engagement interactions with forest adjacent communities</p> <p>2.3 Facilitating communities' to analyse the forest conservation and sustainable livelihood situation, and to envision and develop 'win-win' solutions that reduce poverty and protect forest habitat for biodiversity, with the support of community facilitators;</p> <p>2.4 Support for self-implementation of agricultural innovations and community natural resource management plans, including strengthening of support networks and creation of links with funders and the necessary expertise at all levels</p> <p>2.5 Creation of community conserved areas</p> <p>3.1 Training in biodiversity and habitat monitoring techniques</p> <p>3.2 Annual surveys of forest quality, butterflies, birds, mammals and reptiles</p> <p>3.3 Development of models and gap analysis based on monitoring data</p> <p>3.4 Development of zoning proposal based on models and gap analysis</p> <p>3.5 Publications of results and model participatory ecological monitoring system</p> <p>4.1 Personalised development plans created for local team members</p> <p>4.2 In-house training programme developed, with higher-level training delivered through Madagascar networks</p> <p>4.3 Engagement of further local, regional and international partnerships through development of steering committee and Madagascar exchange visits</p> <p>4.4 Strategic planning workshops</p>			
<p>4. Monitoring activities:</p> <p>Indicator 1: Participatory community livelihood, institutional development, and attitude monitoring implemented in engaged communities.</p> <p>Indicator 2: Annual analysis of biodiversity and habitat data by DWCT;</p> <p>Indicator 3: Project mid-term and final evaluation by consultants (University of East Anglia – community aspects; DWCT – biodiversity aspects; Partner from Madagascar – Local NGO progress)</p>			

Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Annexes included with this report (as separate PDF files) are:

1. Team organogramme
2. Map showing research into water resources
3. Initial report of wet season Livingstone's fruit bat surveys
4. Handout produced for the PoWPA presentation including land cover maps and niche suitability models
5. A planning document for NGO development until end 2012

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	Yes
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, putting the project number in the Subject line.	No
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	