CEPF FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	Secretariat of the Pacific Regional Environment Programme
Project Title:	Holding the Lines — Restoration of the Northern Line Islands, Kiribati
Date of Report:	28 February, 2013
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CEPF Region: Polynesia-Micronesia

Strategic Direction: 1. Prevent, control, and eradicate invasive species in key biodiversity areas

Grant Amount USD$ 165,000

Project Dates: October 1, 2009-December 31, 2012

Te Io – Brown Noddy (*Anous stolidus*) roosting on shrubs on Motu Tabu – a predator free island and a conservation area for seabirds

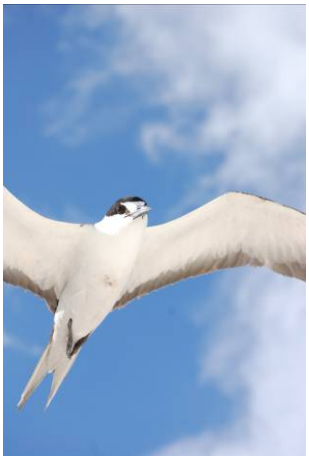
Implementation Partners for this Project (please explain the level of involvement for each partner):

- Secretariat of the Pacific Regional Environment Programme – provided the coordination for the project, including liaising between the Wildlife Conservation Unit (Govt. Kiribati) and technical experts (especially the Pacific Invasives Partnership). Also contributed technical advice and expertise in various activities of the project. Facilitated and assisted with development of awareness resources and also drafting of reports. Provided guidance and mentoring support to Wildlife Conservation Unit staff. Provided financial assistance and supported the participation and building of the capacity of the WCU staff in regional training courses and workshops.
- Ministry of Environment, Land and Agricultural Development – Wildlife Conservation Unit (Government of Kiribati) – provided support and co-financing in the implementation of activities of the project. Lead on the ground activities and actions and also provided the reality check of project activities and components. Provided dedicated staff to assist with the various project activities. Undertook major surveillance of Teraina and Tabueran islands.
- Eco Oceania Pty Ltd – one of the lead project implementers and also the main trainer and mentor to WCU staff (through a NZ MFAT grant). Coordinated technical assistance to design and implementation of bird monitoring, predator management and ant surveillance. The person with the most ecological knowledge about the islands and with skills in biota monitoring and invasive species management.
- Pacific Invasives Initiative provided to WCU staff: technical support and mentoring; training in island biosecurity; equipment to assist with field work. PII also assisted with project monitoring and evaluation.
- BirdLife International provided technical assistance to the design and implementation of bird survey and predator management, and assisted with reviewing management plans and other best practice tools.
- Pacific Invasives Learning Network assisted with mentoring of WCU staff and also with the dissemination of key outcomes and achievements made by the project. Assisted SPREP with the project coordination and management.

Dr Ray Pierce working with WCU staff to identify priority conservation sites.

Conservation Impacts

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



The northern Line Islands including Kiritimati, Tabuaeran (Fanning) and Teraina (Washington) islands in the Republic of Kiribati contain one of the largest breeding colonies of seabirds in the world, formerly supporting an estimated 25+ million birds of 18 species. Globally, it still contains critical populations of two Endangered seabirds (Phoenix Petrel – *Pterodroma alba* and White-throated Storm-petrel – *Nesofregetta fuliginosa*. The Kiritimati Reed-warbler (*Acrocephalus aequinoctialis*) is now restricted to Kiritimati and Washington Islands, having recently become extinct on Fanning Island. The coral reefs, motus and lagoons are also important habitat for many marine species.

The Line and Phoenix Islands were recognised as important areas for world heritage listing during a national workshop held in 2004 (UNESCO 2004). The workshop recognised the need to address invasive species that are destroying seabird colonies and building the capacity of WCU staff. It urged the international community to *inter alia* provide training for scientific surveys and monitoring of birds, produce field-guides, community outreach and education, invasive species management to focus on capacity building, institutional support and technical assistance partnerships.

The seabirds (e.g. Sooty Terns) have declined dramatically in the past century, and more rapidly in the past 20 years, with only a fraction of former numbers of some species still

breeding. Invasive species such as the Black Rat (*Rattus rattus*), feral cats (*Felis catus*), Pacific Rat (*Rattus exulans*) and increasing human population are contributing the decline of bird populations in the Line Islands. These declines and losses are of very great concern, especially since ecotourism represents one of the best options for a sustainable economy in the islands. Immediate action is required to reduce their populations and impacts, especially on Kiritimati and to prevent additional invasive species from arriving. There are risks of pests reaching currently pest-free lagoon islets, due to frequent human visits and inadequate quarantine, as well as unassisted dispersal. Poaching of seabird eggs, nestlings and adults is also prevalent, with Redtailed Tropicbird (*Phaethon rubricauda*), Red-footed Booby (*Sula sula)* and frigatebirds (*Fregata* spp.) being preferred targets, but petrels, shearwaters and noddies are also taken. Poaching and disturbance are causing rapid declines in these species.

The root cause of the above threats is poorly planned development of the islands, particularly human migration from the Gilberts and lack of adequate associated economic and development planning. The people currently have little incentive to avoid damaging biodiversity values, owing to lack of appropriate government policies, planning and implementation. Over the past 30 years, there has been a series of conservation and development studies of the islands, and plans written for them, with a focus on Kiritimati; the most recent being the ADB Kiritimati Island Development Plan (2007). These analyses and plans are remarkably similar to one another in their conclusions and recommendations; the problems and threats have not changed greatly in character over the years, but have only increased rapidly in intensity. The least damaging, most sustainable, current economic option for the islands is ecological tourism, whose potential is good, but has not been fully exploited. There is a niche market for tourism based on bird watching and diving/snorkelling, with associated possibilities for historical tourism (military sites), brief cruise ship visits, and continued but better-managed sport-fishing. Unless the actions described in this proposal can be implemented, a continuation of current trends will likely see the loss of some seabird species from Kiritimati in the near future, the arrival of additional invasive species which could cause further degradation of the environment, while black rat could spread to the whole of Kiritimati and may contribute to further decline in the population of the Kiritimati Warbler.

The emphasis of this project was on providing the necessary technical assistance to build the capacity of the WCU to undertake the management and research activities proposed, and to assist the Government of Kiribati in tackling the root socio-economic drivers behind the environmental degradation of the northern Line Islands. The key activities of the project were identified as priorities in national Invasive Species Action Plans for Kiribati (2007) and the Line and Phoenix Islands (2008), and some had been initiated recently by WCU with the assistance of Eco Oceania and NZAID/MFAT funding. The planned activities built on a long history of plans and initiatives aimed at tackling these issues since the 1970s, but which had not succeeded in reversing the degradation of the islands' natural resources.

Please summarize the overall results/impact of your project.

- Contributed to the conservation and recovery of seabird population, especially the Phoenix Petrel. The work on the seabird population recovery builds on a NZ MFAT project undertaken by Ray Pierce and Derek Brown.
- A commitment by partners (especially Ray Pierce, SPREP, NZ DOC, NZ MFAT, and PII) to continue to provide support to the Wildlife Conservation Unit on invasive species management
- Provision of equipment (e.g. motorbikes) to assist local rangers and staff of WCU to make the unit efficient.

- Contributed to the maintenance and protection of de-ratted motu and islets in support of the NZ MFAT project.
- Priority sites identified for protecting seabirds from rats, cats and poachers, in collaboration with NZ MFAT project.
- In conjunction with MFAT project capacity of the Wildlife Conservation Unit significantly improved in monitoring, surveillance, planning and deployment of traps.
- Support from the public for the work of Wildlife Conservation Unit improved especially the involvement of youth and religious groups.

Sooty Terns' eggs left behind by poachers upon hearing the WCU arriving

Project Approach (500 words)

The objective of this project was to build the capacity of the Government of Kiribati's Line and Phoenix Islands Wildlife Conservation Unit (WCU) and to begin a comprehensive and integrated approach to biodiversity restoration in the northern Line Islands, through:

- Addressing the urgent threats of rats, cats and poaching on Kiritimati.
- Assessing conservation values, threats and actions needed for Teraina and Tabuaeran as a first step towards their ecological restoration.
- Contributing to existing plans for a shift towards sustainable development of the islands.
- Specific activities and their expected outcomes include:

A. Management

- Improve quarantine control at the airport and seaports of Kiritimati, Teraina and Tabuaeran, to prevent the arrival of more invasive species (e.g. Norway rat, ants).
- Improve internal quarantine control for visits to Kiritimati lagoon islets, to prevent the arrival of rats and other pests.

- Re-establish cat control on Kiritimati, especially in areas where remaining important seabird colonies are found, to promote seabird recovery.
- Bring under control seabird poaching on Kiritimati, to enhance seabird recovery.
- Eradicate Pacific Rat from key lagoon islets of Kiritimati, to enable seabird recovery.

B. Information

- Establish black rat monitoring on Kiritimati, to determine distribution and rate of spread, and prepare a management plan.
- Bring up to date knowledge of seabird populations on Kiritimati and re-survey as required.
- Survey the Kiritimati Reed-warbler on Teraina, to determine population and threats; monitor population on Kiritimati.
- Carry out weed surveys on Teraina and Tabuaeran, to determine extent of threat.
- Investigate options for rat management on Teraina and Tabuaeran, and prepare management plans as appropriate, including action needed before the warbler can be re-introduced to Tabuaeran.

C. Advocacy

- Revitalise educational, awareness- and support-raising activities, to reduce damaging activities
- and promote conservation by the people of the islands.
- Work with the Government of Kiribati to promote the implementation of existing sustainable development proposals.
- Encourage a shift of the island economies towards sustainable ecotourism, including the production of resource materials such as a revised Line Islands bird guide, to reduce damaging activities and promote conservation by the people of the islands.

All of the above objectives were to be achieved by using technical experts to assist and train the Government of Kiribati's Line and Phoenix Islands Wildlife Conservation Unit (WCU) to execute the required tasks. The technical activities all formed part of the two Kiribati Invasive Species Action Plans and the work programme of the WCU. The WCU, based on Kiritimati, is responsible for conservation management in the islands. Risks are dealt with below, under External Assumptions.

Link to CEPF Investment Strategy

This project contributed primarily to CEPF Investment Priorities 1.1, 1.2 and 1.3 of Strategic Direction (SD) 1 (Prevent, control and eradicate invasive species in key biodiversity areas) and 3.1, 3.2 and 3.3 of SD 3 (Build awareness and participation of local leaders and community members in the implementation of protection and recovery plans for threatened species). The project's main focus was on building local capacity, both to halt current trends of environmental degradation and to reverse them: for example under SD1, the project focused on preventing the arrival of new invasives, while at the same time tackling those species that are currently causing the most serious impacts (e.g. cats) or projected to have grave impacts (black rat). The project included species-focused actions, addressed at both threatened and invasive species. The project area includes a potential World Heritage site and IBA, plus several areas with varying degrees of protection under Kiribati law.

Planned Long-term Impacts - 3+ years (as stated in the approved proposal):

- Declines of bird populations on Kiritimati halted.
- Incursions of rats to lagoon islets prevented.
- Incursions of new pests to northern Line Islands prevented.
- Plan for Black Rat management in place.
- Island economies and communities moving towards sustainable activities.

Actual Progress Towards Long-term Impacts at Completion:

- Awareness and education material produced, including the Bird Identification Booklet, school environmental education text book, poster and radio programmes
- Wildlife Conservation Unit staff trained to deliver environmental education to schools through training of teachers and development of environment curriculum.
- A marked improvement in local support to Wildlife Conservation Unit's work with more people attending awareness activities. This was also observed at the 3rd Pacific Invasives Learning Network Meeting held on Kiritimati in March, 2012 – where locals and community groups attended the various agenda sessions of the meeting. Staff at WCU noted support from older generation, church groups and religious leaders. Also a Biosecurity Workshop held in February-March 2013 was attended by importing agencies and other parties as part of awareness raising.
- Provisions of equipment, especially motorbikes have allowed the capacity of WCU staff to learn how to ride motorbikes for anti-poaching surveillance and other monitoring activities. Having pest traps and knowing how to use and maintain them are also long-term impacts of this project provided there is an adequate ongoing operating budget.
- Various management, action and strategic plans have been developed to deal with various issues, including feral cats, rats and organisational response. These provides useful guide to WCU staff now and in the future.
- Floral identification and monitoring. A floral list of plants found on Kiritimati Islands has been compiled, which will be used as the baseline to monitor future introductions.
- WCU capacity in bird monitoring in conjunction with MFAT project 2008-13 will augur well for the future of seabird population and conservation in the Line Islands and is able to be maintained routinely.
- WCU capacity built in reducing the impact of domestic cats to the Line Islands wildlife through population control. The Cat Clinics run by the NZCCM, Auckland Zoo had been the catalyst for this initiative. It is hoped that further funding support in collaboration with NZCCM, Auckland Zoo will allow for continued support and further training.

Dr Craig Pritchard overseeing the cat clinics and training WCU staff. Image: Craig Pritchard

Planned Short-term Impacts - 1 to 3 years (as stated in the approved proposal):

- Capacity of WCU and other key local organizations and individuals enhanced in bird survey and monitoring; in detecting invasive species incursions and putting in place management actions to halt or prevent impact
- Biosecurity improved at all levels, especially in WCU being part of the 'boarding party' to inspect vessels for the presence of invasive species.
- Predator control improved on Kiritimati with the development of a management manual, training of staff and also provision of traps and other equipment.
- Seabird poaching reduced on Kiritimati through public awareness, increased surveillance and enhanced laws.
- Pacific rat eradicated from key lagoon islets and motus.
- Black rat management plan completed.
- Bird population levels known – especially for the Kiritimati Reed-warbler.
- Invasive species management priorities determined for Teraina and Tabuaeran.
- Support of local communities for conservation increased.
- Support of Government of Kiribati for conservation and sustainable development of northern Line Islands increased.

Actual Progress Toward Short-term Impacts at Completion:
Building the capacity of the Wildlife Conservation Unit of Kiritimati was the strongest short-term impact made by the project. In particular, the training of over 20 personnel – of which nine are permanent staff members and the remaining temporary staff — on a range of issues including cat management and neutering, rat management, bird monitoring, law enforcement and awareness raising.

Some of the successes highlighted include:

- WCU staff trained in neutering cats and controlling domestic cat population;
- Priority issues identified and action plan being developed by WCU and collaborators following the survey in Teraina and Tabuaeran islands.
- Technical know-how on rat management developed in support of the efforts by the NZ MFAT project.
- WCU staff trained in bird monitoring and invasive predator surveillance in support of the effort by the NZ MFAT project.
- WCU successfully undertook public awareness campaign involving, schools, churches and the general public. Activities included school quiz, general public quiz. Radio interviews and call-ins, and poster competition.
- Development of awareness and education materials including bird poster, Bird Identification Guide and environmental education text book
- WCU staff trained in how to eradicate rodents and cats from islands developed in support of the efforts by the NZ MFAT project.
- MELAD ECD and Agriculture staff at Tarawa trained in Island Biosecurity to reduce the threat of invasive species travelling on vessels from Betio Port to the Phoenix and Line Islands.
- A training course in Island Biosecurity for WCU staff was planned for Kiritimati in October 2011 and then November 2012, and completed by PII et al in February-March 2013.
    - The Island Biosecurity training course included targeted training in ant survey methods for key areas.
    - Further training in cat control was also planned for November 2012 and was completed in March 2013.

Please provide the following information where relevant:

Hectares Protected: A total of 1800 hectares are in some form of protection. 30 hectares are protected under the Wildlife Refuge, with the remainder under the closed-area programme.

Species Conserved:
Species that could benefit from this work are Phoenix Petrel, Wedge-tailed Shearwater, Christmas Shearwater, Audubon's Shearwater, White-throated Storm-petrel, Red-tailed Tropicbird, Masked Booby, Brown Booby, Red-footed Booby, Great Frigatebird, Lesser Frigatebird, Great Crested Tern, Black-naped Tern, Grey-backed Tern, Sooty Tern, Brown Noddy, Black Noddy, Blue Noddy, White Tern, Kiritimati Reed-warbler

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

Overall the project builds on and adds considerable value to invasive species management initiatives for Kiribati, and in particular the Northern Line Islands. The recognition of the hard work and achievements made by the Wildlife and Conservation Unit staff based on a remote and isolated island, and the strong focus of building their capacity and that of their local partner institutions is a model that should be replicated elsewhere in the Pacific.

There were some challenges and lessons learned from this project. In particular the issue of communication with a remote island with poor communication links warrants further attention should future projects be undertaken on other "outer" islands in Kiribati and elsewhere in the Pacific. This problem has two components– the technical and project management. Technical difficulties primarily relate to electronic communication (email, voice-over, telephone and internet) and limited flight schedules. Electronic communication was challenged by the limited infrastructure on island and flight links by the infrequency of scheduled flights and their interruption for long periods by airport development problems. With the increasing traffic and development of the island, these issues will be overcome. Another effective solution is for frequent visits to the islands by technical experts and working alongside WCU staff. The second component relates to the project management communication, where difficulties related to the concurrent management of activities financed by different sources and through different implementing agencies. While this modus operandi is encouraged as partnership and collaborative ventures can produce more effective results, it is worthwhile to ensure clarity between the projects so that responsibilities are understood by all, perhaps through a project work-planning schedule.

One of the unexpected challenges was the increased cost of operation relating to the use of the motorbikes for surveillance. While there was an understanding that having a WCU out-station would help alleviate the fuel consumption and also provide a more efficient base for surveillance and monitoring – the lack of a WCU out-station meant that transportation costs was higher and this was not catered for in WCU's budget.

While the project focused on the Northern Line islands, it was recognised that the Southern Line Islands suffer conservation problems. However, the available budget from CEPF was clearly inadequate during the project planning phase, to allow extension of any activities there.

The presence of squatters near the Tenei Rababa Lagoon remained an issue that must be tackled by the Government of Kiribati. Their presence is having an ongoing impact on several species of seabirds.

Were there any unexpected impacts (positive or negative)?

It is pleasing to report six wildlife youth clubs were established during the implementation of the project. The various religious groups provided the extra support and encouragement for the youth groups. A total of 300 youths are involved.

Another important unexpected outcome was the acceptance by partner institutions the inclusion of staff from the Wildlife Conservation Unit as part of the "boarding party" that inspects incoming vessels. WCU has also been given the responsibility to inspect all vessels that go to rat-free islands. The strengthening of internal biosecurity is a strong positive will continue to be strengthened through the NZ MFAT project. z

Project Components

Project Components*: Please report on results by project component. Reporting should reference specific products/deliverables from the approved project design and other relevant information.*

Component 1 Planned:
Improve quarantine control at the airport and seaports of the inhabited islands of Kiritimati, Teraina and Tabuaeran, to prevent the arrival of more invasive species (e.g. Norway rat, ants), and improve control for visits to uninhabited islets, especially priority lagoon islets in Kiritimati lagoon, to prevent the spread to them of rats and other pests.

Component 1 Actual at Completion:
The Wildlife Conservation Unit staff are now part of a team (the "boarding party", comprising police, health, immigration, customs, agriculture & quarantine, Linnix) which boards and inspects incoming foreign and domestic vessels. While this is an indication of the commitment by the government, there are still some measures that need to be further revised including strengthening of the legislative framework. Some measures are now in place to ensure that any vessel intent on visiting rat-free motu in the lagoon are inspected by WCU before they are allowed to embark or disembark.

Awareness materials (posters, field-guides, booklets) have also been developed to highlight the unique biodiversity of the Line Islands motu and islets and the threat to their survival. Awareness campaigns have been undertaken with hotels and communities (see attached reports and video).

The draft biosecurity plan for Kiritimati Island will be reviewed and finalised in the planned GEF-PAS invasive species project. The delay has been attributed to the need to develop a national biosecurity plan (an activity under the GEF-PAS project), which will then be used as a template for developing Kiritimati island species activities. It is useful to point out that there is a biosecurity plan for the Phoenix Island Group and that this is currently being used by Quarantine staff at Kiritimati and Tarawa.

A number of management plans and best practice tools have been developed including the operation plan for the control of feral cats on Kiritimati Island (see Annex).

Component 2 Planned: Manage existing priority threat factors to key biodiversity resources, including introduced predators and seabird poaching.

Component 2 Actual at Completion:

Efforts to eradicate rats from priority islets and motu have been undertaken in partnership with ongoing MFAT projects implemented by Ray Pierce, Derek Brown and the Wildlife Conservation Unit in 2008-12. About 40 motu are now rat free at Kiritimati Island.

A new draft bylaw was produced regarding domestic animal management, and a new regulation is being promoted by the Director of Local Government in Tarawa to propose licensing fees for cat ownership. This is part of the effort to help regulate cat population on Kiritimati. Teraina and Tabuaeran councils pledged support to control the dog populations there, and the councils expressed interest in following the measures taken on Kiritimati to control cats.

A draft feral cat management plan has been completed to manage cats in wilderness areas of Kiritimati. Assistance from existing and ongoing projects has contributed to controlling the feral cat population. The plan is to focus on one or two priority mainland seabird sites, measure outcomes and adapt for wider areas if resources allow.

Management of domestic cats was undertaken through holding of cat neutering clinics in London, Banana and Poland on Kiritimati Island. Over 100 cats were desexed of which 50 per cent were male and 50 per cent female. WCU staff were trained in anaesthesia, patient monitoring and cat castration techniques. An additional four WCU staff were trained in animal veterinary nursing care, and patient preparation and monitoring. Spaying of female cats was undertaken by professional veterinarians Drs Craig Pritchard and Glenn Mackay, as this process involves more technical knowledge. The WCU staff ran a neutering clinic, with NZCCM, Auckland Zoo on hand for support. Equipment, medicines and easy-to-follow protocols were provided to WCU staff so that they can continue the clinics. One of the WCU staff was further trained in humane euthanasia of cats. Approximately 30 wild cats were euthanized as part of the visit. It was recommended to conduct further clinics at 1-2 month intervals in order to keep skill levels up and stay familiar with the process. Mentoring remains critical at this stage to ensure that the skill-level is maintained and that clinics are regularly held to ensure control of the domestic cat population. It is expected to take up to 5-10 years before a significant reduction in the domestic cat population is observed. A report from this activity is provided in the Annex.

Poaching of birds remains an issue and there were a number of highlights including encouraging relationship between WCU and the community. Three motorbikes were provided by the project, allowing increased presence and mobility of staff to and around sensitive sites. The plan to build an alternative base for WCU staff to assist with curtailing poaching did not materialize, largely due to the high cost of procuring materials locally or externally.

Component 3 Planned:
Carry out surveys and assessments of key threat factors and key biodiversity values on Kiritimati.

Component 3 Actual at Completion:
Rat surveys were undertaken in 2009 by Wildlife Conservation Unit staff (Bebe, 2009) focused on Te Kabwa, Tekaina, NZ airfield, Poland and Banana villages, and Boating and Bathing lagoon. The surveys included household questionnaire survey and rat trapping (Victor traps). The survey concluded the spread of the Black Rat (from its initial introductory point at the London dock (sensu Everett, Ruazon & Jones 2002) to Tabwakea and Banana. Recent observations indicate the spread to south to Artemia Corner. The rat monitoring is now being carried out in conjunction with the bird monitoring surveys.

Concerns over the Kiritimati Warbler on Kiritimati have been downgraded following surveys confirming a healthy population. WCU staff had been previously trained in 2007-08 on how to undertake bird surveys (Pierce et al 2007). A guideline for monitoring of birds and their predators has been revised (Pierce et al. 2013). The guidelines are species specific and in a format that is easy to follow.

Component 4 Planned:
Carry out surveys and assessments of threats and biodiversity values on Teraina and Tabuaeran, including evaluation of results and their use to prepare management plans, including options for rat management on both islands and actions needed before the Kiritimati Reed-warbler could be re-introduced to Tabuaeran.

Component 4 Actual at Completion:
The survey for Teraina and Tabuaeran was completed. The survey confirmed the presence of the Kiritimati Warbler on Teraina, but not on Tabuaeran. This complements the survey for the Kiritimati Warbler on Kiritimati, where the population is deemed in fairly good condition. There are still merits for a re-introduction of the Kiritimati Warbler to Tabuaeran (and Phoenix Islands) but necessary protocols need to be followed to ensure that any future operation is successful.

Component 5 Planned:
Revitalise educational, awareness- and support-raising activities, to reduce damaging activities and promote conservation by the people of the islands.

Component 5 Actual at Completion:
Wildlife Conservation Unit and SPREP teamed up to hold an awareness programme, which included holding of four competitions. Other partners including the Rotary Club of Kiritimati Islands supported the competitions through in-kind contributions. Creating and innovating programmes were used in the public awareness initiative as a means to make meaningful positive influence on the thinking of children and the whole public on the importance of environment conservation and the work of Wildlife Conservation Unit. The awareness competitions included school quiz, poster, open quiz and action catchy song. The school quiz focussed on key environmental issues at the national and regional level. The theme for the poster session was ‘protect us from invasive alien species’ or ‘*katanakira man maan ke aroka aika tiribwai*’. Report from the awareness campaign was

Seema Deo – SPREP’s Communication, Education and Public Awareness Advisor, mentored Wildlife Conservation Unit (WCU) staff (Aana Teetan Berenti) on environmental communication, and assisted with the development of the Environment Education manual. The manual was trialled at local Kiritimati schools. Other public awareness information included the Kiribati bird brochure and poster led by Ray Pierce and Eric VanderWerf.

Component 6 Planned:
Work with the Government of Kiribati to promote the implementation of existing sustainable development proposals, including encouragement of a shift of the island economies towards sustainable ecotourism.

Component 6 Actual at Completion:
Discussions were held with the Government of Kiribati on the potential of ecotourism. There is already some ecotourism activities that are happening on Kiritimati, mainly through fly-fishing tourism. Kiritimati is well known for its bone-fishing and is one of the few places globally for lagoon-marine based fly-fishing. Most of the fly-fishing tourism is undertaken by the private sector with the involvement of some of the local communities.

It is envisage that with the efforts by the Wildlife Conservation Unit and also through this and previous projects that bird tourism will grow and complement existing activities. Having direct flights from Hawaii and Fiji on a weekly basis, augur well for eco-tourism on the island.

Were any components unrealized? If so, how has this affected the overall impact of the project?

It is pleasing that the major activities of the project have been achieved. One of the components that will need to be reviewed and strengthened is component six. The lack of concrete outcomes for component six is a reflection that this issue requires a time-frame beyond the project and perhaps may link closely to conservation outcome (resilient seabird population and invasive species management). It is also a reflection that closer collaboration needs to be made with Tarawa and other relevant stakeholders (e.g. South Pacific Tourism Organisation) so that a white paper is prepared providing a roadmap for the future. Overall the project has not been handicapped by progress made on component six but is in a better position now to plan for the future in alternative livelihood and sustainable tourism.

Please describe and submit (electronically if possible) any tools, products, or methodologies that resulted from this project or contributed to the results.

The following lists reports that are included as part of this Final Report:

- Brown, D., & Pierce, R. 2012. A provisional operation plan for the control of feral cats on Christmas Island, Kiribati. Unpublished report to SPREP. 24 pages.
- Craig Pritchard. 2012. NZCCM, Auckland Zoo Report for SPREP on Kiritimati Island Wildlife Conservation Unit training and veterinary clinics. 2 pages
- Ratita Bebe 2009. Rat survey on Kiritimati especially at kakai areas (Te Kabwa, Tekaina and NZ Airfield), around Polan village, around Banana village, Boating and Bathing from 20 Aug – 4 Sept 2009. 3 pages.
- Ratita Bebe. 2011. Environment Awareness Programme Report. 4 pages
- Ray Pierce, Richard Anderson, Eric VanderWerf and Lindsay Young. 2007. Surveys and capacity building in Kiritimati (Christmas Island, Kiribati), to assist in restoration of populations of bokikokiko and seabirds. *Eco Oceania Ltd* report for Government of Kiribati, SPREP and PII.
- Brown D and Pierce R.J. 2008. Report on Phoenix Islands Protected Area (PIPA) training workshop held at Kiritimati in April 2008. *Eco Oceania Ltd r*eport for NZAID
- Ray Pierce & Derek Brown 2009. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, May-June 2009. 32 pages.
- Ray Pierce 2010. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, Dec. 2010. Report No. 2. 25 pages.
- Ray Pierce 2011. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, Nov-Dec. 2011. Report No. 4. 39 pages
- Ray Pierce 2011. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, June 2011. Report No. 3. 19 pages
- Ray Pierce, Derek Brown, Katareti Taabu and Eric VanderWerf. 2012. Guidelines for monitoring birds and their predators at Kiritimati, Kiribati. A report for the Government of Kiribati, Department of Conservation, NZMFAT and SPREP. 37 pages.
- http://www.sprep.org/attachments/Publications/Birdsguide_Kiribati.pdf

- Ray Pierce, Ratita Bebe and Ata Bonoka. 2012. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, December 2012. Report No. 6. 24 pages

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 project builds on past initiatives that focus on building the capacity of WCU staff and protecting seabird population through the management of invasive species. The low staff turnover at WCU meant that most of them were sensitised and familiar with conservation issues. One of the key successes is having technical experts who know the area and the people well. The long-term interest and commitment of individuals and organisations, including Dr Ray Pierce, Derek Brown, Keith Broome, SPREP, PII, PILN and the Department of Conservation and MFAT of the Government of New Zealand in assisting Kiribati are also a key success in the project design.

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

Spending time on the island working with WCU staff to build their capacity and confidence in surveillance and monitoring has been one of the key lessons learned. While attending regional training courses and workshops is useful, building lasting skills can only be made through on-the-ground demonstration and practice. Having the technical experts to explain and demonstrate how to use equipment or how to interpret damage to a seabird egg is gold.

Other lessons learned relevant to conservation community:

Additional Funding

Provide details of any additional funding that supported this project and any funding secured for the project, organization, or the region, as a result of the CEPF investment in this project.

Donor	Type of Funding*	Amount	Notes
Government of Kiribati	A, in kind	50,000	WCU staff time, office supplies, travel cost (Tarawa to Xmas)
Pacific Invasives Learning Network (various donors, TNC, Fonds Pacifique, AusAID)	A, in kind	25,000	PILN Coordinator time; funding support for WCU staff to attend regional training (invasive birds), financial and administrative support, office supplies and communication
SPREP	A, in kind B	50,000	Staff time (ISA, COA and GEF-PAS), financial and administrative support, office supplies and communication costs
Ray Pierce, MFAT	A, B	70,000+	This project was already underway and is ongoing
NZCCM, Auckland Zoo	A	21,181	Staff support (time)
Pacific Invasives Initiative	A, in kind	57,000	Staff time and travel expenses, training courses, SME fees, equipment, freight, printing and communication

****Additional funding should be reported using the following categories:***

- ***A*** *Project co-financing (Other donors or your organization contribute to the direct costs of this 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 funded project.)*
- ***C*** *Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)*

Sustainability/Replicability

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

The successes demonstrated by this project through building the capacity of local staff (WCU), engaging and raising the awareness of communities (youth and church groups) and developing

policies, best practice procedures and management plans for the Wildlife Conservation Unit are very positive. One of the key lessons of this project is having a good leader that works well with the various agencies and stakeholders. WCU is fortunate to have an excellent leader with a strong support of the staff.

The issue of sustainability remains to be seen in the long-term. While individual and institutional capacities have been built and enhanced, the continuing challenge of adequate resources (e.g. fuel, maintenance of equipment, office equipment and telecommunication) remains. The components of the project are realistic and can be replicated elsewhere provided similar level of arrangements and commitment is provided. The recognition of the Southern Line Islands as an important area to address by the Kiribati highlights a strong interest in continuing with this project.

Summarize any unplanned sustainability or replicability achieved.

Safeguard Policy Assessment

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

The MFAT rat baiting and the CEPF cat trapping follow standard best practise methods including in the minimising of non-target impacts. Key mitigating precautions included:

- Baiting at a time of year when susceptible waders like bristle-thighed curlew are mostly on the breeding grounds in Alaska
- Public radio warnings at start of baiting; signage
- Cat traps elevated to avoid capture of tropicbirds and other ground-nesting seabirds

Additional Comments/Recommendations

SPREP continues to provide assistance to WCU staff and the Government of Kiribati through a number of project activities and initiatives including the GEF-PAS Invasive Species project and the PILN network. Under the GEF-PAS IAS project the specific focus will build on the CEPF investment on the Northern Line Islands, as well as the other two island groups (Gilbert and Phoenix islands). Some of the activities include the revision of the National Invasive Species Action Plan, technical training and strengthening inter-island biosecurity. Early detection and rapid response plans are also part of this USD 223 479 investment.

Meanwhile the MFAT project in conjunction with DOC and PII has been extended for two years and will enable practical support and mentoring to WCU and Quarantine staff at Kiritimati and PIPA spanning areas of biota monitoring, biosecurity, invasive species surveillance and management, and compliance and law enforcement.

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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Organization name: SPREP
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Tel: (685) 21929
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E-mail: posas@sprep.org

*****If your grant has an end date other than JUNE 30, please complete the tables on the following pages*****

Performance Tracking Report Addendum

CEPF Global Targets

(Enter Grant Term)

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			
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	NO			
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			
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	NO			
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	YES			

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
Ngaontetaake																					
Dojin																					
Tanguoua																					
Koil																					
Toyota																					
Mouakena																					
Motu Tabu																					
Cook Islet – Paris and marine areas																					

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

References:

UNESCO World Heritage Centre, 2004. Central Pacific World Heritage Project. National Workshop Report. 5-11 October, 2004. Kiritimati Island, the Republic of Kiribati. 11 pages.

Everett, W.T., Rauzon, M.J., Jones, H. Lee. 2002. Feasibility, Prioritization and plans for Eradication of Rats from Selected Motus and Islets. Hope-X landing site facilities and operations Christmas. Implementation phase environmental monitoring and protection plan (EMPP). 18 pages

Pierce R.J. 2011. Biosecurity guidelines for the Phoenix Islands, Kiribati. Conservation International Lessons Learned Technical Series. 8: 1-78 pp.

Annex Reports

- Brown, D., & Pierce, R. 2012. A provisional operation plan for the control of feral cats on Christmas Island, Kiribati. Unpublished report to SPREP. 24 pages.
- Craig Pritchard. 2012. NZCCM Report for SPREP on Kiritimati Island Wildlife Conservation Unit training and veterinary clinics. 2 pages
- Ratita Bebe 2009. Rat survey on Kiritimati especially at kakai areas (Te Kabwa, Tekaina and NZ Airfield), around Polan village, around Banana village, Boating and Bathing from 20 Aug – 4 Sept 2009. 3 pages.
- Ratita Bebe. 2011. Environment Awareness Programme Report. 4 pages
- Ray Pierce & Derek Brown 2009. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, May-June 2009. 32 pages.
- Ray Pierce 2010. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, Dec. 2010. Report No. 2. 25 pages.
- Ray Pierce 2011. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, Nov-Dec. 2011. Report No. 4. 39 pages
- Ray Pierce 2011. Technical support and capacity building for the Wildlife Conservation Unit and Quarantine at Kiritimati, Kiribati, June 2011. Report No. 3. 19 pages

- Ray Pierce, Derek Brown, Katareti Taabu and Eric VanderWerf. 2012. Guidelines for monitoring birds and their predators at Kiritimati, Kiribati. A report for the Government of Kiribati, Department of Conservation, NZMFAT and SPREP. 37 pages.
- Aana Berenti & Seema Deo. 2013. Kiritimati Atoll Environmental Education Programme. Form 2.