CEPF SMALL GRANT FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Secretariat of the Pacific Regional Environment Programme (SPREP)
Project Title:	Emergency Management of an Incursion of Mongoose on Upolu Island, Samoa
Date of Report:	August 2011
Report Author and Contact Information	This report was compiled by Alan Tye from field, lab and progress reports by team members and a published article written by the Samoa project team (see references). Author citation: Tye, A., Barun, A., Bonin, M., Evaimalo, N., Fisher, R., Gleeson, D., Iese, C., Tipama'a, T., Uili, M. Contact: Dr Alan Tye, SPREP, PO Box 240, Apia, Samoa. tel +685 66270 email: alant@sprep.org

CEPF Region: Polynesia-Micronesia

Strategic Direction: 1: 'To prevent, control and eradicate invasive species in key biodiversity areas' and in particular 1.2. 'Control or eradicate invasive species in key biodiversity areas, particularly where they threaten native species with extinction.'

Grant Amount: US$ 9,900 (amount spent: US$ 4,103)

Project Dates: 1 Jan 2010, to 31 Dec 2010

Implementation Partners for this Project (please explain the level of involvement for each partner):

Original partners listed in the project proposal

- Samoa National Invasives Task Team (SNITT) — coordination at all steps of planning and implementation.
- Samoa's Ministry of Natural Resources and the Environment (MNRE) — main government partner charged with implementing mongoose searches and trapping operation; supervised surveillance during the project and after the funding period finished; MNRE is the SNITT lead agency.
- Ministry of Agriculture and Fisheries (MAF) — main government partner charged with biosecurity; SNITT member.
- Pacific Invasives Initiative (PII) — technical support (including sourcing traps), biosecurity training as part of the existing CEPF Aleipata Islands restoration project.
- Aleipata district community — involved in mongoose search and trapping, and long-term surveillance for new pests in the area.

Additional partners who contributed significantly to the project

- Dr Go Ogura, Okinawa University — provided trapping procedural advice and additional traps.
- Dr Robert Fisher, United States Geological Survey (USGS) — provided additional traps.
- Drs Dianne Gleeson (Landcare Research), Arijana Barun and Dan Simberloff (University of Tennessee, Knoxville) — carried out analysis of DNA from the trapped animal and comparison with possible source populations, and provided additional information on mongoose introductions around the world.

Additional acknowledgments

Patrick Barrière (Centre de Régulation des Gros Gibiers) kindly provided information about the New Caledonia mongoose records, James Atherton (Conservation International) assisted with survey and trapping, Dr Greg Sherley carried tissue samples to New Zealand, and Anthony Talo'uli (SPREP) provided information about mongoose sightings on ships out of Fiji.

Conservation Impacts

Please explain/describe how your project has contributed to the implementation of the CEPF ecosystem profile.

This project was an emergency response to the incursion of a new and exceptionally dangerous threat to the native biodiversity of Samoa. It thus clearly contributed to CEPF Strategic Direction 1: 'To prevent, control and eradicate invasive species in key biodiversity areas' and in particular 1.2. 'Control or eradicate invasive species in key biodiversity areas, particularly where they threaten native species with extinction'.

The incursion

On 18 December 2009, while returning from the Aleipata Islands offshore from Upolu Island, Samoa, a research team from MNRE and USGS received a report from the Samoa Port Authority (SPA) of an unusual animal in the vicinity of the Satitoa Wharf, Aleipata District, Upolu Island. On 21 December further reports were made to MNRE about a strange animal in that area of SE Upolu. According to the sources, the animal was said to have been seen a couple of times before the tsunami of 29 September 2009, and again at least twice after the tsunami in the same area. A team from MNRE and USGS went there on 28 December 2009 to interview the observers, including the SPA employees on duty on the wharf that day and local people of Satitoa and Malaela villages, and to try to capture the animal. Although most Samoans are unfamiliar with mongoose and therefore did not know what to call the strange animal, their descriptions clearly indicated a mongoose. That same day, the team saw a mongoose, provisionally identified as a Small Indian Mongoose *Herpestes auropunctatus*, cross the road where the SPA employees had previously observed the animal, and also observed its tracks.

The threat

The Small Indian Mongoose is listed as one of the global top 100 most damaging invasive species (www.issg.org/database/welcome/). It has been introduced to many islands, and the resulting declines and extinctions of native fauna are well documented. In the Pacific this mongoose currently occurs on some of the Japanese, Hawaiian and Fiji Islands, as well as Ambon in Indonesia. It was deliberately introduced to both Hawaii and Fiji in 1883. In addition and since the incursion into Samoa, two males of this species were captured in May 2010 in the port of Nouméa, New Caledonia, where it was previously unknown. This mongoose is currently not recorded from other Pacific islands, including until recently Samoa.

The Aleipata District and its uninhabited offshore islands have long been recognised as a critical biodiversity area within the Samoan archipelago. This is evidenced by the establishment of Samoa's first community-based Marine Protected Area and substantial investment in island conservation and restoration, including the CEPF-funded project: *Restoration of Nu'utele and Nu'ulua Islands (Aleipata Group), Samoa through the management of introduced rats and ants* (hereafter termed "the Aleipata Islands Project"). However, significant development of small tourism resorts and the construction of a new international wharf had taken place in the district in recent years, dramatically elevating the road traffic, numbers of tourist visitors, and the importation of construction materials and heavy equipment in the area, and thereby increasing the threat of pest incursions. The post-tsunami recovery and reconstruction efforts amplified these threats and broadened the spectrum of potential invasive incursions, as aid materials arrived from many different countries. Over the last 20 years several of the nation's most recent and significant invasive species have established in the area, including Taro Blight *Phytophthora colocasiae*, Giant

African Snail *Achatina fulica* and Yellow Crazy Ant *Anoplolepis gracilipes*, of which the ant has also reached the Aleipata Islands. In the year 2009 alone, MNRE, MAF and SNITT received reports of new invasive species for the country in or near this area, including Cane Toad *Bufo marinus* and the mongoose, which was the latest in this series of incursions. All this suggested a clear need for increased biosecurity protection of this area.

Making the plan

The interviews with local people confirmed the presence of at least one mongoose in the area between Malaela (just north of the wharf) and Tuiolemu, just west of Lalomanu village on the south coast (Fig. 1), with some reports indicating the presence of at least two animals, including one "smaller one", perhaps suggesting a pup. Sightings dated from the end of 2008 at the Tuiolemu quarry area, which was by the end of 2009 the furthest reported sighting from the Satitoa wharf. The extent and frequency of these sightings suggested that there might be a small established population in Samoa.

Figure 1. The coastal sector of Aleipata District, Upolu Island, from Malaela village (NE) to Tuiolemu quarry area (SW). Notes in yellow mark the areas from which mongoose sightings were reported.

The initial information also suggested a number of possible entry pathways into Samoa and the Aleipata District, including: in materials, particularly large metal pipes, imported from Fiji for construction of the Satitoa wharf; in imported machinery used in the quarry at Tuiolemu; or a deliberate introduction, perhaps as a pet.

SNITT developed a response strategy that included further interviews and consultations around the sites of the reports. This resulted in more reports of sightings of the mongoose or other unfamiliar animals, many of which are now thought to have been erroneous. However, all reports were mapped. A proposal to attempt to eradicate the mongoose was developed and presented by SPREP to CEPF for possible funding. The local village councils and MPA

Committee were consulted throughout about the implementation of the project, and provided encouragement including a commitment to assist with the trapping effort proposed.

The objectives of the proposal were:

- to trap the mongoose;
- to improve MNRE capacity to trap mongoose and manage similar incursions;
- to encourage support and participation of the local communities in the eradication of the mongoose;
- to improve community awareness and understanding of biosecurity risks, and of invasive species and their impacts;
- to acquire necessary materials to put into effect a long-term monitoring programme in the Aleipata District, for new pest incursions which could threaten national, district, and Aleipata Island biodiversity;
- to enhance the effectiveness of the Aleipata Islands Project by the above activities.

The project was to be implemented as follows:

1. Information about the mongoose to be printed and disseminated through appropriate media, for awareness purposes throughout Samoa.
2. Further meetings with people of Malaela, Satitoa and Lalomanu villages to gather more information on mongoose sightings and increase awareness.
3. Trapping and searches from the village of Malaela to Tuiolemu. The communities of Satitoa, especially the Aleipata MPA Committee, to participate and where possible lead the search and monitor the traps.
4. Traps to be installed within the target areas of Satitoa, Malaela and Lalomanu but further response action to be undertaken as more information comes to hand. DOC-250 traps to be used, as these had been tested and proven effective with Small Indian Mongoose in Hawai'i.
5. Post-eradication monitoring to be carried out for at least one year, to ensure that no mongoose survives. Should more than one animal be found, then the plan was to shift immediately to a larger-scale eradication programme, beginning with a delimitation survey.
6. Targeted surveillance for key pests to be initiated in Aleipata District and at Satitoa Wharf, with a primary aim of minimizing the risk of such species reaching the Aleipata Islands, by increasing the probability of detecting them in Aleipata District.
7. Results to be reported and disseminated. The work to be used as a demonstration project within and outside Samoa, to show how rapid response and eradication can be implemented in Samoa and by extension in other islands, and what benefits they bring. Lessons learned to be widely disseminated, providing opportunities for replication.

The eradication operation

Although all incursion responses should be rapid, this project was remarkable in the speed of its initiation. Even before the CEPF funding was obtained, PII assisted SPREP to purchase in New Zealand 30 DOC-250 traps, which are designed to kill the target animal instantly by crushing the skull. Ten of these were purchased complete with the required box housing, which is designed to direct a mongoose-sized animal to the trap mechanism while excluding larger mammals (including people's arms), and birds (see Fig. 6). The other 20 were trap mechanism only, with box housings to be made locally in Samoa. The traps were ordered in mid-January, arrived in Samoa in late January, and the additional 20 boxes were then constructed by a local carpentry firm. USGS also shipped 200 Tomahawk live traps to Samoa as a back-up.

On the morning of 10 February 2010, 10 DOC-250 traps, baited with tinned fish, were placed (Fig. 2) at *c*. 50-m spacing around the site of the 28 December definite sighting at Satitoa,

including in the swampy open forest area opposite the wharf, from which the animal had also been reported, having been seen by SPA employees crossing the main road on 6 February (Fig. 3). The other 20 traps were placed at the other locations of reported sightings (Lalomanu Fig. 4; Tuiolemu Fig. 5). All of these fall within a *c*. 6.5-km length of coastline from Malaela to Tuiolemu. By the next day one mongoose had been caught (Fig. 6), at the precise location of the 28 December sighting, by the sea wall at the landward end of Satitoa wharf. This turned out to be the only mongoose trapped.

Figure 2. Team members installing a DOC-250 trap. (Photo: James Atherton)

Figure 3. Satitoa trapping sites. (Figure prepared by MNRE)

Figure 4. Lalomanu (Cape Tagaga) trapping sites. (Figure prepared by MNRE)

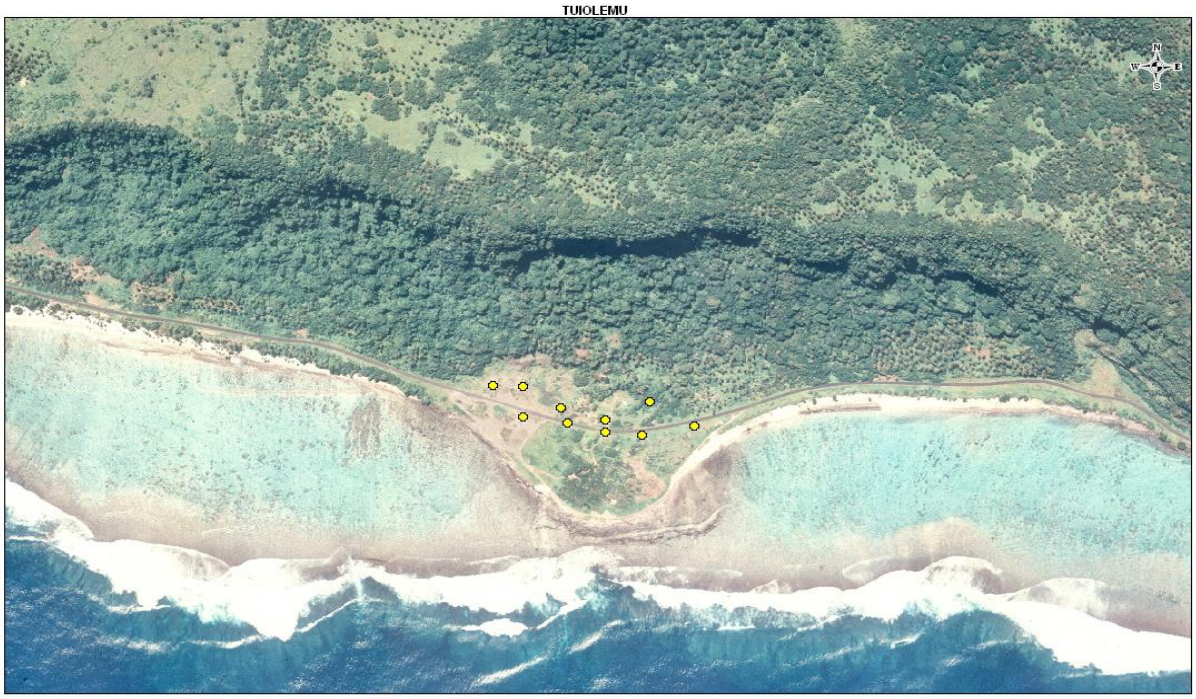

Figure 5. Tuiolemu trapping sites. (Figure prepared by MNRE)

Figure 6. DOC-250 trap with the box lid rotated open to show the mongoose trapped in it at Satitoa. The wire mesh baffles that prevent the entry of other animals can be seen, with the bait still close to its original position. (Photo: Moeumu Uili)

Identification and origin of the trapped animal
The animal trapped was quickly identified from morphological features as a sexually mature adult male Small Indian Mongoose, (Fig. 7). It weighed 750 g, with head and body length 36.8 cm, head length 8.3 cm, and overall nose to tail length 63.5 cm.

Figure 7. Adult male Small Indian Mongoose *Herpestes auropunctatus*, trapped at Satitoa, Samoa. (Photo: Go Ogura)

Tissue samples were conveyed to Landcare Research, New Zealand, for DNA (mitochondrial cytochrome b) analysis, and the haplotype of the Upolu animal was determined to be the most widely distributed haplotype known in the species, being found in seven other populations sampled (A. Barun pers. comm. 2011): these include the Fiji population, a native population in Bangladesh, two feral populations in Japan and two in the West Indies. The seventh population is represented by one of the two animals recently captured in New Caledonia, which was also found to carry this haplotype. The other New Caledonia individual carries a second haplotype that is also present in Fiji and which has not so far been identified anywhere else.

We found no documented history of unintentional introductions of this species anywhere in the world, except for self-dispersal across narrow water bodies from an established population. All known introductions at greater distances are thought to have been made deliberately by people, usually in the belief that the mongoose would control other vertebrate pests. However, the recent introduction to New Caledonia is thought to have been accidental, in a shipping container or on a car carrier (P. Barrière, pers. comm. 2011). There are also unconfirmed reports of mongoose being found on ships having departed Fijian ports (A. Talo'uli, pers. comm. 2010).

Considering the known locations of the haplotype of the Upolu animal, recent suggestions of self-dispersal by this species on ships, the proximity and shipping frequency between Fiji and Samoa, and the lack of any history or evidence of people keeping similar animals as pets in Samoa, the balance of the evidence suggests an unintentional ship-assisted introduction from Fiji. Satitoa is far from the main commercial wharf in Samoa, which is at Apia on the central north coast of Upolu. However, the likeliest explanation of the animal's arrival there is from the pipe shipment mentioned above, some time in 2008–9. Another possibility is in part of the late-2009 tsunami relief supplies to Aleipata District.

The New Caledonian animals are also considered to have most likely come from Fiji, based on the DNA evidence and shipping traffic records (P. Barrière, pers. comm. 2011).

Post-eradication monitoring

Trapping results are summarised in Table 1. The traps in the focal area between Tuiolemu and Malaela were checked and re-baited regularly until the end of 2010, although several were damaged or lost through interference by pigs and people. Damaged traps were repaired and returned to use as necessary. From 13 February until 30 June 2010, local community members were recruited to maintain the traps daily; after 30 June, trap monitoring frequency was reduced to 3 days per week. This schedule was not always strictly followed and from July onwards monitoring was done weekly by MNRE staff, until mid-December 2010. Bait was rotated between tinned fish, tinned pork luncheon meat and unbroken raw hens' eggs, all of which were considered suitable based on experience elsewhere. Although no further mongoose was trapped, several rats (*Rattus exulans*, *R. norvegicus* and *R. rattus*, none of which is native to Samoa) and native land crabs (*Brachyura* sp., common and not threatened in Samoa) were killed in the traps (Table 1).

Table1. Trapping records for each site.

Site	Max. no. of DOC-250 traps used	Cumulative catch by 31 July 2010*		Trap status at 31 July 2010	Cumulative catch by 31 December 2010		Trap status at 31 December 2010	Cumulative catch by 31 March 2011		Trap status at 31 March 2011
		rats	land crabs		rats	land crabs		rats	land crabs	
Satitoa	14	23	13	5 lost, 4 damaged	37	22	5 lost	37	23	5 lost
Lalomanu	3	9	4	2 lost	9	4	2 lost	9	4	2 lost
Tuiolemu	10	32	17		64	34	6 lost	67	34	6 lost
Si'umu	4				0	2	2 lost	1	2	2 lost
Total	30	64	34	7 lost	110	62	15 lost	114	63	15 lost

*Figures up to July 2010 possible incomplete, owing to imperfect field record-keeping

In addition to the focal area, mongoose sightings were reported from two other places on the island: north of Si'umu, south-central Upolu; and near Solosolo, northeast Upolu. These were investigated and trapping was carried out at the Si'umu site, where the sighting appeared more credible, from 18 August onwards. At this site, four DOC-250 traps and five Tomahawks were used at *c*.10-m spacing along the main cross-island road (Fig. 8) and traps were monitored weekly. No mongoose was trapped at this site and no sign of mongoose was found there by the project team.

Figure 8. Si'umu trapping sites. (Figure prepared by MNRE)

After a break from December 2010 to January 2011, a final trapping effort was carried out in February–March 2011, including the use of three new Okinawa traps in addition to 11 remaining DOC-250s, with traps placed at all four sites (see Table 1). Okinawa traps consist of a T-shaped tube which restricts entry to animals of a certain size (Fig. 9), and were designed specifically to trap Small Indian Mongoose.

Throughout the monitoring period, from 11 February 2010 until 31 March 2011, no other mongoose was trapped and no sign of mongoose was seen at any of the sites. To date, no new reports of mongoose have been received from members of the public since that at Si'umu in August 2010.

Figure 9. Team member Moeumu Uili with an Okinawa trap at Tuiolemu, and sprung Okinawa trap with trapped Pacific Rat *Rattus exulans.* (Photos: Nola Talaepa and Moeumu Uili)

Sighting report reliability and mongoose movements

It now appears that most of the sighting reports were erroneous, especially those away from Satitoa. To some degree these may have been stimulated by the publicity surrounding the 28 December sighting and 10 February capture, and fleeting glimpses of other animals such as large rats (Brown Rat *Rattus norvegicus* is common in Aleipata District), small piglets, or cats.

Despite reports from outlying areas such as Tuiolemu, some dating back to 2008, there was no confirmation that the trapped mongoose had actually moved far from the Satitoa wharf. Indeed, if it had arrived in the shipment of pipes from Fiji, it was still living in the same small area (within 0.5 km) of its suspected arrival site at the wharf, when trapped. This was in spite of its having been harassed by local people in the three weeks following the 28 December sighting, when it was reportedly caught once but escaped.

This might suggest that the species is not particularly dispersive when introduced to a new locality, and concurs with the observations in New Caledonia, where the two animals were found in the port area, one having made a sleeping nest there.

Published references

Fisher, R., Uili, M., Iese, C., Evaimalo, N., Tipamaa, F.T., Bonin, M., Atherton, J. & Tye, A. 2011. Rapid response and eradication of an invading mongoose in Samoa. *Oryx* 45: 15–16.

Please summarize the overall results/impact of your project against the expected results detailed in the approved proposal.

Expected outcome	Activity and actual outcome
Improved information on mongoose sightings in the reported areas and outside.	Interviews and publicity generated a number of reports, all of which were followed up but most of which did not lead to detection of any other mongoose individuals.
Mongoose(s) found/caught, eradicated from the reported areas and identified.	Field searches in the reported areas and trapping records appear to demonstrate that only one animal was involved, which was killed and identified (including to probable area of origin).
Improved community awareness of biosecurity risks support for surveillance, and participation in mongoose and/or invasive species eradication.	Mongoose and surveillance workshops in Aleipata District and the development and distribution of mongoose information throughout Samoa, including by means of news media, resulted in improved community awareness of the mongoose danger and other biosecurity risks.
A surveillance programme is developed and implemented for key potential incursions and re-invasions.	High-intensity monitoring took place for just over one year, in locations of reported mongoose sightings. Monitoring will continue at lower levels, in the form of community consultations and occasional trapping episodes.
Minimal additional post-tsunami environmental disturbances to the Aleipata district and associated CEPF Aleipata Islands restoration project.	This high-level outcome emerges from the above processes.

Please provide the following information where relevant:

Hectares Protected: the entire island of Upolu, and neighbouring islands protected from biosecurity risk.
Species Conserved: all of Samoa's native birds and reptiles.
Corridors Created: not applicable.

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives.

The major success was the probable eradication of the incursion. An ancillary benefit of this work was the raised public awareness of the mongoose danger and biosecurity risks in general. A local benefit was increased protection for the Aleipata Islands and their MPA.

The major challenges were related to interpreting information from the public, encouraging effective community involvement in the project and ensuring continuity of monitoring in the face of trap losses and personnel loss of interest caused mainly by lack of obvious reinforcement in the form of more trapped animals. The last point is a common factor in eradication projects even when they are operated by professional teams; in this case, it proved a challenge to maintain the interest of the local communities, contracted trap "watchmen" and even some project-related staff, over a year of monitoring with no "returns".

Despite increasing awareness of biosecurity risks, and work on biosecurity training for the local community carried out as part of the Aleipata Islands Project, public compliance with biosecurity guidelines remains poor.

The project team believes that most of the reported sightings of mongoose were erroneous. There was evidently a lack of public knowledge about this kind of animal prior to the project, as it was variously described as looking like a dinosaur or crocodile, among other things, and it is possible that some people misidentified as mongoose brief sightings of other animals. Some reports, in areas away from Satitoa, as well as in the Satitoa area at earlier dates, may have been generated by heightened awareness as a result of publicity surrounding the case. At least one report (not mentioned above) was almost certainly invented as a joke to mislead the team. These reports generated additional work for the project team, but this is all part of ensuring that an eradication operation succeeds.

Were there any unexpected impacts (positive or negative)?

None noted that were directly attributable to the project.

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organization or others, as well as lessons that might be considered by the global conservation community.

Project Design Process: (aspects of the project design that contributed to its success/shortcomings)

The major factor contributing to success was the immediate appeal for international expert advice and emergency funding from CEPF, and the gratifying response from all approached, who gave their time and often more concrete inputs without hesitation (see partners and acknowledgments above). This enabled us to form a large working group which ensured good project design, mostly smooth implementation, and successful achievement of the primary goal. In-kind inputs from a large number of agencies were essential to success and costed in-kind support exceeded the external grant support required.

Project Implementation: (aspects of the project execution that contributed to its success/shortcomings)

It would not have been possible to carry out this project without strong support from a government agency (MNRE). Keen staff on the MNRE team ensured that most aspects of the programme were carried out satisfactorily. There were difficulties in allocating staff time to the programme, which developed as an emergency and was therefore not included in regular institutional work plans. However, the need for the response was well understood by managers, ensuring that the work got done.

One shortcoming was that local community members contracted to maintain the traps for a small allowance did not do so reliably. This was perhaps understandable in that they may not have believed in the need to continue the monitoring once one animal had been caught and no others were sighted. The non-target trapping records were also not reliably maintained by these staff.

Another problem was the damage caused to some traps by people, and the theft of about half the traps over the one-year project period. Pigs also appeared to have caused some damage, probably when they smelt the bait inside, but most of the damage and losses could be attributed to people.

It was hoped that the project would generate a permanent surveillance programme for new pests in the Aleipata District, with a primary aim being to enhance protection of the Aleipata Islands. Implementation and evaluation of the programme were to be the responsibility of MNRE, MAF (Quarantine), SNITT and the MPA Committee. This programme was not established, owing to lack of clarity over its content and requirements. This will be pursued in the future.

Other lessons learned relevant to conservation community:

DOC-250 traps proved to be an appropriate tool for managing the Small Indian Mongoose. Non-target trap kills were limited to a common native invertebrate (land crab) and three invasive rat species. However, it was found that, in a tropical Pacific island, frequent trap monitoring is required, not only to replace spoilt bait but also to remove non-target kills and reset the traps to ensure maximum opportunity for trapping the target species.

This project demonstrated how a well-designed and rapid response to an incursion of an invasive species can be successful in preventing establishment of a pest in Samoa.

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 (estimated)	Notes
SPREP	A, in kind	$2000	Invasive Species Advisor and PILN Coordinator contributions to the project, financial and administrative support, office supplies and communications costs.
MNRE	A, in kind	$8000	Field team contributions to the project, transport, administrative support, office supplies and communications costs.
USGS	A, in kind	$1000	Donation of Tomahawk traps and shipping costs.
Okinawa University	A, in kind	$500	Donation of Okinawa traps and shipping costs.

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*** *Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)*
- ***C*** *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

The total cost of the project

This may be calculated as the amount of the grant spent ($4103) plus the major costed in-kind contributions mentioned above, i.e. US$15,600.

Sustainability/Replicability

Summarize the success or challenge in achieving planned sustainability or replicability of project components or results.

Summarize any unplanned sustainability or replicability achieved.

The project clearly fell within the priorities of Samoa's National Invasive Species Action Plan (NISAP). It also supported the Aleipata Islands Project, through the strengthening of biosecurity. In both respects it contributes to previously identified sustainability objectives. The project is clearly replicable and this experience has informed Samoa's competent authorities and should improve their ability to deal with similar future incursions. Dissemination of its results should encourage others to respond adequately to such incursions in the future.

The following commitments of MNRE indicate some aspects of the sustainability of this programme:

- Further monitoring will be included in MNRE's plan of activities for the next financial year.
- The public will continue to be encouraged by MNRE and SNITT to stay alert for new invasions through awareness programmes.
- MNRE is considering the establishment of an emergency response team for such incursions.
- MNRE and MAF plan to revise Samoa's Emergency Response Plan to cover such incursions more effectively.

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.

None required.

Performance Tracking Report Addendum

CEPF Global Targets

(1 Jan 2010, to 31 Dec 2010)

Provide a numerical amount and brief description of the results achieved by your grant.
Please respond to only those questions that are relevant to your project.

Project Results	Is this question relevant?	If yes, provide your numerical response for results achieved during the annual period.	Provide your numerical response for project from inception of CEPF support to date.	Describe the principal results achieved from July 1, 2007 to June 30, 2008. (Attach annexes if necessary)
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.	Yes	200	200	Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one. Aleipata Islands Marine Protected Area (including the land area of the islands)
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	No			Please also include name of the protected area. If more than one, please include the number of hectares strengthened for each one.
3. Did your project strengthen biodiversity conservation and/or natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.	Yes	?	?	Island of Upolu, neighbouring islands and trading partners of Samoa.
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	Yes	?	?	The project strengthened awareness of biosecurity risk incursions in Samoa, specifically with respect to mongoose but also more broadly. Most of the area so influenced is not in any PA.
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	No			

If you answered yes to question 5, please complete the following table.

Table 1. Socioeconomic Benefits to Target Communities

Please complete this table if your project provided concrete socioeconomic benefits to local communities. List the name of each community in column one. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes. In the bottom row, provide the totals of the Xs for each column.

Name of Community	Community Characteristics								Nature of Socioeconomic Benefit													
									Increased Income due to:													
	Small landowners	Subsistence economy	Indigenous/ ethnic peoples	Pastoralists/nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty rate	Other	Adoption of sustainable natural resources management practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the adoption of sustainable fishing, hunting, or agricultural practices	More secure access to water resources	Improved tenure in land or other natural resource due to titling, reduction of colonization, etc.	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure sources of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental management	More participatory decision-making due to strengthened civil society and governance.	Other
Total																						

If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit:

Additional Comments/Recommendations

Information Sharing and CEPF Policy

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Web site, www.cepf.net, and publicized in our newsletter and other communications.

Please include your full contact details below:

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