CEPF LARGE GRANT FINAL PROJECT COMPLETION REPORT

I. BASIC DATA

Organization Legal Name: Secretariat of the Pacific Regional Environment Programme (SPREP)

Project Title (as stated in the grant agreement): Restoration of Nu'utele and Nu'ulua Islands (Aleipata Group), Samoa

Implementation Partners for This Project: Ministry of Natural Resources & Environment (MNRE), Samoa; Pacific Invasives Initiative (PII); New Zealand Department of Conservation (DOC); David Butler Associates Ltd, NZ (DBA).

Project Dates (as stated in the grant agreement): April 1, 2006 - September 30, 2006

Date of Report (month/year): October 2006

II. OPENING REMARKS

Provide any opening remarks that may assist in the review of this report.

This project aimed to complete the planning and pre-monitoring for operations to manage two invasive species on two uninhabited offshore islands in Samoa: to eradicate Pacific Rats (*Rattus exulans*) and to control Yellow Crazy Ants (*Anoplolepis gracilipes*) to low levels, largely by aerial drops of poisoned baits.

The rat programme was first considered in 2000 and SPREP obtained funds then for some initial investigations and surveys of reptiles, invertebrates, birds and weeds and the development of proposals. The current project has built on these to complete detailed operational planning and EIA's for both species programmes and to investigate the protection of a threatened bird considered a non-target risk.

The two islands lie within a community-based Marine Protected Area (MPA) which has been developed over five years with IUCN funding. The community and Government identified a goal of restoring the islands for their biodiversity values within their co-signed MPA Management Plan. A separate CEPF/RNHP Small Grant furthered the development of a restoration programme for the islands to achieve this goal, including management of the rats and ants.

The original proposal was to carry the rat operation through from planning to delivery. A Letter of Inquiry based on this was submitted in December 2005 and following its acceptance a full proposal was submitted in late February 2006. Following comments from CEPF a revised proposal was sent in early March. However by this point there were some concerns expressed, particularly by PII, about whether the project could be completed on time (even with an extension to 30 September). A more detailed timeline was prepared with milestones and decision points, at which point MNRE indicated that they would have trouble meeting this with their other commitments. CEPF then agreed to accept a revised proposal to complete the planning of the rat operation and to add the planning of a yellow crazy ant operation as an additional output. During the course of the project an application has been submitted to the RNHP 2006/07 grant round to undertake the two operations. (A decision on this is expected daily).

III. NARRATIVE QUESTIONS

1. Briefly describe the methods used in achieving the objectives of this project.

Day to day management of the project was largely passed to MNRE (through an MOU) as the Ministry has staff on the ground and a long-term relationship with the village communities who own the two islands involved. The PII has identified this as one of their 'supported demonstration projects' and have provided technical advice and encouragement and visited the site. MNRE recruited Dr David Butler of DBA as a project adviser and he in turn assisted with the recruitment of other experts to assist MNRE staff in delivering the outputs. SPREP has retained oversight of project finances and activities.

2. Describe what was achieved in terms of:

a) capacity development

Considerable expertise has been developed within MNRE staff and community members during the delivery of the project. Specifically, staff have received training in or experience with:

- monitoring of yellow crazy ant activity
- pitfall trapping of invertebrates
- establishment of photopoints
- mist-netting and handling of birds
- trip organisation and logistics
- work planning and financial management

Community members developed experience with ant surveys and monitoring.

b) developing partnerships

The project has strengthened existing relations between the different partners particularly SPREP and MNRE, SPREP and PII and between MNRE and its equivalent in American Samoa, the Department of Marine & Wildlife Resources (ground dove issues).

c) raising awareness of invasive species and generating community support for their management

Such awareness raising within the community was largely carried out within a related CEPF small grant working to develop a restoration programme for the islands. During this Large Grant community members assisted teams by providing boat support and help on the islands thus seeing the issues first-hand. There will be further opportunities to raise awareness and obtain formal community support when one of the project's products, a draft EIA, is taken back to the district committee and village councils.

d) involving the local community and other stakeholders

As already mentioned, community members have participated in the project's field programme in the field. As owners of the islands they are kept informed of each step of the process and are involved when required. They will shortly be reviewing an EIA.

e) providing benefits to the local community and other stakeholders.

The main benefits will arise when the planning undertaken within this project is used to deliver the Pacific rat eradication and control of yellow crazy ants on the ground. This should significantly enhance the community-owned islands making them one of the country's foremost sanctuaries in time. Their unique array of landbirds, seabirds and other fauna should ensure that many visitors will seek to visit the islands with potential economic benefits.

3. How has the project been promoted? (Please enclose/attach press clippings, brochures, publications, videos, websites, photos, etc). Please describe the products developed during the project and how and to whom these were disseminated.

There has been caution within MNRE about promoting the project within Samoa until the funding for the actual eradication and control operations has been confirmed. Raising expectations and then failing to deliver on them can seriously damage relationships between Government and communities. The Ministry's Chief Executive Officer is encouraging staff to develop promotional material for Environment Week in early November in the hope that funding will have been approved by then. SPREP has made presentations on this project to regional meetings and included it in an update to its 25 Member country governing council meeting in September. PII has placed information about the project on its web site: ***www.issg.org/cii/PII/*** CEPF profiled the project in its March 2006 newsletter.

IV. ACHIEVEMENT OF PROJECT PURPOSE

Project Purpose*:* Planning and approvals are in place for management projects to ensure that the indigenous plant and animal communities of Nu'utele and Nu'ulua flourish as they did before the introduction of Pacific rats and yellow crazy ants, safeguarding the survival of species currently under threat of extinction.

Planned vs. Actual Performance

Indicator	Actual at Completion
Purpose-level:	
Planning for the management of invasive species from Nu'utele and Nu'ulua Islands completed by 31 August.	Planning largely completed for rats. Draft operational plan subsequently discussed by New Zealand's Aerial Eradication Advisory Group (AEAG) and improvements suggested. Some final operational details still under discussion, e.g. arrangements for helicopter. Planning completed for ant operation on Nuulua Island. Recent discovery of infestation on Nuutele has been investigated and a response is still under discussion.
Approval from the community and government for the management of invasive species from Nu'utele and Nu'ulua Islands obtained by 31 August.	Community and Government have re-endorsed the management of rats and ants on several occasions. Formal approval of the EIA has not yet happened as this document was only completed towards the end of the project.

4. Describe the success of the project in terms of achieving its intended impact objective and performance indicators at the local and/or the national/regional level.

The project has placed SPREP and its partners in a strong position to achieve a successful operation to rid Nu'utele and Nu'ulua of Pacific rats and to control yellow crazy ants there. It has enabled thorough planning to take place as befitted a 'demonstration project' for the region. It had been hoped that there would have been a smooth flow from planning through to implementation this year. Had this happened then project outputs such as community and Government approval of plans would have happened by now. However there have been delays in finding out whether operational funding has been approved by the Australian Regional Natural Heritage Programme. Faced with the approaching wet season the partners have called off any operation in 2006 even if the funding comes through. It is now hoped to undertake this before mid-2007.

Detailed analysis of project outputs (below) will show that some have been delayed and others not undertaken, however some additional ones have been achieved.

5. Were there any unexpected impacts (positive or negative)?

One project activity, a survey of ground doves, produced an unexpected discovery of yellow crazy ants on Nu'utele Island which had previously been thought free of them. This infestation was not on the side of the island used by local families and ants may have arrived 'naturally' from Nu'ulua. This find has altered operational planning significantly.

6. Describe the key positive and negative lessons learned from this project that would be useful to share with other organizations interested in implementing a similar project.

6.1
One lesson is the value of repeat surveys, particularly in the South Pacific where there has been limited activity by scientists and researchers. If this project had not been undertaken we would have relied on the results of previous surveys which suggested that:

- Yellow Crazy Ants were absent from the larger of the two islands (at least 3 previous expeditions had failed to find them)
- Friendly Ground Doves (non-target risk) were in very low numbers and managing them would be practically impossible (one previous specific survey and several general ones).

Surveys during the current project found the ants on the opposite side of the larger island to the one with highest human activity, and many more ground doves than previously, indicating management was possible (netting and holding in captivity during poisoning of rats). In the absence of multiple surveys you need to be cautious about acting on the limited information that is generally held.

6.2
Most projects in the Pacific islands have to be multi-agency and typically include Government agencies and local communities as key partners. Such projects have to proceed at a pace that suits the 'slowest' partner. Local communities have several decision-making bodies, particularly village councils, and these are dealing with a huge range of activities and thus have limited ability to rapidly absorb new ideas and to respond to them. Government agencies are frequently stretched with limited resources and pressure to meet commitments to international conventions and to take on donor-funded projects.

During this project the Division of Environment & Conservation, MNRE, was committed to work on two of the country's endangered birds; to finalising a major GEF-project and a Japanese-funded one on national parks; completing GEF-RAF4 proposals; completing a RAMSAR proposal for Lake Lanutoo; as well as its day to day commitments. Thus no staff member was able to dedicate most of his or her time to the Aleipata project. In addition senior Ministry staff traveled frequently, particularly to meetings related to international conventions, leading to delays in approvals and decision-making.

This situation means that:

- Project partners need to very carefully assess their capacity and ability to deliver activities. In this case the original proposal was slightly ambitious – probably usually the case when people are committed to achieving conservation gains.
- Project funding agencies need to allocate sufficient time to projects. If project partners and funding agencies agree on a project to be completed in six months then they should routinely expect it to take nearer eight.
- In particular, project start dates need to be just that – the date a project starts. Typically the funds for a six-month project are received at the end of the first month, or in this case the end of the second, and a programme that might have originally been achievable is no longer possible.
- Funding agencies need to make provision to extend project deadlines. This is a tricky area. Deadlines are vital to make things happen and can lose their effectiveness if an extension is seen as automatic.
- Funding agencies need to be flexible. In this case CEPF have shown a good degree of flexibility. They accepted a modified proposal when it became clear that there was not time to complete the rat eradication. They also rapidly approved a shift of funding and outputs to respond to a new infestation of yellow crazy ants found on Nuutele during then project. Having individuals with authority to make such decisions quickly is important.

6.3
Flexibility is essential when working with the natural environment and this is particularly true in the case of islands. During this project, bad weather prevented all planned fieldwork being completed and there were two occasions that staff had to leave the field early for medical reasons. Islands can be relatively unstable systems in which things change quite fast. In this case yellow crazy ants were found to have colonised Nuutele in the past 2-3 years requiring a change of programme.

V. PROJECT OUTPUTS

Project Outputs: Enter the actual project outputs from the Logical Framework for the project

Planned vs. Actual Performance

Indicator	Actual at Completion
Output 1: Government, community and technical experts sign off on an Operational Plan to eradicate Pacific rats (Rattus exulans) from Nu'utele and Nu'ulua Islands by the aerial delivery of toxic baits.	

1.1 A detailed Operational plan will be completed, peer-reviewed and signed off by 30 June.	A draft Operational Plan has been completed. An expert group reviewed this in mid-October and the minutes of their meeting are awaited before it is finalized.
Output 2: Government, community and technical experts sign off on an Operational Plan to manage the current threats of yellow crazy ants to the native biodiversity of Nu'ulua and Nu'utele Islands.	
2.1 Feasibility study identifying preferred option for ant management completed by 15 July.	A study identifying options for Nu'ulua Island was completed. A further study was carried out on Nu'utele following the discovery of ants there in August and options for management identified. These options are still being discussed by ant experts.
2.2 An EIA for the management approach to the ants approved will be completed by 15 August.	An EIA has been completed for the Nu'ulua operation. The contractor who wrote this has agreed to incorporate details of the Nu'utele operation, once agreed, in his own time.
2.3 An Operational Plan for the management of yellow crazy ants will have been completed, peer-reviewed and signed off by 31 August.	An operational plan for the Nu'ulua operation has been completed and SPREP and MNRE have agreed on a management approach. Operational details for Nu'utele will be added when finalized.
2.4 Pre-operational monitoring of crazy ants and native invertebrates will be established by 31 August.	Pre-operational monitoring completed on Nu'ulua as planned and additional monitoring set up on Nu'utele by 30 September.
Output 3: Feral pigs removed from Nu'utele Island.	
3.1 The feral pigs that remain on Nuutele island will be removed by 30 June.	Not undertaken. MNRE and the pig's owner have not managed to organise this despite funding being available. It is still identified as a priority and it is hoped that the owner will now organise this at no cost.
Output 4: Measures are agreed to protect the endangered Friendly Ground Dove considered a non-target risk from the rat eradication programme.	
4.1 By 15 May the genetic diversity of friendly ground doves in the Samoan archipelago will be known (through a project of the Department of Marine & Wildlife Resources (DMWR), American Samoa.) A programme to manage the doves on Nu'utele and Nu'ulua will be agreed by 30 May.	There have been delays in this project for which DMWR had set a challenging time-frame. The first sample sent from a Samoan bird (held as a dead specimen in Germany) proved contaminated. A second sample has recently been sent from this same source. Additionally feathers were collected by a MNRE team during an August expedition to Nuutele and these have been analysed. They have identical ND2 sequences to samples from two birds in American Samoa suggesting no long-term population differentiation between the two. This is a positive result for our management.
4.2 By 15 July the genetic diversity of the friendly ground dove globally will be known (DMWR).	When last contacted, DMWR had not started sampling of doves in Fiji and Tonga so the global picture will not be known for sometime.
4.3 Further surveys to determine its current status in Samoa will have been undertaken by	A further survey was conducted on Nu'utele by 17th August along with a site on the main island Upolu where a dove was recently seen.

15 August.	This survey found many more doves than any previous expedition. Teams working on ants on Nu'ulua also recorded doves.
4.4 If it is concluded that the Samoan ground dove requires conservation as a unique taxon, a recovery strategy will have been drafted by 31 August.	DNA analyses to determine the dove's taxonomy have not yet been completed. But already we can indicate that the birds in Nuutele are not significantly different from those in American Samoa. Thus they could be reintroduced from this source if required. However the recent survey has significantly increased our estimate of the number remaining in Samoa, so that they are out of immediate danger of extinction and this allows us to return to an earlier plan of temporarily holding birds in captivity during the aerial drop of poison. A recovery strategy is no longer an immediate priority.
Output 5: The project, together with CEPF Small Grant activities, establishes a framework to prevent the reintroduction of rats (all Rattus spp.) and invasive ants to the islands following planned management/eradication.	
5.1 By 31 August, the District Community and the Government (MNREM and Ministry of Agriculture & Fisheries (MAF)) will have agreed on a cooperative programme to minimise the risk of rats and invasive ants returning to the islands and other invasive species arriving there.	This output has not yet been completed. The team concentrated on other activities expecting to implement this at the end of the project. However the funding delays meant that it could be delayed and undertaken by MNRE staff over coming weeks. The community has however confirmed their willingness to contribute to such a programme.
5.2 Rat and ant prevention protocols will have been developed and equipment organised by 31 August to implement the programme following eradication/control.	(See previous comment) Some equipment has been sourced and protocols discussed with New Zealand experts.
Output 6: Project partners identify possible funding sources to support the eradication of rats and management of yellow crazy ants and submit proposals as soon as practical.	
6.1 Potential funding sources identified and consulted with by 30 June.	Two potential funding sources were identified: Australia's Regional Natural Heritage Programme and the Living Archipelagos programme being developed by the Bishop Museum Hawaii (which identified the islands as one of its priority sites).
6.2 Funding proposals submitted within funders' deadlines, subject to planning for rat and ant eradications being sufficiently advanced.	A proposal was submitted to RNHP in July (result expected any day). Living Archipelagos has not yet secured funding or called for proposals.

7. Describe the success of the project in terms of delivering the intended outputs.

The project was successful in delivering its key outputs, enabling the partners to prepare to conduct operations against the invasive rats and ants that have a high chance of success and of acting as 'demonstration projects' for others to follow. Operational planning has proved to be a continuous process and the plans developed during the project will be built on, adding increasing levels of detail, until the day of the operations. At the end of the project

agreement has been reached on the **Pacific rat operational plan** so that all the major decisions have been made (e.g. what bait, what delivery technique, what monitoring, what non-target issues). Work will continue finalising details of helicopter and bait delivery and health and safety planning. Agreement had been reached on an **yellow crazy ant operational plan** for Nu'ulua Island but the situation altered near the end of the project with their discovery on Nu'utele. There was time before the project ended to survey the extent of this infestation and come up with recommendations for managing it, but not enough time to finalise a plan to address both Nu'ulua and Nu'utele at the same time.

A detailed **EIA** was prepared for the rats on both islands and the ants on Nu'ulua. This may need modification when the approach to the ants on Nu'utele has been agreed.

Significant advances have been in the understanding of **friendly ground doves** in Samoa. An expedition made over 20 sightings when the most recorded before had been less than six and demonstrated that they could be caught in mist-nets. DNA analyses have suggested the Samoan and American Samoan birds to be part of a single past population.

8. Were any outputs unrealized? If so, why and how did you address these?

The eradication of pigs on Nu'utele has not been achieved. Several attempts were made to encourage the owner of the animals to undertake this and the presence of money in the budget seemed of no assistance. SPREP was not in a position to force this issue without potentially impacting on relationships between project partners and the local community. The New Zealand AEAG recently re-confirmed the importance of removing these animals and this will be conveyed to MNRE and the owners to ensure action is taken.

The study of the genetics of friendly ground doves has not yet been completed. This is being carried out by an agency in American Samoa and we were not in a position to do more than offer to help out if needed. However the key data on the relationship between Samoan and American Samoan birds has been obtained. This suggests the two populations could be managed at one from a biodiversity conservation viewpoint.

A comprehensive programme to prevent rat and ant re-invasions has not yet been developed. To some extent the team ran out of time to achieve this with all the work to be organised on the islands. It also became less of a priority as delays in notification of funding meant that the operations themselves were also to be delayed.

Insufficient time was certainly a factor behind the inability to complete some outputs. Though the project nominally began on 1 April 2006, the contract between CEPF and SPREP was not completed and signed until 24 May, and an LOA between SPREP and MNRE to transfer operational funds to the latter was not signed until 5 June. In effect a third of the project's time had gone before it could even start. Further complications between SPREP and MNRE meant that all the funds did not reach the latter till August though some activities were started prior to this.

9. How did the lack of achievement of these outputs affect the overall impact of the project?

The failure to eradicate pigs has had no impact on the project at this point, and there is still time for the community to carry this out before operations proceed against the rats and ants in 2007 (subject to funding).

The lack of a programme to prevent re-invasions has not been significant. There will be plenty of time to put this in place before any operations to rid the islands of rats and ants take place and funding is not required to do this.

VI. ADDITIONAL FUNDING

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes
SPREP	Complementary funding	US$33,000	This funding covered the ant part of the EIA, supported some advisory work, fieldwork on the islands and improvements to their facilities.
CEPF	Complementary funding	US$20,000	This covered the development of a wider restoration programme for the islands including the invasive species work.

Additional funding should be reported using the following categories:

A *Project co-financing (Other donors contribute to the direct costs of this CEPF project)*

B *Complementary funding (Other donors contribute to partner organizations that are working on a project linked with this CEPF project*

C *Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)*

D *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

Provide details of whether this project will continue in the future and if so, how any additional funding already secured or fundraising plans will help ensure its sustainability.

VII. ADDITIONAL COMMENTS AND RECOMMENDATIONS

Please provide any additional information you think may assist CEPF in understanding any other aspects of your completed project.

The previous sections of this report do not alone provide a good measure of its achievements. Much of the value of the project is contained within the specific reports produced by it, namely:

- Butler & Wylie. 2006. Aleipata Islands, Samoa. Draft Operational Plan: Eradication of Pacific Rats. (Current draft October 2006 awaiting written feedback from IEAG meeting). 27pp.
- Wylie. 2006. Environmental Impact Assessment (EIA) for the Eradication of Pacific Rats (*Rattus exulans*) and the control of Yellow Crazy Ants *(Anoplolepis gracilipes)* on Nu'tele And Nu'ulua Islands, Samoa. 65pp.
- Vanderwoude. 2006. Assessment of Yellow Crazy Ants (*Anoplolepis gracilipes*) on Nuulua Island, Aleipata, Samoa with recommendations for population control. Draft report. 26pp.
- Parrish. 2006. Report on Friendly (shy) Ground Dove (*Gallicolumba stairi*) work on Nu'utele Island and Upolu Island, Samoa. 12pp.
- Abbott. 2006. Delimiting survey of a yellow crazy ant infestation and pre-treatment monitoring set-up on Nu'utele Island, Aleipata, Samoa. Draft report 24pp.

These have greatly added to understanding of the islands and their biodiversity and provided technical reviews and discussions that will be of great benefit to other projects aiming to carry out similar management of invasive rodents or invertebrates in the region.

During the course of the project there have been significant developments that will make the intended operations more cost-effective. Firstly SPREP was contacted by a Hawaii-based helicopter company that had stationed a machine that could theoretically carry out the operation on nearby American Samoa. This could save the significant costs of shipping a helicopter from New Zealand. Secondly, the New Zealand Department of Conservation assisted the project by providing the services of an experienced staff member to advise on the aerial drop and he was able to visit the site with the team prior to the end of the project. Thirdly, a close relationship has been developed with an Australian company developing ant baits so that we should be able to use the best available product even if it is not on the market by then.

Describe any follow-up activities you wish to implement and how you intend to do so (eg other invasive species management actions you wish to pursue, or how you plan to scale up the project to a broader area).

The partners expect the field programmes to eradicate Pacific rats and control yellow crazy ants to take place in 2007. Word is awaited from RNHP on whether a funding proposal has been successful and whether current deadlines can be extended to allow the work to happen next year (after the rainy season). Monitoring of the results and outcomes of these programmes will then proceed over a number of years.

SPREP will be working with PII and the recently established Pacific Invasives Learning Network (PILN) to share the results of the overall project including field operations with the region. Observers from other Pacific Island countries are expected to participate in the field operations to pick up skills and experience that they can apply back home.

Within Samoa discussions will take place on how the techniques developed for Aleipata could possibly used to address the problems posed by the same two species on the main islands. Ship rats (*Rattus rattus*) and Norway rats (*Rattus norvegicus*) are also present on Upolu and Samoa but similar approaches can theoretically control them.

This project is supported by the Australian government's Regional Natural Heritage Program through the Critical Ecosystem Partnership Fund.

The Critical Ecosystem Partnership Fund is a joint initiative of Conservation International, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank. A fundamental goal is to ensure civil society is engaged in biodiversity conservation.

VIII. INFORMATION SHARING

CEPF aims to increase sharing of experiences, lessons learned and results among our grant recipients and the wider conservation and donor communities. One way we do this is by making the text of final project completion reports available on our Web site, www.cepf.net, and by marketing these reports in our newsletter and other communications. Please indicate with a tick whether you would agree to publicly sharing your final project report with others in this way.

Yes ___✓____ No _____

If yes, please also complete the following:

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