LOOKING BACK TO MOVE FORWARD:
Evaluating Conservation Outcomes in Samoa

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4

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CRITICAL ECOSYSTEM PARTNERSHIP FUND

ABOUT THE BIODIVERSITY CONSERVATION LESSONS LEARNED TECHNICAL SERIES

This document is part of a technical report series on conservation projects funded by the Critical Ecosystem Partnership Fund (CEPF) and the Conservation International Pacific Islands Program (CI-Pacific). The main purpose of this series is to disseminate project findings and successes to a broader audience of conservation professionals in the Pacific, along with interested members of the public and students. The reports are being prepared on an ad-hoc basis as projects are completed and written up.

In most cases the reports are composed of two parts, the first part is a detailed technical report on the project which gives details on the methodology used, the results and any recommendations. The second part is a brief project completion report written for the donor and focused on conservation impacts and lessons learned.

The CEPF fund in the Polynesia-Micronesia region was launched in September 2008 and will be active until 2013. It is being managed as a partnership between CI Pacific and CEPF. The purpose of the fund is to engage and build the capacity of non-governmental organizations to achieve terrestrial conservation. The total grant envelope is approximately US$6 million, and focuses on three main elements: the prevention, control and eradication of invasive species in key biodiversity areas (KBAs); strengthening the conservation status and management of a prioritized set of 60 KBAs and building the awareness and participation of local leaders and community members in the implementation of threatened species recovery plans.

Since the launch of the fund, a number of calls for proposals have been completed for 14 eligible Pacific Island Countries and Territories (Samoa, Tonga, Kiribati, Fiji, Niue, Cook Islands, Palau, FSM, Marshall Islands, French Polynesia, Wallis and Futuna, Eastern Island, Pitcairn and Tokelau). By late 2010 more than 35 projects in 9 countries and territories were being funded.

The Polynesia-Micronesia Biodiversity Hotspot is one of the most threatened of Earth's 34 biodiversity hotspots, with only 21 percent of the region's original vegetation remaining in pristine condition. The Hotspot faces a large number of severe threats including invasive species, alteration or destruction of native habitat and over exploitation of natural resources. The limited land area exacerbates these threats and to date there have been more recorded bird extinctions in this Hotspot than any other. In the future climate change is likely to become a major threat especially for low lying islands and atolls which could disappear completely.

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CRITICAL ECOSYSTEM PARTNERSHIP FUND

CONSERVATION INTERNATIONAL Pacific Islands

Location of the project in the Polynesia-Micronesia Biodiversity Hotspot

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Lessons Learned

Project Design Process

Aspects of the project design that contributed to its success/shortcomings.

One of the major shortcomings of the design process was that the original scope was too broad. By refining the scope of the project to a single country, instead of three countries as intended, we are unable to make general statements about the efficacy of conservation actions in the Pacific. The advantages of working in a single country were that we were able to gain a more detailed picture of the systems in which conservation actions were applied. In reality, our original approach to evaluation was perhaps naïve in assuming that more information would be available on project outcomes. One of the lessons from this experience would be to review other evaluations and develop an evaluation design based on an evaluation that has been tested in a similar context.

One of the other challenges in the design phase was the time needed to understand the context for conservation in Samoa. A lesson for future evaluations would be to host a focus group meeting at the outset of the project, inviting all the key participants in the system to attend. This type of forum would help facilitate greater understanding of the rationale for the project, the value of doing this type of research and also hopefully get people motivated to be involved. In addition, a more user-driven evaluation would also instill a greater sense of ownership in the findings of the evaluation.

Project Implementation

Aspects of the project execution that contributed to its success/shortcomings.

One of the crucial elements that enabled successful implementation of the project was assistance and support to the researcher by well-connected organizations in Samoa. A valuable lesson for future evaluations by external researchers is the importance of a "gatekeeper" organization. The gatekeeper was essential to introduce the researcher to other stakeholders in Samoa, and also gave greater credibility to the project by their involvement.

Another important aspect that affected and ultimately enabled project implementation was the collaborative and welcoming nature of people working in the Samoan conservation sector. We had limited time to meet and conduct interviews and people were very accommodating in giving their time and following-up with further information.

The scope and time allocated for the project meant that project implementation did not allow for extended interaction with the study participants. The data were gathered over 3 relatively short visits. The project implementation could have been improved if the researcher stayed longer (perhaps with making two rather than three visits) which might have enabled more active and sustained engagement of the project partners.

Other lessons learned

relevant to the conservation community

One of the lessons learned by the researcher was the reality of implementing academic theory into a practical application. While conservation evaluation has received substantial attention in the academic literature, there remains a disconnect between what is optimal or desirable and what is achievable in evaluation application on the ground.

Acknowledgments

We would like to thank all the participants in Samoa who generously gave time to share their experiences and knowledge of conservation issues in Samoa and the Pacific region. We would also like to thank James Atherton, Leilani Duffy, Faleafaga Toni Tipamaa, Ana Tiraa and Alan Tye for assistance during the researcher's visits to Samoa. We also thank Joanna Axford and Dan Segan for their comments on an earlier version of this report. This study has been made possible through funding from the Critical Ecosystem Partnership Fund with assistance provided by Conservation International's Pacific Islands Program. Madeleine Bottrill is also supported by a Northcote Graduate Scholarship.

Abbreviations and Acronyms

AUSAID	Australian Agency for International Development
CI	Conservation International
GTZ	Gesellschaft fur Technische Zusammenarbeit
JICA	Japan International Cooperation Agency
MNRE	Ministry of Natural Resources and Environment
MAFFM	Ministry of Agriculture, Forestry and Fisheries Management
NGO	Non Governmental Organisation
POWPA	Programme of Work on Protected Areas
SPBCP	South Pacific Biodiversity Conservation Programme
SPREP	Secretariat of the Pacific Regional Environment Programme
UNDP	United Nations Development Programme

Executive Summary

Over the past 20 years, substantial efforts have been made to conserve the species and habitats of Samoa's forests and mangroves, and to sustain the natural resources that support many livelihoods. Future projects are limited by the resources available for conservation, in particular trained staff and funds. Understanding the factors that lead to the success (and failure) of prior efforts, is essential in selecting future projects that deliver cost effective conservation outcomes. Reflecting on past experiences from completed projects can therefore provide useful knowledge to managers, donors and community leaders.

In this study, we evaluated 28 conservation projects that have been applied in terrestrial ecosystems in Samoa over the past 20 years. The projects are inclusive of a variety of conservation activities including direct actions such as control of invasive species, replanting of mangrove areas and establishment of national parks, as well as indirect actions such as training of park managers, raising awareness among school children and setting up ecotourism and other livelihoods-related programmes.

Our study aimed to identify what types of ecological and social outcomes these projects achieved. Outcomes are defined as long-term changes to the condition of ecological or social systems (e.g., reduction of threats to endangered species). Our study intended to assess the extent to which projects met, or were likely to achieve, these outcomes. We hoped to also investigate which factors enhanced or limited the achievement of those outcomes.

Our evaluation used two approaches to collect information on outcomes from conservation projects. First, we reviewed existing documents, literature, evaluation reports and results from monitoring surveys. Secondly, we interviewed 30 managers, scientists and community members about their perceptions of success among the conservation projects they have been involved in. This was particularly useful in the absence of available documented information from projects.

Our results found that projects were short in length with an average duration around two years and eight months. Most projects has relatively small budgets and were externally funded by donors outside of Samoa with very limited funding directly available from national government or other in-country sources. While over a third of projects implemented all their activities, over half of project did not complete many of their activities. As there was limited evidence that long-term outcomes for projects had been already been achieved, we examined the likelihood projects would achieve their conservation goals in the future. Only three projects had a high likelihood of achieving their outcomes. We predict some projects have no or very little chance of achieving outcomes. Conservation projects in Samoa have therefore had mixed success but there is some evidence of positive benefits from conservation efforts to date.

It is likely that short project time frames and limited capacity likely contributed to many projects not producing positive outcome. We found that assessing the overall impact of a project was often complicated by a number of issues, such as insufficient baseline data and limited monitoring.

In the discussion, we investigate some of the underlying processes that caused these effects. Our findings suggest that more effort needs to be invested in gathering biological and social data for project evaluation to be useful in designing future projects and informing decisions by policymakers.

1 Introduction

1.1 Terrestrial Biodiversity in Samoa

The archipelago of Samoa lies at the heart of a global hotspot for biodiversity (Figure 1), the Pacific region of Polynesia and Micronesia (Conservation International 2007; Mittermeier et al. 2005). The terrestrial ecosystems of Samoa support 720 species of native vascular plants, 30% are found nowhere else in the world (Whistler 1992). The forests and mangroves are also host to a wealth of endemic and charismatic birds and other animals, such as the *Manumea* or Tooth-billed pigeon (*Didunculus strigirostris*), the long-tailed blue butterfly (Lampides boeticus) and the Samoan flying fox, or *Pe'a* (*Pteropus samoensis*) (Cox et al. 1991; Edwards 2008; MNRE 2006). The natural heritage of Samoa is also of cultural and economic significance, inspiring story-telling, art and belief systems, and providing resources and supporting livelihoods for the majority of the islands' population.

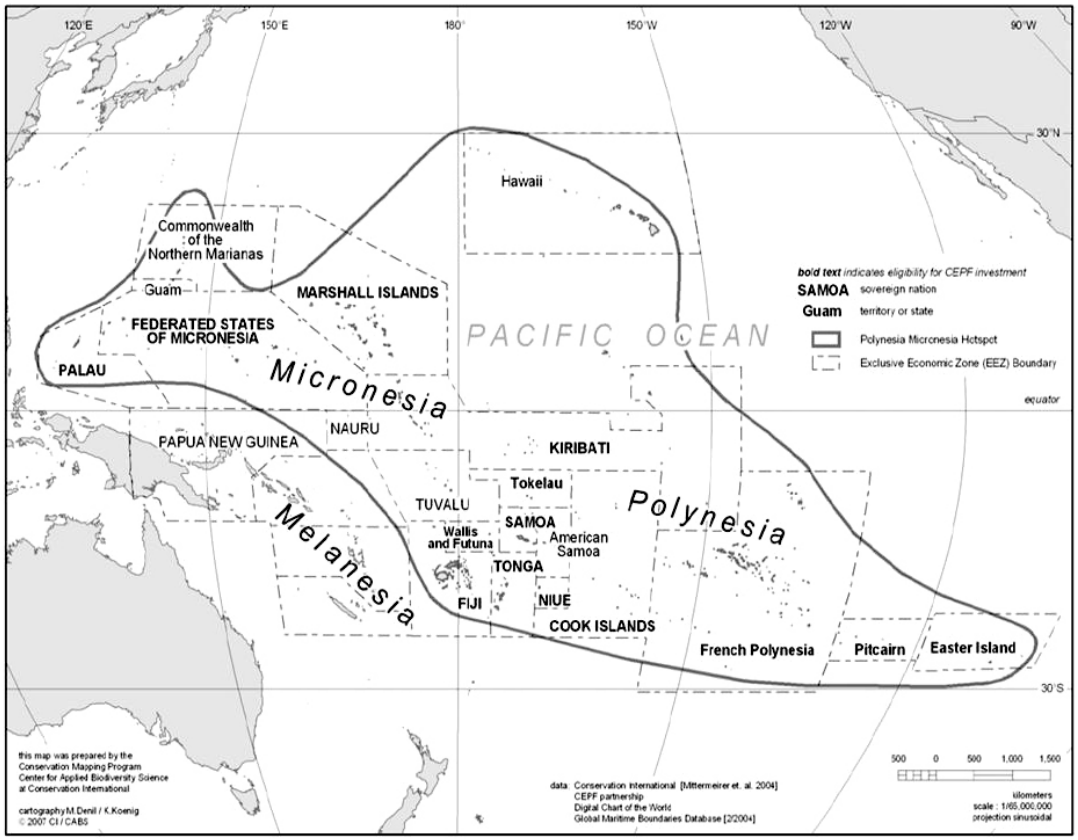

FIGURE 1. Polynesia-Micronesia hotspot and location map (Conservation International 2007).

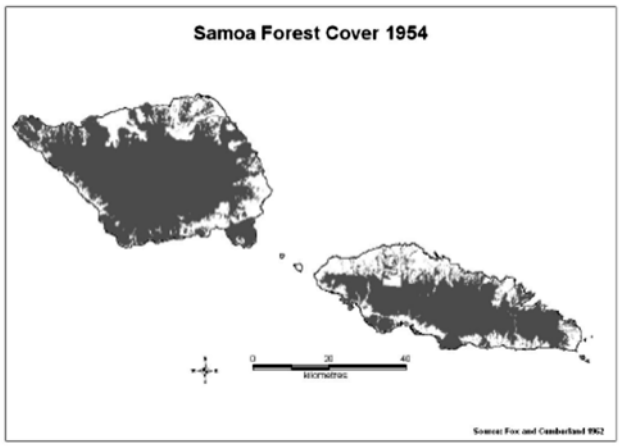

FIGURE 2A. Historical (1954) vegetation distribution.

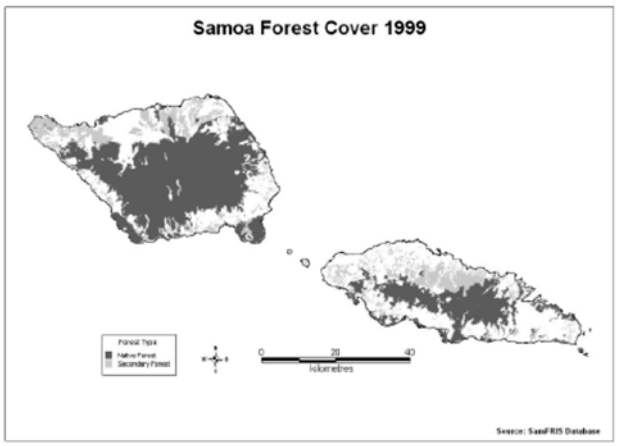

FIGURE 2B current (1999) vegetation distribution (MNRE 2006).

Terrestrial biodiversity, freshwater and soil resources are increasingly at risk from human disturbance and development, in particular in lowland and coastal areas where the majority of the human population of Samoa lives (Atherton 1994). Historically, the greatest changes to the natural landscape of the islands have been caused by logging for timber and conversion of forests for agricultural crops and plantations (Figures 2a and 2b). In addition, natural cyclone events, such as cyclones Ofa in 1990 and Val in 1991 (Elmqvist et al. 1994), have also had a damaging impact on forests and mangroves. More recently, the spread of invasive species, like the Merremia peltata tree-climbing vine, have threatened the healthy natural condition of forests. It is predicted that the emerging threat of climate change is likely to exacerbate threats to already vulnerable species and habitats across the Pacific (Kingsford et al. 2009).

1.2 The conservation landscape

To address declines in biological, cultural and economic values, substantial conservation efforts over the past 30 years have been made to restore and safeguard biodiversity and natural resources from past and existing threats (Figure 3).

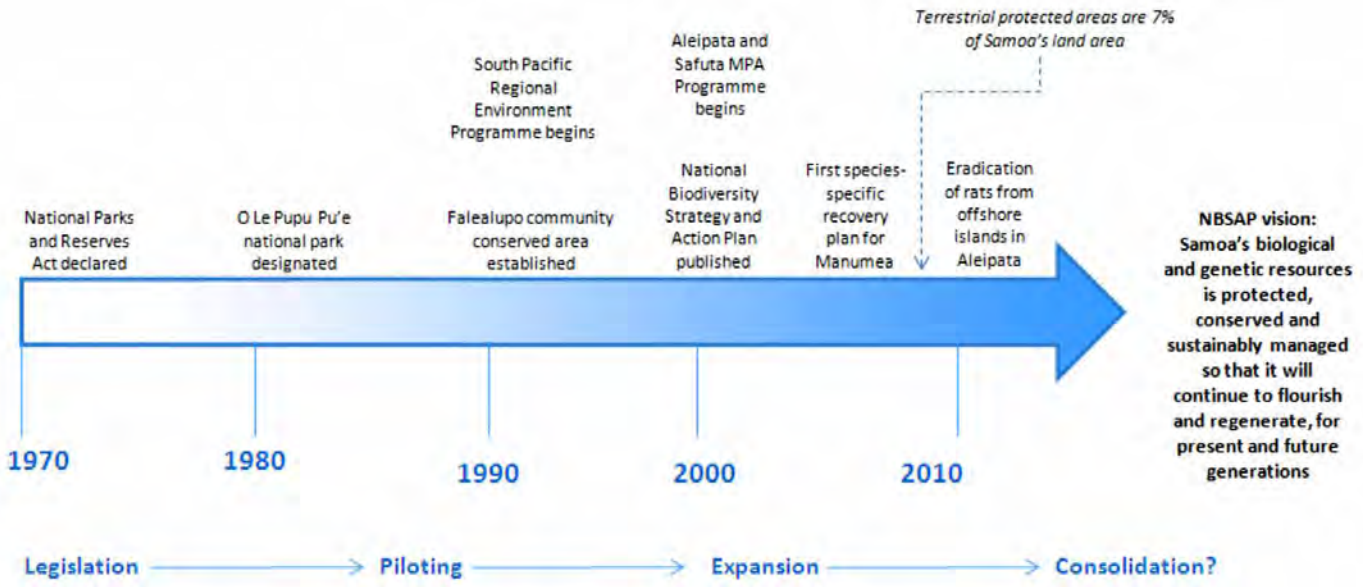

FIGURE 3. Timeline of key events in history of Samoan conservation.

The initial focus of conservation efforts in Samoa has been on management of protected areas, in which resource use and activities are regulated and/or restricted. A leader in the Pacific conservation movement, Samoa designated the first protected area in the Pacific region – O Le Pupū Pu'e national park in 1978. Since its establishment however, few conservation activities have occurred and there have been some boundary issues with customary owners surrounding the park (Hardie-Boys 1994). In 2009, a draft of the first management plan was developed by the Forestry Division of MNRE (MNRE 2009). Protected areas have expanded to cover 7% of the country's terrestrial land area (MNRE 2001).

The extent of government management of lands is constrained as 79% of the country's land area is under customary ownership arrangements. Some efforts therefore have been made to establish community-based conservation areas through two different mechanisms: covenant agreements and donor-funded development initiatives. The premise of both types of strategies was that stewardship of natural resources was based with family aiga. An aiga represents the extended family and in Samoa, every village is composed of several aiga. The establishment of covenant agreements in Falealupo and Tafua was motivated by immediate threats posed by commercial logging to forests, and a need for infrastructure (e.g., schools, roads) by villages (Cox & Elmqvist 1991). Covenants represent one-off payments, primarily from private donations, to communities in exchange for an agreement to protect their forest (Cox & Elmqvist 1991). In general, the agreements do not include funds for maintenance or management of forest areas, such as the control of invasive species. Instead, funds contributed by donors have been used for infrastructure projects. Around the same time as covenant agreements, two large donor-funded schemes, the regional-scale South Pacific Biodiversity Conservation Programme (SPBCP) (1992–2001) and Samoa Marine Biodiversity Protection and Management Project in Aleipata and Safata Districts (2000–2004) began. The motivations of these projects were quite different than the covenants. Both SPBCP and the Aleipata and Safata marine protected areas (MPA) programmes aimed to conserve biodiversity by means of the sustainable use of biological resources through community-based livelihood projects, such as ecotourism, bee-keeping or handicrafts. The intention was that ecological sustainability would be achieved through local economic development (Hunnam 2002).

Beyond site management, the emphasis of many conservation initiatives in Samoa has largely been on piloting of particular techniques and management strategies, such as sustainable forest management, water catchment management, community-based natural resource management, ecotourism ventures, mangrove restoration and invasive species control. These activities have been conducted primarily by government agencies including the Forestry Division and the Water Division, and to a lesser extent by village groups. The aim of piloting is not only to test and demonstrate the benefit of particular strategies for biodiversity protection but also to build in-country expertise and confidence in using these skills. The assumption by international agencies funding piloting schemes is that lessons learnt through piloting are expanded to other areas in need of conservation attention.

Building on past pilot schemes, conservation efforts in Samoa are in a period of expansion. Several recent large-scale investments present opportunities for conservation initiatives in the public and private sector. For example, in 2008, the Critical Ecosystem Partnership Fund launched a five year, US$7 million investment strategy, for protecting terrestrial biodiversity across the Polynesia-Micronesia hotspot (Conservation International 2007). Substantial investments in government-based initiatives in agroforestry (MAFFM 2007), supported by AusAID, and expansion of the national protected areas to parts of Savaii, supported by the Global Environment Facility, are also in the early stages of planning and implementation.

1.3 Gaps and challenges

Expansion of conservation efforts has the potential to address some of the gaps existing in protecting Samoa's biodiversity. A recent analysis has identified taxonomic, thematic and spatial gaps in current knowledge of terrestrial systems (Doherty & Atherton 2008). This study, led by the Ministry of Environment and Natural Resources (MNRE), with the technical support of Conservation International, highlighted knowledge gaps among lesser studied species groups such as molluscs, invertebrates and freshwater fishes, and spatial biases such as a tendency for surveyed areas to be close to roads.

Filling the gaps in existing knowledge and expanding efforts to priority areas is constrained by well-recognised shortfalls in available resources. There are simply not enough skilled staff and adequate funds to act everywhere at once. There is a need therefore for prioritising where efforts are focused. The inevitable challenge that faces Samoa, like many other countries with high levels of threat and species endemism, is how to maximise the benefit to people and nature from the resources currently (or likely to be) available for conservation.

1.4 The role of evaluation

Evaluation and its benefits

Evaluation, the process of assessing and measuring effectiveness of projects, can play a key role in supporting more effective project outcomes (Rossi et al. 2004). Fundamentally, evaluation of conservation programs provides a degree of accountability and transparency to conservation spending by assisting managers in answering questions often raised by donors or policymakers such as: has the money been well spent?; have we implemented the programme as planned; are we achieving the goals of the programme? (Kleiman et al. 2000). In addition, reporting of project outcomes also helps build confidence among stakeholders that spending of public funds or imposed regulations are yielding the benefits promised (Kleiman et al. 2000). Evaluation of past projects also can help guide future investments. Knowledge of factors influencing conservation effectiveness can assist in adapting current and future management practice (Ferraro & Pattanayak 2006).

Given limited funds and capacity, community leaders, managers and policymakers need to make careful and defensible decisions about where and how resources are allocated. Experiences and lessons from past activities, generated through an evaluation process, can help inform wise conservation decision making. There is a need therefore to build knowledge, or rather an evidence base, on what works, and what does not, from previous projects (Saterson et al. 2004). If we do not evaluate past investments, we risk wasting scarce funds on actions applied in the wrong place, at the wrong time which are likely to provide limited benefit to biodiversity or livelihoods.

Previous evaluation efforts in Samoa

In Samoa, evaluation has become increasingly prevalent in part due to requirements by donors for grant recipients to report on results from their investments. The complexity and scope of evaluations conducted in Samoa vary considerably. In general, evaluations occur close to the end of projects and are led by independent consultants, reporting to the donor (e.g., (Baines et al. 2002)). For smaller projects, evaluation might include a site visit and report conducted by the donor or a consultant. In addition to project-specific evaluations, there have also been several independent studies (Axford et al. 2008; Ellison et al. 2007; Hardie-Boys 1994); and retrospective reviews that have reflected on the progress of conservation efforts at individual sites and across Samoa (Cox & Elmqvist 1997; Olsson 1992)..

Formal project-level evaluations in Samoa (e.g., Reti & Sullivan 2005), evaluations of strategies (e.g., protected areas (Ikenoue 2008)) and evaluations for regional projects for which sites in Samoa were included (e.g., Baines et al. 2002; Fox et al. 2007) have tended to emphasise processes (e.g., implementation of activities) and outputs (e.g., workshops held, reports produced) rather than long-term outcomes (e.g., healthy breeding populations of an endemic bird species) (Figure 4). The focus of evaluations has often been on compliance with the overall work plan by the project instead of actual demonstrated change to the condition of ecological or social systems.

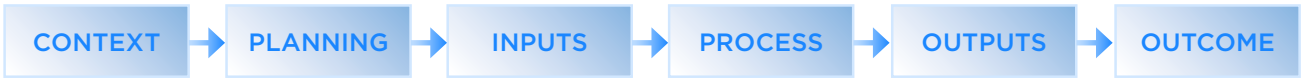

FIGURE 4. Stages in the project management cycle (adapted from (Hockings et al. 2006).

Among these evaluations, ultimate outcomes have been difficult to quantify as many evaluations are conducted at the close of the project, soon after implementation. Outcomes are the state or condition of the target of a project – the population of a threatened bird species or the skills of a site manager (Owen 2006). The time needed to see such changes to ecological and social systems is likely to take much longer. Some efforts therefore have been made to try and identify indicators to help track intermediate progress towards goals (e.g., Ward et al. 1999). As we investigate later in this study, it seems that measurement of indicators were piloted at a few sites (e.g., Uafato CCA), but not mainstreamed later across other projects more widely. Almost exclusively, evaluations have measured project success and failure from the outsider perspective (e.g., donors, government, scientists and project managers); ignoring largely the perspectives of communities intended to benefit from the project (Axford et al. 2008). An in-depth study focusing on community conserved areas found that success was multi-dimensional and that a diversity of perceptions of conservation (and therefore its success) exists within communities as well as among outsiders (Axford 2007). Evaluations must be aware of this diversity and not assume values or motivations are shared.

Outcomes-based evaluation

Based on our review of project work plans, evaluation seems to be increasingly considered within project design in Samoa. Until project outcomes are better assessed, however there is uncertainty about the overall contribution of past conservation efforts to the existing condition of Samoa's biodiversity. Given the diversity of projects and their respective objectives, a number of different intended outcomes might be considered for Samoa (**TABLE 1**).

TABLE 1. Type of outcome measures related to different project objectives.

Project objectives	Potential outcome measures
Site management	Change in condition or extent of forest/mangrove habitat; Change in rates of harvesting or cutting Change in extent of invasive species Change in quality and/or quantity of freshwater resources
Livelihoods	Change in income of villagers Change in levels of unsustainable use of forest or coastal resources
Capacity building	Improvement in skills and/or knowledge of project staff or community members
Education & Awareness	Change in levels of awareness by public of biodiversity and/or conservation issues
Species Management	Change in the number of individuals or populations of a species
Research	Change in knowledge of the ecology or management of a species or site

It is important not only to understand if a project is effective, but also why it was effective. Exploring all stages of the project cycle can help highlight which factors (e.g., socio-economic context, available resources or appropriateness of activities) are likely to facilitate or impede outcomes. Generating knowledge on both the outcomes and factors that contribute to successful projects therefore helps decision makers make robust choices with a greater degree of certainty.

2 Purpose of this study

The scale and scope of conservation efforts in Samoa has been considerable and sustained, in part due to the location of the Secretariat of the Pacific Regional Environment Programme (SPREP), a regional inter-governmental organisation. In addition, the national network of people involved in conservation in Samoa, i.e., those representing donors, government agencies, NGOs and community groups are connected, have a shared experience working on many of the same projects and problems across similar contexts. Many of the same people have been working in conservation for a considerable length of time, though they may move to new roles or work for different agencies over that time. Though the network is small, it may not however be representative of all those which might be affected by conservation decisions, especially among community members. The combination of substantial investment of time and energy in Samoa, and a body of experienced practitioners represents a useful knowledge base upon which to investigate questions surrounding measures of conservation effectiveness, reporting of success (and failure) and the diversity of factors that affect the achievement of conservation outcomes.

With an emphasis on projects based around conservation and sustainable use of biodiversity and natural resources within terrestrial ecosystems, this study has three primary objectives:

- To review the diversity of terrestrial projects planned, under implementation and completed in Samoa;
- To identify the types of intended outcomes and progress towards these outcomes made by projects;
- To investigate biological, economic and social factors that support or impede progress towards these outcomes

We stress that this evaluation does not intend to be an arbitrary judgment about any one project and its positive or negative achievements. Instead, it aims to examine the system of conservation investment as a whole, bringing together the perspectives of donors, government, project proponents, and to a lesser extent, intended beneficiaries. Time and resource constraints meant this study could not collect primary data on projects; therefore we relied upon data readily accessible and available. The focus is therefore on simple trends from a broad perspective which builds on prior detailed site-specific analyses (e.g., Baines et al. 2002; Axford 2007).

We hope the findings of this review might provide a baseline for measuring conservation progress and act as a starting point for considering gaps in current information and advancing knowledge. In particular, the Samoan experience has several important lessons that might be of interest to others working in the Pacific region, in other hotspot regions or anyone attempting to maximise the likelihood of conservation success within the constraints of a limited budget.

3 Study approach

3.1 Sampling of projects

This study aimed to build a comprehensive, inclusive and representative dataset of terrestrial projects undertaken in Samoa. We used a number of criteria in selecting candidate projects:

- Projects that were in progress between 1990 and 2008;
- With a focus on terrestrial ecosystems (Pearsall & Whistler 1991)inclusive of coastal mangrove areas;
- Based wholly or partly in Samoa;
- With primary goal(s) of project focused on conservation of biodiversity and/or sustainable use of natural resources

We did not include large-scale strategic initiatives such as the Programme of Work on Protected Areas, but rather focused on more specific, site-scale projects that might be embedded within these initiatives. Identification of projects was assisted by literature and database searches, and consultations with scientists, managers and officials in Samoa. Selected projects are listed in Appendix A.

3.2 Evaluation design

Once the candidate projects were identified, the design of the evaluation was constructed. The data collection had two main parts: a literature review and a series of semi-structured interviews.

The literature review gathered and organised all available information on each project from internal documents and survey reports to external evaluations and reviews. Much of the literature is in the form of unpublished grey literature. From these documents, information about the purpose, context and activities of the project were collated. In addition, statements relating to monitoring results and indicators of progress were also documented.

Evidence to support the assessment of project outcomes was also collected through semi-structured interviews with conservation managers. Interviewees include conservation managers, government officials, community members, academics or those involved in the development or implementation of a particular conservation project. Over two visits to Samoa, 30 participants (Appendix B) were interviewed. In addition, a number of regional experts and others were consulted via email, telephone and face-to-face discussion. A copy of the interview transcript is included in Appendix C. All responses by participants (S) and quotes from project documents (P) are reported anonymously so as not to identify any one project or individual.

4 Overview of terrestrial conservation projects

The following section provides a summary of the types of conservation projects evaluated in this study and the variety of projects' objectives. We also examine the length of projects, i.e., how much time is allocated from planning to implementation to monitoring of conservation activities. We discuss which groups and organisations are involved in conservation in Samoa and what their respective roles are. In addition, we summarise which agencies and organisations are the primary funders of conservation activities. Finally, we assess the extent of monitoring and evaluation of conservation activities among projects in Samoa.

4.1 Types of conservation projects

The review identified 39 different projects which represented a number of different objectives (Figure 5):

- Site management focuses on specific geographic areas such as mangrove restoration, tree planting or water quality management;
- Livelihoods focuses on training and establishing income-generating activities through ventures such as bee-keeping, handicraft and ecotourism;
- Capacity-building involves activities such as book-keeping workshops or training of park agency staff;
- Education and awareness involves campaigns and workshops for members of the public, in particular teaching school children about environmental and conservation-related issues.
- Species management involves activities targeted towards particular, mostly threatened, species, such as the Manumea (Didunculus strigirostris);
- Research focuses on advancing knowledge of little known sites or species such as freshwater invertebrate surveys;
- Policy involves activities which develop and promote particular laws and regulations relating to biodiversity and natural resources

Among large-scale initiatives, individual sites, such as Uafato Conserved area and Saanapu-Sataoa Conserved area in the SPBCP, were treated as two independent projects as activities differed considerably between sites. For the majority of projects, the primary objective was site management of biodiversity and/or natural resources (e.g., timber, water etc.). Many projects had multiple objectives with site management (96%), capacity building (33%) and livelihoods (51%) the most frequently cited (FIGURE 5). Twenty-six out of 39 projects had two or more objectives.

In addition, nine additional projects or initiatives were also identified, but were excluded from the evaluation for a number of reasons including lack of documentation, having a primary objective not related to conservation, or that the project was still in planning stages and not approved yet.

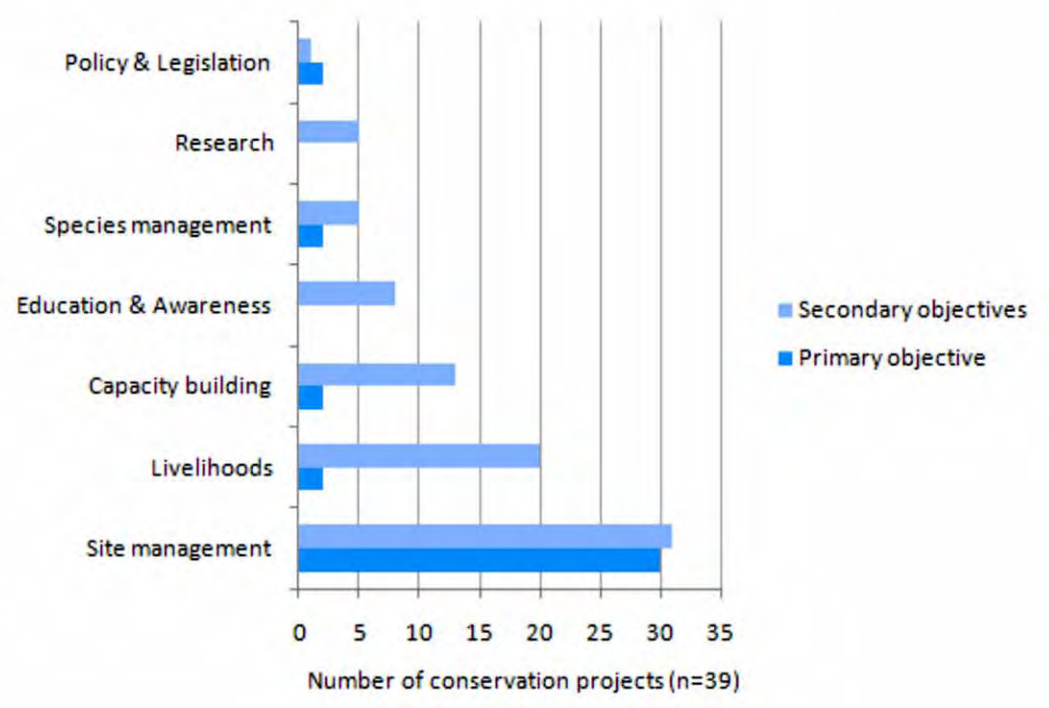

FIGURE 5. Distribution of conservation-related objectives represented by projects (n=39)

Of the 39 projects, 28 completed projects were identified (Appendix C), of which six were completed in the last two years. Completed projects were defined as projects in which activities were finished or no longer active due to early termination. Among these projects, funding had been spent or withdrawn, and where appropriate, final reports or evaluations had been written. The remaining 11 of the 39 projects were still in some stage of implementation. Level of implementation ranged from projects which were still in the early stages of planning with funding secured to those in which a number of activities were underway or complete. These incomplete projects are excluded from later stages of analyses

The diversity and magnitude of objectives of projects in Samoa mirrors the situation of many other conservation priority areas. The premise behind multi-objective projects is both one of efficiency and also of an expectation of numerous benefits from conservation, e.g., biodiversity persistence and income generation. In addition, every five to ten years, trends seem to shift in what aspects of conservation are considered by projects, often reflecting the current priorities of donors. From species-specific programs to ecosystem-level, multi-site programs or from threat-based to community based approaches and so on (Austral Foundation 2007). While multiple objective projects, in principle, might be more efficient and potentially beneficial, there is a concern that they could lead proponents to propose overly ambitious projects in an attempt to compete for scarce funds from donors (McShane & Wells 2004).

4.2 Duration of conservation projects

Of 39 projects, 25 projects, or 64%, were expected to run for less than three years. Seven projects (18%) were between four and ten years in duration and five projects have run for longer than ten years. These long-running projects were all covenant-based projects where the duration of the covenant is said to last for 50 years. Activities may not however be active through this period nor funding available for site management. In addition, two projects were of unfixed duration – they both relate to ongoing site management by the government. Excluding covenant projects, the average duration of conservation projects in Samoa is two years and eight months.

The short timeframes of projects in Samoa is reflective of the pervasive "projectification" of conservation (Sayer & Wells 2004). Few donors provide core funding for government and/or national conservation groups and therefore activities must be funded by individual short term projects. As one donor explains ...

> "At the moment the NGOs come to us for their core funding and we can't fund everyone. We've only got limited resources and then they have to go this donor for this project and that donor for this project…" (S44)

The short length of projects is likely to lead to a number of constraints, not least hindering the ability of a project to cope with multiple objectives. Short project time frames constrain the amount of time for: planning, consulting with stakeholders, training or mentoring staff, timely expenditure of funds, reporting and monitoring progress among other things. A monitoring report explains the predicament faced by many projects.

> "The project design is complicated for a local community to deliver on and coordinate effectively. It consists of many outputs with overlapping timelines and assigned to both the Project Committee and collaborating agencies. All of them are crammed into a fairly tight two-year time-frame which demands disciplined and dedicated implementation on the part of the community, as well as the timely contribution from collaborating agencies." (Monitoring report 2008, P54)

4.3 Who is involved in conservation?

Types of agencies and groups

The majority of projects were implemented by either government departments (44%) or community-based groups (44%) with a few projects led or co-managed by international (7%) or national (5%) non-government organisations (NGOs), respectively.

Roles of different groups in conservation

The socio-economic context and history of conservation determines the mixture of groups concerned with environment-related issues and how they are involved in conservation. The Government of Samoa plays multiple roles in conservation. First, as a principal project proponent – the Government develops and implements activities on state-owned land and also manages national campaigns on public awareness, waste management, biosecurity and other issues.

Secondly, the Government oversees jurisdictional governing by regulating and legislating use of natural resources and protection of biodiversity. In lands under customary tenure, the government can only provide an advisory role and resource management is under the control of customary landowners. Given that the majority of Samoa's land area is under customary tenure, community-based conservation applied and managed by a range of community groups have increased in recent years (Cox & Elmqvist 1991, 1997). These include village councils, women's committees, youth and church groups. In addition, some projects were led or co-managed by either national (e.g., O Le Siosiomaga), international NGOs (e.g., Conservation International, Seacology), and inter-governmental organisations (e.g., Secretariat of the Pacific Regional Environment Programme – SPREP).

Involvement in conservation was determined by a number of factors including existing capacity, political willingness, and commitment. Across both public and private sectors, capacity – in terms of both the number and skills of people, is a critical issue.

> "A big problem for all of that is that there are just not enough people in the Ministry. It is a big challenge to constantly follow up that things are progressing. So you need to appreciate those capacity constraints. That's why they tend to bring in consultants but the problem with that is that there is no real capacity. No transfer of skills." (S25)

Commitment and willingness to be involved in a project are both underpinned by a group or individual's motivation for conservation. Political willingness, for example, might be reflected by a particular issue or site having economic importance at a national scale. Within community-based approaches, understanding the motivations for villages or groups to be involved in conservation was a key part of building a project that is accepted by the community. Other factors such as mis-communication, a lack of transparency and unequal sharing of benefits can all emerge when different motivations for conservation are mis-interpreted and conservation outcomes are likely to be unsustainable. Often money and the sharing of benefits was a key motivation for involvement of key stakeholders (e.g., community leaders, government agencies) in conservation, but also this dynamic requires careful project management.

> "Some are getting some benefits and some fail even before they get started. All because of people coming together for the project with different agendas, and people wanting to be involved in the management of the money because they think they can get something out it for themselves ... . We knew that we had to have the village on board and for them to be onboard fully they need to understand how much is the budget and how is it going to be used." (S20)

> "If the people don't understand or don't agree the value of conservation than in the next few years at some stage there will be some development happening. I think that it is important when we spend some money for the management that we probably must let people know why we are spending money." (S6)

> "... In general, the western actors took their starting point in conservation while for the matais, the chiefs, money was the motivating force." (Olsson 1992)

Understanding different, potentially conflicting, motivations and agendas from the outset of a project was essential to resolve problems that might arise later. Transparency and trust were both key elements to ensure commitment to the project.

4.4 Who funds conservation?

Types of funding agencies and groups

Most projects in Samoa were funded by external sources in particular through multi-lateral agencies (38%) such as the UN Development Programme or the Global Environment Facility, bilateral agencies (18%) including AusAID, GTZ or JICA, and also international NGOs (36%), such as Conservation International's Pacific Islands Program or Seacology.

A much smaller proportion of projects were funded from in-country sources from the government (8%), though many projects with principal support from external sources also made substantial in-kind contributions.

How much is spent on terrestrial conservation?

The budgets of projects vary considerably from the size of the smallest project at around US$5,000 (ST$12, 800) to the largest single project at around US$1.8 million (ST$4.5 million). Over half of the projects, however had budgets of less than US$50,000 with just a few very large projects around US$1 million or more (Figure 6).

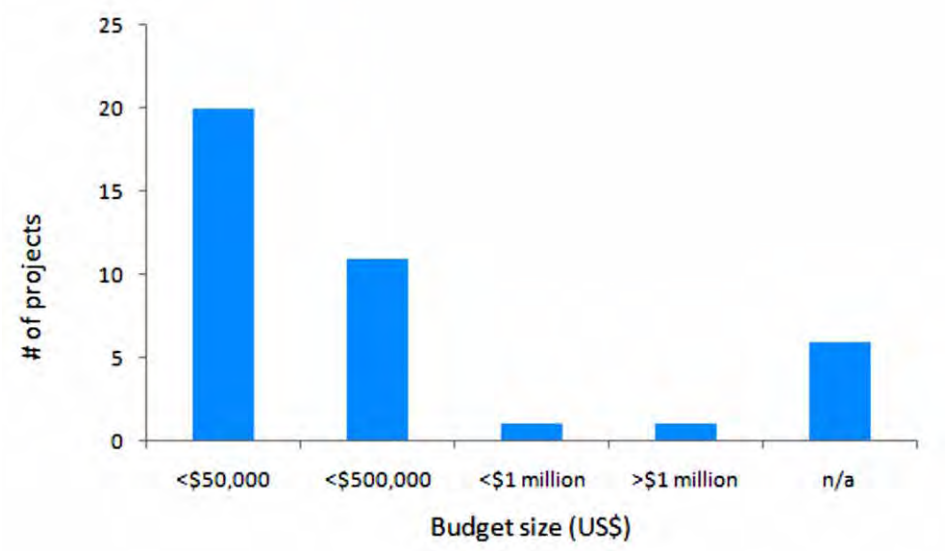

FIGURE 6. Distribution of budgets of terrestrial-based conservation projects in Samoa (n=39)

The extent of funding and how it is allocated was very influential on which projects were funded.

It is widely accepted that the funds currently available for conservation globally are inadequate by several orders of magnitude (James et al. 1999). Adequacy of funding available for conservation is frequently cited as a major constraint to conservation efforts in Samoa.

> "If there was enough money to do all that was needed, then it would be done."(S28)

In addition, some groups involved in conservation also faced difficulties accessing those funds that are available.

> You ask the community groups they'll say we've got no idea how to get access to <funding> and government doesn't seem to be encouraging them to do that either from what you hear." (S44)

A potentially perverse impact of small budget projects, combined with short timeframe, is that projects will be unable to complete all their activities. In order to compete for scarce funds, proponents are increasingly proposing ambitious work plans in which they are unlikely to have the time or funds to complete.

> Risk of incompletion is moderate due to possibility of project being under-budgeted. <Project site> needs to either stick to the original plan otherwise demonstrate they can leverage additional funding from another source to fund the likely shortfall should the <project activities> go ahead." (Monitoring report – P38)

More frequently, projects run out of time to complete activities, leaving unspent funds.

> The lack of progress was mainly due to the absence of any capacity in the Project Committee to initiate project activities. Thus, even though funds had been received, they were simply left in the project account unused." (Monitoring report – P55)

Limited capacity of staff to access, manage and disburse funds all combine to exacerbate some of these issues. Due to the prevalence of projects with smaller budgets, in recent years, donors have been attempting to integrate smaller projects into larger initiatives. The assumption is that conservation efforts can be more co-ordinated and contribute to broader conservation goals.

> With those funds, we also want to make sure that they are more strategic, not just funding a whole lot of projects as that won't be better off than we were before." (S44)

It is possible therefore that multiple objectives can be tackled at the broader scale, allowing smaller individual projects to focus on more realistic objectives.

4.5 Status of monitoring and evaluation among projects

A consequence of small budgets and short timeframes is a lack of resources for monitoring and evaluation (M&E). In particular, M&E was often considered late in the project cycle when funds or time were running out. Effective and consistent monitoring of project activities however plays a major role in measuring whether the project is achieving what it set out to do. Demonstrating progress and measurable change brought about by a project is however difficult to do. Among completed projects in Samoa, 10% of projects had insufficient information to make any type of assessment of their contribution to intended outcomes. Ideally, M&E should be considered right from the outset of project planning and fully integrated into the day-to-day management of activities. M&E should continue post-hoc, i.e., long beyond the completion of the project; yet this would require specific funding which is almost never available.

Monitoring begins with the integration of a monitoring strategy into the work plan. Among completed projects, less than half of projects explicitly considered monitoring in their project plan; whereas 40% did not have any monitoring strategies. In addition, not all programmes that had monitoring strategies in their work plan actually implemented monitoring. To adequately assess change, some knowledge, or baseline, is needed of the target's existing state prior to starting project activities. If the objective is to improve public awareness of a threatened species, it is therefore necessary to consider how much or how little members of the public know about the threatened species in Samoa. Baseline data should be collected as one of the project activities or otherwise, prior knowledge can be used. In our assessment, we found however that over 40% of projects did not collect or consider baseline information in their project planning. Among project with objectives to build capacity or improve livelihoods, very limited baseline information was collected. Besides lacking baseline data, a number of other factors are also likely to affect the uptake of M&E in projects (TABLE 2).

TABLE 2. List of factors affecting uptake of monitoring and evaluation by projects

Availability of baseline data
Resources available to collect baseline data
Quality and quantity of evidence to make assessment
Time lag to measure changes in system
Staff turnover over time
Purpose of evaluation
Resources available exclusively for monitoring & evaluation
Type of outcome
Expertise in monitoring approaches
Transparency in decision making
Hesitancy to be evaluated

High turnover of staff for example, often leads to gaps in consistency as monitoring might be disrupted or discontinued. Also, as this study discovered it can be difficult to find staff who previously worked on projects as they might have moved on to other projects and departments, or even migrated overseas.

> "It has been a long standing problem in the region for the last 20 years. People moving on and high staff turnover and just trying to get more graduates interested in the field of conservation and environment. I think that's the main problem – getting the people interested. People who can start a process and end it." (S25)

M&E can also be met with a degree of hesitancy as it is seen as a process of making personal judgements and exposing failures, as well as distracting from the real business of doing conservation. Constrained capacity, time and funds are all likely to play a role in preventing successful update of M&E.

Mangroves, Sanuupu, Upolu, Samoa © SPREP

5 Measuring progress towards conservation outcomes

5.1 Implementation of activities

A key first step in evaluation is measuring the project's outputs, or the extent to which activities have been implemented. It is assumed that without implementation of activities, it is unlikely that a project will actually have an impact on the ground. You cannot restore mangroves, if you do not plant new seedlings.

We measured the extent of activities implemented by 28 completed projects using work plans listed in project documents and discussion with project proponents, where appropriate. The results are presented in TABLE 3.

TABLE 3. Extent of activities listed in work plan implemented by conservation projects

Proportion of activities implemented	% of projects
All or most activities implemented	36%
Most or majority of activities implemented (>1/2)	14%
Some activities implemented (<1/2)	43%
Limited or no activities implemented (None)	4%
Information insufficient to assess	4%

A third of projects implemented all the activities laid out in their work plan. Over 40% of projects, however, implemented either none or less than half of the activities set out in their work plan. Some of the factors mentioned earlier relating to the scope, duration and funding of projects were influential in the extent of implementation.

> "Overall assessment is that project is well behind schedule. The Committee is seriously lacking in capacity to speed up implementation for project completion within the revised schedule. Outcomes 2 and 3 have yet to start with less than 5 months remaining and it is not likely to be completed within the remaining term." (Monitoring report – P55)

Across the conservation field, the gap between planning and implementation on the ground is considerable (Knight et al. 2008). The results from Samoa do not necessarily highlight a national problem, but more likely reflect a global dilemma facing conservation.

5.2 Progress towards intended outcomes

Outcomes represent the endpoint in a series of decisions and activities taken throughout the project management cycle (FIGURE 4). The evaluation of ultimate outcomes is however difficult for a number of reasons in particular the long time lag needed to see changes in ecological and social systems. In this evaluation, therefore, we focused on assessing the likelihood that a project would achieve its intended outcomes. Intended outcomes are those changes the project hopes to influence based on its stated objectives (TABLE 1).

Our assessment of the likelihood a project would achieve its intended outcomes was based on three main criteria: (1) the extent of activity implementation, (2) the perception of success by proponent, donor and/or beneficiary, and (3) the extent of qualitative and/or quantitative information extracted from documents, evaluation or monitoring surveys providing substantial evidence to indicate achievement of immediate outcomes (e.g., removal of invasive species), or likelihood of achieving outcomes in the future. The three evaluation criteria were combined to provide an index of varying project success (FIGURE 7; TABLE 4). To qualify our assessment, we describe the types of evidence used to characterise projects in order to identify the degree of uncertainty (TABLE 5). We describe the evaluation process as a decision tree which asks a series of questions about each project. Using information from available documents and interviews, we identify which category best reflects the progress of the project.

FIGURE 7. Decision tree used to evaluate likelihood of a conservation project achieving its stated outcomes

TABLE 4. Performance of conservation projects against outcome evaluation criteria

Rank	Likelihood of achieving outcomes	% of all projects
High	Demonstrably high likelihood of achieving successful outcomes e.g., Removal of an invasive species at national level	11
Moderate	Achieved a significant amount that will contribute to outcomes e.g., Observed growth of mangroves by proponent and perceived success by local community committee	39
Low	Made some contribution to outcomes e.g., some activities were halted mid-way through implementation due to conflict between proponent and community; however training was completed	36
Very low	Largely or wholly unsuccessfully – achieved little or nothing that will improve outcomes e.g., Project terminated early due to lack of implementation and mismanagement of funds	7
Unknown	Information insufficient to assess	7

The criteria used to evaluate the outcomes of projects were weighted differently. The most valuable information was whether there was clear evidence that an outcome was achieved from a monitoring survey or observation at the project site. Projects which were perceived both to be successful by the proponent and for which there was substantial, and ideally quantitative, evidence were scored as the most successful projects (e.g., P24). For projects where evidence of the impact of the activities was unavailable, we took a precautionary approach and ranked the project according to the perception of the proponent (e.g., P48). It is still uncertain without concrete evidence whether this project did achieve its objectives. In some cases, the perception of success was higher than actual evidence suggested. Qualitative and/or quantitative evidence was weighted more highly than the perception of the proponent and therefore the overall rank might be lower than perceived by the proponent (e.g., P11).

TABLE 5. Examples of evidence used to make assessment of project's contribution to intended outcomes

Project ID	Assessment	Source of evidence	Sample of evidence
P16	Demonstrated high likelihood of achieving successful outcomes	Interview with project proponent; Monitoring report by proponent	We can demonstrate we have got rid of all the mature plants and that probably in the next year, hopefully, that the seeds will no longer be viable and we can say that we have finally eradicated it. (S3) From a quick search around the area, the team found 21 un-removed stumps and 120 seedlings regenerated. The number of seeds germinated had decreased in comparison with the total of our search in mid July. (Monitoring report 2006)
P38	Made some contribution to outcomes	Progress report by proponent; Monitoring report by donor	Initial ecological assessment of the mangrove area was completed; Baseline survey and report on village status was completed; Environmental education and awareness activities were completed (Progress report 2007) I advise <the proponent> that their project is now more than two years and still has not completed the first tranche which they received in 2005" (Monitoring report 2007) (No further activities were implemented)
P10	Largely or wholly unsuccessful – little contribution to objectives	Interview with project proponent	When these people heard about the money that was coming in, they came and wanted the village to divide the money amongst the people and they forgot about the project and everything just sort of fell apart. (S1) We had no choice but to return the money to the donor. (S1)

As we are concerned with examining the subset of project as a whole, and do not seek to judge the individual performance of any one project, we think this approach is sufficient to represent broad trends in project outcomes.

5.3 How are project characteristics correlated with outcomes?

To examine whether general characteristics of projects might influence project outcomes we investigated whether our findings were correlated with project duration, budget size, number of objectives and the extent of implementation.

The likelihood that a project achieved its outcomes was found not to be correlated with budget size, i.e., it is uncertain whether well-funded projects are more likely to be successful. There was also no significant correlation between project duration and project outcomes. In addition, we found no correlation between the number of objectives a project had and project outcomes. To measure the

complexity of a project it might be more appropriate to examine the number of activities required for meeting each objective and/or how much time these activities would take and whether the objectives are realistic. We did find that project outcomes were strongly correlated with the extent to which activities have been implemented. This is to be expected as one of our criteria for identifying the likelihood of a project achieving its outcomes was the extent of implementation.

It is likely that a number of other factors are likely to influence project outcomes. Section 6 highlights these factors in greater detail. In addition, there are a number of limitations to our evaluation approach which might affect the ability of our findings to see significant patterns among projects. We discuss these shortcomings in section 7.

5.4 Conservation outcomes from Samoa in perspective

In this study, a substantial number of projects achieved only some contribution to their intended outcomes. This result suggests that conservation projects are having mixed success at meeting their goals of protecting biodiversity and/or sustainable use of natural resources. It is useful to put these results in perspective with findings from other Samoa-based evaluations as well as compare these to conservation efforts more broadly in the Pacific region and globally. This will help managers and decision makers understand how efforts are comparable to other results.

Our study appears to support many of the conclusions highlighted by other evaluations undertaken for nationally and regionally-based projects. Individual projects achieved some successes, but the sum of the parts was still smaller than the whole. Across Samoa as a whole, we found some positive benefits provided by projects, but also examples of where projects achieved very limited gains. Other evaluations echo this result among individual activities of species projects. Project outcomes are only partially met. In large part, this is due to constraints such as adequate time to fully implement conservation activities, lack of ownership by intended project beneficiaries, and the extent of monitoring & evaluation. The Samoa country report for the International Waters Programme, for example, highlighted that lack of communication and participation with catchment residents early on in the project led to difficulties later in implementing project and generating a sense of ownership (Fox et al. 2007). In the marine environment, the duration of the five-year long IUCN/World Bank initiative to establish marine protected areas in Aleipata and Safata Districts presented problems for implementing all activities (Reti & Sullivan 2005). The IWP, SPBCP and some covenant agreements (e.g., Tafua community conserved area) all highlighted that time needed to plan and consult with community members on project activities was underestimated in the project plan, and therefore led to delays to implementation (Baines et al. 2002; Fox et al. 2007; Olsson 1992). This would suggest that the issues frequently encountered by projects are not unique to individual circumstances, but rather reflect broader problems faced by many project managers.

These patterns are reflected in other Pacific countries. A national-scale review of conservation efforts in Fiji also highlighted only partial success in projects. The review demonstrated that despite concerted efforts and the presence of government, non-government agencies, and community-based groups, a biodiversity crisis continues with 70,000ha of forests lost over the past 15 years. The review found that there had been a number of successes, but that overall projects were not meeting the objectives needed to protect biodiversity into the future. Factors that were highlighted as contributing to the Fiji biodiversity crisis included lack of local ownership of projects, adequate project design and implementation strategies, capacity within the government, and national co-ordination. In the next section, we discuss how these factors are also prevalent within the Samoa conservation sector.

We believe that the partial success of terrestrial conservation efforts is not unique to Samoa or the Pacific region. Rather global conservation efforts are not achieving what is required to protect biodiversity and sustain natural resources. Recently, for example, an evaluation of rainforest revegetation efforts in Australia found low levels of success. Only half of the areas reported as revegetated was actually forested after six to 11 years. About half of this forested area was in poor or very poor condition – often due to a lack of monitoring or maintenance (Kanowski et al. 2008).

The limited impact of conservation is in part due a gap between research and planning of activities, and actual implementation and monitoring of actions on the ground. Conservation faces an implementation crisis (Knight et al. 2008). This problem is compounded by the lack of reporting by projects, so it is very difficult to know what progress has been made (Saterson et al. 2004). Many organisations and managers are hesitant to report failure, or explore reasons why projects fail (Redford & Taber 2000). To learn from our experiences, there is a need for collective openness in understanding why things did not work as planned (Knight 2006).

6 Which factors influence conservation outcomes?

6.1 Types of influencing factors

Different social, biological and economic contexts, conditions or events can affect project activities and impact the successful achievement of outcomes. These factors can represent risks or opportunities in achieving conservation success. Understanding their extent and influence on conservation projects helps managers to avoid conflict and maximise benefits. Depending on the context, there will be different ways to deal with different factors in the project design and delivery.

Through information extracted from project documents and interviews with study participants, we identified a variety of different factors present among terrestrial conservation projects in Samoa (Table 6). We classified each factor into physical, natural, social, human, financial or project-design related contexts. In addition, we identified at which scale: project/site level, national and global levels the factor is most applicable. Global factors represent those conditions that are systemic to externally funded conservation.

TABLE 6. Factors influencing occurrence of unintended outcomes

		Scale of influence		
Types of factors		Project/site	National	Systemic
Physical	Location of project	X		
	Development potential	X	X	
Natural	Extent of threatening process	X		
	Existing condition of biodiversity	X		
	Frequency of cyclone events		X	
Social	Matai authority	X	X	
	Historical community relations	X		
	Expectations of community	X		
	Absent landowners	X		
	Government structure		X	
	Extent of national interest		X	
	Boundary dispute	X		
Human	Commitment of people	X		
	Stakeholder involvement	X		
	Leadership	X	X	
	Communication	X		
	Staff turnover	X		
Financial	Adequacy of funds	X	X	X
	Sharing of funds and benefits	X		
	Management of funds	X	X	
Project design	Appropriateness of activity	X		
	Time allocated for planning	X		
	Adequate project duration	X		X
	Time for stakeholder consultation	X		
	Extent of monitoring and evaluation	X		
	Transparency in decision making	X		

Classifying different types of influencing factors

Physical factors are processes or conditions related to the geography or land use that might affect the design or implementation of the project. Distance or access to project sites, for example, might affect activities if staff members are spending a lot of time commuting.

> "The selection of two sites at opposite ends of the island, without adequate staffing, made it difficult and time consuming to carry out project tasks." (Terminal evaluation 2007)

Natural factors are events or processes, such as cyclones, that affect the ecological condition of the project site or project targets. If the existing condition of a native forest is very degraded it might constrain the type of activities that will be effective there. For example, protection of a site might be insufficient to sustain native biodiversity if the forest is overwhelmed with invasive species.

> "The funny thing is that it is a conservation area but we are conserving all of the invasive species and the government has a target for 10% protected areas but this target does not mention anything about the quality of the protected area. The protected area might just be full of invasive species." (S6)

Social factors are structures, rules and norms that might influence the social processes and context within which the project lies. In Samoa, the authority of matais (high chiefs) in decision making and the extent of customary ownership of land are highly influential on where and how conservation activities are applied.

> "If we had the decision makers of the village fully understand. The people we trained like the people with higher college education, they do understand but at the end of the day, the decision has to come from chiefs. If the chiefs understand then the progress is better." (S15)

> "The reason was that they wanted to divide the money. They did not want to put the money into the project. This was a major thing. Why that came about was here in Samoa, there are people that make decisions in the village and these are usually the elders. There may be one or two very key people. Once these people were living in Apia were able to convince these men, bring these guys to their side ... they lost the cause. The cause was lost. That was very sad. It created a lot of friction in the villages because there was a lot of strong support, for example, with the minister of the church and other high chiefs but once this old man made up his mind there was nothing more we could do." (S1)

Human factors, in general, relate to the dynamics and composition of the project team and their relationship and interactions with project beneficiaries and donors. The commitment and skills of staff members are often critical factors in influencing timely and effective implementation of projects.

In addition, conflict between community members, for example, is likely to have knock-on effects for the function and effectiveness of the project including agreement of activities, involvement of all stakeholders, timely and effective implementation of activities and benefit-sharing among community members.

> There are absent landowners – people who own land but they don't live in the village. To these people, they are only interested in getting money, they don't really care too much about who is cutting their trees. There was no agreement in the village." (S1)

> The project was good and some of the people were thinking it was good. Good for them, not everybody. It is greed. It's what is causing divisions in the village." (S56)

> The problem was that there was a businessman there, who was recently based there. And then, actually that's where the land dispute came from because he claimed that part of the land we were using. He did not support the project. To make it worse, his title was one of the "boro" matais of <project site #1>. And then it spread to the other <project site #2>. It was an internal land dispute and then it started to spread to the boundaries between the two villages." (S15)

As discussed earlier, financial factors play an important role in the ability of projects to function. Beyond availability of funds, proper and transparent management of funds is an important part of maintaining efficiency. Mismanagement or inappropriate management of funds can lead to a loss of trust among community members, particularly if benefits are shared among a few. In a few projects, mismanagement of funds has even led to complete withdrawal of funding by donors.

> If we are confident for them to do it themselves, then they have to establish their own account, their own book keeping. And then, we were about to give the account to <the community> and then all of a sudden, they pulled out because they know we found out that this <equipment> is being used through the back door, you know bribing them. They found that they gain more money from the <equipment> then the actual program." (S15)

Project design factors relate to components, inputs or processes that occur as part of the project cycle. The choice of the appropriate activities or methods, such as the control system for an invasive species or the best suited species for restoration, can determine whether the project achieves its goal.

> Actually, because one of the invasive species that infested the area is Merremia, we tried to put in cattle, but using electric fencing and then maybe one week in this area, moving the cows. So you were using the cows to try and control the weeds? We tried to but it didn't come through too." (S15)

Variation in scales at which factors are influential

The presence and intensity of factors are likely to vary over different spatial scales. Many factors are likely to be context specific to the level of the project site. For example, commitment of people to conservation will be dependent on those specific individuals involved in the project. There are some social and physical factors which are to some degree specific to Samoa. They include the influence of matais in decision making, the frequency and intensity of cyclones and historical relationships between and among communities. In addition, there are some factors that are potentially systemic to the global arena of donor-funded conservation. These include the adequacy of funds available for conservation, the appropriateness of objectives and adequate duration of projects.

Predictors of conservation outcomes

Previous studies and reviews have highlighted a number of well-recognised factors that are likely to affect the outcomes of conservation projects in Samoa. They include physical factors such as the frequency and intensity of cyclones (Elmqvist et al. 1994), social factors such as the governance of land (Ward 1998) and involvement of community members in environmental decision making (Russell & Harshbarger 2003) as well as human factors such as the capacity of trained staff to undertake project activities.

Among participants, the most commonly cited factors that affected project outcomes include the adequacy of funds ...

> "People are aware and there are enough action plans and policy. There is everything out there to do something but there is not enough money to do, to implement. If there was enough money to do all that was needed, then it would be done." (S28)

... unmet expectations of benefits from conservation ...

> "Some are getting some benefits and some failed even before they started. All because of people coming together for the project with different agendas, you know and people wanting to be involved in the management of the money because they think they can get something out it for themselves." (S20)

... and the availability of skilled people to manage projects ...

> "I mean there's a lot of problems around capacity and it's not so much capability because there are some very capable individuals but more that's there's not enough people to do the work." (S44)

> "The <Staff> leave one operation to do another operation so they are not fully concentrated or fulltime on one operation." (S15)

On the whole, very limited quantitative and spatial data are available on the frequency and distribution of these factors. Further detailed studies of specific factors would be required to generate accurate information about the magnitude of influence which factors, such as staff turnover, have on effective conservation. In addition, presence and/or variation of particular factors such as leadership, communication and transparency tend to be non-spatial.

6.3 Guidance for future management decisions

Predictors are important because they help managers and decision makers to anticipate which events or conditions are likely to influence their conservation activities. Using knowledge from past experiences can help identify these predictors. This information can then be used to provide guidance for where and how to act in the future. Results from past evaluations of nationally and regionally based projects have yielded some key guidance which is reflected again among the trends highlighted by this study.

In 2002, following the end of the SPBCP initiative, a number of lessons learned was outlined by the project evaluation team (Hunnam 2002). Here we highlight how several of the same lessons are reflected by the other terrestrial conservation projects evaluated in this study:

1. Biodiversity conservation needs to be part of sustainable development

As reflected by the diversity of objectives stated by projects (section 4.1), many projects are striving to achieve conservation and also some economic and social benefits to communities. Some of the problems encountered with this approach are that budgets and timeframes for undertaking activities remain relatively small and short. Many small-scale conservation projects cannot achieve these visionary objectives alone. As emphasised by Hunnam and colleagues, conservation therefore needs to work with other sectors, in particular health, education and agriculture, to co-ordinate efforts.

2. Community at the centre of conservation

One of the crucial lessons learned from the SPBCP project was that the ownership needs to be with the local community. From conception of the project, to setting objective, gathering data to actually implementing activities on the ground. Since the end of the SPBCP, the UNDP small grants programme was established in Samoa, providing a financing mechanism for community-led conservation projects. Projects in this study, including the Global Environment Facility Small Grants, highlighted that when projects communicated poorly with the local community, did not involve communities fully or did not demonstrate benefits to community that successful outcomes were difficult to achieve.

3. Improving programme delivery

A recurring theme throughout our study was the effect of design and delivery on a project's ability to achieve its goals. Following the experiences of the SPBCP, the evaluators recommend that projects need to be long-term and low cost. In addition, management processes needed to be adaptive, informed by iterative monitoring rather than leaving evaluation right to the end.

Eight years on from the end of SPBCP, project timeframes continue to be short with an average duration of 2 years and 8 months. Yet objectives remain broad and ambitious. This study found that only half of projects conducted any monitoring and evaluation. It is extremely difficult to have any idea about what projects achieved, if progress is not measured.

The lessons highlighted therefore in 2002 are still very relevant eight years on. It seems projects are still faced with many of the same challenges and that the same lessons need to be relearned.

7 Strengthening role of evaluation in conservation decision-making

7.1 Shortcomings of this evaluation

This evaluation set out to identify outcomes from terrestrial conservation projects and the extent to which they have been achieved in Samoa. We hoped also to identify factors that influence outcomes of projects so that decision makers could be aware of processes or events to avoid or promote when funding, planning or implementing projects.

One of the major challenges faced by this, and many other evaluations, is how to make sound judgments based on imperfect often subjective information. There is a risk that projects are assessed based on the viewpoint of just one or two pieces of evidence or anecdotes. We found that quantitative data are rare and that few comprehensive long term monitoring surveys have been conducted at any project sites. Our evaluation was therefore reliant on information described in reports or other project documents as well as the opinions and observations of the participants interviewed. In addition, no projects have been evaluated in a post-hoc evaluation, i.e., after a significant amount of time has elapsed, since actions were first implemented. Most information was presented during or at the immediate end of the project. Few project managers have had the opportunity to re-visit project sites or knew what was happening there after many years.

One of the consequences of this issue for our evaluation was that it was often easier to identify failure than success. Long term positive changes to an ecological or social system might take some time to become evident. Events that might occur early on in the project (e.g., a boundary dispute affecting management of the project site), however, can be more easily recognised as having a detrimental impact on later progress of the project. Detection of failure often precedes certainty of success. The risk is that evaluations can often be used vehicles for critique so we would like to draw attention to this potential source of bias in potentially over-estimating the degree of failure.

If more information were available, it might be possible to identify factors that might be predictive of project outcomes. In the absence of this information, we hope our findings might be used as a starting point for a national dialogue about how progress measures might be introduced.

7.2 Improving measures of progress and evaluation in Samoa

There are many issues that might be addressed from the findings of our study. One important one that emerged through our research is the need for greater knowledge on progress made by projects. Are they achieving what they set out and what evidence do we have to demonstrate that this is the case?

A need for evidence-based conservation

Data or information, or evidence, which provides backing for a strategy or method based on an assessment of its effectiveness, can be very useful for managers (Sutherland et al. 2004). If evidence is available to support taking a specific approach, decision makers have greater confidence about possible outcomes.

The types of evidence used to assess programs or actions can vary from randomised, replicated and controlled experiments to a single uncontrolled intervention. Randomised experiments with control and treatments sites are rare in conservation biology (Ferraro & Pattanayak 2006). The majority of evidence will describe a given treatment (e.g., planting of mangroves) and ideally, a description of the outcomes (e.g., 10% increase in extent of mangrove stands at project site). Sometimes the outcomes will be quantified (a numeric measure), but more often they will be qualitative (a statement by the proponent or evaluator). Table 7 describes the types of evidence that can be used to assess the effectiveness of a program in decreasing levels of complexity.

TABLE 7. Different types of evidence used for conservation decision making

Rank	Type of evidence	Example	Frequency in this study
1	Randomised controlled trials	Intervention randomly applied to both control and treatment sites	None
3	Review of multiple cases	Retrospective of community conserved areas using monitoring surveys	1–2
4	Case study report	Monitoring survey of single project	5–7
5	Expert opinion	Interview with proponent	30+
6	Anecdote	Informal conversation or unsupported comment in report	Many

Certainty about the findings of an evaluation is dependent on the availability and quality of evidence used to assess the project or program. In this study, both quality and availability of evidence was highly variable with a substantial discrepancy between projects. Primarily, the types of evidence used fell into the lower categories which are more opinion-based (i.e. subjective). We relied in many cases almost exclusively on expert opinion or observations in project reports. There were limited examples of measurable monitoring results.

If more evidence can be accumulated for specific approaches, across different ecological and socio-economic contexts, then managers will have a greater understanding about which methods are appropriate and what projects are likely to succeed. It is evident, however, that in Samoa there is a gap between the available evidence and the level of evidence needed to have any certainty about progress in conservation efforts. The availability of more objective data on indicators and outcomes is sorely lacking. More comprehensive monitoring is one step towards bridging that gap.

Simple tools

As highlighted throughout this study, we found limited application of monitoring strategies by conservation projects in Samoa. Adequate time and resources are likely to be considerable constraints to the uptake of more monitoring. To encourage managers and project planners to consider ways to measure outputs, outcomes and lessons; simple frameworks and tools for monitoring are needed. The design of simple tools recognises that capacity, funds and time are limited and therefore try to highlight some straight-forward ways in which monitoring can be used in any project.

A comprehensive review of all the ways to strengthen monitoring is not possible within the scope of this study. Instead, we highlight some key literature as well as some specific tools or methods that might be useful for monitoring activities and measuring progress. In particular, resources that are readily available for download from the Worldwide Web.

KEY LITERATURE

Margoluis, R., and N. Salafsky 1998. **Measures of success: Designing, managing and monitoring conservation and development projects**. Island Press, Washington, D.C. <A copy is available in the SPREP library for reference>

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WEB RESOURCES

Conservation Measures Partnership: a partnership of conservation NGOs that seek better ways to design, manage, and measure the impacts of their conservation actions.
http://www.conservationmeasures.org

Foundations of Success: a not-for-profit organization committed to working with practitioners to learn how to do conservation better through the process of adaptive management.
http://www.fosonline.org

Conserve Online: a "one-stop" online, public library, which makes conservation tools, techniques, and experience available to a broad community of conservation practitioners.
http://www.conserveonline.org

Earth Conservation Toolbox: A multi-organisational initiative building an open-access database of tools and methodologies to help field programmes, governments and others implement the ecosystem approach
http://www.earthtoolbox.net/

Protected Areas Management Effectiveness Tracking Tool (METT): a rapid assessment tool based on a scorecard questionnaire which provides a mechanism for monitoring progress towards more effective management in protected areas over time.
http://www.wdpa.org/ME/PDF/METT.pdf

Pacific Biodiversity Information Forum: a complete, scientifically sound, and electronically accessible Pacific biological knowledge base which is widely available to local, national, regional and global users for decision-making.
http://www.pbif.org

Global Socioeconomic Monitoring Initiative for Coastal Management (SOCMON): an initiative aimed at helping coastal managers to better understand and incorporate the socioeconomic context into coastal management programs.
http://www.reefbase.org/socmon

TOOLS AND METHODS

Conceptual models : a tool that helps articulate and make explicit assumptions about a project's context and what a project team hopes to achieve.

Margoluis, R., C. Stem, N. Salafsky, and M. Brown. 2009. **Using conceptual models as a planning and evaluation tool in conservation**. Evaluation and Program Planning 32:138–147.

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HOUSEHOLD SURVEYS

Wilkie, D. and the Living Landscapes Program. 2006. **Household surveys – a tool for conservation design, action and monitoring**. Technical Manual 4, Wildlife Conservation Society, Living Landscapes Program, Bronx, NY. <Download at: http://wcslivinglandscapes.com/landscapes/90119/bulletins/manuals.html>

8 Recommendations to decision makers

The findings of this study echo conclusions of previous national and regional evaluations and other reviews. Although there has been mixed success overall among conservation projects in terrestrial ecosystems in Samoa, a number of benefits to biodiversity and communities have been contributed by conservation efforts over the past 20 years. To further improve and close the shortfall in current efforts, we recommend a number of issues to be considered by all decision makers inclusive of government agencies, donor agencies, community leaders, scientists and NGOs. The responsibility to take these recommendations lies with all involved in the future of Samoa's natural heritage.

Decisions related to project design and planning made early on in the project have a great influence on effective implementation. To avoid delays in implementation and to maximise likelihood of successful and sustainable activities:

- Projects need to set **realistic objectives**. Managers and donors must work together to encourage objectives that are achievable given available time, resources and capacity;
- Projects must undertake **careful planning** of activities and provide time for monitoring of those activities. In particular, time and resources need to be allocated for negotiation and consultation with those people and groups affected by the project's activities.

Comprehensive information on past project activities, in particular data on outputs and outcomes, was generally not available. Without this knowledge, it is impossible to assess progress made by conservation efforts towards national and local biodiversity and sustainable development goals. To improve the uptake and quality of evaluation and monitoring:

- Projects need to adopt **standard methods and indicators** for measuring project activities against baselines. To ensure widespread use, these approaches must be simple and low-cost;
- Projects need **incentives to monitor and evaluate**. Donors should lead by example and conduct post-hoc follow-up on projects and provide explicit funds and support for M&E.

There are many groups and people working on the same issues across similar environmental and socio-economic context. To support better decision making, sharing of experiences and to encourage greater national co-ordination:

- Projects need to participate in a **centralised organisation of information and data**;
- Projects should contribute to a **safe fail culture**, where activities that did not go as expected are reported and learning from these failures is perceived as a benefit for everyone.

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Appendix A

Terrestrial conservation projects evaluated

PROJECT NAME

Aopo montane to cloud forest reserve
A'opo-Letui-Sasina Conservation Area
Apolima-uta Marshland Restoration
Ecotourism development of Sa'anapu-Sataoa
Education for sustainable village living in Saanapu & Sataoa villages
Faala community conserved area
Falealupo Rainforest Reserve
Fatuvala Wetland conservation area
Income generating activities in Uafato
International Waters Programme – Samoa sites
Laulii Rainforest Reserve: Nature trail Development
Conservation of Biodiversity Resources and Mangrove Areas in the Matafaa Conservation Area
Mangrove conservation in Moata'a
Mangrove Restoration at Vaiusu Landfill Site
Marketing the Manumea
PABITRA
Pu'apu'a Sustainable Integrated Forest Management Area
Rattan eradication
Rehabilitation and restoration of deteriorated mangrove ecosystem within Vaiusu Bay
Sa'anapu Conservation Area (SPBCP)
Salelologa community conserved area (SNF)
Samalaeulu Sustainable Integrated Forest Management Area
Samoa Marine Biodiversity Protection and Management Project (Aleipata and Safata MPA)
Saving the Manumea and Ma'oma'o
SPRIG
Tafua Rainforest Reserve
Uafato Conservation Area (SPBCP)
Vaisigano watershed management area

Appendix B

Participants consulted during this study

PARTICIPANT	ORGANISATION
Alan Tye	SPREP
Aru Mathias	FAO
Audrey Carruthers	WIBD
Toeolesulusulu Cedric Schuster	PECL
Czarina Iese	MNRE
Easter Galuvao	UNDP
Faleafaga Toni Tipamaa	MNRE
Fiu Mataese Elsisala	OLSSI
Greg Sherley	UNEP
Helen Leslie	NZAID
Hitofumi Abe	JICA
Iteli Tiatia	Formerly SPBCP
James Atherton	CI
Jo Axford	Formerly University of Queensland
Muliagatele Joe Reti	PECL
Joe Stanley	SPREP
Leilani Duffy	CI
Lex Thomson	SPC
Leatigaga Mark Bonin	SPREP
Maturo Paniani	MNRE
Moeumu Uili	MNRE
Natasha Doherty	MNRE
Ollie Reupena	UNDP
Pulea Ifopo	MNRE
Sala Pio Tagiilima	UNDP
Tuaifaiva Sam Sesega	PECL
Setoa Apo	MNRE
Steve Brown	MNRE
Sue Taei	CI
Suemalo Talie Foliga	MNRE
Tepa Sueasi	SPREP
Tolusina Pouli	MNRE
Vaasiliifiti Moelagi Jackson	SUNGO
Seiuli Vainuupo Jungblat	SPREP
Walter Vermeulen	METI

Appendix C

Sample of Interview transcript

Note: This transcript is adapted to suit the context of the particular project being evaluated

PARTICIPANT NAME:

DATE OF INTERVIEW:

PART 1. PARTICIPANT BACKGROUND

QUESTION 1 How did you first become involved in conservation (or other environment-related issues)?

QUESTION 2 What organisation do you work for now and in what capacity?

QUESTION 3 What types of conservation projects or activities have you been involved more recently?

(SCIENTIST/MANAGER): Are you focused on a particular species or ecosystem?

(DONOR/EVALUATOR): Are focused on different types of programs or mostly conservation-related ones?

PART 2. CONTEXT

QUESTION 4A. What was the main purpose of the conservation project?

QUESTION 4B. What were the goals of the project?

Ask participant to verify if goals were based on biodiversity, sustainable development, capacity building or another goals.

QUESTION 4C. What was the primary goal of the project?

QUESTION 5A. How did the project come about?

QUESTION 5B. Follow-up question: By whom, was the project developed?

- Donor
- NGO or international priority-setting
- Community
- Government mandate

QUESTION 6A. Which organisation(s) lead the project?

QUESTION 7A. In what capacity, were you involved in the project?

QUESTION 7B. What other stakeholders were involved in the project?

QUESTION 7C. Follow-up question: In what capacity were the community or village members involved?

PART 3. INPUTS

QUESTION 8. Who or what is the main target of this research?

- Species
- Ecosystem (point to location)
- Audience
- Village or community (ask to point their location)

QUESTION 9A. What information was known about this target?

What was state of the system that you were interested? What was the baseline of target?

QUESTION 9B. Had any projects in Samoa addressed this problem or issues before?

QUESTION 10A. Where was the project located?

QUESTION 10B. What was the scale of the project?

- How many hectares?
- How many participants?
- How many populations?

QUESTION 10C. What % of the <target> does the project address?

QUESTION 11. Duration of the project

- Inception:
- Activities:
- Completion:

QUESTION 12A. What funding was available for the project?

QUESTION 12B. Do you have information on patterns in how funding was spent?

PART 4. PROCESSES

QUESTION 13A. What were the main activities planned for the project?

Planned activities	Actual	Actual activities	Reason for change

QUESTION 13B. How many of these were implemented?

QUESTION 14A. Did the planned activities change during the project?

QUESTIONS 14B. What were the reasons for these changes or alterations?

PART 5. OUTPUTS

QUESTION 15A. What were the results from these activities?

Actual activities	Implemented?	Results: Types of outputs?

FOLLOW UP: **QUESTION 15B**. Cross-check list of activities with participant

QUESTION 15C. Did you record or report the results from activities from the project recorded or reported?

QUESTIONS 15D. How have you reported or recorded these outputs?

- To the donor?
- To the community?

Format of reported outputs:

- Report or other type of publication (insert title…)
- Workshop
- Meeting
- Other:

PART 6. MONITORING

QUESTION 16A. How did you measure or observe changes as a result of project activities?

QUESTION 16B. Do you have a monitoring program in place?

QUESTION 16C. What type of monitoring?

- Quantitative surveys (e.g., measure of change)
- Qualitative surveys (e.g., participant assessment)
- Observation

QUESTION 16D. Was monitoring a component of the project plan?

QUESTION 16E. Is monitoring ongoing?

PART 7. OUTCOMES AND CONSERVATION IMPACT

QUESTION 17. Is the <project target> better understood as a result of the project?

QUESTION 18. Have the threats or problem associated with the <project> target been eliminated or reduced? Prompt for an example, refer back to threats table

BIODIVERSITY OUTCOMES:

QUESTION 19A. Has the probability of persistence of the target changed since the project began?

QUESTION 19B. Is this change in persistence as a result of the project?

Capacity Building outcomes:

QUESTION 20A. Did individuals trained acquire new skills? Prompt to list skills.

QUESTION 20B. Has organisational capacity improved?

FOLLOW UP: Can you give an example?

QUESTION 20C. How many of individuals trained are now applying their skills?

QUESTION 21. Do you think these improvements are likely to persist?

PART 8. EVALUATION

QUESTION 22A. Have the project activities been evaluated by the project team?

QUESTION 22B. Have experiences from the project, either positive or negative, been shared?

FOLLOW-UP: If yes, how have they been shared?

FOLLOW-UP: If no, why not – what has prevented this from happening?

QUESTION 22C. Has an external evaluation been undertaken?

QUESTION 23. If there is no or little evaluation in place, what were some of the reasons why outcomes have not been comprehensively recorded?

- Time lag
- Funding
- Not a priority
- Capacity
- Political or institutional opposition to reporting
- Other:

PART 9. PERCEPTIONS OF CONSERVATION IN SAMOA

QUESTION 24. What do you think has been the impact of conservation projects in Samoa over the past 20 years?

QUESTION 25. What factors, social or biological, have influenced the impacts of these activities?

QUESTION 26. What issues do you think pose major challenges for the future of conservation in Samoa?

CEPF Small Grant Final Project Completion Report

Looking Back to Move Forward: Evaluating Conservation Outcomes in Samoa

Organization Legal Name

Applied Environmental Decision Analysis (AEDA)

Project Title

Evaluating outcomes from conservation actions in the Polynesia-Micronesia hotspot

Date of Report

21 January 2010

Report Author and Contact Information

Madeleine Bottrill, m.bottrill@uq.edu.au

CEPF Region

Polynesia-Micronesia Hotspot

Strategic Direction

To strengthen the conservation status and management of 60 key biodiversity areas in the Polynesia-Micronesia hotspot.

Grant Amount

$6000

Project Dates

1 February 2009 – 31 January 2010

Implementation Partners for this Project

Please explain the level of involvement for each partner

The Secretariat of Regional Environment Programme and Conservation International's Pacific Islands Program both provided logistical and technical support to the researcher during her trips to Samoa. The Ministry of Environment and Natural Resources in Samoa, in particular, the Department of Environment and Conservation, also provided logistical support and gave permission for the researcher to interview Ministry staff.

Conservation Impacts

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

This project links to strategy 2.2: To strengthen the conservation status and management of 60 key biodiversity areas; in particular in assisting improvement of management. The project attempted to measure the shortfall between existing outcomes from current management and desired objectives of current and future objectives, including KBA priorities. The results of our study highlight some of the challenges faced by project managers in meeting objectives due to capacity and funding constraints. Our project therefore help estimate the effort required to progress towards the goals of CEPF ecosystem profile.

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

The overall purpose of this project was to collect data on project outcomes from a subset of conservation activities which would provide a knowledge base for future decision making. In particular, the project anticipated the following outputs:

- **Data on management effectiveness to inform resource allocation and priority-setting**

Through the evaluation of 29 conservation projects completed in Samoa, we generated data on outputs and outcomes from project activities. We also collected data on perceptions of success among project proponents, those staff or community leaders responsible for implementing, managing and monitoring projects. These qualitative data were invaluable due to the lack of empirical quantitative data available among projects. The information has been organized into a database of which open-access copies will be housed at SPREP, CI-PIP and MNRE.

- **List of appropriate conservation tools**

We reviewed some of the resources and approaches needed to strengthen monitoring and evaluation among Samoa conservation projects in our extended final report (Bottrill, Hockings & Possingham 2010).

- **Indices for monitoring partial progress towards conservation objectives**

Most of the projects which were evaluated did not identify their own indicators for tracking progress, or collect data on changes to these indicators as a result of project activities. It would be inappropriate to extrapolate our own indicators for this study. Resources were also not available to collect new data on stated indicators. For the purpose of our evaluation, we chose three

more generic indicators to measure partial progress towards conservation objectives. The three indicators were: 1) extent of implementation of activities; 2) perception of project success by proponent; 3) the quality and extent of evidence of measurable outcomes.

Please provide the following information where relevant

- *Hectares Protected*: N/A
- *Species Conserved*: N/A
- *Corridors Created*: N/A

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

The short-term objectives of this project were to collate knowledge and improve understanding about the biological, social and institutional outcomes of conservation activities across three Pacific countries(i.e., Samoa, Fiji and FSM). The main challenge that this project faced was the scope of the project. It was not possible to achieve this objective for three countries. The time, funds and capacity needed to develop contacts and collect data on projects across multiple countries, each a unique ecological and socio-economic, exceeded our available resources. Instead we focused on activities from just one country – Samoa. We successfully collated and generated information on conservation outputs and outcomes from over 30 projects completed in the past 20 years. Accessibility and availability of data was a considerable challenge as few projects comprehensively monitored activities and catalogued observations in documents. In a presentation to a national environment forum and subsequent discussion with key proponents in Samoa, we have highlighted some of the main issues associated with tracking success and failure among conservation activities. We hope that some of our recommendations on how to close the gap in monitoring and evaluation will be realized by projects in the future.

The long-term impact objective of this project is for project proponents to use results from past experiences, collated in this study, to guide their future decision-making and project management. In particular, we hope that at a national scale, that monitoring data in the future will be organized centrally and shared openly among the key organizations and agencies working in conservation. The key challenge will be to sustain motivation for project follow-up among proponents which often will come down to appropriate incentives provided by donor agencies. Some preliminary discussion with a bilateral agency about the findings of this project has helped to highlight the gaps in their existing approach to monitoring and evaluation. Hopefully, future projects in Samoa by this agency will be able to integrate M&E more comprehensively in their management frameworks.

Were there any unexpected impacts (positive or negative)?

N/A

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)

One of the major shortcomings of the design process was that the original scope was too broad. By refining the scope of the project to a single country, instead of three countries as intended, we are unable to make general statements about the efficacy of conservation actions in the Pacific. The advantages of working in a single country were that we were able to gain a more detailed picture of the systems in which conservation actions were applied. In reality, our original approach to evaluation was perhaps naïve in assuming that more information would be available on project outcomes. One of the lessons from this experience would be to review other evaluations and develop an evaluation design based on an evaluation that has been tested in a similar context.

One of the other challenges in the design phase was the time needed to understand the context for conservation in Samoa. A lesson for future evaluations would be to host a focus group meeting at the outset of the project, inviting all the key participants in the system to attend. This type of forum would help facilitate greater understanding of the rationale for the project, the value of doing this type of research and also hopefully get people motivated to be involved. In addition, a more user-driven evaluation would also instill a greater sense of ownership in the findings of the evaluation.

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

One of the crucial elements that enabled successful implementation of the project was assistance and support to the researcher by well-connected organizations in Samoa. A valuable lesson for future evaluations by external researchers is the importance of a "gatekeeper" organization. The gatekeeper was essential to introduce the researcher to other stakeholders in Samoa, and also gave greater credibility to the project by their involvement.

Another important aspect that affected and ultimately enabled project implementation was the collaborative and welcoming nature of people working in the Samoan conservation sector. We had limited time to meet and conduct interviews and people were very accommodating in giving their time and following-up with further information.

The scope and time allocated for the project meant that project implementation did not allow for extended interaction with the study participants. The data were gathered over 3 relatively short visits. The project implementation could have been improved if the researcher stayed longer (perhaps with making two rather than three visits) which might have enabled more active and sustained engagement of the project partners.

Other lessons learned relevant to conservation community:

One of the lessons learned by the researcher was the reality of implementing academic theory into a practical application. While conservation evaluation has received substantial attention in the academic literature, there remains a disconnect between what is optimal or desirable and what is achievable in evaluation application on the ground.

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.

**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.)

Donor	Type of funding*	Amount	Notes
Northcote Children's Emigration Fund	A	US$9000	Scholarship provided to MB

Sustainability/Replicability

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

It is uncertain at this point whether the outcomes of the projects will be sustained or that some of its key findings will be taken onboard and replicated. However, the presentation of the final report at the Samoa National Environment Forum and feedback from the extended report have provided some encouragement that practitioners in Samoa are interested in the results of this project. Some indication has been given that some of the recommendations will be adopted in future projects. The final report also provides a methodology for replicating the evaluation process and hopefully this framework might be improved and applied in future project monitoring and evaluation.

The main challenge facing sustainability of the project outcomes are motivation of proponents and donors to actively take on recommendations and put more effort (and funds) into monitoring and evaluation. This challenge is not unique to Samoa, and as highlighted in our extended report is an issue that pervades conservation and development projects globally. Reinforcing the value of knowledge on what actions work and did not work is essential to engage more people in applying evaluation. We hope that this project has gone some way in supporting this effort.

Summarize any unplanned sustainability or replicability achieved.

N/A

Safeguard Policy Assessment

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

N/A

Performance Tracking Report Addendum

CEPF GLOBAL TARGETS (01 FEBRUARY 2009 – 31 JANUARY 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	If relevant, 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 1 February 2009–31 January 2010. (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.*			
2. *How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?*			
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.*	N/A	N/A	Data collected from our project has increased the knowledge base about the effectiveness of conservation actions being applied in the three terrestrial KBAs in Samoa. The presentation of our findings and the dissemination of our report will raise awareness among conservation managers on issues related to monitoring and evaluation of conservation outcomes.
4. *Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.*	N/A	N/A	Data collected from our project has increased the knowledge base about the effectiveness of conservation actions being applied in other terrestrial ecosystems in Samoa. The presentation of our findings and the dissemination of our report will raise awareness among conservation managers on issues related to monitoring and evaluation of conservation outcomes.
5. *If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits?*			

Additional Comments/Recommendations

If Taveuni is to realise its potential to become a World Heritage Site (Chape 2006), then the issues relating to the 'Protected Areas' on Taveuni need to be resolved and the 'National Park' plan (in whatever appropriate form) needs to be realized. This will require a great deal of advocacy and discussion on Taveuni and with Government in Suva. Following the current project, the stage has been set for this as the uptake amongst communities, the Provincial Council and local Government departments has been very good. The Fiji Flying Fox has become an ideal, and now quite well known, flagship species for this purpose.

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 website, www.cepf.net*, and publicized in our newsletter and other communications.*

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