



Uafato in Action

by Dion Ale, Uafato Conservation Area Support Officer

THE UAFATO-TIAVEA REGION

Despite their worldwide reputation as island paradises with wild, unspoiled coasts clothed with luxuriant rainforests, most Pacific island nations like Samoa actually contain very few areas where rainforest meets the sea. Large tracts of forest occur in the interior of both the main islands of Savaii and Upolu, but throughout most lowlands the easy topography, the nearness to the sea of most villages and the extent to which roads follow the shoreline ensure that very few coastal areas survive in a state approximating the natural, indigenous forest. As the road network has expanded in recent decades, land clearance has accelerated at an unprecedented rate. Of the few areas of coastal forest that do occur, hardly any are still large enough to retain the rarer and increasingly threatened bird species.

The rugged coastal region between Uafato and Tiavea in eastern Upolu is an exception. Part of the geologically oldest district of Samoa, its original volcanic cones and lava flows have been dissected into a dramatic landscape of sharp peaks, rock walls, short steep-sided valleys and long knifed-edged ridges unparalleled elsewhere in the country. Offshore the sea bed drops away sharply

from a cliffed rocky and largely forested coastline. The deep water in-shore has prevented the development of the reefs and lagoons which characterise the rest of the coast of Upolu.

The coastal rainforest near Uafato contains the best of the very few surviving populations of Ifilele (*Intsia bijuga*), traditionally the most revered timber tree in Samoa. The diversity and abundance of the rarer and more endangered bird species in this comparatively extensive area, when compared to that in most other lowland forest areas, show the need to conserve areas which are not only large but also

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cover a range of intact ecosystems. However, as well as being an important natural area it is also a "cultural landscape", the product of a prolonged series of interactions between people and the environment. The coastal forests, while natural in general appearance and important for the production of food for fruit-eating



Village Council of Uafato-Alailefue and Ofoia showing Dion Ale the village boundaries Photo: James Atherton

native birds, contain many non-indigenous trees and other species, most of them early aboriginal plant introductions from other parts of the South West Pacific.

The Uafato-Tiavea coastal rainforest is the only remaining area of its size in Samoa which is still only lightly inhabited, and largely forested. Its steepness has made it one of the very few coasts which the modern road network has not reached. It is thus largely inaccessible. Like most of the country it is customarily owned, and continues to be used by the people of these villages. However, the land is too steep and erodible to clear for permanent agriculture, and because of its steepness would be of marginal value even for shifting cultivation. Being extensive, lightly populated and little modified, it is one of the very few areas in Samoa where it might be possible to protect the natural ecology of Samoan lowlands without constraining opportunities for the growth and development of local villages.

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CA News

News from the SPBCP-funded Conservation Areas

TAKITUMU (Cook Islands)

Recent developments include:

- the new office in Avarua was opened, including an Environment Shop stocking local products and publications
- shooting of a 20- minute video on the Conservation Area by a Cook Island film-maker commenced on 24 October; the projected completion date was 15 December 1997
- the new AVA, Rebecca Blackburn, started work on 16 July
- a community ecotourism workshop was held from 2-4 September in Titikaveka
- 5000 copies were printed of a brochure advertising Takitumu as an ecotourism destination
- aerial photography of the conservation area was completed
- a market analysis was carried out of a possible four-hour tour of the Conservation Area
- two wage workers, Henry Wilson and Robert Ben, worked on a range of duties throughout the period; both attended a tour guide training workshop
- clearing of the site for the Turoa Valley shelter site was completed and culverts were installed for the septic tank
- Ed Saul, the Kakerori Recovery Programme Advisor, commenced work in August
- three New Zealand volunteers helped out with bird surveys and sign-making over a two-month period
- the 1997 rat eradication programme started on 29 September
- the 1997 bird count has found this year to be a record breeding season, with 42 pairs of Kakerori nesting; the current

population estimate is at least 145, with possibly a total of 150 birds

Future plans include:

- development of a marketing and business plan for the Conservation Area
- publication of a booklet about the project in Cook Islands Maori

NORTH TARAWA (Kiribati)

It has been a while since we brought you an update on developments in this CA. Events since the last update include:

- a survey of the bonefish run, which led to a ban on fishing within three days either side of the full moon
- a training workshop on vegetation sampling, involving 18 participants from nine villages
- the identification of a suitable site for the establishment of a nursery to raise endangered plants
- a public awareness campaign
- a ban on the use of long gillnets and 'splashing' in North Tarawa. The CACC is having continuing difficulties with the use of these fishing techniques by people from South Tarawa

Plans for the future include:

- vegetation surveys in all 13 villages
- replanting of useful plants and trees
- a workshop on marine resources management and community fisheries

ARNARVON ISLANDS (Solomon Islands)

Recent activities include:

- the first meetings of the fisheries management groups in Posarae and Waghena
- monitoring of commercially exploited invertebrates over a four-week period, as a cooperative venture between the

project, the Fisheries Department and an Australian expert

- training in plant identification for Conservation Officers, by local botanist Myknee Qusa
- training for Conservation Officers in the development and use of visual aids in community awareness-raising, by Peace Corps volunteers Martha and George

Plans for the future include:

- development of a small herbarium at the field station
- a study tour to Vathe Conservation Area for members of the CACC and Conservation Officers
- implementation of a vegetation monitoring programme
- resolution of the difficulties that had arisen over the management of the Waghena fisheries centre

HA'APAI (Tonga)

Recent developments include:

- planning and implementation (in July and August) of the vegetation survey of Tofua and Kao islands (see article by Michael Hortle on page 5)
- cooperation with the Health Officer and the Town Officers on the issue of pig control, a long-standing issue from both health and environmental perspectives
- production of a Tongan language version of the Ha'apai Conservation Area video
- securing of TOP 5,040 in funding from the Canadian International Dev-

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From the Programme Manager's Desk

"1998 is here and is already shaping up to be another busy year for all of us."

Greetings and best wishes for 1998 to all CASOs and other readers of CASOLink. Already, 1998 is shaping up to be another busy year for all of us.

This is the time to reflect back on the last six months of 1997. And what a time that was! The South Pacific Biodiversity Conservation Programme (SPBCP) featured significantly through the papers it presented to various regional and international meetings including the Pacific Science Inter-Congress (13–18 July, Suva, Fiji); the 6th South Pacific Conference on Nature Conservation and Protected Areas (29 September–3 October, Pohnpei, FSM); the South Pacific Tourism Conference (20–25 October, Tahiti, French Polynesia); the Marine Protected Area Workshop (3–7 November, Manila, Philippines); and the World Conservation Union/World Commission on Protected Areas (IUCN/WCPA) Protected Area Workshop (23–29 November, Albany, Australia). These opportunities help further enhance and promote the SPBCP approach and philosophy to the conservation community and others.

Three new CAPs were approved for initial support under the SPBCP. These were the Rock Islands (Palau), Jaluit Atoll (Marshall Islands) and Kiritimati Islet (Kiribati). These bring to 17 the number of CAPs supported by the programme. Only Nauru and Tokelau have yet to participate in SPBCP.

A key decision taken at the 5th Meeting of the Technical and Management Advisory Group (TMAG) last year was to extend SPBCP for another three years. This decision was endorsed by the Multipartite Meeting later in the year and now awaits a decision by UNDP New York. If approved, CAPs could expect

continuing support from SPBCP until the year 2001.

Another important recommendation from TMAG relates to the undertaking of internal reviews by individual CAPs in early 1998. The purposes of these reviews are to consider progress and lessons learned to date and to identify key priority activities for SPBCP support during the remaining years of the programme. These reviews will be a priority activity for all CAPs in early 1998 and you will be hearing more about these from me in the next few months.

The Multipartite Review of the SPBCP in Nadi Fiji (21 November) generally endorsed the recommendations of the Project Performance Evaluation Report (PPER) and agreed that the programme was on track as far as achieving expected outputs was concerned. The Deputy Director of SPREP at the meeting, Mr Don Stewart, also announced a SPREP award for the most progressive CAP to begin in 1998. The criteria for the selection of the winning project and other details will be announced in 1998. I expect that you will all be vying to be the first recipient of this award and we can all therefore expect a tough competition next year.

A very important highlight of 1997 was the 6th South Pacific Conference on Nature Conservation and Protected Areas in Pohnpei, FSM from 29 September–3 October. About 170 participants from the region and abroad attended the conference, making it the biggest in the series so far. The team of conference facilitators was drawn from Pacific islanders including those involved in the implementation of



CAPs under the SPBCP. The skills and professionalism they displayed at the conference leaves me in no doubt that CAPs and conservation in the Pacific in general are in good hands. Congratulations to all of you who actively participated in the conference. Your input was greatly appreciated.

On a personal note, 1997 like any other year, had its good and bad news. Anna Tiraa-Passfield, the CASO for the Takitumu CAP in Cook Islands gave birth to a healthy baby girl in November. A very big congratulation to Anna and Kevin. On a sad note, Mr Selesele who was recruited as the new CASO for the Saanapu/Sataoa CAP in Samoa passed away a few weeks after he was appointed. We offer our condolences to his family and the communities he was working with.

Finally, may I take this opportunity to say thank you to all the CASOs, project managers and other colleagues who have been working very closely with me and staff of SPBCP over the past twelve months in promoting biodiversity conservation in the Pacific region. Special thanks go to our collaborating partners such as UNDP, GEF, TNC, WWF, AusAID, NZODA, USP and many others whose support and active participation in the programme has been a valuable source of guidance and aspiration to the SPBCP Secretariat. We look forward to your continuing support in 1998. ❖

With very best wishes for 1998.

Joe Reti
Programme Manager, SPBCP



Tofua/Kao Survey Team in Ha'apai Conservation Area Photo: James Atherton

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CA News...

- elopment Agency (CIDA), for the establishment of community nurseries on 'Uiha and Lofanga islands
- hosted visit by group from Huvalu Forest Conservation Area (Niue)
- conducted one-day tourism awareness workshop, in association with the Tonga Visitors Bureau
- organised a stall at the triennial Royal Agricultural Show, held in Ha'apai on 19 August, and awarded 18 prizes in categories ranging from tree planting and clam circle establishment to sustainable traditional fishing methods
- gained the support of Asian Paints for a series of wall murals on environmental themes
- produced a series of seven Information Sheets on various subjects, in both Tongan and English

Coming events include:

- a marine survey of the 'Auhangamea Passage
- a resource baseline survey of the uninhabited islands of Luahoko, Nukunano and Ofalanga
- coastal erosion control works at Fotua Beach
- holding of an ecotourism planning meeting and the development of an ecotourism action plan

- organisation of a three-day nursery development and management course
- purchase of a multi-video system and mobile generator to assist with outer island awareness work
- purchase of shadehouse and nursery equipment for the establishment of two community nurseries on 'Uiha and Lofanga islands
- protection of an area of secondary forest at Taufa'ahau and Pilolevu College on Foa Island

KOMARINDI (Solomon Islands)

Recent activities in the Komarindi Conservation Area project have focused on planning for ecotourism. Key developments in this area have included:

- an ecotourism planning and development consultancy, including a series of community meetings
- community agreement on the running of four tours: a half-day nature and culture tour, a full day walk, a weekend hike and a cross-Guadacanal hike
- agreement by two Solomon Islands travel agents to brochure Komarindi Conservation Area ecotourism activities in 1998

Other activities have included:

- presentation of dramas and plays on environmental themes in the

Conservation Area by Vanuatu's Wan Smolbag Theatre

- a preliminary avifauna survey by the Avian Ark Foundation
- letting of a contract for construction of the project house in Kusumba village, on the Weather Coast of Guadacanal
- purchase and installation of two HF radios for Kusumba and Veraboli, creating for the first time a dedicated communication network linking the lead agency and both of the communities involved in the Komarindi Conservation Area project

Plans for the coming months include:

- progressive introduction of the four new tours between April and July 1998
- introductory tour guide training in March
- advanced tour guide training in June
- the project to hold an Open Day at the Solomon Islands Trade and Culture Show, 1st Melanesian Arts and Cultural Festival and 20th Anniversary of Independence celebrations in July 1998

VATTHE (Vanuatu)

Recent developments include:

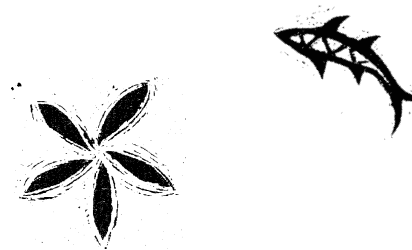
- completion of John Salong's and Thomas Mueller's reports on the development and management of ecotourism in Vathe Conservation Area
- formation of two sub-committees of the Joint Conservation Management Committee; one responsible for ecotourism and one for conservation management
- appointment of Puriti Solomon as the first full-time manager of the Vathe ecotourism venture
- provision of training in tourism management, cooking and tour guiding
- completion of six bungalows, each with a double bed and a single bed, and three toilet/shower units

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HA'APAI Conservation Area Project

VOLCANO EXPEDITION

by Michael Hortle, AVA/UNV volunteer, Ha'apai Conservation Area Project



“The story the consultants’ report won’t tell”

A line of active volcanoes stretches down the western side of the coral island groups of Ha'apai and Vava'u in Tonga. In July 1997 the Ha'apai Area Conservation Project coordinated a 12-day botanical survey of the two volcanoes west of Ha'apai: Tofua, 560 metres and still active; and Kao, a dormant 1109 metre cone.

Tofua exploded many thousands of years ago, leaving a crater lake a couple of kilometres in diameter, 225 metres deep and dotted with bubbling sulphur mud springs. The explosion was powerful enough to shower the neighbouring coral isles with ash, which now provides the soil for agriculture. More recent explosions, the latest in 1926, have left the old crater rim and internal slopes pockmarked with smaller craters.

The currently active crater, which still belches steam, sulphurous gases and ash, is about 80 metres across but of unknown depth. This crater is surrounded by a moonscape of volcanic debris descending to the more recently created lava fields. Grumbles and roars can be heard on occasions, and once during our stay the night sky was lit with reds and oranges as sparks were shot high into the air. A visit by several Peace Corps and Australian volunteers in early September noted major new volcanic activity

in the forests on the western shores of the lake, a couple of kilometres away from the active cone. A few kilometres away the almost perfect cone of Kao rises dramatically from the sea. The summit is a needle-like ridge, covered in moss and fern, suspended almost 200 metres above an old crater.

Both islands have a history of only sporadic occupancy. Tofua is famous in history as the island where Captain Bligh was set ashore after the mutiny on the *Bounty*. One of his crew was subsequently killed on a Tofua beach as the longboat escaped from Tongan warriors. In 1976 over 300 people lived on the island in a couple of villages; now there are perhaps only 20 people scattered over the island, managing the kava plantations which cling to the steep slopes of the island's rainforest gullies.

We had assembled a party of 13 for the survey: Dr Art Whistler from Uni of Hawaii, the guru of Pacific

botanists; Dr Geoff Park, a consultant from New Zealand, interested in the impact of human activity on botanical ecosystems; James Atherton, Dr Whistler's right hand man; Manu Pomelile, a Tongan with immense knowledge of Tongan botany and traditional plant uses; a couple of guides and track cutters (who also doubled as fishermen); and several project staff. The principal aims of the survey were to inventory the plant ecosystems, look at the human impact on vegetation, assess potential park status; recommend a management plan for future protection of the resources on the islands, and collect plant material for the local nursery—particularly for trees and plants used in everyday life but now scarce on other islands.

As I surveyed the huge piles of gear on the Pangai wharf, with more appearing as people scurried off to collect items forgotten, I contemplated the enormity of the logistics of the expeditions of past centuries. With the loading completed we headed out into the mist and chop of an uncharacteristically cold and windy day. Not even the fish were biting and the four trolling lines remained untouched for the five-hour journey. As the towering mass of the two islands drew closer, thoughts and



Volcano and crater lake on Tofua Island, Ha'apai. Photo: James Atherton

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Crater Mountain Wildlife Management Area Papua New Guinea



A unique combination of enterprise and conservation

In the Highlands of Papua New Guinea, 75 km southwest of Goroka, there is a place where enterprise and conservation go hand in hand.

The Crater Mountain Wildlife Management Area (CMWMA) was established by local landowners who were interested in developing enterprises based on the conservation of their natural resources. Today, the Research and Conservation Foundation (RCF) guides landowners to manage this unique area and is proving to Papua New Guinea and the rest of the world that moneymaking enterprises can work alongside conservation and in fact can complement it.

The CMWMA encompasses parts of three provinces and two distinct language groups—Gimi and Pawaian. The area covers almost 2700 square kilometres of land ranging from lowland rainforest on the Purari river, lying 50 m above sea level, to montane forests and grasslands that stretch as high as 3100 m at the summit of Crater Mountain. It is home to over 220 species of birds and 84 species of mammals, many of which are endemic to Papua New Guinea.

Ecotourism in this form helps raise awareness of the need to conserve the few unspoiled areas we have left in the world.

Within the CMWMA a number of enterprises based on the conservation of these natural resources have been

developed. The major enterprises are ecotourism, the marketing of the area as a research destination to institutions and individuals in PNG and overseas, and a number of Crater Mountain Artefacts stores.

For the tourist, flying into any of the five villages within the CMWMA is a breathtaking experience and a glimpse of what awaits them, as all the airstrips are surrounded by beautiful tropical rainforest.

There are three ecotourism guest houses in which tourists can stay for around K 5–7 per person per night. These guest houses provide bedding and full cooking and facilities, as well as a shower room—although many visitors enjoy the experience of bathing in the river with the local community. In some of the villages you can also arrange to stay in a local home.

Tourists to the area can enjoy a range of natural history activities such as treks to the Losapi Bat Cave, the Raggiana Bird of Paradise display site, the Crater Mountain Overlook and the Wara Fio suspension bridge, to mention only a few. Arrangements can also be made to have local villagers prepare traditional foods such as sago or food cooked in a mumu (earth oven).

Ecotourism in this form helps raise awareness of the need to conserve the

few unspoiled areas we have left in the world. And of course, the income generated goes back into the community, providing an alternative to non-sustainable land use practices such

Another drawcard which attracts scientists to the area to conduct vital research is the existence of RCF staff, field biologists and trained local observers.

as large-scale timber and mineral extraction.

The CMWMA is also attracting researchers from all over the world

due to its incredibly diverse flora and fauna. RCF have been successful in encouraging interested people to undertake research in areas identified as priorities for PNG. Research priorities are widespread and include the ecology and behaviour of the cassowary and palm cockatoo; cost-benefit analyses of potential mining activities; and the impact of cottage industries which use natural forest products.

Scientists have come from far and wide to conduct research within the CMWMA, and it is not only due to the range of research subject matter available. Research stations are located near Haia in the west of the area, and in the village of Herowana in the east. RCF field officers in three other locations across the CMWMA also help scientists carry out their work.

Computers, printers, generators and HF radios are available at each research station and field site. Infrastructure such as this is extremely important for researchers and, as they pay a rental

fee for their use, the community also benefits.

Another drawcard which attracts scientists to the area to conduct vital research is the existence of RCF staff, field biologists and trained local observers (TLOs). The field biologists are able to help researchers plan their study in the area, and also play a vital role in aiding communication between the scientists and community. TLOs are employed by researchers who visit the area. They help the scientists with data collection and offer valuable advice on the rugged terrain. Once again, the services the community offers are paid for by the visitor, in this case the researcher, and the money goes back into the community.

So once again we can see conservation and enterprise working hand in hand. Valuable study into the biodiversity of the CMWMA is being carried out, therefore spreading the word about and reaffirming the importance of the area, while at the same time generating income and raising the level of expertise in the community.

The artisans of the area are also proving that conservation and business can go together. The people of the CMWMA are extremely talented when it comes to producing beautiful artefacts such as bows, spears and billums. By using natural products to colour and construct each item the artisans of the area have developed a unique, quality product. There are four artefact stores throughout the CMWMA, which collectively make approximately K 10,000 per annum, and the items are also sold by way of mail-order forms distributed at various cultural and craft shows. With the sale of locally produced artefacts the community can preserve their craft skills while making some extra income.

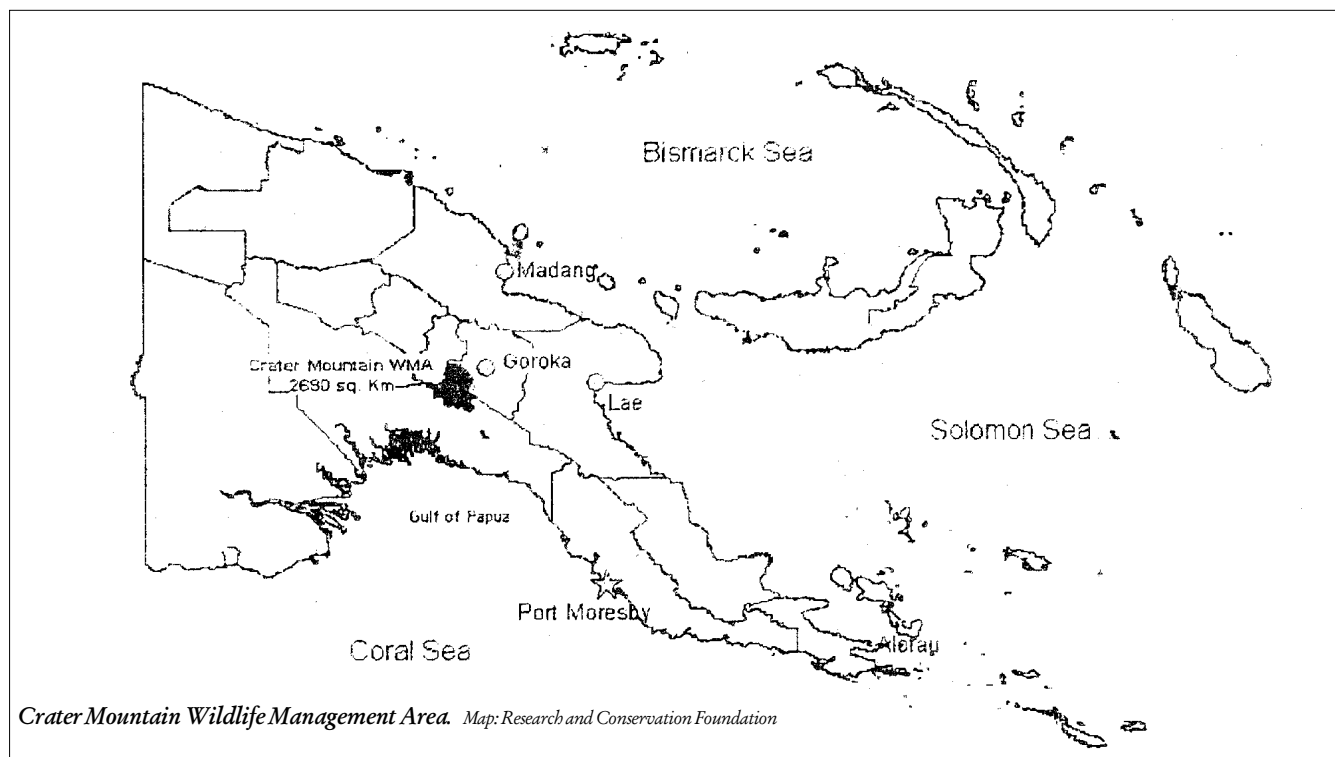
When we think of business and the art of making money in general, many of us think of exploitation. Although the RCF is far from having all the answers, they are attempting to counter this view with their brave experiment in integrated conservation and development within the CMWMA by introducing projects like those outlined in this article. ☒

NOTE: The RCF Head Office has recently re-located to Goroka, with an RCF desk officer remaining in Port Moresby to answer inquiries. For further information please call or write to:

RCF Head Office
PO Box 1261
EHP Goroka
PNG
Ph: 675 732 3211
Fax: 675 732 1123

Kathy Panap, RCF
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Fax: 675 323 0397

Article provided courtesy of the Research and Conservation Foundation of PNG



CAMPAIGNING FOR CORAL REEFS IN THE PACIFIC

Lucille Apis-Overhoff, PYOCR Campaign Co-ordinator



The 1997 Pacific Year of the Coral Reef campaign was launched amidst dancing, singing and rejoicing in the beauty and bounty of coral reefs in February 1997. The campaign is basically a celebration of coral reef awareness-raising throughout the region.

The year 1997 was rather kind in that the campaign was blessed with 18 keen and committed participating member countries. Through their hard work the campaign gained international, regional and national recognition for its innovative awareness-raising activities. For instance coral reef competitions in dancing, singing, artwork, poetry, essay writing and quizzes allowed people to learn about coral reefs while they were enjoying themselves as participants, spectators or both. The idea was to ensure that the learning experience was fun, informative and united communities towards one goal: the conservation and wise use of our coral reefs. Hence our activities as well as our resource materials were designed with this in mind.

In the Marshall Islands, they had the "Battle of the Bands" where it became a matter of pride to captivate the audience by having the most appealing coral reef themes dressed in sexy tunes. Indeed with the right musical garnishing, the messages reached the target audience in a way that was informative and yet fun. In Vanuatu, after watching one of the PYOCR resource videos, "On the Reef", certain villages refused to give foreign companies the rights to catch sea cucumbers. This was because the villagers had learned from this musical video that sea cucumbers

clean the reefs, and the villagers did not want to lose the cleaners.

One message that gave most people a shock was that "coral reefs are alive". A lot of people think that the coral reefs are just non-living structures that provide homes for fish and shellfish. The realisation that coral are alive and fragile has led to villagers setting up their own coral reef reserves. For instance, in Samoa alone, 17 villages have declared their own coral reef areas as marine reserves.

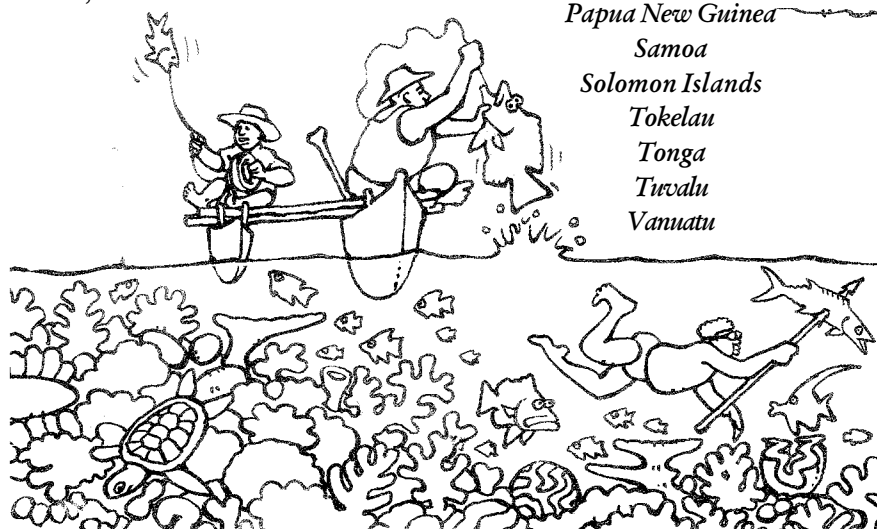
Taking the theme of "living coral reefs" further, another message that the campaign successfully delivered was "Coral reefs are like people. They can be healthy, they can be sick and they can die, too. If we take care of coral reefs, they will take care of us." In American Samoa, the Cook Islands and Federated States of Micronesia, students used this message as a key theme in their coral reef artwork and their school magazines.

International recognition came in the form of special contributions from overseas, for instance from the

British Embassy in Fiji and from the US Government. In addition, the campaign resource materials such as posters, handbooks, videos, fact sheets and stickers were popular internationally as well as in the region. In fact, the Pacific Year of the Coral Reef regional campaign plan, key messages and even our well known Pacific slogan, "Coral Reefs: Their Health, Our Future" are now being used in the Caribbean region's own coral reef protection campaign. ☒

Countries which participated in the Pacific Year of the Coral Reef campaign

American Samoa
Cook Islands
Federated States of Micronesia
Fiji
Guam
Kiribati
Marshall Islands
Nauru
Niue
Northern Marianas Islands
Palau
Papua New Guinea
Samoa
Solomon Islands
Tokelau
Tonga
Tuvalu
Vanuatu



Source: PYOCR 1997

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- renovation of the project house to serve as a kitchen and restaurant for the tourism operation
- installation of a water supply system for the tourism venture, comprising two fibreglass tanks linked to a roof catchment system
- development of a range of activities for tourists, including three walking tours, the coconut crab hunt, garden tour and custom dance
- completion of the new water well by the Department of Geology and Mines
- provision of a solar-powered lighting system for the restaurant, office and kitchen by the Vanuatu Energy Unit
- setting up of a radio-telephone link between Matantas village and Luganville
- official opening of the Vatthe ecotourism venture on 25 November 1997

Plans for the future include:

- development of Resource Management Rules (RMR) for the management of three key pest animal species: flying fox, pigs and wild cattle
- building of a rainwater catchment shelter to feed into the water tanks
- further training in tourism management
- furnishing of the aid post and the restaurant

KOROYANITU (Fiji)

Recent activities include:

- tour of five project villages by the Interim Board 19–21 June
- mapping of land tenure and resource use in the project villages
- establishment of the Navilawa village cooperative

- study visit between Abaca and Navilawa villages
- upgrading of the road from Abaca village to the lodge, and commencement of work on upgrading the road from Lautoka to Abaca
- rehabilitation of degraded roadworks at Navilawa
- Participatory Resource Awareness (PRA) training 21–25 July, followed by Navilawa PRA; completion of draft PRA report.
- tourism awareness training at Abaca and Navilawa villages on 9, 16, 23 and 30 September, by Kosrae ecotourism workshop trainees Anaiasa and Kitiani
- Pacific Economic Cooperation Council/Japan National Committee for Pacific Economic Cooperation (PECC/JANPEC) ecotourism workshop at Abaca
- farmer training at Navilawa village in September by Agriculture Department staff
- International League for the Protection of Horses (ILPH) workshop on care of horses at Navilawa village

Planned activities include:

- finalisation of the Land Owner Consent document and endorsement by Native Lands Trust Board (NLTB) board meeting
- registration of at least three more cooperatives
- registration of the apex cooperative for Koroyanitu Conservation Area
- completion of resource management plans for two villages
- conduct a further three Participatory Resource Appraisal (PRA) workshops, at Abaca, Nalotawa and Vakabol villages
- establishment of model or “demonstration” farms in Navilawa and Nalotawa
- development of a village fruit tree nursery in Navilawa
- investigation of opportunities for further aquaculture development at Navilawa

UTWA-WALUNG (Federated States of Micronesia)

Recent developments have included:

- a University of Oregon Technical Assistant, Beth La Fleur, worked with the project for three months on the development of a community-based monitoring and evaluation programme for the Conservation Area
- the first issue of a bilingual (English/Kosraen) newsletter was produced, along with several radio programmes
- a review of ecotourism development planning was undertaken during October, which concluded that the project should set a “target” of hosting 300 ecotourists a year
- a six-day tour guiding workshop was attended by 11 members of the local community
- the canoe training, canoe construction and building of the canoe hut at Utwe were all completed
- the project commenced the task of reviewing the appropriateness of a proposal to develop houseboat tourism on Utwe Harbour

POHNPEI (Federated States of Micronesia)

Recent developments have included:

- an initial meeting was held with all Nahmwarkies and Nahnkens from the project area to discuss joint management of sustainable lowland kava cultivation projects
- a lowland kava nursery experimentation plan was developed
- five South Pacific Biodiversity Conservation Programme (SPBCP) and The Nature Conservancy (TNC) consultants worked together from 22 July–5 August developing a strategy and implementation plan for community-based monitoring of both socio-economic and biophysical indicators
- field trips were organised for participants at the 6th South Pacific Conference on Nature Conservation

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and Protected Areas in September/October

- two five-day community conservation officer training workshops were held between 21 October and 31 October; 25–30 people attended each workshop
- consideration is being given to the development of a more effective and efficient mechanism for the management and administration of the Pohnpei Conservation Area project.

FUNAFUTI (Tuvalu)

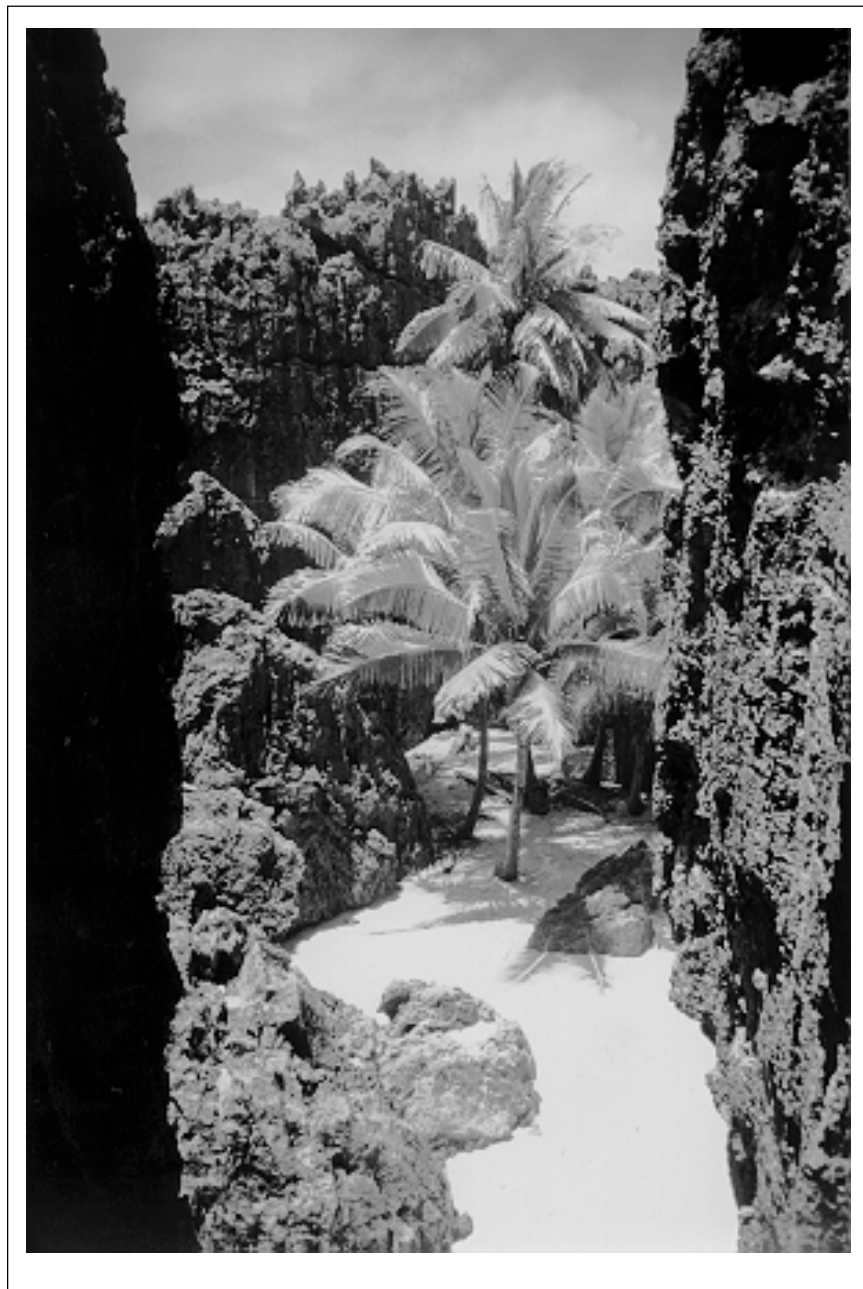
Recent developments have included:

- Apia-based diving instructor Foua Toloa conducted a training course for six project staff and members of the Fisheries Division; the course covered open-water diving, research diving and marine survey methods such as manta-tow and line-intercept
- buoys were deployed marking the boundary of the marine reserve
- new AVA Claudia Ludescher, an Australian marine biologist, arrived in Funafuti; she started work with an intensive three-week orientation programme covering Funafuti and also three of the outer islands
- the new boat funded by the Canada Fund arrived from New Zealand, but was unable to be used immediately due to a mismatch between the boat and the outboard engine; adapting kits were purchased
- Dr Ursula ('Uschi') Kaly, a marine biologist from James Cook University in Australia, spent four weeks in Tuvalu carrying out a marine survey and running a training course in techniques for environmental monitoring

NGAREMEDUU (Palau)

Recent developments have included:

- consultations with traditional chiefs and governors of the three states involved regarding the make-up of the CACC



Tolo gorge, part of the Huvalu Forest Conservation Area (CA) in Niue, is popular with tourists who are attracted by the beauty of the steep-sided canyon with its palm trees, tranquil pools and white sandy floor. Huvalu Forest CA contains most of the remaining natural forest on Niue. Parts of the forest provide an important habitat for the endangered coconut crab.

- agreement on CACC membership on the part of Aimeliik and Ngatpang states
- establishment of PRA team
- conduct a review of traditional resource management practices
- finalisation of CACC membership; briefing of CACC members on CA objectives and activities
- commence preparation of CA management plan
- finalisation of CA boundary and fixing of boundary markers. ☒



ECOTOURISM

Training and Development

One of the key elements of the SPBCP has always been the development of income-generating activities in Conservation Areas. The two primary reasons for supporting such activities are to help offset the cost of ongoing management of such areas and, through providing employment and in some cases a contribution to village income, to strengthen and maintain community support for the protection of the Conservation Area.

Most SPBCP Project Preparation Documents (PPDs) recognise ecotourism as one of the most suitable potential income-generating activities, and several CAs (Koroyanitu, Vatthe, Utwa-Walung and others) have already started work in this area.

The Technical and Management Advisory Group (TMAG) and the Multi-Partite Meeting have therefore sought professional training and development opportunities in the field of ecotourism management for CA project staff, a request that has been echoed at regional training workshops by the CASOs themselves.

SPBCP therefore organised a first training workshop on ecotourism planning and management, which was held in Kosrae, Federated States of Micronesia from 24 July to 8 August 1997. In planning the workshop, we sought to adhere to a number of principles:

- use trainers who have both excellent training skills and practical experience in the field
- keep the number of participants low enough for the trainers to pay individualised attention to each participant

- limit participation to those projects which are already engaged in the development of ecotourism ventures, or are about to launch into these
- have participants prepare thoroughly for the workshop, including the gathering of data on the level and nature of current tourist visits to their CA and adjacent areas
- structure the workshop programme to make maximum use of the experience and skills of the participants
- participants to develop, before completing the workshop, an action plan setting out the activities in the field of ecotourism that each participant feels they can commit themselves to over the next six to 12 months
- provide the opportunity for workshop participants, if they so desire, to seek further assistance from the trainers in the months following the workshop

The trainers were Rob Macalister and Grant Trewenack of the Australian ecotourism training firm *terra firma associates*, and Dave Bamford of the New Zealand tourism consultancy Tourism Resource Consultants. Rob and Grant have both had a number of years' experience running tours for ecotourists in Papua New Guinea and Solomon Islands, whilst Dave has worked extensively as an ecotourism consultant in Asia and the Pacific. The workshop was co-funded by New Zealand ODA, whose support made possible Dave Bamford's participation in the workshop. They also sent several

owners of ecotourism lodges in Marovo Lagoon (Solomon Islands) to participate in the course.

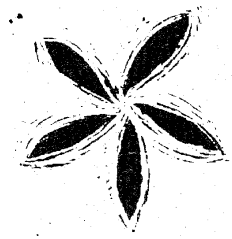
Unfortunately recurrent problems with the air service to Kosrae meant that several participants were unable to make it to the workshop. However, in the event there were 13 participants from five countries: Fiji, Vanuatu, Cook Islands, Solomon Islands and the Federated States of Micronesia. The workshop programme was very intensive, covering areas such as:

- tourism awareness
- tour product development
- project development
- resource management
- community development
- creating a business
- training skills and training needs analysis
- tour guides and interpretation

Two current tourism sites in Kosrae were visited: the Utwa-Walung Mangrove Channel and Lelu Ruins. As an exercise, participants developed three tour products for the Utwa-Walung Conservation Area. The CA project found these very useful documents for their planning process. In addition, each participant completed an Action Plan. Most participants found the course highly relevant to their work in the field of ecotourism, and said that the information they gained would be directly usable by them in their day-to-day work.

Follow-up activity since the workshop has included preparation of an ecotourism development plan for Komarindi Conservation Area, carried out with the help of Grant Trewenack in October/November; and a tour

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REGIONAL CONSERVATION TRUST FUND PROPOSAL GAINS SUPPORT

The proposal for the establishment of a Pacific Regional Conservation Trust Fund was one of the key issues discussed at the 6th South Pacific Conference on Nature Conservation and Protected Areas, held in Pohnpei in September–October 1997.

Participants were able to review the first draft of the Concept Paper for the trust fund, which has been prepared by Elliot Rosenberg of the United States Environmental Protection Authority (USEPA) on behalf of the UN Economic and Social Commission for Asia and the Pacific (Pacific Operations Centre) (ESCAP/POC). Two working groups reviewed the proposal, and developed recommendations on the most effective structure and method of operation for such a trust fund in the Pacific islands region. A final revised draft of Mr Rosenberg's report is expected before the end of January.

Essentially, a trust fund is like a bank account. When funds are received from donors, instead of allocating them immediately to projects they are “banked” in the trust fund. These monies, which are referred to as the principal, are invested in interest-earning accounts, bonds or other approved investments. The income earned from these investments, less the cost of administering the fund and any allowance for inflation, is then available for disbursement to projects which meet the objectives of the trust fund.

By their very nature, trust funds are long-term, high input vehicles for conservation support. However, they have the advantage of providing a stable source of funds which is managed by and for the region.

The primary purpose of the proposed Pacific trust fund is seen as being to provide a source of ongoing financial support for existing conservation areas, whether currently supported under the SPBCP or not, and to assist other such areas to become established. However, at the discretion of the trust board, other activities which contribute to the conservation of Pacific islands biodiversity may also receive support.

Participants at the Pohnpei conference recommended that the trust board should, wherever possible, work through and support existing national bodies. The regional body could have responsibility for fundraising, investment and broad policy on disbursement of trust income. National bodies could tailor disbursement criteria to the specific requirements of the country concerned, manage the application process and take responsibility for monitoring and evaluation. Where there is no existing body at the national level that could fulfill this role, the regional trust board should, over time, assist national governments to develop such a body.

Many aspects remain to be decided about how the trust fund should be structured, and how it should operate. These include:

- the relationship between the trust fund and SPREP
- staffing requirements (if any) of the trust fund
- physical location and legal domicile of the fund
- the target size of the fund (Mr Rosenberg's report proposes US \$22 million)

- the structure and membership of the initial trust board, and the method of filling vacancies as they arise (Mr Rosenberg has proposed that decisions on the filling of vacant positions be made at the biennial SPREP Meeting)
- interim Manual of Procedures for the trust fund, including interim investment guidelines and interim criteria for assessment of funding applications
- “good governance” provisions governing conflict of interest, openness and accountability

These issues will be considered in detail by a design team, who will consult widely within the region before finalising the project document for submission to donors. The membership of the design team and their programme of work is currently under consideration. ❖



Any suggestions or comments would be warmly welcomed here at SPREP. Your ideas should be sent to:

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SPREP.

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Uafato in Action

UAFATO CONSERVATION AREA PROJECT

The two major tropical cyclones in 1990 and 1991 highlighted the susceptibility of areas such as Uafato–Tiavea to disasters of this nature. A nationwide survey of potentially important natural areas was undertaken, and the Uafato–Tiavea area was designated as the top priority for conservation.

Uafato village forms part of the Uafato–Tiavea region described on page one, and is located in the district of Fagaloa, about an hour and half by road to the east of the capital of Apia. Following preliminary awareness programmes conducted by O le Siosiomaga Society in 1993, the entire Uafato community agreed in March 1994 that the whole of the terrestrial area within the boundaries of Uafato village should be officially recognised as a Conservation Area.

The major concern of O le Siosiomaga back then was protecting the area, and in particular encouraging the Uafato community to oppose the extraction of the last stands of Ifilele (*Intsia bijuga*) from the village's forests. Ifilele is a high quality hardwood much prized by craftsmen, and at that time the Government was seen as being unable or unwilling to counter in a timely manner the threat posed by logging.

Uafato village, like any other remote community area in the world, has been willing to welcome developers who offer to provide high cash returns, infrastructure, big developments and



Looking down to Uafato village at Fagaloa Bay. Photo: James Atherton

employment to the village in exchange for access to the village's limited and highly valuable natural resources.

In 1995, with SPREP's help, a series of consultations were carried out with the Uafato community. A five-year community-oriented management plan was devised by consultants working with O le Siosiomaga Society and the local community, with the overall objective of maintaining the pristine condition of the Uafato area and sustainably managing its resources.

To ensure the commitment of the entire Uafato community to this conservation initiative, the village's priority needs were identified. A key finding was that the village needed a proper water reticulation system. For many years the village had had to do without access to high quality drinking water. SPBCB recognised the importance of clean water to the community, but was concerned to ensure that any financial support for infrastructure development was seen not as an inducement to conserve the forests, but as part of a package of initiatives that would improve living conditions and opportunities for sustainable use of the village's resources. Eventually agreement was

reached, and by March 1997 every household in Uafato village had a stand-pipe connected to the newly-constructed water intake on a nearby stream.

There have been several other significant developments which are part of or relevant to the Uafato CA project. In August 1997 the national upland flora survey was completed. One of the findings of the survey was that the Uafato area contained 40% of Samoa's flora diversity. At the same time, baseline survey training was provided for the CASO and two CA assistants who volunteered to work full-time in the Conservation Area.

The bird survey carried out in Uafato the same year recorded the presence of the tooth-billed pigeon, known locally as the Manumea, Samoa's most endangered endemic bird. When it was spotted in Uafato this was the first such sighting in five years.

Finishing up the year for 1997 was the Ifilele timber volume survey, which has provided a clear estimate of the harvestable volume of timber in the Uafato forests. This provides the basis for the development of prescriptions for sustainably managing this important resource. The permanent sample plots established during the Ifilele survey will also form the basis for a ten-year monitoring programme, to detect the

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Uafato in Action

impact of timber cutting on Ifilele recruitment.

Uafato has been identified as a seed collecting site under the Australian-funded Commonwealth Scientific and Industrial Research Organisation–South Pacific Regional Initiative on Forest Genetic Resources (CSIRO–SPRIG) project. It is hoped that seeds from all of Upolu’s endemic species of trees can be collected at Uafato.

Partnerships with government and international agencies seen also as potential partners is one of the key features of the Uafato Conservation Area project, and is seen as an important mechanism for promoting the area.

For example, last year consideration was given by the Australian Great Barrier Reef Marine Park Authority (GBRMPA) to designating Uafato as part of a regional Marine Protected Area (MPA) system. Whilst this did not

proceed, it is indicative of the type of partnership that could be developed.

I hope that in years to come Uafato CA will be a focus for ecotourism, research, cultural experience, environmental internships and many education programmes which require close interaction with the environment. There have already been a number of people from Sweden, Germany, Denmark and the US who have visited the area under such programmes. They tend to come for an average of five days.

Uafato village is of cultural importance as, according to some accounts, the site was called the Ninth Heavens where the god of the Samoan people, Tagaloa, resided before the white men first landed in Samoa. By these accounts, the name “Samoa” originated in Uafato village.

There was some initial discussion of the possibility of the Uafato area being nominated for listing under the World Heritage Convention. However, further

consideration of this idea has been deferred pending completion of the activities set out in the Uafato Project Preparation Document. ☒

Editor’s note: an area can only be nominated for listing under the World Heritage Convention by the Government of a country that is a signatory to the convention. To date, the only countries in the Pacific islands region which are signatories to the convention are Papua New Guinea, Solomon Islands and Fiji.

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Visits to the Uafato Conservation Area can be arranged through our office from 8:00am–4.00pm Monday to Friday. After hours call +685 70806 and ask for Dion.

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Ecotourism Training & Development.....

guide training workshop and ecotourism review for Utwa–Walung CA, held in November with the help of Rob Macalister. In September, the Takitumu CA held a three-day ecotourism awareness and planning workshop, with the assistance of a wide range of people from the Rarotongan business community and government agencies, and Michael McGrath from SPBCP.

Tourism Resource Consultants have since been appointed the Management Services Consultant (MSC) for NZODA assistance to Koroyanitu CA, and Dave Bamford and his colleague Bruce Watson have made several visits to Fiji in November and December to

begin the process of ecotourism planning for the Koroyanitu area. During the most recent visit, agreement was reached on the renovation of certain facilities, the development of a joint NZODA/SPBCP/NLTB management framework, interim information materials about ecotourism opportunities in the conservation area, and integration of the research phase of the ecotourism operation into the overall PRA programme for the Conservation Area.

The development of the ecotourism venture at Vatte is now well under way, and the Matantas village resort—comprising six bungalows and a

restaurant—was formally opened in November. Further training of cooks and tour guides is planned for 1998, along with a review and evaluation of the ecotourism venture.

It is hoped to organise a second ecotourism planning and management training course during 1998, both for those projects which did not participate in the first course but are now in the early stages of planning for ecotourism in their Conservation Area, and for those CAs who participated in the first course but would like to have additional people trained. A final decision on the date and venue for the course will be made before the end of February. ☒

SUSTAINABLE MANAGEMENT OF IFILELE

in Uafato Conservation Area, Samoa

by James Atherton, Francois Martel & Associates, Apia, Samoa



Throughout the Pacific, forest timber resources are under threat from habitat destruction and overharvesting. In Samoa probably the most threatened timber tree is Ifilele (*Intsia bijuga*) a highly valued hardwood traditionally carved into wooden handicrafts such as tanoa (kava bowls), walking sticks and war clubs. The tree is used for similar purposes in Fiji (called *vesi*) and in Tonga (*fehī*). Ifilele is considered to have the finest wood in Samoa because of its hardness, rich golden brown grain, and high durability.

The Uafato Conservation Area (Upolu, Samoa) has probably the largest and best quality Ifilele stands left in Samoa. This fact was one of the main reasons for the declaration of the conservation area by Samoa's environmental NGO, O le Siosiomaga Society, in 1996. A related rationale was the fact that Uafato village is highly dependent on Ifilele, and that sustainable management of the resource is a critical issue for the long-term economic viability of the village.

Uafato village is isolated, with poor road access, and is located on extremely rugged and mountainous land. This means that there are limited opportunities for conventional agricultural development. As a result of these economic constraints, the people of Uafato are dependent on handicraft manufacture as the major source of village income. Uafato handicrafts are renowned throughout Samoa for their high quality and the village is one of the largest suppliers to the handicraft market in Apia.

In Uafato, like everywhere else in Samoa, Ifilele is seriously threatened by excessive harvesting. The threat to the

tree is compounded by the fact that the tree does not disperse well, is extremely slow growing and is very scattered in distribution. This threat was identified in the early days of the establishment of the conservation area, and it was agreed that there was a need to develop a sustainable management plan for Ifilele. Such a plan would, for example, set limits on the number of trees to be cut every year and on the method of harvest. However, information on the volume, distribution and growth characteristics of the tree was lacking, making it very difficult to establish an effective Ifilele management plan.

In June 1997 an Ifilele timber inventory of the Uafato Conservation Area was commissioned by SPREP, to provide the data needed for the Ifilele management plan. The timber inventory was designed to gather data on the volume and distribution of Ifilele in the Conservation Area, and ultimately to establish a sustainable level of harvest. The inventory comprised

a three-week field survey of Ifilele distribution, a shorter community survey of Ifilele harvesting practices in the CA and the establishment of two permanent sample plots to monitor the growth and regeneration of Ifilele over a number of years.

Ifilele was only recorded in 16 of the 80 plots surveyed in the CA and was found to be extremely scattered in distribution, growing in very small pockets of less than ¼ of a hectare and concentrated on ridge tops below 300m (1000 feet). The merchantable volume of Ifilele (trees > 50 cm in diameter) is estimated to be only about 1000 trees. Assuming the tree reaches maturity after about 75 years, the estimated sustainable merchantable volume of Ifilele is about 21 cubic metres or only 13 trees per year.

The current level of Ifilele harvest in the CA is about 40–50 trees per year, by about 40 active wood carvers. On this basis the current harvest level appears to be well in excess of the estimated sustainable harvest level. In addition, the study found that the recruitment of mature Ifilele trees on exploited ridges is problematic, and that the demand for Ifilele carvings is likely to increase, putting pressure on carvers to further increase their harvesting rate.

When these factors are put together it becomes clear that an Ifilele management plan must be implemented soon if the Uafato carving industry is to have a long term future.

At the time of writing (December 1997) the Ifilele management plan is yet to be finalised by the village. However, a number of possible options



Some of the handicrafts made from Ifilele tree from Uafato. Photo: James Atherton

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Ha'apai Conservation...

conversations turned to Ruapehu, Rabaul and Pinatubo.

We dropped anchor on a rocky coast late in the afternoon and scanned the shore for a jetty. AusAID money hasn't got this far, so everything had to be loaded into a 12-foot aluminium dinghy, ferried to the coast and then tossed to those waiting on the rock platform—no mean feat in a surging sea with dusk falling. The leap ashore was a real test but everything and everybody arrived safely. Our planned campsite, the old school building in a deserted village, was a further ten-minute climb up a steep gully. Three trips per person were required to cart all the gear, the last couple completed by torchlight listening for evidence of the “man-eating” wild pigs rumoured to inhabit Tofua.

The old village site of Hakula is a desolate place inhabited only by pigs, dogs and chickens, all of which turned out to greet us, lured by the smell of food. Only three buildings remain, the schoolhouse being in the best condition, and this became “home” for eight days. Unfortunately it was already occupied by fleas and mosquitoes which revelled in our company. Pitching the tent inside the building kept the mossies at bay, but the fleas were impossible to contain. Depending on the weather the cleared area around the building was either a dust bowl or a mud heap, making an excellent foraging ground for the 40 or so pigs, so camping out wasn't an enticing alternative. Fortunately there was plenty of fresh water, courtesy of an AusAID-installed rain tank.

The evening meal of fish stew and boiled taro was to become familiar fare by the end of the trip, relieved only occasionally by tinned corned beef and noodles. Sunday *umu* was a highlight, with one unfortunate pig providing a welcome change in diet. Passionfruit,

oranges and lemons growing in abundance around the village ensured the party did not succumb to scurvy, something of major concern for previous expeditioners to the island. With less than satisfactory hygiene conditions in the “kitchen” the cooks did well to ensure that the entire trip passed without any food-related illnesses, particularly for the *palangi* consultants whose stomachs were not accustomed to Tongan food.

The first day was spent surveying the island from the old crater rim, reached by a strenuous 400 metre climb taking 40 minutes. The wider sections of the rim are pockmarked with mini craters up to 20 metres deep, providing shelter for a range of ferns and *Casuarina*. A 45-minute walk along this section brought us to a spectacular view into the huge expanse of the old crater, dominated by the lake and the active crater directly below. Extinct craters, old lava flows,

*The next 30 minutes
were a bushwalking nightmare.
Bottomless lava tubes disguised by a thick
carpet of fern meant that every footfall had
to be tested with a stick. At one stage the
guide disappeared down one of these
tubes.....*

ash fields and different forest types provided contrasting patterns and colours.

We continued west of the active crater, where the ash and sulphur outfall has created a moonscape of layers of rock and lava distorted into weird, twisted formations. As we traversed this section we were continually buffeted by strong winds carrying blasts of sulphurous fumes. With the wind continuing to strengthen we reached a section where the crater rim narrows to a knife-edge no more than a metre wide, with steep ash scree slopes on either side. As we returned late in the day to begin the descent to the camp the cloud lifted to reveal the stunning outline of Kao.

Over the following week we descended into the old crater on three separate

occasions, each time at a different point. On each occasion the terrain looked impossible to descend from the vantage point of the rim. Tracks are rare, but at least in vegetated areas there is something to cling to. On the first occasion we descended down a narrow gully full of waist-high ferns and then slipped, slid, swung and fell 350 metres to the forest floor below, working our way down thickly covered ridges, at times perilously close to cliff edges.

The gradient was about 1 in 2.5 but we were able to control our rate of descent by hanging on to vegetation and planting our feet in the deep, soft leaf litter. We spent the afternoon working in a mature rainforest described by Art Whistler as “the best he'd seen in Polynesia”. The canopy reaches over 30 metres, and many of the trees have diameters in excess of a metre. Giant pongo ferns (like a slim Man Fern) rise over 20 metres, vines hang from every tree, the trunks of which are festooned with orchids and small ferns. The forest floor is relatively clear but huge volcanic rock outcrops create an eerie landscape. Tree plots and vegetation surveys completed we commenced the return to the crater rim, a tough 40-minute scramble.

On the following day we had planned to visit a patch of forest in a far corner of the lake, across old lava fields. Having camped on the rim overnight we had little water remaining and needed to reach the lake to replenish supplies. Based on a 1974 topographic map we anticipated an easy descent to the lake through the lava field, and so did not get going until 9.30 am. Several attempts to cut a track to the lava from the crater rim were thwarted by cliffs not evident on the map. Eventually we found a route and by late morning reached a vast, open expanse of loose lava and ash that compressed underfoot as we crossed it.

We headed down a narrow ash field that appeared to go all the way to the lake.

However, cresting a hill we were confronted with an impenetrably dense forest. Over the top of the forest we could see the lake still some 250–300 metres below. After returning to the top of the ash-field we attempted to follow a river of bizarrely twisted lava, extremely sharp, but very brittle. The going was unstable underfoot and camouflaged by ferns, and our progress was painstakingly slow.

By early afternoon, although we had crossed the lava field it was obvious we could not reach the lake, let alone get any work done, and still return to the village before dark. The crater rim, on which we expected to find a track, looked to be an easy climb above us through the forest so we decided to bushwhack up the steep slope rather than back track across the lava field.

The first section of forest was relatively easy but a short traverse across thick humus and lava rubble revealed another, previously hidden ridge and gully. The next 30 minutes were a bushwalking nightmare. Bottomless lava tubes disguised by a thick carpet of fern meant that every footfall had to be tested with a stick. At one stage the guide disappeared down one of these tubes, saving himself only by throwing out his arms and grabbing the sides. Luckily, it was a narrow one!

Our next test was a break in the forest, apparently created when a block had fallen away from the side of the crater creating a metre-wide crevice. No sound was returned by rocks dropped into the abyss and it stretched as far as we could traverse in either direction. Evidently the only way across was to crawl along the roots of a tree that spanned the gap and then up a branch—no route for the faint-hearted!

Another 15 minutes through forest dotted with lava tubes saw us gain the crater rim, mid-afternoon by now and with a cold sea mist scudding in. With visibility down to 50 metres, dense vegetation, lava tubes, the constant up and down of small gullies and the old



KAO - a dormant 1109 metre cone west of Ha'apai, Tonga Photo: Michael Horile

path barely evident we lamented our decision to take the crater rim option. At least the occasional showers meant that empty water bottles were no longer a concern. Eventually the old path became clearer and took us into forest, making for safer walking and easier track cutting. We arrived back at the village just before dark, thankful to have returned intact to the “flea ridden mossie pit” just in time for another fish stew!

Our third descent into the old crater was far more enjoyable. Once again the descent was steep but aided by deep leaf litter and vines to swing on we quickly dropped a couple of hundred metres to a mature open forest of *Casuarina* thriving in the old ash beds.

The last section of the track to the lake passed through the 1926 lava flow, a twisted black mass of sharp, unstable rock. A couple of us swam in the lake, despite its strong smell of sulphur. The final ascent to the active volcano, which had been grumbling and venting steam all day, was a scramble across a progressively steep slope of ash and lava.

Our arrival at the rim was greeted with an almighty “whoosh” and a huge belch of sulphur gas. Fortunately, we were upwind! We could not go too close to the edge as there was evidence of cracking, but we worked our way close

enough to see into the crater just as the smoke and steam cleared. The crater is about 80 metres across and apparently bottomless. As we retraced our steps to the campsite on the rim of the old crater we were greeted by a spectacular sunset. We made the most of our last night camping on the rim under stunningly clear, starry night skies—the ominous grumbling of the volcano nearby adding a special dimension to the experience.

On the ninth day the boat returned to transfer the expedition to Kao, after first taking us on a circumnavigation of Tofua to view the vegetation and the site of Bligh’s landing. The landing on Kao was even hairier than Tofua but was completed without too much drama. The boat had brought fresh supplies from Pangai—bread, cheese, tomatoes and beer (unfortunately, not chilled)—and the divers had caught lobster the night before, so lunch was a grand feast.

No buildings remain on Kao, although there is a brand new 5000 litre fibreglass tank and several lengths of guttering in a clearing on the foreshore! After pitching the tents on a grassy rock promontory with spectacular views of both volcanoes we spent some time planning the climb of Kao, surveying

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Ha'apai Conservation...

vegetation and exploring the forests and foreshore.

The following day dawned clear and sunny. As the time of departure drew closer the previously large group of enthusiastic climbers dwindled. The final group that set off from camp around 8.30 am comprised four *palangi* and one Tongan guide. Although the tourist guide books say it is an overnight climb, our local guide was confident we would return before dark. The track started through old kava plantations, thick bracken and *Pandanus* scrub before breaking out into an open forest of large trees on a steep slope.

The forest disappeared at 430 metres and we were on steep slopes covered with low fern and grass. Following a narrow ridge line with steep gullies on either side, the fern became progressively thicker and wetter and the slope steeper. Towards the top there was thick sphagnum underfoot and the ferns were waist-high, in places requiring us to scramble on hands and knees. After three and a half hours we clambered onto a narrow ridge and

peered over the top to a 200 metre sheer drop to the old crater on the other side. We edged our way along the ridge to the highest point and sat to take in the spectacular view, cloudless sky, deep blue sea, contrasting greens in the crater below.

Where we sat for lunch, the crater rim was about a metre wide and thickly clad with fern and moss. From this vantage point we could see a panorama of the coral islands of Ha'apai to the east, the smoking crater of Tofua to the south, and to the distant north the cone of Late and the blob of the volcanic island of Lomu, which only emerged in April 1996 and still gushes steam where the rock meets the water. With almost no wind, the serenity of the highest point in Tonga was breathtaking. Art Whistler, who had slowly "botanised" his way to the top, arrived a couple of hours after the rest of us, but he had the all-important celebratory beers!

We were back in camp by 5 pm, in time for a snorkel. Superb! A sapphire sea, visibility 40-50 metres, huge volcanic boulders, corals, caves and lava tubes and a myriad of large reef fish: how could snorkelling be better? About 20 metres offshore the slope of the volcano continues, and the bottom descends rapidly out of sight to the sea floor 600-

700 metres below. It's an eerie feeling snorkelling in water that deep.

A perfect day! And what's more, the goals of the survey had been completed successfully. Art had samples of hundreds of plants carefully named, dried and pressed in Sione's makeshift drying unit; Geoff had pages of notes and diagrams; little bits of pink tape marked the numerous sites of tree plots and transects, and between us we had taken enough photos to illustrate all aspects of the survey.

The following day we departed for home, but not before circumnavigating Kao to view some of the smaller craters and deep gullies running to the summit. The boat, packed to the gunwales with gear, plants, bags of volcanic rock for *umu* or earth ovens, and bags of sand and gravel for graves, made slow progress across a big, rolling southerly swell. As the outlines of the two volcanoes slowly dwindled a humpback whale provided a spectacular tail slapping display in the rays of the setting sun. A great experience, at times dangerous and frustrating, but never dull and certainly never to be forgotten by those who participated. ❧

POSTSCRIPT: A photographic record of the trip was prepared for the 1997 Ha'apai Royal Agricultural Show. It created great interest amongst both locals and tourists, and several tourists have since visited the project office for guidance on visiting the volcanoes. Following the Kosrae ecotourism workshop there is now talk of developing a tour to the islands.

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Management of Ifilele...

exist. These include restrictions on Ifilele harvest levels, definition of various management zones within the CA, encouragement of carvers to diversify to other timber species, repair of the Ifilele resource through enrichment and cluster planting, and the encouragement of other income-generation activities such as the production of woven handicrafts. While on the surface the situation looks bleak, there is every reason to believe that as long as the village works together to manage their resource, Uafato carvers will continue to be able to make beautiful Ifilele kava bowls forever. ❧



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My experience as Uafato CASO

by Dion Ale

“The Uafato people call me ‘John’. It stemmed from the difficulty they had in pronouncing my name, but that didn’t bother me; John-Jim-Jay-Jack-Mary, it doesn’t matter to me.”



In 1993 I started working as an environmental officer for the major environmental NGO in Samoa, O le Siosiomaga Society. O le Siosiomaga subsequently became the lead agency for the Uafato Conservation Area project, and in 1996 I was formally appointed as the Uafato CASO, even though arrangements were already well advanced for me to study for a degree in Aviation at Massey University.

Who persuaded me to stay? None other than the Rev Asotasi. When I was about to tender my resignation, Reverend Asotasi of the Uafato CACC approached me. My grandmother always reminded me that deep consideration should be taken whenever a man of God requests a favour. So, I did.

Anyway, I have now had four years working in the Conservation Area. The Uafato people call me ‘John’. It stemmed from the difficulty they had in pronouncing my name, but that didn’t bother me; John-Jim-Jay-Jack-Mary, it doesn’t matter to me. All I’m interested in is helping the community to understand the whole philosophy of the Uafato CA, and ensuring that there is continuity in the project’s dealings with the Uafato community.

Being bilingual (Samoan/English) was a great advantage in implementing the awareness programme. There were always the conservative members of the village who were sensitive to new initiatives, particularly when the matter being discussed was the fate of the whole village forest. Some of them were concerned that their right to the land would be taken away, others were very sceptical about how much benefit the village would receive if they agreed to their forest becoming part of a regionally recognised Conservation Area network.

Fortunately effective environmental education and awareness and help from the village Congregational Christian Church minister helped us to reach agreement. It was a great experience, and a very challenging one for me. I had to translate everything spoken and written about the Conservation Area concept into Samoan so that the village could understand, and then translate their responses into English so that they could be understood by our project design team.

The implementation process could be frustrating at times. When our work started in Uafato, I had to carry out many preliminary tasks. They were

time-consuming but the process did help to create a firm base for future activities. Like most people, I guess, we have encountered problems at every level: with the community, within my own organisation and with the supervising organisation/donors.

Actions speak louder than words. Seeing is believing. Whether you’re a good orator from outside or have a Ph.D. in community-based conservation, talk without action is no good if you’re dealing with a community like Uafato. If you can’t do something, simply admit it, otherwise you be called a liar or hear the worst thing you would ever want to hear. The Uafato community is action-oriented, and expects to see CA activities actually happen as promised or discussed, whether formally or informally.

To be frank, I’m still in the process of finalising my Conservation Area project’s second, third and final quarterly reports for 1997. I hope I’m not the only one with the same problem. But guess why? I’m not familiar enough with the MS Excel quarterly reporting format devised by SPBCP, plus I hate the accounting part of the work. You can ask me anything you like about biodiversity conservation in Uafato, or in Samoa in general, and I will be happy to give you an inch-thick report, but I hate the accounting part of the SPBCP quarterly report!

Our office has just recently installed an advanced version of Excel but, needless to say, I still don’t know how to use it. But no more excuses! I’m glad that Tina, SPBCP’s new Executive Officer, who has just started, will help me master SPBCP’s reporting format; particularly the cashbook extract part. ☒

In Summary

WHAT I HATE THE MOST:

Dirty politics and unnecessary bureaucracy

THE PERSON I RESPECT THE MOST:

Paramount Chief Tuimalatu Viliata of Uafato

MY DREAM:

Uafato to be the Best Ecotourism Spot in Samoa

WHAT I LIKE MOST ABOUT UAFATO CA:

Working at the grassroots level

WHAT I LIKE MOST ABOUT OUR OFFICE:

It’s an NGO

STOP PRESS STOP PRESS STOP PRESS

■ On 19 February 1998 Samoa's Head of State Malietoa Tanemafili II awarded Uafato CASO Dion Ale the chiefly title of **Papali'itele Dion Ale**, in recognition of his services to conservation, including his work in the Uafato Conservation Area.

■ SPREP's email number has changed. Please note, it is now: sprep@samoa.net



Misa Kulutea, a tour guide in Huvalu Forest CA, in Niue, explains traditional coconut crab management techniques. His family make burrows and chambers for coconut crabs, using rocks. The chambers are topped with rocks, which can be lifted off. Coconuts are put in the chambers, and the coconut crabs make their way to the coconuts through the constructed burrows. They are free to leave at any time but generally don't, relishing the ready supply of coconuts. Locals relish the ready supply of coconut crabs.

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