

**REVIEW AND ANALYSIS OF  
FIJI'S CONSERVATION SECTOR**

Final Report

THE AUSTRAL FOUNDATION

### **The Austral Foundation**

The Austral Foundation is a private, not-for-profit operating foundation that works to achieve productive, sustainable, high quality advances in conservation and development. All programmes are funded internally through an endowment. The Foundation does not rely on government, private sector, foundation or special interest group support, nor does it charge fees for the professional services it provides. Thus Austral brings a uniquely independent perspective to the organisations and sectors it chooses to support.

#### **Contact address for this review:**

Annette Lees  
110 Bethells Road  
RD 1 Henderson  
Waitakere City  
New Zealand

[alees@australfoundation.org](mailto:alees@australfoundation.org)  
[www.australfoundation.org](http://www.australfoundation.org)

**November 2007**

## **EXECUTIVE SUMMARY**

### **A biodiversity crisis in Fiji**

The overwhelming conclusion this review has reached after seven months of research, interviews with 67 informants and from reading reports and other literature is that there is currently a biodiversity crisis in Fiji.

The most critical issue facing terrestrial biodiversity conservation is forest degradation through agricultural clearance, plantation establishment, and destructive and unsustainable logging that is continuing through large areas of the remaining tropical rainforests of Fiji. Destructive logging is a resource use issue that has implications for the sustainable development of Fiji. It is depriving Fijian resource owners of long-term forestry assets and income with the degradation of productive forest and soil. Poor logging practices have resulted in serious soil erosion; river, stream and reef sedimentation; and increased flooding events. It is of concern for species and habitat conservation, causing ecosystem degradation and predator and weed invasion. Further diminished by fire and conversion to agriculture the total remaining forest area of Fiji is reducing, with 70,000 hectares lost over the past 15 years. The forestry situation in Fiji has worsened rather than improved over the past decade with one of the most serious outcomes being the diminished role of an effective Department of Forestry.

Degradation of forest habitat results in a situation today where 11 endemic bird species of Fiji are threatened with extinction and a further six are Near Threatened. Three of the six native bats are officially categorised as threatened, both endemic frogs, a third of the reptiles and half the palms.

In the marine ecosystems, the situation is no better. Over-harvesting combined with pollution, soil erosion, and land run-off has led to a crisis in Fijian fisheries. Over-fishing is prevalent for both the near-shore and deep water fisheries. Nesting turtle numbers have dramatically declined, two species of giant clams are extinct, and large inshore fish species are now uncommon. The bumphead parrotfish (*Bolbometopon muricatum*), the world's largest parrotfish, is locally extinct at most locations. Fiji is recorded as being the sixth largest global exporter of ornamental fish and the second largest exporter of live coral. There is no government-imposed quota for in-shore fisheries. There are no formal limits to the numbers of fishing licences or for fish take. Fisheries monitoring by Fisheries officers is weak and ineffective. Even where communities engage in some degree of fisheries management (estimated to be now in 30% of Fiji's coastal areas), poaching is rife. Few communities have the resources to monitor their reefs against poaching and to pursue the illegal fishers. One locally managed marine area has reported a death as a result of fighting over poaching.

### **Who is accountable?**

The biodiversity crisis in Fiji has arisen despite the presence of four government agencies with an interest in conservation, 23 non-government agencies and at least a half-dozen community-based groups working on conservation outcomes, 148 individuals employed full time on the issues, the oversight of several Pacific regional

secretariats, the contracting of numerous experts, the writing of uncounted reports, the modelling of numerous trials, over F\$13 million spent on the crisis annually, a population that depends for its livelihood and economic development on biodiversity conservation, and a history of conservation effort that goes back to 1880. Each decade begins with a new approach, a fresh set of priorities, another trend and renewed commitment to biodiversity conservation in Fiji but, with notable exceptions, the commitments consistently fail to be implemented.

Strikingly, no particular group seems to be accountable for the crisis. Consultants contracted to analyse or make recommendations write reports on behalf of government departments and donors which are largely ignored by government. Government departments get reviewed and are given new policies and legislation, but don't implement these nor change their approach. NGOs spend resources engaging with communities or otherwise implementing projects but are essentially unaccountable for their priorities, their methodology and their budgets (except back to their own international offices and to donors). The arrival of most of the 18 international organisations working on conservation in Fiji in the past ten years has not seen a commensurate increase in conservation success at the national level where one would expect these groups to be positioned. Communities see projects come and go, sometimes seeing their own priorities addressed, but long term capacity development at the community level on a national-wide scale is elusive.

Programmes frequently fail to move beyond pilot phases and even the successful community projects may find sustainability elusive. There have been successes, and these successes are important. But they are isolated. There is not a sense of movement towards greater conservation impact over time. Individual conservation projects do not seem to be adequately addressing the most critical problems – the sum of the parts is smaller than the whole.

This does not mean that either all conservation initiatives have been incompetent or that the problems are so difficult as to be unsolvable. However, this review concludes that much greater progress can be made in Fiji if some fundamental changes are made in the way the sector is approached.

### **Building solutions**

This review does not confirm some of the common assumptions about the causes of the biodiversity crisis: lack of awareness, inadequate policies and legislation, a shortage of information and science, a lack of models, or a lack of resources. None of these factors are underlying causes nor even, in some cases, contributors to the crisis.

Instead the report finds four key solutions to resolve the crisis:

- 1. Build Fiji-citizen ownership of the crisis and reduce Fiji-led institutional isolation from designing and implementing solutions.*

Fiji nationals are central to resolving the biodiversity crisis. The people of Fiji need to define their own vision for conservation and then own the problems that impede that vision. They need to design the solutions and set the priorities for action. There is a critical role for international organisations in providing technical support,

experience and knowledge to support this agenda, but international organisations cannot be in the driver's seat if effective, sustainable solutions are to be found. This is a deeper concept of ownership than participatory methodologies that link community members into village-based projects.

Lack of ownership results in a government that is unable to provide leadership on the issue, has been unwilling to tackle corruption in the logging and fishing industries, and seems unable to implement the policies and regulations it already has for safeguarding the environment. Lack of ownership also results in lack of public concern and advocacy for accountability and good governance for conservation. There is reduced national ability to coordinate and inspire the activities of NGOs and donors. There is reduced ability amongst communities to articulate their aspirations beyond projects.

Fiji nationals need to take leadership over conservation and those working in the conservation sector need to seek out, develop, and support such Fiji nationals within the Fijian government departments and NGOs that employ them. They need to assist in making new openings in Fiji organisations for recent graduates rather than open international offices and poach them. Investing in capable people can result in meaningful institutional change. By contrast to this scenario in Fiji today, there are 24 people working for local NGOs on conservation compared with nearly 80 working for international NGOs (INGOs). This review discusses the value of INGO engagement with Fiji but proposes a new model for how they can have greater positive impact on conservation outcomes. Such a model –supporting Fiji-based organisations and government – keeps talented local people within the context and economy of local organisations where they can lead their growth. It provides greater local accountability of NGO activity. It is more cost-effective and provides more equal and vibrant partnerships. It is more effective at mobilising civil society to hold government accountable.

Over a defined time period, control of conservation design, priority setting and implementation needs to be ceded to local institutions and their leaders.

## *2. A sound strategy behind the design and implementation of biodiversity programmes in Fiji.*

Finding effective solutions begins with the knowledge of the exact nature of the problem. To have impact on biodiversity conservation the problems and root causes of the problems must first be clarified. The solutions proposed must be known to be effective in Fiji and should address root causes of the problem. Priorities for action must be based on the best assessment of what action is the most urgent and which has the best chance of the greatest impact. Each organisation needs to understand its most effective role, given its skills, experience, resources and its degree of ownership over the problem and solution. Work programmes should follow ethical standards and avoid wasting resources, duplicating effort or usurping the work of local leaders. Benchmarks or indicators need to be established for regular monitoring to test effectiveness and enable direction change if necessary. There should be a transparent process to incorporate lessons as they are learned.

These are fundamental good management practices and are probably widely known. But with a few exceptions, this review found a worrying lack of strategy in the design and implementation of biodiversity programmes in Fiji. At the project level, strategic thinking is sometimes evident. But a hundred good projects do not necessarily make a sound strategy. Without a clear, well analysed national strategy, how can we know if any one project contributes to a significant impact on the root causes of the biodiversity crisis?

From the government side, the current guiding document for national strategy is the Fiji Biodiversity Strategic Action Plan (FBSAP). The FBSAP is based on an extensive consultation process and it contains sound background information on biodiversity in Fiji and its value. However, it lacks any identification or analysis of problems. It lists projects without describing their strategic value or desired impacts. In all, it is a dauntingly large and complex document. Without a clear and accountable national strategy that draws all institutions and resources around prioritised problem solving and makes everyone accountable for their role, biodiversity conservation in Fiji will remain in crisis.

FBSAP does not need to be rewritten. But it does need an accompanying guide that provides a focused, priority-setting and inspirational strategy to lead the actions of a collaboration of government, NGOs, donors and other agencies. The strategy needs to prioritise actions that are directly related to resolving core problems for Fiji and those priorities need to be set by Fiji nationals and Fijian institutions. Every agency engaged in the conservation sector, including the Ministry of Fisheries and Forests and all NGOs should have their work programmes linked in to this problem-solving matrix. Easily-measured targets need to be set to ensure progress against the problems and each agency and organisation needs to be held accountable for its commitments and progress.

### *3. Build the capacity of government*

The solutions to the most profound problems facing conservation in Fiji require government response to be effectively resolved. This is true for logging, for invasive species, for protected area establishment, for forest loss, for over-fishing and poaching of marine resources.

Yet government officials described to us their sense that all the capacity and resources for conservation rests with the NGOs. This understanding is correct. There are about 45 government staff working on conservation outcomes for a total budget of just over F\$1 million. There are more than twice as many people (103) working for NGOs in Fiji with a total budget of just under F\$12 million. Only one of the 23 NGOs told us that lack of capacity was a problem for them. By contrast, every government department with a role in biodiversity conservation that we interviewed said lack of capacity was their main, or one of their main, problems.

A key focus and priority for resolving the biodiversity crisis must be to build the capacity of Fiji's government departments, ministries and other institutions, including provincial offices. Capacity development has been tried before. Before it is tried again, there needs to be careful analysis of what doesn't work, and what might. Capacity is not built on international standards of resourcing, nor will it result in the

same priorities or objectives as those of international agencies. Capacity is best developed through nurturing effective local leadership and working within the boundaries of locally available resources and local interest.

#### *4. Conservation campaigning.*

By conservation campaigning, we mean conservation groups and government agencies working collaboratively on selected priorities to solve defined national conservation problems. The conservation crisis in Fiji is too large a problem for individual organisations and departments to resolve on their own. Conservation campaigning is about cooperation and dialogue within the national strategy described above.

An example of this is sustainable forest management (SFM). As this report has described, destructive and unsustainable logging in Fiji causes multiple problems for biodiversity conservation from both a Fijian and international perspective, both terrestrially and marine. It intersects with nearly every major cause of the biodiversity crisis (loss of natural resources, soil erosion, stream and reef sedimentation, predator and weed invasion of forests, loss of forest habitat). National sustainable forest management and associated forest protection could therefore well be the single most important issue for conservation in Fiji. It is also an issue that has strong resonance with stakeholders not usually motivated by traditional conservation concerns.

A national strategy to prioritise logging issues that involved several government departments, NLTB, National Trust of Fiji, USP and NGOs could effectively join forces to make significant progress on a difficult issue. There are roles for everyone: local development-focused NGOs to support landowners and their concerns as well as providing critical ‘thousand eyes’ of civil monitoring of logging companies and government department effectiveness; international NGOs to assist in certifying and marketing ecotimber, bringing in funds to support conservation area establishment, and providing technical support and capacity development to Forestry; Tourism to link in to conserved forest areas and a ‘green’ international image and so on.

Whatever is the national priority for a conservation campaign, there is good reason for all actors in the conservation sector to draw together to improve their effectiveness. It is not strategic for NGOs to work only with individuals within specific government departments on individual projects. Nor is it strategic for the government to leave the capacity and resources of the NGOs without coordination, national priorities and little accountability. Turning the tide on the biodiversity crisis is a big job that will require creative thinking, risk taking and collaboration from everyone involved in the conservation sector. Conservation NGOs, government departments, communities and donors need to work closely together on the really big problems, with common objectives to achieve this.

## **REVIEW RECOMMENDATIONS**

### **To the Government of Fiji**

The review recommends:

- The Government of Fiji take ownership over the biodiversity crisis in Fiji and provide leadership to the sector in a coordinated response (including FBSAP and the National Development Strategy) to resolve the crisis.
- The Fiji Biodiversity Strategy and Action Plan be accompanied by a guide that provides a focused, priority-setting and inspirational strategy to lead the actions of a collaboration of government, NGOs, donors and other agencies. Every government and non-government agency engaged in the conservation sector in Fiji should have their work programmes linked in to this problem-solving matrix. Easily-measured benchmarks should be set to ensure progress against the problems and each agency and organisation should be held accountable for its commitments and progress.
- The Government of Fiji set a clear and standard process for the establishment, operation and accountability of conservation NGOs through its Memorandums of Understanding with them. These MOUs should include a Code of Conduct, defined consequences for breaches of this, and mechanisms to ensure transparency of operations.

### **To NGOs and other agencies**

The review recommends:

- International NGOs operating in Fiji design and implement their work programmes to ensure these result in ownership and leadership by Fiji citizens in local organisations in a manner that builds Fiji's long term capacity in conservation.
- All NGO programmes be strategically designed. Such programmes should actively support, and be accountable to, a cooperative national strategic action plan coordinated by the Fijian Government.

### **To donors**

The review recommends:

- Donors adopt funding strategies that support the national conservation strategy and its priorities.
- Donors ensure their programmes support development of Fijian ownership and leadership of conservation programmes within Fijian institutions and are designed to build local capacity.



## **ACKNOWLEDGEMENTS**

This review and analysis of Fiji's conservation sector was undertaken by Suliana Siwatibau and Annette Lees on behalf of the Austral Foundation. In the course of the seven-month long review, we interviewed 67 people from a range of NGOs, government departments and ministries, donors, the private sector and as individuals. Some provided further input in the form of follow-up emails and other discussion, provision of reports and budgets, attendance at a debriefing workshop, and peer review of this report. The National Trust for Fiji was especially generous with files and information. We would like to thank everyone for the time and other resources you have given the review. We hope that in return the information in this review and analysis will have positive impact on the future effectiveness of conservation initiatives in Fiji, and potentially elsewhere in the Pacific.

We would also like to thank our colleagues in the Austral Foundation: Joseph Grossman, Steven Miller, Cedric Saldhana and Don Clarke for your valuable contributions.

Any errors, omissions and opinions remain the responsibility of the authors.

## CONTENTS

	<b>Page</b>
Executive summary.....	3
Acknowledgements.....	9
<b>1. Background to the review</b>	
1.1 Introduction.....	11
1.2 The review team.....	12
1.3 Purpose of the review.....	12
1.4 Scope and approach.....	12
<b>2. What are we trying to conserve?</b>	
2.1 Introduction.....	14
2.2 International conservation interests.....	14
2.3 Fijian centred conservation interests.....	14
2.4 Overlap.....	15
<b>3. A biodiversity crisis in Fiji</b>	
3.1 Terrestrial conservation.....	16
3.2 Marine conservation.....	18
3.3 Other threats.....	19
<b>4. A history of conservation in Fiji</b>	
4.1 Introduction.....	20
4.2 Legislation and policy.....	20
4.3 Conservation areas.....	22
4.4 Sustainable use of resources.....	23
4.5 Ecosystem health.....	25
4.6 Awareness and education.....	25
4.7 Research.....	26
4.8 Trends.....	26
4.9 Conclusion.....	27
<b>5. Who is engaged with conservation work?</b>	
5.1 Government.....	28
5.2 NGOs and other implementing agencies.....	29
5.3 Analysis.....	31
<b>6. Who is funding conservation?</b>	
6.1 Funding categories.....	37
6.2 Analysis.....	38
<b>7. Building solutions to the biodiversity crisis in Fiji</b>	
7.1 Introduction.....	39
7.2 Misconceptions about the biodiversity conservation crisis.....	40
7.3 What is needed.....	42
<b>8. Recommendations</b>	
8.1 To the Government of Fiji.....	47
8.2 To NGOs and other agencies.....	48
8.3 To donors.....	48
<b>Appendices</b>	
A. Terms of Reference.....	49
B. List of people interviewed.....	54
C. List of participants at the Raintree Lodge Workshop to discuss interim review findings: August 10 2007.....	56
D. A History of Conservation in Fiji.....	57
E. Conservation Timeline.....	63
F. International conventions for conservation ratified by Fiji.....	76
G. Organisations working on conservation in Fiji: staff and budgets.....	77
H. References.....	79

# **1. BACKGROUND TO THE REVIEW**

## **1.1 INTRODUCTION**

Biodiversity conservation - that is, the conservation of plants and animals that make up the species richness of a country - is widely recognised as an issue of importance for the South Pacific as it is relevant to family livelihoods, culture and economic development as well as to the unique biological story that these islands possess. The biodiversity of the region is threatened by a broad range of causes including unsustainable logging and fishing, invasive species, pollution, soil erosion, fire, habitat conversion and agricultural run-off. Climate change is an additional threat of significant potential impact, especially for coral reefs.

From the early 1990s there has been an upsurge in attention paid to conservation particularly from Pacific regional and international agencies, donors and Non Government Organisations (NGOs). We estimate that two hundred million US dollars may have been spent on the sector in Pacific Island countries in the past two decades. Hundreds of projects have been implemented involving many government departments and hundreds of communities. Biodiversity conservation in the Pacific Islands has been the focus of intense attention from international NGOs and donors. Important lessons on programme focus, design and implementation have been learned in this time (but are not always remembered or applied). These include the role of community participation in project success, the value of engagement on livelihood issues and a better understanding of how capacity can be developed. There have been some notable local successes: community management of fishing areas; rat eradication on islands; better informed communities; special conservation measures for rare and threatened endemic species; delayed or cancelled logging agreements; improved land management; and growth in the local NGO sector. A Pacific Islands approach to conservation is beginning to emerge – one that builds on local concerns and constructs local solutions to conservation problems while harnessing international resources, knowledge, technology and perspective.

Despite these advances and the investments that have been made, biodiversity continues to be lost and degraded at a rate of decline that may be accelerating. Why? Do we not yet understand the causes of the problem, or do we lack appropriate solutions? Can funding and initiatives be better applied? Do we need more pilot approaches? Is more money needed? Is it a lack of capacity? Do governments of the region not have enough commitment to act and if this is so, why don't they? Is the competition with unsustainable resource exploitation too intense? Do we not have enough information? Or does the scale of the problems render them unsolvable?

The Austral Foundation has committed to contribute information and analysis to this debate. In July 2006 a group of participants at the Suva meeting of the Roundtable for Nature Conservation met to discuss how Austral might design a review of the sector to begin this work. The group concluded that while a regional review would be both valuable and interesting, it was more feasible to conduct an in-depth analysis of a single country in the region. Such a focus might also provide the best chance of

positively influencing conservation outcomes within the country and valuable information would then be available to the wider Pacific. The group proposed Fiji as the study country because many of the conservation issues facing Pacific Island nations and most of the international agencies and donors that work in this sector are represented in this country.

Austral Foundation directors subsequently made two trips to Suva in September and November of 2006 to discuss the proposed review and analysis with stakeholders there. There was widespread support for the review with the expectation that conservation outcomes for Fiji could be improved by such a project. Draft Terms of Reference were drawn up, distributed for discussion, and then finalised after taking feedback into account.

## **1.2 THE REVIEW TEAM**

Suliana Siwatibau has been involved in issues of nature conservation, community development, gender and development as well as energy policy and planning in Fiji and the wider Pacific Islands region for over 35 years. She has had experience in teaching, agricultural research, herbarium curating, energy planning, and project management as well as NGO administration. She has spent the last ten years as a consultant in the Pacific region. Suliana is based in Fiji.

Annette Lees has 20 years experience in conservation and development in the Pacific and has worked on conservation issues in Fiji since 1988. She has directed the Pacific programme of two international conservation NGOs and is now a conservation and development consultant with a focus on strategic development and review of programmes and organisations. Annette is a Director of the Austral Foundation and is based in Auckland.

## **1.3 PURPOSE OF THE REVIEW**

The purpose of the review is to provide decision-makers in the Fiji Government, implementing agencies and donors with credible, compelling and useful information on the history and current situation of biodiversity conservation in Fiji that results in stakeholders working to improve their effectiveness and accountability, leading to improved long-term conservation outcomes for Fiji.

## **1.4 SCOPE AND APPROACH**

The review is confined to biodiversity conservation: that is, the conservation of plants and animals that make up the species richness of Fiji. The review has not examined broader environmental issues such as soil erosion, waste disposal, disaster management or pollution, except where these specifically impact on biodiversity. No new research has been commissioned for this work – rather information has been collated from existing written reports, papers, manuscripts and reviews (and these proved to be extensive), and interviews with stakeholders and knowledgeable people

including representatives of local communities, private sector, local and international NGOs, donors and government departments.

The review has not identified or evaluated individual projects or programmes or, for the most part, organisations. This is in part to safeguard confidentiality and in part to enable the review to focus on the collective impact of all implementing agencies in Fiji. Findings and recommendations are focused at this collective, national level, examining the overall effectiveness of conservation initiatives in the country. This inevitably means that while the findings are true for the sum of all efforts, they will not necessarily all be true for each individual organisation working on conservation in Fiji.

As the review is pitched to a readership of people familiar with Fiji and the conservation sector there, it does not provide detailed background information on the ecology, culture, economics, land tenure and other matters that would no doubt make the context more understandable to those unfamiliar with Fiji. It is assumed that those working in Fiji are familiar with this context or are able to find this information elsewhere. (The Fiji Biodiversity Strategy and Action Plan 2003, is a good place to start for this.)

The review was originally to have comprised two parts: information analysis and interviews, followed by field review of selected projects. Part One was completed in early August 2007 and a workshop held in Suva to present the findings to date. The 30 workshop participants agreed that enough substantive information had been collated at this point to enable significant conclusions and recommendations to be made, without having to visit the field. It was then agreed by stakeholders and Austral Foundation directors to conclude the review here and move on to supporting implementation of the review's recommendations.

There are significant gaps in available information on the state of biodiversity in Fiji and its links with communities, sustainable livelihoods and development but we are confident that our conclusions are sound as they are based on the best professional estimates of the many experts deeply familiar with Fiji.

*Italicised words are direct quotes from people interviewed.*

### **A note on the term 'Fijian'**

In Fiji, the term 'Fijian' is usually understood to refer only to the indigenous people of Fiji. In this report our use of the word Fijian also encompasses all citizens of Fiji. We refer to the importance of all Fiji nationals contributing to a national vision of conservation for Fiji, and having ownership over the problems and solutions of biodiversity conservation. The national vision of conservation must however take account of the indigenous concept of biodiversity conservation at a local level. Indigenous Fijians own and manage over 80% of the land and natural resources of Fiji.

## **2. WHAT ARE WE TRYING TO CONSERVE?**

### **2.1 INTRODUCTION**

Biodiversity is essentially the natural wealth of a country as represented by the range of plants and animals, both marine and land-based that is found there.

Through our discussions and interviews we can identify two perspectives in the conservation of Fijian biodiversity: ‘international conservation’ and ‘indigenous Fijian’. It may seem simplistic or even divisive to categorise conservation in this manner but we were repeatedly and clearly told of this difference in perspective by a wide range of people. For many, the difference impacts on the effectiveness of conservation initiatives so it is important to be clear about it at the start.

### **2.2 INTERNATIONAL CONSERVATION INTEREST**

International conservation interest in the biodiversity of a country like Fiji is often focused on the richness of its biodiversity – how many indigenous species it has – as well as its degree of endemism or uniqueness. Fiji’s land area which was originally almost all forested, supports over 2,600 vascular plant species, 1,600 of which are native to Fiji. Over half of these are endemic or unique to Fiji. There are over 90 native species of birds, bats, frogs and reptiles. Nearly half the bird species are endemic, and a third of the reptiles are. Endemism in invertebrates runs very high. Marine endemism is significantly lower (around seven species in total, although some groups are poorly studied). However, international interest in marine biodiversity includes the extent and relative remoteness of its reefs and the potential of these to have high levels of species richness as yet undetected.

International conservation interest is primarily concerned with the protection of species (particularly certain iconic species) along with the health of ecosystems. There can be additional interest in ‘wilderness’, perceived remoteness, iconic landscapes, and the pristine state of natural areas or in how biological processes such as evolution are illustrated by species assemblages. Some of the international conservation interest in Fiji is focused on how conservation is being done in Fiji (particularly in sustainable resource use) as it is believed that there are lessons here for other countries in the Pacific and the world.

### **2.3 FIJIAN CENTRED INTEREST**

Because of the strong connections between indigenous Fijians and natural resource ownership and use, and the fact that a substantial portion (over 80%) of the natural resources of Fiji are owned by mataqali (community units), the values and views of indigenous Fijians to conservation are central to any discussion on this subject in Fiji. The Fijian term for the natural wealth of a place or country is *yau bula* (living wealth). *Yau* (wealth) in Fijian is something that one accumulates in order to use and to share. It is not accumulated for its own sake. *Yau bula* (living wealth) is treasured and nurtured in order to be used and shared.

Fijian-centred interest in biodiversity is primarily focused on its usefulness to people. The definition of usefulness can include, for some plants and animals, spiritual values. A species or place is not protected for its own sake. Conservation initiatives are almost always for some practical reason such as safeguarding food supply or because of ancestral or cultural links. Interest in biodiversity extends to introduced species – those plants and animals that ancestral Fijians brought with them such as traditional root crops, fruit trees, and wild fowl and pigs. Protecting biodiversity is rarely intended to be permanent – rather it is to conserve resources for some future event such as subsistence needs of the next generation, feasting, development or, increasingly, to meet cash needs. In short, biodiversity conservation from a Fijian perspective is primarily about managing nature for human use.

## **2.4 OVERLAP**

There is considerable overlap between international conservation, indigenous Fijian and other Fiji nationals' conservation concerns. Sustainable resource use implies at least some species protection. Every international conservation agency working in Fiji has in its vision, objectives or mission a statement that confirms the agency's concern and interest in the well-being of the people of Fiji. Most also define their approach to conservation as one that respects the social, economic and cultural needs of Fijian resource owners. Both Fiji citizens and non-Fijians have an interest in ecosystem services – watershed protection, water purification, coastal protection. There are Fiji nationals of all races with interest and expertise in species diversity and endemism and many community residents are interested in the uniqueness of their natural resources. There is also a divergence of views and agendas within each group.

Despite the overlap in interest, there are real differences in the priorities and values that Fijian communities and international conservation bring to the conservation discussion table. Over time, the meeting of these two world views will result in changed emphasis for both but it is likely that core conservation priorities will remain a point of difference. This is an important point to note when, as we will argue, a local sense of ownership over conservation problems and solutions is central to effective conservation programmes.

The difference between the two groups becomes an issue when global programmes with international conservation priorities and analysis are implemented in Fiji. This approach can be successful but it takes imaginative, articulate and Fiji-experienced individuals to lead such programmes and to have full authority over their development. The approach described does not mean that the current Fijian attitudes to conservation or resource use should unquestionably dominate the views of all working in conservation. There must be room for growth of knowledge, debate and new understanding. But it requires special attention to be paid to programme design to ensure that international concerns overlap with and support local priorities. Programme design and implementation need to be flexible to enable these to be shaped around the local context. And, importantly, ownership of the programme needs to rest with Fijian institutions, organisations, communities and individuals rather than branded to an international agency. (The issues around branding are discussed further in 5.3 ii.)

Some internationally-derived programmes in Fiji do this work well. We also found examples where it was not being done well: where the two agendas (local and international) sit side-by-side rather than integrating under Fijian leadership. Such programmes are sometimes characterised on one side by a strong emphasis on community education about the international view of biodiversity conservation and on the other, local communities waiting for the opportunity to have their development priorities addressed by their conservation guests. This is not a strong position to be in to advance mutual conservation interests and success.

*‘Communities don’t use the word ‘conservation’. We can’t even translate it into Fijian.’*

*‘It’s difficult to get an in-road into the community using conservation. It’s just not their priority.’*

*‘Unless you’re meeting people’s needs, you won’t be doing conservation.’*

*‘Resource conservation is critical to Fijians.’*

*‘Most Marine Protected Areas are opened for Christmas. Perfect! That’s their value. If we want to be successful we have to start with their values.’*

### **3. A BIODIVERSITY CRISIS IN FIJI**

The overwhelming conclusion we have reached from interviews with 67 informants and from reading reports and other literature is that there is currently a biodiversity crisis in Fiji. This is true both from a ‘Fijian’ as well as an ‘international conservation’ perspective.

#### **3.1 TERRESTRIAL BIODIVERSITY**

A conclusion of this review is that the most critical issue facing terrestrial biodiversity conservation is forest degradation through agricultural clearance, plantation establishment, and destructive and unsustainable logging that is continuing through large areas of the remaining tropical rainforests of Fiji. These forests contain the remaining stocks of native terrestrial biodiversity in a country that was once totally covered in tropical forests. Destructive logging is a resource use issue that has implications for the sustainable development of Fiji. It is depriving Fijian resource owners of long-term forestry assets and income with the degradation of productive forest and soil. It is of concern for species and habitat conservation, causing ecosystem degradation, erosion, sedimentation and predator and weed invasion.

A report on sustainable forest management (SFM) in Fiji by the International Tropical Timber Organisation in 2004 investigates whether the forests in Fiji are being managed to SFM standards. The report’s conclusion:



‘The answer has to be an emphatic “No”. Too much damage is done by timber harvesting in the indigenous forests, in the mahogany plantations and to a lesser degree in the pine plantations for any other answer. In addition, much the same applies to plantation establishment practices. Then, mahogany has been found to be such an aggressive invader of forest outside the designated plantation area that it causes permanent changes in the ecosystem dynamics and the integrity of closely adjacent forests.’ (ITTO 2004)

Communities are being made more vulnerable to natural disasters through poor forestry practices including badly made roads, inappropriate logging machinery and logging in steep areas and on the banks of watercourses. These practices have resulted in serious soil erosion; river, stream and reef sedimentation; and increased flooding events.

The ITTO describes a multitude of problems in the forestry sector including a lack of morale and trust and a workforce that is too small, too ill trained, too laxly managed, under-resourced and weakly supported in all aspects of timber harvest and milling to harvest according to SFM. The most valuable species in the forest are being over cut, including *dakua makadre*, *yaka* and *kauvula*.<sup>1</sup> Insufficient resourcing has resulted in inadequate supervision of the National Code of Logging Practice. For example there is a lack of vehicles to inspect and control logging sites:

‘An arrangement where it takes all day to reach and return from one site to scale the logs, then to inspect harvesting standards, and then to have to depend for transport on the people to be controlled, must be as close to absurd as is conceivable. Yet this is not uncommon.’ ITTO 2004

Most commonly, short-term licences are being issued on behalf of Fijian landowners to logging companies that then have no future economic stake in the forests. Fijian land owners are left to monitor daily activities of the logger where both have vested short-term interest in getting maximum immediate returns from the forest. Those organisations wanting to work in forests and with landowners find it difficult to access information on timber licences and concessions and anything related to forestry planning. The Forestry Department budget for managing the small number of reserves has recently been halved.

In all, the forestry situation in Fiji was described to us as having worsened rather than improved over the past decade with one of the most serious outcomes being the diminished role of an effective Department of Forestry. The situation coincides with the continued growth of international markets in tropical timber – a resource that is declining in supply internationally as tropical forests everywhere are heavily logged.

---

<sup>1</sup> ‘For example, *dakua makadre* (*Agathis vitiensis*), which made up slightly more than 6% of the volume enumerated in the Land Resources Division inventory now comprises 14% of the output and has been as high as 22% over the three decades since the inventory. Similarly with *kauvula* (*Endospermum macrophyllum*), enumerated in the 1969 inventory at about 18% of the total volume in Viti Levu and 3% in Vanua Levu contributes 14% of the overall present output, and the valuable *yaka* (*Dacrydium* spp) which represented about 1% of the inventory volume provides 2% of the present total annual cut.’ ITTO 2004

The total remaining forest area in Fiji is being diminished by fire, conversion to agriculture and by land degradation from logging. Forest clearing for agriculture (both commercial and subsistence) has resulted in major losses of forests in the smaller islands as well as the drier and lowland rainforests of the higher islands (Watling and Chape, 1992). It is conservatively estimated that 70,000 hectares of forest has been lost in the past 15 years and that forest loss continues.<sup>2</sup> This is very serious for a small island nation like Fiji which depends on healthy forest cover to protect its water catchments as well as the other economic benefits that forests return.

Loss and degradation of forests has a negative impact on indigenous forest-dependent plants and animals, which is most of Fiji's flora and fauna. Loss of habitat is compounded by invasive species. According to the Fiji Biodiversity Strategy Action Plan (FBSAP), invasive species "are generally regarded to be the second most serious threat to biodiversity after habitat loss, but for an oceanic island like Fiji, it may be the most harmful." These now include mahogany, African tulip (*Spathodea campanulata*) and climbers that suppress forest regeneration, as well as predators (mongoose, rats and cats) that can move into remote forest areas through logging roads.

Over time, such degradation of forest habitat results in a situation today where 11 endemic bird species of Fiji are threatened with extinction and a further six are Near Threatened. Three of the six native bats are officially categorised as threatened, both endemic frogs, a third of the reptiles, and half the palms (Fiji BSAP 2003).

### **3.2 MARINE**

In the marine ecosystems, the situation is no better. Over-harvesting combined with pollution and land run-off (from unsustainable agricultural use) has led to what one seasoned marine scientist described to us as a 'crisis in Fijian fisheries'. Loss of forest cover and poor logging practices hasten soil erosion, causing sedimentation in rivers, impacting on the production of garden land and eventually harming coastal reefs and other marine habitats. Mining, particularly the removal of river boulders and gravel, has a serious impact on freshwater as well as coastal and marine biodiversity. Climatic conditions (likely linked to climate change) such as bleaching and cyclones are also important factors in reef decline.

Over-fishing is prevalent for both the near-shore and deep water fisheries. Fiji's share of the Pacific tuna stocks was described to us as an issue of serious conservation concern. Bigeye and yellowfin tuna are being over fished with stocks severely depleted in Fiji's waters. Illegal tuna fishing is estimated to account for at least 20% of the reported catch.

The biodiversity of Fiji's reefs and habitat types is high, with nearly 400 species of coral and over 800 fish species reported but in a recent study, researcher Ida Vincent

---

<sup>2</sup> From 1967 to 1992 between 90,000 to 140,000 hectares of forest were converted to non-forest use. (ADB, 1992). Given that forest removal is estimated to still be at this level, in the 15 years since 1992 conservatively a further 70,000 hectares has been lost. The removal of forest continues at a rate of between 0.5 and 0.8% each year (ITTO, 2004).

has placed Fiji's coral reefs at well over half way towards ecological extinction<sup>3</sup> (Vincent, undated). Other studies report that while coral reefs in Fiji are generally considered to be in good condition, coastal development, pollution, and coral bleaching are major stressors (Lovell et al 2004). Reefs near urban areas are significantly degraded compared to remote sites. Over-fishing and destructive fishing practices continue to deplete resources and damage coral reef habitats. Nesting turtle numbers have dramatically declined, two species of giant clams are extinct, and large inshore fish species are now uncommon. The bumphead parrotfish (*Bolbometopon muricatum*), the world's largest parrotfish, is locally extinct at most locations. (Vincent, undated).

Corals (live and dead), other live reef products (for example, anemones, molluscs, and echinoderms), live rock (pieces of reef covered with various flora and fauna) are harvested for septic systems<sup>4</sup> (Institute of Marine Resources, USP, 2004). Fiji is recorded by UNEP and WCMC as being the sixth largest global exporter of ornamental fish and the second largest exporter of live coral (Wabnitz et al 2003).

There is no government-imposed quota for in-shore fisheries. Approval to fish in any coastal waters requires permission from resource-owning chiefs and then an annual licence from the Department of Fisheries. There are no formal limits to the numbers of fishing licences or for fish take. Growth of the fisheries sector is subsidised through the government providing two thirds of the cost of a boat and engine to local fishers. The Department of Fisheries was described to us by several informants as suffering from corruption. Fisheries monitoring by Fisheries officers is weak and ineffective. As in logging, government licensing and fish catch monitoring of local commercial fisheries is poorly controlled with even less knowledge by the Fijian fisheries owners of how many licensees are allowed in their areas. Even where communities engage in some degree of fisheries management (estimated to be now in 30% of Fiji's coastal areas), poaching is rife. Few communities have the resources to monitor their reefs against poaching and to pursue the illegal fishers. One locally managed marine area has reported a death as a result of fighting over poaching (Reddy and Sykes, 2007).

*'Have things changed over the past twenty years? Yes – for the worse. Over harvesting and pollution are all much worse.'*

### 3.3 OTHER THREATS

There are other threats to biodiversity in Fiji. These include trade in endangered species, hunting, over use of specific species such as the sago palm (for thatching and for food) or vesit timber (for carving and construction). All of these problems can be ranked according to the observer's perspective and priority, but collectively logging,

---

<sup>3</sup> The term 'ecological extinction' in this reference is based on work by Pandolfi et al (2003 'Global Trajectories of the Long-Term decline of Coral Reef Ecosystems. Science. Vol 301, pp 955-958) which grades the status of a marine species on a scale from a pristine pre-Human cultural period to a point of extinction. 'Ecologically extinct' is defined as 'Rarely observed and further reduction would have no further environmental effect'.

<sup>4</sup> Dead coral and associated rock is used in septic tank drainage field to utilise the same attributes which make live coral rock useful. The porous structure with myriad holes and canals vastly increases the surface area on which bacteria and other microbes can flourish and help purify' the septic drainage system.

forest loss, invasive species, over-harvesting and marine habitat degradation threaten the foundations of the biodiversity wealth for Fiji from any viewpoint. The situation is serious and current conservation efforts do not seem to be turning it around.

*'We're just not solving the problems.'*

*'Conservation has gone backwards.'*

## **4. A HISTORY OF CONSERVATION IN FIJI**

### **4.1 INTRODUCTION**

*Details of the history of conservation in Fiji and the associated Conservation Timeline can be found in Appendices D and E. A summary and analysis are given here.*

The current biodiversity crisis in Fiji exists despite a long history of conservation initiatives.

Traditional Fijian approaches to conserving resources for consumption have long been practiced through initiatives such as setting aside areas or species from hunting, fishing or gathering to build up quantities of food or other resources for special occasions. Some places or plants or animals were forbidden to some people, but this was for cultural or spiritual reasons rather than explicitly for conservation. These approaches to resource use continue in parts of Fiji today and are sometimes used as the basis for modern community conservation initiatives.

Running parallel to these initiatives, and eventually dominating them in scale, have been numerous local, national and regional projects devised to meet concerns about the environment as Fiji has developed as a nation. Protecting hunted species, conserving rivers and streams, managing the growth of the timber industry, regulating agricultural practices and providing for population growth were common early issues. When conservation leapt to the forefront of international concerns by the early 1990s, the focus of attention for biodiversity conservation in Fiji was on logging and protected area establishment. During this decade there was one local NGO working exclusively on environment matters. In the early 1990s the first international conservation NGO opened an office in Suva. A second opened an office in 1998 and the remaining ten have opened offices since 2000. In the last few years, several Fiji NGOs have opened offices and begun conservation programmes of their own. (See Appendix G.) The relatively recent arrival of the NGOs to the conservation scene in Fiji has seen a marked shift away from an earlier government-focused approach to project-based work in communities.

### **4.2 LEGISLATION AND POLICY**

Biodiversity conservation has been the focus of many formal initiatives in Fiji since the first legislation known as the Rivers and Streams ordinance was passed by the

Colonial Government in 1880. Since then Fiji has enacted at least 26 pieces of legislation for the protection of its environment and natural resources that have mandated at least 15 Ministries, statutory bodies and other agencies with authority in this field. From these figures it would seem that Fiji is well covered for conservation legislation. Yet for at least parts of this sector, reviews have identified weaknesses and deficiencies in key areas of legislation, including protected areas. The most recent of the reviews (Turk, 2004) was the eighth conservation legislation review in 12 years. Turk noted that the findings of all previous reviews had been largely ignored. Had any of the previous reviews been implemented, the author claimed, 'heritage in Fiji would be more comprehensively managed and protected'. Turk's own report appears to have been ignored in the three years since its completion.

In 1960, when Fiji began central planning as a national development process, the planners took account of the natural resources and their potential in what was termed an "ecological approach" (Brookfield 1997). This did not extend to the national five-year plans themselves which had a paramount focus on developing the economy. In the 1970s interest in environment issues revived. Development Plan Seven (DP7 1976 to 1980) devoted a chapter to environmental management –subsequently ignored in development planning. In 1992 the seminal 'State of the Environment Report' for Fiji (Watling & Chape) renewed calls for action on what was seen then as a deteriorating conservation and environmental situation in the country. In the report's forward, Minister, Ratu Ovini Bokini stated: 'mindful of the fact that Fiji's policies and proposed initiatives span at least 16 years, going back to DP7--- the State of the Environment Report highlights the need to transform our past promises into action'. This did not eventuate.

Regulation and policy on environmental protection has been in force since 1950 when the first Forestry Policy was adopted. That was followed by planning initiatives, various tourism policies, environmental impact assessment formats, economic and development policies emphasising conservation, a National Environment Strategy, various national management plans, National Controls on Coral Harvesting, Rural Land Use policies and many others. Often such regulations and policies have been based on consultation with interest groups and other stakeholders, and drafted by experts in this field. However, the rising tide of analysis and policy drafting does not seem to have prevented or slowed the biodiversity crisis in Fiji, even when that policy is well written. For example, the current forestry policy and codes of logging practice are described as 'exemplary' but their implementation is 'seriously at fault' (ITTO 2004).

Fiji has signed 32 international treaties or conventions on issues related to conservation over the past 50 years (see Appendix F). This requires government representation at international meetings which can require considerable time for the short-staffed Department of Environment, as well as a drain on conservation funding. In 2000 (the year for which we have most comprehensive data) the Director of the Department of Environment alone spent 65 days out of the country at international meetings on environment matters.

### 4.3 CONSERVATION AREAS

Fiji has a series of formally established nature reserves, mostly small or on steep or otherwise non-productive land although protecting important features. For over 25 years they have been considered by experts as inadequate for conserving representative examples of Fiji's natural heritage. No ecological or heritage considerations were involved in their selection except for one or two (1992 State of Environment report).

One of the earliest attempts to recommend a national reserves system was a tourism study commissioned in 1972 by UNDP/World Bank. Eight protected forest areas were recommended. Eight years later the National Trust for Fiji produced a landmark report (Dunlap & Singh 1980) detailing a proposed system of national parks and reserves along with information on how to establish, develop and manage them. The report provided definitions for protected areas, guidelines for prioritising them and made recommendations for sites based on ecological and heritage values. A total of 88 terrestrial and marine sites were identified in seven planning regions. The report promoted 'ecodevelopment' for Fiji and provided a Draft Act for the establishment of national parks and reserves. None of the recommendations have ever been fully implemented.

In 1988, the Native Lands Trust Board (NLTB) supported a further study (Maruia Society 1988) for terrestrial conservation areas, nominating 15 sites for protection. Three of these sites have been set aside from logging, including – importantly – Sovi Basin, but management of the other sites is unchanged. Logging has taken place in several of the recommended forest reserves.

Four years after this study, the 1992 State of Environment Report noted that although neighbouring Pacific nations had internationally recognised national parks, Fiji had none: 'Unless a system of national parks is set up quickly valuable aspects of Fijian heritage, both natural and cultural, will be lost.' The report noted that:

- Protection forests had no long term conservation values
- Forest and nature reserves are under departmental and not national authority with inadequate legislation and institutional support to resist political or social pressure.
- De-reservation of reserves had increased in recent years.
- Because of the land ownership system and lack of economic returns to landowners, current reserves had no long term security.
- Planning and limited attempts at implementation of reserves had been made by at least four institutions with inadequate objectives and co-ordination.
- With inaction Fiji risks the danger of picking up pieces that are left - without any basis of ecological or heritage values.

The associated National Environment Strategy made a list of 140 Sites of National Significance, proposing that a formal legislative process be enacted to give them greater protection from destructive development.

In the 15 years since, a few small forest areas have been reserved either through formal leasing arrangements with landowners or through informal agreements.

Notable among these are the forest reserves of Bouma and Abaca. These two areas were the key products of a push from NLTB to establish community-based ecotourism projects associated with forest conservation. They have attracted significant donor funds and Abaca was one of the regional sites of the GEF-Supported South Pacific Biodiversity Conservation Programme.

Significantly, the 20,000-hectare Sovi Basin is now well on the way to reserve status with an associated trust fund for landowners. But logging continues unabated throughout most of Fiji's indigenous forests in the absence of a comprehensive national conservation area system.

Calls for a national system of protected areas continue. The International Tropical Timber Organisation reiterated the need for representative areas of biodiversity as a land use in their own right, as part of sustainable forest management (ITTO 2004) and the recent update of the FBSAP makes a national system of protected areas a priority for action. New proposals for protected areas continue to be made, most recently by Bird Life International, WWF and WCS.<sup>5</sup>

Views about what model of protected area is appropriate for Fiji have changed in the 27 years since the National Trust for Fiji first put forward their recommendations for a national parks system for the country. Models for conservation now have a much stronger community basis and are often linked to livelihoods, sustainable resource use, and cultural issues. Reflecting this, protected areas are now often known as conservation areas. Whatever approach is advocated for conservation, the fact remains that despite a plethora of recommendations for conservation area establishment, and despite the significance of conserving Sovi Basin and its associated trust fund, Fiji is continuing to lose opportunities to safeguard places that are important to all Fiji citizens from the worst of resource degradation.

#### **4.4 SUSTAINABLE USE OF RESOURCES**

Sustainable use of resources is a cornerstone component of biodiversity conservation in Fiji, reflecting a Fijian-centred view of nature and recognising the reality of an economy dependent on its natural resources. A number of reports, policies, and regulations have featured sustainable resource use in the history of Fiji's conservation initiatives.

##### ***i. Marine***

In 2006, Fiji's then Prime Minister Laisenia Qarase announced that at least 30% of Fiji's inshore and offshore marine areas will be effectively managed and financed within a comprehensive, ecologically representative network of marine protected areas by the year 2020. While it is described as a protected area initiative, in fact 'replenishment fisheries' better describes this sustainable management concept. Locally Managed Marine Areas (LMMAs) are based on the premise that if traditional Fijian resource owners are given or take control over their marine fishing and

---

<sup>5</sup> This review has compiled a list of all recommendations for terrestrial and marine protected areas. The list will be passed over to the Department of Environment.

harvesting grounds, and if they are provided with adequate information and training that shows them ways to limit fishing and harvesting and (in some cases) monitor the success of this work, then more sustainable fisheries will ensue. Under this management regime, resource owners temporarily set aside specific areas of their fishing grounds (the ‘protected areas’) to allow resources to recover. Sometimes these closures are later made permanent.

The LMMA model builds on traditional Fijian fishing management practices (although, given the ecological history of fisheries in Fiji these traditional practices did not prevent widespread slow collapse of marine life from the time of first human settlement in Fiji– see Vincent, undated). The renewal of community marine conservation began in the late 1990s in Fiji. Prior to that there was no systematic or coordinated approach to sustainable fisheries management.

The Fiji Locally Managed Marine Areas (FLMMA) data base records a total of 200 marine sites that are currently being managed by communities for sustainable resource harvest. This is estimated to cover around 8,000 square kilometres or almost a third of Fiji’s inshore fishing area. There is debate about the long-term effectiveness and sustainability of these community-managed marine areas and even about whether over-harvesting has diminished as a result of the projects. However, there is well documented evidence from at least some of the sites that, from the communities’ perspective, fishing catch is improving in the short to medium term. As well, there is evidence that indicators of empowerment, opportunity, and ownership are improving for the communities that are engaged in LMMA sites. These are not conservation indicators directly, but from a community perspective they link to a holistic environment of well-being, more closely matching what conservation may be translated as from a Fijian perspective, and therefore potentially deepening support for sustainable resource management.

*Because of the LMMAs, ‘Fiji is a leader in marine conservation’.*

*‘The majority of LMMAs aren’t meeting the dreams of the community.’*

*‘The growth of LMMAs has been unexpected and marvellous and problematic.’*

*‘LMMAs are not solving the problem of over harvesting and destructive fishing.’*

Marine conservation has only recently become the focus of conservation concern in Fiji. During the 1980s and 1990s protected area proposals included marine areas in lists of places recommended for conservation. Planning concerns through this time, and earlier, also noted the need to safeguard reefs around hotels to protect tourism values.

Additional marine-centred work in Fiji today includes NGO advocacy related to commercial fishing for tuna.



## *ii. Terrestrial*

Theoretically, Fiji is committed to Sustainable Forest Management (SFM) through its adherence to the Forest Principles of the 1992 Earth Summit and its membership of ITTO. As described above, logging in Fiji is not meeting SFM standards. In 1973, Fiji's first forest inventory classified Fiji's indigenous forest into production, non-commercial, or protection (for water catchment purposes) categories. Despite other inventories since then and the unsuitability of these categories for SFM or for biodiversity conservation, forests remain classified in this way. Forest policy (passed in 1950) the Forest Decree (of 1992), and the National Code of Logging Practice provide the legal framework for forest management in Fiji but they are not adequately implemented. A new forest policy is currently being drafted. Forest ownership is fragmented by mataqali land units and, as with other conservation initiatives: this places a unique challenge, and opportunity, on SFM in Fiji.

There are several NGO-supported small scale community timber extraction projects currently underway and only one commercial logging initiative (led by SPC/GTZ regional forestry project) that is trialling community-based SFM.

## **4.5 ECOSYSTEM HEALTH**

In the past few years there has been a new emphasis within conservation initiatives on what might be broadly termed ecosystem health. This includes a focus on controlling or eradicating invasive alien (introduced) species like rats, cane toads, ants and mongoose to protect vulnerable native species from predation. In some cases, these projects also have community livelihood outcomes. There are several initiatives in this category currently underway in Fiji.

In response to observations that marine ecosystems are threatened by land-based activities such as pollution and sedimentation, some of the community-based marine initiatives in Fiji are expanding to include projects that involve fencing pigs, improving sanitation and discussing land use and soil erosion with communities.

Also in this category are the 'Ecosystem based management' (EBM) projects. Several current projects in Fiji are using the EBM model. EBMs consider all ecosystem components – human and non-human – in their design rather than a single issue or resource in isolation. The concept is not new – indeed it reflects a Fijian view of the environment and has roots in the Man and the Biosphere concept from the 1970s. In Fiji a Man and the Biosphere study in the eastern islands took a total of 2,487 person days to complete but its results were never subsequently integrated into Fiji's planning or policy formulation processes.

## **4.6 AWARENESS AND EDUCATION**

Public awareness and education about conservation has not been a strong focus of conservation initiatives in Fiji. Historically there have been sporadic attempts to raise public understanding about conservation, particularly from the NGO sector. Currently there is one NGO that focuses entirely on environmental education with

schools and associated local communities. Otherwise, most awareness projects are being implemented by NGOs in the communities they work with, as part of wider community engagement in conservation.

#### **4.7 RESEARCH**

The University of the South Pacific (USP) has led research in Fiji in natural resources and conservation since it was established in 1969. A School of Natural Resources was one of the three original schools of the university. By 2000 USP (particularly the School of Pure and Applied Science – and the Institute of Applied Science) had become an active participant in field conservation work and research providing taxonomists, ecologists and social scientists for its own work and those of other organisations.

Some of the larger international conservation NGOs working in Fiji are now also supporting scientific research as part of their work programmes. This is particularly true in marine conservation.

While modern research collects and analyses information for modern conservation purposes, we note less attention has been paid to traditional knowledge that has been frequently described as being rapidly lost.

#### **4.8 TRENDS**

Nearly every agency associated with the conservation sector in Fiji, including NGOs, regional organisations, donors, various government departments and their advisors and consultants, have produced reports, studies, reviews, evaluations and analyses relating to conservation over the past 30 years. These have variously: described ecological and biodiversity attributes of Fiji; described conservation programmes; recommended protected areas be established; described methods of engaging landowners in conservation; detailed possible projects; or recommended legislation, policies, planning or coordination be improved or enforced. There have been three comprehensive forest inventories (the third currently in progress). Fisheries inventory surveys have been conducted over many years. Some of the more significant reports are listed in the reference in Appendix H.

Analysing these reports and the history of conservation programmes in Fiji, trends over these 30 years are apparent. Conservation focus has shifted:

- From national programmatic approaches on broad themes (like tourism development, population management, national systems of protected areas) to individual projects
- From project implementation by government to implementation by NGOs
- From organisations working with central government agencies to NGOs directly engaging with individual communities
- From terrestrial, forest-centred initiatives to marine
- From top-down planning to community-based participatory planning
- From bilateral donor support to foundation and private funding

- From conservation linked to community planning, then to conservation linked to enterprise and then back to conservation linked to community planning.
- From Ecosystem Based Management to a focus on specific issues and then back to EBM.

The overdue recognition that communities and resource owners are central to conservation decision-making marked a shift in emphasis after 1990 to closer engagement with resource owners. Before international NGOs arrived in greater numbers around 2000, it was Fiji government and statutory agencies that were leading these programmes. After this time, the engagement with government agencies diminished. Today, many issues that have strong government ownership (control of logging, fisheries management, policy and legislation, work of the Native Lands Trust Board and provincial governments) take place beyond the work plan boundaries of the NGOs.

The years around 2000 also marked the significant shift from terrestrial to marine-focused conservation and huge growth in the number of community-based conservation projects (almost entirely coastal and marine focused) in Fiji. The NGO sector and USP have been the drivers of this shift. The change to a marine focus is the result of several factors, including the concern of some organisations that the conservation emphasis in Fiji had been too exclusively terrestrial and that not enough was known about the marine environment in Fiji. The shift to marine has also been donor driven: the marine world represented international trends in conservation which has seen a recent greater emphasis placed on coral reefs in particular. There is debate in Fiji about the relative value of Fiji's marine versus terrestrial biodiversity heritage but there is no doubt that by 2000 diminishing fisheries were rapidly becoming a significant problem for the coastal communities. This made a ready entry point for conservation initiatives focused on marine areas. Terrestrial conservation initiatives must tackle logging, fire, destructive agricultural practices and invasive species. Effectively addressing these issues requires a different kind of solution: one in which the solutions are potentially more complex and the rewards displaced further into the future.

*'It takes generations to see benefits from terrestrial conservation – you need incentives, and the Sovi work is a model.'*

The arrival of international NGOs brought an order of magnitude greater resourcing to conservation in Fiji. Primarily these funds have come from foundations and the organisations themselves. At the same time, bilateral and multilateral donor funds shifted in emphasis to become more strongly focused on poverty eradication and conservation projects supported by these donors have needed to have poverty eradication objectives.

## **4.9 CONCLUSION**

Studying this history, it could be justifiably concluded that each decade begins with a new approach, a fresh set of priorities, another trend and renewed commitment to biodiversity conservation in Fiji but that, with notable exceptions, the commitments consistently fail to be implemented.

Strikingly, no particular group seems to be accountable for the crisis. Consultants contracted to analyse or make recommendations, write reports on behalf of government departments and donors which are largely ignored by government. Government departments get reviewed and are given new policies and legislation, but don't implement these nor change their approach. NGOs spend resources engaging with communities or otherwise implementing projects but are essentially unaccountable for their priorities, their methodology and their budgets (except back to their own international offices and to donors). The arrival of most of the 18 international organisations working on conservation in Fiji in the past ten years has not seen a commensurate increase in conservation success at the national level where you would expect these groups to be positioned. Communities see projects come and go, sometimes seeing their own priorities addressed, but long term capacity development at the community level on a national-wide scale is elusive.

Programmes frequently fail to move beyond pilot phases and even the successful community projects may find sustainability elusive. There have been successes, and these successes are important. But they are isolated. There is not a sense of movement towards greater conservation impact over time. Individual conservation projects do not seem to be adequately addressing the most critical problems – the sum of the parts is smaller than the whole.

*'NGOs have all the resources but they're not hitting the spot. They're cherry picking the easy projects.'*

## **5. WHO IS ENGAGED WITH CONSERVATION WORK?**

### **5.1 GOVERNMENT**

Four government departments or ministries are involved in biodiversity conservation in Fiji: Forestry, Fisheries, Tourism and Environment. Forestry has management responsibility over a number of forestry reserves. It also plans, manages and oversees logging operations and as such has a crucial role in sustainable forestry outcomes including terrestrial biodiversity conservation. Fisheries has management responsibility for the Fiji fishing industry, including community fisheries. It now coordinates the FLMMA network (see below). Tourism has an interest in biodiversity conservation as Fiji's natural environment is so crucial to the success of this sector. The recently published Tourism Strategy (2007) is specifically linked to planned conservation initiatives, building on the results of a Strategic Environmental Assessment of the previous Tourism development Plan 1998-2005 by WWF, ADB and NZAID. The Department of Environment has recently been placed alongside the Ministry of Tourism, reinforcing the tourism-environment connection.<sup>6</sup> The Department of Environment itself is responsible for overseeing and reporting on Fiji's implementation of its international conservation obligations (including – and in fact

---

<sup>6</sup> There is some debate in Fiji about the risk of placing a small regulatory department (Environment) within a large development-oriented Ministry like Tourism, in terms of jeopardising the independence and effectiveness of the Department of Environment.

dominated by - work by NGOs). It does not directly manage projects or natural resource itself and has very limited legal powers.

The National Trust for Fiji has a statutory role in establishing and managing conservation reserves in Fiji and receives operating funds from the national budget. Provincial offices have a role in biodiversity conservation which includes collating and advancing community development plans, advising communities and mataqali on conservation matters, and facilitating and monitoring the work of outside agencies in the communities. Levels of engagement on these issues vary widely from province to province.

The above government departments and agencies collectively have 45 staff working on issues related to conservation and an annual budget of around F\$1.2 million (USD800,000)

The Native Lands Trust Board as the custodian for over 80% of Fiji's land, has an important national role in conservation related to planning and approving resource use, including logging, large agricultural development, and tourism development.

Fiji is part of the Secretariat for Pacific Regional Environment Programme (SPREP) which provides regional and international connections and support to biodiversity conservation frameworks including the Action Strategy for Nature Conservation. SPREP also coordinates the Roundtable for Nature Conservation – a cooperative working group of organisations that is tasked to monitor regional progress against the Action Strategy for Nature Conservation. While SPREP has an important role negotiating regional and international agreements, including regional conservation funds, it is not engaged in a planning or implementing capacity in conservation initiatives in Fiji. Only two of the 67 people interviewed for this review mentioned SPREP and it was not seen by those interviewed as being relevant to this review.

## **5.2 NGOs AND OTHER IMPLEMENTING AGENCIES**

Outside the Fiji Government there are 23 organisations and at least half a dozen community-based organisations working on conservation programmes in Fiji. These are detailed in Appendix G. Twenty of these organisations are NGOs.<sup>7</sup> Eighteen of them have offices in Fiji.

It is through these organisations that almost all biodiversity conservation work in Fiji is designed and implemented. Collectively they provide nearly F\$12 million (USD 7.5 million) annually and over 100 staff to conservation. Fifteen of the organisations have predominately biodiversity conservation objectives while the remainder have a stronger focus on sustainable livelihoods or a resource management approach. The objectives, assumptions, approaches and size of the organisations vary widely.

---

<sup>7</sup> The remainder are the World Conservation Union/IUCN, the University of the South Pacific and the German bilateral forestry programme (GTZ). GTZ is included here as an implementing agency because it is managing a substantial field-based forestry project with biodiversity outcomes (in partnership with SPC), although it is also listed below as a donor agency.

### *i. Local Fijian organisations*

USP, although a regional institution, is also active locally and is the oldest of the local agencies – in existence for nearly 40 years. Its involvement in conservation is as a research university, an educator and as a project implementer. USP provides a stream of conservation-educated graduates that are hired by both government and non-government agencies in Fiji and the Pacific. USP is also the birthplace of Fiji's first local environment NGO – SPACHEE – that operated for 20 years until 2002. Several former SPACHEE associates have been recruited into other NGOs as these agencies established offices in Suva.

Partners in Community Development Fiji (PCDF), began as a local office of the Foundation for the Peoples of the South Pacific (FSP). It is now independent with a community participatory development focus. It has been involved in community forestry and marine conservation projects. PCDF is the largest local NGO with an interest in resource management. A recently launched local NGO – NatureFiji/MareqetiViti – is unusual for local NGOs in that it has a focus on biodiversity conservation. It was launched specifically to address the absence of local biodiversity conservation NGOs in Fiji. It has yet to begin programme work. There are several community groups such as Mositi Vanuaso, Naisauma, Biausevu Tourism Committee and the Driti Village Development Committee that work with their own people in the management of reefs, gardens and villages.

Earlier this year the Fiji Locally Managed Marine Area (FLMMA) network established itself as a local NGO. FLMMA is a learning network begun in 2001 that aims to link communities, organisations and researchers engaged in fisheries work to share experiences and information and retain certain standards of research (including monitoring) and community engagement. Until recently, members have been the NGOs that work on LMMAs in Fiji but earlier this year the first communities joined FLMMA directly. Not all LMMAs in Fiji are part of the FLMMA network. FLMMA has been a key point of contact and connection with the Department of Fisheries. It is also linked to the Fijian Affairs Board and the Ministry of Tourism and Environment.

### *ii. International organisations*

Alone among the international NGOs operating in Fiji Greenpeace has a primary advocacy and campaigning approach. FSPI, a Pacific regional NGO network, strongly links its conservation projects to a development framework. Live and Learn specifically provides environmental education to schools with some community outreach. The World Conservation Union (IUCN) has recently established an office in Fiji and describes its future role less in terms of projects than as providing a point of communication and cooperation between NGOs and government (both groups form the membership of this international organisation).

There is a group of organisations operating in Fiji that are established to provide project work for young volunteers from overseas. These organisations usually link in with existing projects run by other agencies. They include Coral Cay Conservation, Frontier Fiji/Society for Environmental Exploration, Green Force and OISCA. Another cluster of organisations, based outside Fiji, provides technical or training

support for groups implementing conservation projects in Fiji. This includes the Pacific Invasives Initiative and the Pacific Invasives Learning Network. Sea Web, World Fish Centre, and Wetlands International have small offices in Fiji and provide targeted assistance in their subject areas to larger field projects managed by other NGOs. GTZ, the implementing arm of the German bilateral aid organisation, is unique among donors in that it manages a field project – in this case a community-based sustainable forestry trial in partnership with SPC. Seacology provides specific material rewards for community resource owners (buildings, boats, electricity supply) who agree to set aside forests or reefs under informal conservation covenants for a designated time period.

The four remaining international conservation NGOs – Birdlife International, Conservation International, Wildlife Conservation Society and Worldwide Fund for Nature, Fiji – primarily work on conservation projects with communities in the organisations' own priority areas.

In some cases, the agencies will collaborate on a project, programme or network.

### **5.3 ANALYSIS**

#### ***i. The relationship between NGOs and government***

There are two parallel worlds of conservation in Fiji: government and NGO. At certain points these two worlds intersect. FLMMA represents a working link between the NGOs and Department of Fisheries. Specific issues, such as the Sovi Basin or developing forest management plans, lead to a stronger relationship developing between NGOs and government departments. Some NGOs have a Memorandum of Understanding with the Department of Environment and keep it informed about their activities (although usually only about once a year). These NGOs feel that their MOUs and the fact that their work programmes can be linked to the FBSAP provide the basis for an active and strong relationship with the Department. But particularly from the point of equal engagement at the strategic level and for priority setting, the two worlds of NGO and government characteristically operate independently of each other.

Government officials described to us their sense that all the capacity and resources for conservation rests with the NGOs. This understanding is correct. There are about 45 government staff working on conservation outcomes for a total budget of just over F\$1 million. There are more than twice as many people (103) working for NGOs in Fiji with a total budget of just under F\$12 million. (See Appendix G for details.) Government officials told us they have little real idea what the NGOs are doing in Fiji and what their priorities are. There is little sense of collaboration and no sense of true partnership. Some government departments are grateful for the work that NGOs are doing in Fiji because they feel without it there would be very little conservation being achieved. Other departments are concerned about the lack of contact from the NGOs and are critical of the absence of collaboration and of Fijian control of NGO programmes.

From the NGO perspective, while some personal relationships with government officials are good, the feeling is that the environment is not a priority area of government, making productive engagement difficult. NGOs have described their surprise at the lack of understanding and knowledge of government officials of the government's own plans and strategies. They feel because government capacity is so low or bureaucracy so burdensome it is hardly worth engaging with them. NGOs are unclear how government capacity might be developed. Some made the point that donor funding constraints mean NGOs have limited scope to work with government. As well, several NGOs commented that they are so busy with project implementation at the community level they do not have the time required to engage at a deeper level with government.

The solutions to the most profound problems facing conservation in Fiji require government response to be effectively resolved. Terrestrial conservation problems need the destructive and unsustainable logging problems and plantation forestry conversion to be successfully addressed by Forestry and NLTB, while sustainable land use must become a core principle of agricultural practice. Development of terrestrial conservation areas depends upon support and advocacy from Forestry, NLTB and Fijian Affairs. Large-scale invasive species control will require cooperation from a range of government agencies including Quarantine, Agriculture and Forestry. Safeguarding LMMAs into the future will require government support in transforming fishing licensing procedures, preventing poaching and prosecuting poachers. Provincial governments and Agriculture will need to be productively engaged with land use changes such as preventing fire and better land management with greater involvement of landowning communities. Tourism needs to be supported to develop a national consensus about biodiversity conservation underpinning the future of the tourism industry. And conservation minded leaders within the government need to be supported with advocacy, targeted capacity development and resources to back their efforts for change.

It is not strategic for NGOs to work only with individuals within specific government departments on individual projects. Nor is it strategic for the government to leave the capacity and resources of the NGOs without coordination, national priorities and little accountability. Turning the tide on the biodiversity crisis is a big job that will require creative thinking, risk taking and collaboration from everyone involved in the conservation sector. Conservation NGOs, government departments, communities and donors need to work closely together on the really big problems, with common objectives to achieve this.

## ***ii. Ownership and leadership for conservation in Fiji***

The arrival of most of the international NGOs in Fiji around the year 2000 brought an order of magnitude greater resourcing to conservation in Fiji. The number of staff employed full time in conservation more than doubled. The international NGOs attracted new donors and brought funds of their own along with technical support, science, educational material, new and well-paid career opportunities for Fiji nationals and a good deal of well-intentioned passion for the cause. In some cases, through the international NGOs there are well designed strategic interventions taking place at the local level addressing specific conservation problems. There are also negative



consequences of having international NGOs so dominant in the conservation sector in Fiji.

### Opening offices in Fiji

The pattern for international NGO growth in Fiji is, sooner or later, to open an office in Suva and employ local staff.<sup>8</sup> Thirteen organisations have done just this. Staff are usually recruited from government or local NGOs, or taken on as tertiary graduates. (Local staff also migrate from one international NGO to another.) Today, there are 24 people working for local NGOs on conservation compared with nearly 80 working for international NGOs (see Appendix G for details). Local NGOs and government cannot compete with the salaries and other benefits that international NGOs offer. From the viewpoint of an individual, there are obvious advantages in working for an international NGO including the higher salary, exposure to international experience and increased resources to support conservation programmes. For national conservation outcomes however, the negative impacts are quite serious. International NGO office-opening acts as a magnet, concentrating talented Fiji nationals away from local NGOs and government and into the service of international agencies. This in turn exacerbates the lack of capacity of the local agencies and government and further diminishes the likelihood of the growth and development of an effective Fiji-led conservation sector. International NGOs in Fiji are directly competing with local NGOs for external funding for conservation programmes. International NGO ownership of conservation initiatives in Fiji has the unfortunate consequence of branding conservation initiatives to the international NGO's rather than to the Fijian government department or organisation – further diminishing Fiji's ownership of conservation initiatives. This is why staffing international NGOs with Fiji nationals does not make a 'Fiji-owned' institution.

An alternative model to establishing a local branch of an international office is to support the emergence and capacity of local conservation groups, government departments and leaders. This has multiple advantages:

- Talented people remain within the context and economy of local organisations and can lead their growth.
- There is much greater accountability of NGO activity when agencies are 'owned' by the country they work in. Local agencies have local boards responsible for the organisation and are often accountable back to local membership. Thus there is greater transparency in operations, strong local control over actions, and longer term commitment to communities and the country.
- It is more cost-effective than establishing a local branch of an international organisation.
- When international skills, knowledge and resources are used to develop local institutions, there can be a more equal and therefore more vibrant partnership between international resources and local priorities, focus and understanding.

---

<sup>8</sup> All international agencies wishing to open an office in Fiji must have a Memorandum of Understanding (MOU) with a department or ministry in the Fiji Government. These are generally *pro forma*, very general, and with little accountability specified. In some cases the NGOs themselves write their own MOU terms.

- Only local NGOs can take on the important role of mobilising civil society to hold government accountable. Local NGOs are best placed to organise the ‘thousand eyes’ of community monitoring of logging and fishing companies and to be effective advocates and lobbyists for change. Even though this work is likely to be the most valuable contribution that can be made for biodiversity conservation in Fiji, it is not work that the international NGOs will do. Dependent to a large extent on foundation support, international NGOs are unable to be seen by their donors to be lobbying government. And dependent on the good will of the government to even be in Fiji, they are unlikely to engage in criticism of issues like corruption or inaction – significant causes of biodiversity loss in Fiji.
- Most importantly, local people in Fiji institutions gain ownership over the problems and solutions – and the entire conservation sector - in a way that is much more difficult through an international agency.

The issue of branding is an important component to this argument. International NGOs by necessity take a marketing approach to build their appeal to donors. To bring valuable conservation funding to Fiji, each organisation seeks to attribute success and ideas to itself. Projects, buildings, vehicles and sometimes even communities are ‘branded’ with the name and symbol of the NGO. In both subtle and obvious ways this shifts the ownership of success (or failure) away from Fiji, from local people, and from local institutions that have the long-term responsibility for both the problem and solution. This is an issue that needs to be acknowledged and addressed by both donors and international NGOs. Perhaps it is possible to ‘brand’ initiatives and project support internationally, while keeping a more neutral local profile – one that recognises and elevates local ownership. Perhaps donors could reward subtlety, discreteness, and quietly effective capacity development from international NGOs in recognition that these attributes can contribute to effective impact. And perhaps it is possible for international NGOs to consider whether redirecting their local office establishment funds to support the development of independent Fiji institutions might in fact enhance long term conservation success in Fiji.

Some international NGOs feel that there are no suitable local groups to partner with. In fact there are. The Fiji Government is one of them. As described above, the Government is central to tackling the biodiversity conservation crisis in Fiji. Building its capacity, supporting its staff, developing implementation programmes that centre on and are based in its institutions are all important initiatives. This is true for provincial governments as well, much overlooked for capacity development and as headquarters for local conservation programmes.

There are also local NGOs and community groups that have a resource management approach reflecting Fijian interest in biodiversity. There are advantages in teaming up with development-focused groups, with the blend of objectives and experience strengthening both. And there is room to support the development of new local NGOs around emerging local leaders. (Such development has been successful in Micronesia).

Within these parameters there are a number of options that can lead to internationally-assisted sustainable growth of Fiji-led institutions and organisations. These include

placing international NGO offices within government departments, international NGOs supporting staff positions within local NGOs and local offices of international NGOs designed to become local NGOs over time. Whatever model is chosen, the parameters of partnership need to be professionally and strategically defined.

*‘Donors should be supporting a clear path of transferring responsibility to national counterparts.’*

### The role of international NGOs

A further issue related to ownership and control rests with the long-term role of international NGOs in Fiji. Definition of conservation success in Fiji includes the vision of Fiji nationals managing conservation effectively - from community level to government - and being accountable to the people of Fiji for that work. To nurture that vision, international NGOs need a strategy to detail how they will be moving on, how they are doing themselves out of a job, how they are building local capacity to ensure this vision becomes a reality. Supporting the growth of local organisations, government capacity and local leaders is part of this. But so is the process of international NGOs emerging from community-level engagement to a level of training local people to do this work, to acting as technical advisors to programmes run by local institutions, to seeding sustainable management structures within provincial governments, to strengthening the technical and policy skills of local organisations and leaders, to pulling back to the point where international NGOs channel funds and skills to support a vibrant Fijian conservation sector that is leading its own programme implementation.

The development of FLMMA is a good example of this, if it is eventually entirely managed and directed by local communities that together with the Department of Fisheries and local organisations make up the membership of this organisation. Under this model, international conservation organisations then provide services as directed by the membership.

As well as the vision to take on challenges like this, it is critical that international NGOs have a good understanding of how capacity is built. It is not built on international standards of resourcing, nor will it result in the same priorities or objectives of international NGOs. Capacity is best developed through nurturing effective local leadership and working within the boundaries of locally available resources. And capacity development takes time. There is a role for international NGOs to provide long-term and even indefinite support to local institutions and their development so long as that role acknowledges the primacy and value of local Fiji-owned organisations.

Over a defined time period, control of conservation design, priority setting and implementation needs to be ceded to local institutions and their leaders.

*‘An outside NGO should be coordinating, not directing implementation on the ground. It is less and less justifiable to have outside people running projects.’*

### *iii. Accountability and transparency*

Essentially NGOs select their own priorities, their own methodology and their own sites, although this may be in consultation with a government office. NGOs negotiate directly with resources owners (sometimes after a request for assistance from a particular community) and then begin programme implementation. There are real advantages in such freedom to link in to self-designed projects wherever desired. These advantages include flexibility to tackle priority areas quickly and the potential to be innovative and creative in programme design and implementation. In places in Fiji conservation outcomes have benefited as a result of these advantages. In other places resources have been wasted, efforts replicated, communities have suffered negative consequences, and threats to conservation have not been resolved. All NGOs working in Fiji would like to ensure their work is in the former category and as conservation is an imperfect and difficult sector to work in, results can never be uniformly effective.

But there are some essential bottom lines to minimise the chances of being ineffectual. Programmes need to be:

Nationally strategic. This is discussed in more detail below, but essentially being strategic requires careful analysis of threats to conservation, selecting priorities for action, and designing programmes that ensure those threats are addressed and resolved.

Locally owned. This is also discussed in more detail below. Local ownership is about the Government of Fiji, Fijian organisations, and Fiji nationals owning the priorities, concept, design and implementation of conservation programmes and strategies that put in place the projects in the first place. Without that, biodiversity conservation will be something that is being done in Fiji on behalf of the people of Fiji by others who are more organised, skilled, more knowledgeable and better resourced. In short, it will remain a problem without an owner.

Accountable. What is being done in Fiji on behalf of the people of Fiji needs to have accountability back to the people of Fiji rather than just to donors or international headquarters far from Fiji. This means ensuring all projects and programmes are sourced in a strategy devised by a Fijian institution, responsive to local priorities and are accountable back to that institution through independent monitoring. Accountability implies there is a code of conduct for agencies and that there are consequences for non-professional actions or harmful outcomes.

Transparent. Accountability is only effective if it is accompanied by transparency of objectives, programmes, projects, budgets and outcomes.

## **6. WHO IS FUNDING CONSERVATION?**

### **6.1 FUNDING CATEGORIES**

There are five categories of funding to biodiversity conservation in Fiji. These categories can overlap.

#### ***i. Fiji's national budget.***

Fiji's national budget currently funds biodiversity conservation through the departments of Environment, Fisheries, and Forests and through the National Trust of Fiji. Over the last four years these agencies allocated about 45 staff members and just over F\$1 million a year in total to conservation activities.

#### ***ii. Global Environment Facility (GEF)***

Fiji has received several GEF grants, notably funds from the regionally based South Pacific Biodiversity Conservation Programme (SPBCP) and the International Water Programme. Fiji's individual allocation of US\$5 million from the GEF Resource Allocation framework is currently being designed and negotiated. Fiji also has funding allocation under the GEF Small Grants Programme which is being jointly funded and administered by UNDP/NZAID.

#### ***iii. Bilateral and other multilateral or regional programmes***

This category includes funding from NZAID, AusAID, EU and GTZ. These donors have an interest in ensuring their overall aid packages are environmentally sustainable but have only small amounts of funding, if any, for specific biodiversity conservation work. Bilateral and multilateral aid programmes are usually aligned to Fiji Government priorities and objectives and these do not prioritise conservation. The donor does have influence, but commonly biodiversity conservation is regarded as peripheral to a poverty eradication/development focus. New Zealand and Australia support regional biodiversity conservation through their funding of SPREP. Bilateral donors usually support programmes, not projects, and work primarily with government although some programmes can have a strong NGO component to them.

#### ***iv. Small grants programmes***

These programmes are supported by a wide range of donors including Pacific Development and Conservation Trust (NZ), Darwin Foundation (UK), GEF/UNDP/NZAID small grants programme, Regional Natural Heritage Programme (Australia), High Commission small grant funds, and others. Funded projects must usually demonstrate sound development principles ('environmentally sustainable', 'participatory') but these grant programmes do not have a specific strategic or analytical approach to funding allocation. Small grant programmes almost exclusively support NGO projects. (NZAID is an exception.)

## *v. Strategic funding interventions*

Donor agencies that use strategic funding interventions usually base funding decisions on problem analysis and assumptions about the design of successful solutions. They may be seeking to trial concepts or ideas. Funding is seen as an investment in achieving conservation outcomes in Fiji. This category includes the three main foundations supporting conservation in Fiji (Packard, MacArthur and Moore) and the Critical Ecosystems Partnership Fund (CEPF). Direct funding from the international NGOs and their private donors are included in this category. Strategic funding interventions of this nature are almost never available directly to government. This is in part because of the legal status of foundations which prevents them from funding advocacy or political activity. (Foundations can however fund NGOs to work with government.) It can also be because of an unanalysed assumption that NGOs are more effective at delivering conservation success than government - an assumption that can be self-fulfilling as resources and talented staff are concentrated away from government and into NGOs.

## **6.2 ANALYSIS**

*‘We’re all driven by the needs of donors.’*

The one group in Fiji with more influence in biodiversity conservation than the international NGOs is the donors. If donors aren’t funding terrestrial conservation, NGOs aren’t implementing it. If donors can’t or won’t fund advocacy and partnering with government, NGOs don’t do it. If donors insist on projects being governed by sound development principles, NGOs will ensure they are doing so. If donors want the project to be wound up in three years, the NGOs will design the work in stages to match this requirement.

The notable exceptions include those NGOs who receive independent sources of funding and those that have been able to influence flexible donors to support specifically designed conservation programmes.

It is helpful for conservation outcomes in Fiji to have a range of donor funds available for programme design and implementation in Fiji. Flexible grants can stimulate local innovation and give new ideas and partnerships a chance to be trialled. Strategically focused grants can steer conservation work into identified priorities and accepted effective methodologies for action.

For either category of granting, however, donors have a responsibility to ensure their investment is aligned to the Fijian context, giving the best chance of long term and sustainable effectiveness of the programmes and projects they support. Donors need to ensure that their investments are:

*i. Strategic in a local Fijian context.* International analysis, threats and trends can provide context to a local situation in Fiji, but much more valid is a strategic understanding of the threats and solutions for conservation within Fiji. It is especially important that donors respond to and support components of an effective national strategy for conservation.

*ii. Support the development of Fijian ownership of conservation problems and solutions.* This includes supporting the capacity development and growth of Fijian institutions, including government, and supporting the development of Fijian conservation leaders.

*iii. Effective at building capacity.* This requires a fundamental understanding of how sustainable capacity is built, both in time and in resources. It also requires that projects and programmes are implemented using sound development principles.

*‘We didn’t do a good analysis of the situation in Fiji before we funded there.’*

*‘Of course we [the donor] are donor-driven! We invest time in our strategies. We find grantees that will align with us. We are very forth-right in how we tell people this. We direct a lot of the activities. We consider ourselves partners and are intellectually engaged. It stems from our desire for impact and measurable outcomes. There is a shift towards this from all the foundations. It’s a business model’*

*‘The situation with donors and NGOs has degenerated into unhealthy competition.’*

*‘We’re dependent on the donor cycles. There is little understanding by donors about how long it takes to do these things.’*

## **7. BUILDING SOLUTIONS TO THE BIODIVERSITY CRISIS IN FIJI**

### **7.1 INTRODUCTION**

Section 3 above describes a biodiversity crisis in Fiji despite the presence of four government agencies with an interest in conservation, a statutory body established for conservation outcomes, 23 non-government agencies and at least a half-dozen community-based groups working on conservation outcomes in Fiji, 148 individuals employed full time on the issues, the oversight of several Pacific regional secretariats, the contracting of numerous experts, the writing of unaccounted reports, the modelling of numerous trials, over F\$13 million spent on the crisis annually, a population that depends for its livelihoods and economic development on biodiversity conservation, and a history of conservation effort that goes back to 1880. This does not mean that either all conservation initiatives have been incompetent or that the problems are so difficult as to be unsolvable. Indeed, the conservation situation described is typical of many countries in the world, both developed and developing. Biodiversity conservation is seldom an easy area in which to achieve success.

However, this review concludes that much greater progress can be made in Fiji if some fundamental changes are made in the way the sector is approached. Current assumptions about how conservation is achieved need to be challenged. Hardworking and committed conservation NGOs need to take the time to look across

from their individual projects to assess how they are doing collectively at a national level. The Government of Fiji needs to assess the impact it is having by not taking leadership over and responsibility for both the crisis and its solutions.

## **7.2 MISCONCEPTIONS ABOUT THE BIODIVERSITY CRISIS**

There are some common assumptions about what is behind the biodiversity crisis in Fiji that have not been confirmed by this review:

### ***i. Lack of awareness?***

The 67 people we interviewed for this review were all clearly aware of both the value of biodiversity to the future of Fiji and the threats to it. This was true for the heads of government departments through to community field workers and people both inside and outside the conservation sector. There was a divergence of views about conservation priorities but everyone was able to articulate the importance of safeguarding the future of natural resources for Fiji. And while decision-makers may feel the crisis is not their problem, lack of awareness about conservation from their quarter is not a prime cause of the current crisis.

### ***ii. Inadequate policies and legislation?***

Some policies and legislation related to conservation can be improved. Protected areas legislation falls short of providing a Fijian-relevant model for community-based conservation. Improvements can certainly be made for fishing, for invasive species, for fires and erosion control. However, there is much that is adequate, sufficient or adaptable. Indeed, the forestry policy and codes of logging practice are described as ‘exemplary’ by the same report that details the destruction and non-sustainability of the timber industry. Inadequate policy and legislation has not prevented or impeded the protection of Sovi Basin, or establishing 200 locally managed marine areas, or the eradication of rats from Vatu-i-Ra Island.

*‘More policy won’t help. We need more implementation.’*

*‘People are no longer worried about official protected status for these marine areas. It’s just not relevant.’*

### ***iii. Shortage of information and science?***

There have been dozens of reports in the past two decades that provide analysis and conclusions on priorities for conservation in Fiji, on lessons learned from projects and programmes, and on the findings of pilot projects. Scientists and managers can make the case for more research but the advances that have been made in conservation in Fiji have happened with minimal scientific information. The ITTO report (2004) reiterated this for Sustainable Forest Management (SFM), saying that the reason there is no SFM in Fiji is not a lack of knowledge but an inability to apply that knowledge. The knowledge gap ‘is big but the existing knowledge base is also big...awaiting until full knowledge is available is to wait for ever. Not knowing how to do SFM may



serve as a weak excuse for doing little, but it is not a good reason for counting it as a major constraint.’ This conclusion is true for other conservation problems in Fiji.

The most effective, and basic, of interventions that could be implemented for conservation in Fiji today (stop poaching of fishing grounds, better manage fisheries licenses, reduce the incidence of forest fires, implement the code of logging practice, provide sufficient funding to complete Sovi Trust Fund) do not require more knowledge than is currently available. Further reports and analysis on protected area proposals are most certainly not required.

*‘We’re always trying to improve our scientific tools – how to best assess the reef. Meanwhile the communities are sitting in their halls scratching their heads, seeing a good chunk of their project going on all this effort.’*

*‘Science should be a service not a project. It should be a tool, not a weapon.’*

*‘There is an overemphasis on planning.’*

#### **iv. Lack of models?**

The pilot project is the cornerstone for how conservation is implemented in Fiji (and everywhere else in the Pacific). Ideas have been trialled through pilot projects about almost every conceivable aspect of conservation including sustainable forest management, community resource management, community engagement, conservation education, ecotourism, rat eradication, development compensation for conservation, income generation, community based marine management, reforestation, workshops, village sanitation and pig fencing. Models from simple to sophisticated have been developed, from the cost of a few hundred dollars to nearly a hundred thousand dollars per community. A shortage of pilot projects for any particular conservation initiative is unlikely to be a root cause of the biodiversity crisis. There is little left to trial. It is time to scale up.

*‘How long is it going to take to do pilot projects in every village? There are thousands of villages.’*

*‘Blueprints don’t work.’*

#### **v. Lack of resources?**

Fiji is a small island middle-income country where more than 30 percent of the population in rural areas is below the national poverty line (ADB 2006). There are insufficient funds to finance adequately everything that needs to be done including health care, education, infrastructure development and conservation. Conservation is unlikely ever to be a priority for government or major aid spending. That said, the total annual budget for conservation in Fiji is estimated to be over F\$13 million for a country of 900,000 people. This is not an inconsiderable sum. The key point is to ensure that this amount is spent strategically, effectively and efficiently. Are funds currently going to the most strategically placed priorities and programmes? Could the money go further if international NGOs pulled out of implementing community projects, built the capacity of provincial governments or local groups to take this over,

and shifted their own roles to technical advice and facilitation? What expensive scientific research is crucial to achieving conservation priorities and what could wait until key parts of the crisis are addressed? Could parts of conservation programmes be managed more cost effectively by government departments or by local NGOs instead of international NGOs?

Once established, an effective and strategic conservation sector could well attract more funding to its cause and better influence donors to support Fijian-led priorities.

### **7.3 WHAT IS NEEDED?**

#### *i. Local leadership, ownership and control*

This review concludes that a lack of Fiji-citizen ownership of the biodiversity crisis and Fiji-led institutional isolation from designing and implementing solutions is a root cause of the crisis.

Lack of ownership results in a government that is unable to provide leadership on the issue, has been unwilling to tackle corruption in the logging and fishing industries, and seems unable to implement the policies and regulations it already has for safeguarding the environment. Lack of ownership also results in lack of public concern and advocacy for accountability and good governance for conservation.

Without ownership and leadership, resources for conservation are not prioritised, nor is capacity developed to support departments to achieve conservation outcomes. Without that capacity, there is not a clear strategic vision of what conservation means to Fiji and the people of Fiji and what local priorities are for conservation. There is reduced ability to coordinate and inspire the activities of NGOs and donors. There is reduced ability amongst communities to articulate their aspirations beyond projects.

Successful resolution will be based on holistic thinking that takes account of the range of issues from local to national governance, from policy to funding to science and technology to stakeholder roles and relationships at different levels and to global influences and local impacts. It requires understanding and consideration of socio-economic development in the context of local political realities and public values that form the basis for conflict prevention and environment dispute resolution when required.

Fiji nationals are central to resolving the biodiversity crisis. The people of Fiji need to own the problems, design the solutions and set the priorities. There is a critical role for international organisations in providing technical support, experience and knowledge to support this agenda, but international organisations cannot be in the driver's seat if effective, sustainable solutions are to be found. This is a deeper concept of ownership than participatory methodologies that link community members into village-based projects. Interestingly, it is also a conclusion that much of the aid and development community reached a decade or so back.

*'Whose priorities are being met?'*

*How would it be if international NGOs said to local counterparts: 'Our programme is your programme. You're the local face of conservation. We do what you want. We're here to support you.'*

Fiji nationals need to take leadership over conservation. Talented local leaders will define biodiversity conservation in terms that are compelling to the people of Fiji. Strong local leaders will be influential and instrumental in bringing on-side the Ministry of Fisheries and Forests – the two sectors that can most effectively impact on successful conservation outcomes for Fiji. Persuasive local leaders will be better placed to take these departments to task if they fail to achieve. An effective leader will ensure that the right capacity development is targeted in the most needed areas to the best effect.

Those working in the conservation sector need to seek out, develop, and support such Fiji nationals within the Fijian government departments and NGOs that employ them, or assist in making new openings in Fiji organisations for recent graduates, rather than open international offices and poach them. Investing in capable people can result in meaningful institutional change.

## ***ii. Becoming strategic***

### Introduction

In the written reports, strategies, and project reports that support the projects currently active in Fiji there is a surprising paucity of discussion about the threats to biodiversity that have triggered this international and national focus of effort and resources. There is even less analysis on the root causes of threats.

Finding effective solutions begins with the knowledge of the exact nature of the problem. To have impact on biodiversity conservation the problems and root causes of the problems must first be clarified. The solutions proposed should address root causes of the problem. Priorities for action must be based on the best assessment of what action is the most urgent and which has the best chance of the greatest impact. Each organisation needs to understand its most effective role, given its skills, experience, resources and its degree of ownership over the problem and solution. Is the organisation focused at the right level? Has it carefully identified the correct target for its intervention? Assumptions need to be tested against the realities and history of the last 20 or 30 years of conservation experience in Fiji. Work programmes should follow ethical standards and avoid wasting resources, duplicating effort or usurping the work of local leaders. Benchmarks or indicators need to be established for regular monitoring to test effectiveness and enable direction change if necessary. There should be a transparent process to incorporate lessons as they are learned.

These are fundamental good management practices and are probably widely known. But with a few exceptions, this review found a worrying lack of strategy in the design and implementation of biodiversity programmes in Fiji. At the project level, strategic thinking is sometimes evident. But a hundred good projects do not necessarily make a sound strategy. Without a clear, well analysed national strategy, how can we know if

any one project contributes to a significant impact on the root causes of the biodiversity crisis?

*'We have a project cult.'*

*'I'm amazed how project driven it all is. It's astounding. There is not much interest in developing strategies or using them. How do the projects link with national priorities? Often there is no link.'*

### Fiji Biodiversity Strategic Action Plan

Without a clear and accountable national strategy that draws all institutions and resources around prioritised problem solving and makes everyone accountable for their role, biodiversity conservation in Fiji will remain in crisis.

From the government side, the current guiding document for national strategy is the Fiji Biodiversity Strategic Action Plan (FBSAP). The FBSAP is based on an extensive consultation process and it contains sound background information on biodiversity in Fiji and its value. However, it lacks any identification or analysis of problems. It lists projects without describing their strategic value or desired impacts. In all, it is a dauntingly large and complex document.

FBSAP does not need to be rewritten. But it does need an accompanying guide that provides a focused, priority-setting and inspirational strategy to lead the actions of a collaboration of government, NGOs, donors and other agencies. The strategy needs to prioritise actions that are directly related to resolving core problems for Fiji and those priorities need to be set by Fiji nationals and Fijian institutions. Every agency engaged in the conservation sector, including the Ministry of Fisheries and Forests and all NGOs should have their work programmes linked in to this problem-solving matrix. Easily-measured targets need to be set to ensure progress against the problems and each agency and organisation needs to be held accountable for its commitments and progress.

*'There should be a simple framework that we report against, make it transparent and coordinated.'*

*'We need performance indicators. How are we doing? The percentage of budget committed to the environment – that sort of thing.'*

*'The government is not playing its role. It should be guiding the networking, providing the strategic thinking.'*

NGOs have indicated their willingness to follow a national plan by defining their current programmes as being part of FBSAP. But FBSAP is currently a catch-all document, broad enough to encompass anybody's conservation initiative no matter how non-strategic, whether or not it is anyone else's priority.

NGOs need to support the Fijian Government to develop a stronger and more strategic national plan on biodiversity and be willing to yoke their resources and programmes to a part of that plan. They need to be willing to be held accountable for their

commitments and contributions to that plan. Their work plans, outcomes and impact must be transparent.

*‘Fijians have to get creative in how to use NGOs. The key issue for NGOs is not partnership with them, but getting them to work on national priorities.’*

*‘The roles of the NGOs are not strategic. It’s all about branding.’*

### ***iii. Capacity development for government and other local institutions***

Only one of the 22 non government organisations told us that lack of capacity was a problem for them. By contrast, every government department with a role in biodiversity conservation that we interviewed said lack of capacity was their main, or one of their main, problems.

It is crucial for conservation success in Fiji to have an effective government providing leadership in this field. This is true for both national and provincial levels of government. There is potential for provincial government to provide a greater and more effective coordination and facilitation role for community conservation concerns. Without capacity, will and leadership from government departments and ministries the key gains for conservation will not be made. Partnerships with NGOs will be unlikely or ineffectual.

Agencies working on capacity development need to have a strong understanding of how capacity is built – that is, within the timeframes, resources and political constraints of the local situation. Capacity development that ignores or overrides these constraints is unlikely to be effective.

*‘The government could have secured more resources for conservation if it had more capacity.’*

### ***iv. Conservation campaigning***

By conservation campaigning, we mean conservation groups and government agencies working collaboratively on selected priorities to solve defined national conservation problems. The conservation crisis in Fiji is too large a problem for individual organisations and departments to resolve on their own. Conservation campaigning is about cooperation and dialogue within the national strategy described above.

An example of this is sustainable forest management (SFM). As this report has described, destructive and unsustainable logging in Fiji causes multiple problems for biodiversity conservation from both a Fijian and international perspective, both terrestrially and marine. It intersects with nearly every major cause of the biodiversity crisis (loss of natural resources, soil erosion, stream and reef sedimentation, predator and weed invasion of forests, loss of forest habitat). National sustainable forest management and associated forest protection could therefore well be the single most important issue for conservation in Fiji. It is also an issue that

has strong resonance with stakeholders not usually motivated by traditional conservation concerns. As the ITTO report (2004) states,

‘Forests rank as fourth or fifth of the main supports of the Fijian economy and third in foreign exchange earnings. They have much greater potential and could become the main pillar of the economy...The opening and the capture of export markets is becoming increasingly conditional on acceptance by the end consumer in the importing countries that the wood is sourced from sustainably managed forests. Fiji is failing to achieve this...The selection of areas for biodiversity protection on their own merits has become standard practice in many countries and their effective protection is likely to become a condition of certification for any Fijian timber in the future.’

Here is a strong economic case for improved forest management. Despite the sound strategic arguments for working with the Forestry Department on national logging issues, there is no group in Fiji doing so. Meanwhile, the Department itself is failing to address the problem.

A national strategy to prioritise logging issues that involved several government departments, NLTB, National Trust of Fiji, USP and NGOs could effectively join forces to make significant progress on a difficult issue. There are roles for everyone: local development-focused NGOs to support landowners and their concerns as well as providing critical ‘thousand eyes’ of civil monitoring of logging companies and government department effectiveness; international NGOs to assist in certifying and marketing ecotimber,<sup>9</sup> bringing in funds to support conservation area establishment, and providing technical support and capacity development to Forestry; Tourism to link in to conserved forest areas and a ‘green’ international image and so on.

Whatever is the national priority for a conservation campaign, there is good reason for all actors in the conservation sector to draw together to improve their effectiveness. This includes integrating FBSAP more closely with Fiji’s National Development Strategy so that biodiversity conservation is an integral outcome of economic resource development activities such as logging, commercial fisheries, tourism development and agriculture. This will require close co-ordination of natural resource management agencies by the national development planning and monitoring body with assistance from the Department for the Environment.

Conservation gains could be made if NGO efforts were coordinated, if there was focus on working to local priorities, joint assessments, joint strategies, coordination of government engagement, and consideration of sharing offices and other resources. The review team was told of the significant gains that have been made with HIV/AIDS in Fiji once the Ministry of Health coordinated the large number of actors (NGO and government) that are working in this field. With common objectives and a coordinated work plan not only did this sector become far more effective, it has also been able to attract new and significant international funding.

Far from this vision is the current situation with the conservation NGOs, described to the review team as one of intense and unhealthy competition between the NGOs for

---

<sup>9</sup> The ITTO report notes that SFM was, but no longer is, on the priority list for NGOs in Fiji.

resources, ideas and even communities. There are examples of NGOs working together in Fiji on specific projects and in the FLMMA network, but this cooperation does not extend to the broader strategic programming level where threats to conservation are addressed effectively and efficiently. As a result, there is duplication of effort, inefficiencies, avoidance of difficult conservation problems, and reduced transparency. For those who believe that competition is healthy, it is still possible to retain the best of competitive spirit in terms of defining niches within shared conservation objectives and in innovative programming, but Fiji is too small and the conservation problems too large for the current intensely competitive environment to result in positive conservation impact.

*‘Getting the NGOs to work together is like herding cats.’*

*‘NGOs just haven’t got round to coordinating their work. They have overlapping project areas and this leads to uncontrolled use of resources, duplicating projects.’*

*‘There is a lot of patchiness with the NGOs, hoarding communities. ‘This is my patch.’ This is driven by donors and resource availability.’*

*‘The NGOs are highly competitive for funding. So they have to be secretive about what they’re doing.’*

*‘It’s not harmonised. It’s chaotic.’*

## 8. RECOMMENDATIONS

### 8.1 TO THE GOVERNMENT OF FIJI

The review recommends:

- The Government of Fiji take ownership over the biodiversity crisis in Fiji and provide leadership to the sector in a coordinated response (including FBSAP and the National Development Strategy) to resolve the crisis.
- The Fiji Biodiversity Strategy and Action Plan be accompanied by a guide that provides a focused, priority-setting and inspirational strategy to lead the actions of a collaboration of government, NGOs, donors and other agencies. Every government and non-government agency engaged in the conservation sector in Fiji should have their work programmes linked in to this problem-solving matrix. Easily-measured benchmarks should be set to ensure progress against the problems and each agency and organisation should be held accountable for its commitments and progress.
- The Government of Fiji set a clear and standard process for the establishment, operation and accountability of conservation NGOs through its Memorandums of Understanding with them. These MOUs should include a Code of Conduct,

defined consequences for breaches of this, and mechanisms to ensure transparency of operations.

## **8.2 TO NGOs AND OTHER AGENCIES**

The review recommends:

- International NGOs operating in Fiji design and implement their work programmes to ensure these result in ownership and leadership by Fiji citizens in local organisations in a manner that builds Fiji's long term capacity in conservation.
- All NGO programmes be strategically designed. Such programmes should actively support, and be accountable to, a cooperative national strategic action plan coordinated by the Fijian Government.

## **8.3 TO DONORS**

The review recommends:

- Donors adopt funding strategies that support the national conservation strategy and its priorities.
- Donors ensure their programmes support development of Fijian ownership and leadership of conservation programmes within Fijian institutions and are designed to build local capacity.



## **Appendix A: Terms of Reference**

### **1. Background**

#### *1.1 Conservation issues*

Compared to the western Pacific particularly, Fiji is relatively well-off in terms of resources for and attention to the conservation sector. Despite this, a number of serious conservation concerns exist. The forest logging industry is described by the International Tropical Timber Organisation as 'deteriorating' in terms of its difficulties of control and consequent negative impact on the indigenous forests of Fiji. For most of Fiji's inshore marine areas, fisheries are apparently declining in health. Invasive species are impacting on vulnerable indigenous plants and animals. Land use practices including forest clearance and burning impact negatively on sustainable village livelihood resources such as water catchments, forests and soil.

#### *1.2 Conservation agencies*

The government agencies with conservation responsibilities and interests have serious capacity deficiencies in their ability to manage, implement, monitor or control conservation initiatives in Fiji.

There is an active NGO contingent working in conservation in Fiji. While there are currently no local NGOs in Fiji with a primary focus on biodiversity conservation, several local NGOs have conservation or environmental education as programmes embedded in a concern for community development. Eleven (possibly more) international conservation NGOs have programmes in Fiji. The focus of their work is primarily in-shore community-based marine programmes although several agencies have terrestrial-focused projects. The University of the South Pacific has a number of projects for research and community engagement in conservation. Several regional agencies support development projects in Fiji with potential conservation outcomes (UNDP, SPC, SPREP).

For NGOs, significant funding for conservation projects is sourced from three US-based foundations. Several British and European independent donors are also important funding providers. Multilateral donors – EU, GEF and CEPF – support work in Fiji. There is bilateral funding available to conservation (including the Australian Ministry of Environment and Heritage) but this is limited in quantity. Most donors have determined their own priorities for conservation focus in Fiji and much of the conservation work in Fiji is, at least in part, driven by these priorities.

#### *1.3 Co-ordination and strategy for conservation*

All external conservation agencies with offices in Fiji are nominally required to ensure their work fits within the mandate of the National Biodiversity Strategic Action Plan. However, the NBSAP is regarded as a general document that does not itself describe clear priorities for action or determine leadership. The Ministry for the Environment theoretically has a role in coordinating conservation activity in the country but it is currently unable to ensure that conservation resources from all sources in Fiji are coordinated and are targeted strategically, accountably, effectively and efficiently to Fijian-set priorities.

The Action Strategy for Nature Conservation 2003-2007 provides a regional context for conservation programmes in Fiji. The Government of Fiji and NGOs have had input into this strategy (currently the subject of a separate review).

While there are interesting, innovative, and possibly effective conservation projects being pursued in Fiji, and while individual projects and programmes have been reviewed, there has been little methodical analysis of the impact and outcomes of conservation initiatives over time in Fiji. This is in part a result of lack of resources (expertise, time, and funds) by the agencies engaged in field implementation and in part a lack of institutional memory and knowledge retention systems. It is also because of a lack of a coordinated framework for conservation work through an overseeing government agency or any other organised network. 'Best practice', particularly for field based conservation work, is a subject actively discussed in Fiji as elsewhere in the Pacific, but there is no systematic collating of 'lessons learned' from past programmes across agencies.

#### *1.4 Origin of review*

The Austral Foundation proposed a review and analysis of the Pacific conservation sector to the July 2006 Roundtable for Nature Conservation in Suva. A group of Roundtable participants met to discuss this concept, and concluded that while a regional review would be both valuable and interesting, it was more feasible to conduct an in-depth analysis of a single country in the region. Such a focus would also provide the best chance of positively influencing conservation outcomes both within the country and across the Pacific region. The group proposed Fiji as the study country.

Austral Foundation directors subsequently made two trips to Suva in September and November of 2006 to discuss the proposed review with stakeholders there. There was widespread support for the review with the expectation that conservation outcomes for Fiji could be improved by such a project. The core finding from the two trips is that a review and analysis of conservation programmes, strategies and activities in Fiji is timely. There appear to be two primary themes that would benefit from review and analysis:

- The overarching national strategic direction and planning for conservation including government leadership, priority-setting from a Fijian perspective, initiation and coordination of effort, and effectiveness and accountability for those governing, working in and funding the biodiversity sector in this country, and
- Best practice models for effective conservation

## **2. Purpose of the review**

The goal of the review is to provide decision-makers in the Fiji Government, implementing agencies and donors with credible, compelling and useful information on the history and current situation of conservation in Fiji that results in stakeholders working to improve their effectiveness and accountability, leading to greatly improved long-term conservation outcomes for Fiji.

## **3. Potential review outcomes**

This review is being undertaken with the desire that it will positively impact on the effectiveness of the conservation sector in Fiji. The goal is to achieve more than the output of a written report. Therefore consideration is given to possible review outcomes –four of which may be:

- An improved understanding of the state of biodiversity in Fiji and the resources currently allocated to it that in turn galvanises the Government of Fiji to give greater priority to this sector and that engages an increased stakeholder base including industry, business and the education sector.
- The Department of Environment taking a clear leadership role in improved conservation strategy, prioritising and planning.
- National and provincial systems in place that provide for coordination of conservation programmes, projects, and resources, and accountability mechanisms for implementing agencies.
- Improved learning networks for best practice in community level conservation initiatives.

## **4. Scope of the review**

The review will be confined to biodiversity conservation: that is, the conservation of plants and animals that make up the species richness of Fiji. The review will not be examining broader environmental issues such as soil erosion, waste disposal, disaster management or pollution, except where these specifically impact on biodiversity.

The review is likely to attempt a broad historical analysis from the 1970s until the present day, with more in-depth information gathered for the past decade. Details of the time period to be covered by the review will be determined once the amount and quality of information available is determined.

No new research will be commissioned for this work – rather information will be collated from existing written reports and reviews, and interviews with stakeholders and knowledgeable people.

It is understood that there are significant gaps in information on the state of biodiversity in Fiji. The review will collate known information and base its conclusions on ‘best professional estimates’.

## **5. Approach**

The review will include a historical and current situation analysis.

### *5.1 History*

#### Trends

The review will attempt to summarise the following trends:

- Extent and health of biodiversity and its supporting ecosystems over time.
- Capacity development of Fijian agencies and individuals
- Understanding of and support for conservation
- Development of policy and legal frameworks
- Shifts in priorities, focus and approaches to conservation
- Growth of the sector (donors, NGOs, government agencies)
- Shifts in governance from traditional to modern

#### History of agencies and projects

The aim of this historical analysis is to understand as near as possible the total resources and effort that has been put in to biodiversity conservation and the outcome of this work. An overview will be attempted of conservation programmes and projects, their goals and focus, their outcomes and reviews along with budgets, staff time and communities engaged.

### *5.2 Current situation analysis*

The current situation for, and governance of, biodiversity conservation will be described including regulation, legislation and policies. The current capacity, commitment and effectiveness of all agencies will be assessed, compared with the existing threats to biodiversity. Current programmes, projects and strategies for all agencies will be compiled and analysed for their focus, priorities and effectiveness.

A selected number of field sites will be visited including a mix of marine and terrestrial initiatives, sites that no longer have outside agency support and sites of high conservation value that have never had external agency interest. Impact, change and effectiveness of implementation will be assessed and compared.

## **6. Methodology**

The review will take place in three parts. The design and timing of the second and third parts will be finalised after the completion of the preceding work.

### *6.1 Information collation and interviews*

All available reports, reviews, legislation, policy documents and other information will be collated. Interviews will be conducted with agency representatives and with individuals with historical and current knowledge of conservation in Fiji. At the completion of this work, a workshop in Suva will be held to enable stakeholders to discuss core themes emerging from the review.

## 6.2 Field review

A separate and detailed TOR will be written once the work described in 6.1 is completed. This flexibility in timing will allow the review team to ensure the field review builds most effectively on information gathered from reports and interviews. The field review TOR will clarify the number, sites, methodology, evaluation criteria, quantitative components and personnel involved in the field reviews. Once the field reviews are complete, a second workshop will be held in Suva to allow stakeholder input into the field site analysis.

## 6.3 Analysis and implementation

The Austral review team will collate and analyse all information in a report. As well as providing the historical and situational analysis, the report will address the potential review outcomes outlined in section 3 above. This report and draft recommendations will be presented to a final workshop of stakeholders in Suva for discussion and input. Once recommendations are clarified or modified and then agreed to, an implementation strategy will be proposed and designed.

## 7. Team

The Austral Foundation will direct the review. There will be a Fiji-based lead consultant to coordinate information collating, organise stakeholder engagement and, later, to lead the field reviews. Assistants may be engaged as required and in addition independent experts may be consulted for specific issues such as legislation, capacity development, and science.

## 8. Consultation with stakeholders

A list of stakeholders to be consulted is attached in Annex 1. Consultation will not be limited to these organisations and individuals however.

The desire that this review initiate positive change in conservation outcomes in Fiji requires that there be active engagement with stakeholders throughout the review. To this end the review team will actively seek the views and experience of anyone who wishes to have input into the review. In turn, the review team will require support and assistance from agencies to ensure it has access to documents and information relevant to its work.

## 9. Implementation schedule 2007-08

<b>March 07</b>	Secure agreements from agencies for access to documents and information. Launch review by March 31
<b>April</b>	Compile all written information from agencies, past reviews, strategies, assessments and other documentation.
<b>May</b>	<b>Complete information compilation by May 15.</b> Begin detailed interviews with organisations and individuals.
<b>June</b>	<b>Complete interviews by end June.</b>
<b>July</b>	<b>Complete initial historical and situation analysis by end July.</b>
<b>August</b>	<b>First stakeholder workshop.</b> Field evaluation designed, sites selected and permission sought.
<b>September</b>	Field reviews commence
<b>October</b>	<b>Field reviews completed by end October</b>
<b>November</b>	Field review written assessments continue
<b>December</b>	<b>Field review written assessments completed</b> <b>Second stakeholder workshop</b>
<b>January</b>	
<b>February 08</b>	Final analysis begins
<b>March</b>	Analysis continues
<b>April</b>	<b>Third stakeholder workshop</b> <b>Report and implementation strategy presented.</b>

The red highlighted actions represent the deliverables for this project.

**Annex 1 List of Agencies to be consulted.**

Ministry for Environment  
Ministry of Forests  
Ministry of Fisheries  
Ministry of Planning and Finance  
Ministry of Agriculture  
Ministry of Education  
Selected Provincial Governments  
Native Lands Trust Board  
National Trust of Fiji  
Fiji Sustainability Council

SPREP  
UNDP  
Forum Secretariat  
IUCN

GEF  
GTZ  
NZAID  
AusAID  
RNHP  
MacArthur Foundation  
Packard Foundation  
Moore Foundation  
EC

Live and Learn  
Partners in Community Development  
FSPI  
WWF  
Conservation International  
Birdlife International  
Wildlife Conservation Society  
Wetlands International  
Greenpeace  
FLMMA  
Fiji Council for Social Services, 'Sustainable Fiji' group  
University of the South Pacific

Selected rural communities and villages  
Individuals prominent in Fiji conservation including historically, resident in Fiji and elsewhere

## **Appendix B: List of people interviewed/consulted**

Bill Aalbersberg, University of the South Pacific  
Graham Baines, Consultant  
Ratu Meli Bainimarama, Fijian Affairs  
Ratu Netava Bakaniceva, NLTB  
Austin Bowden-Kerby, Partners in Community Development, Fiji  
Kate Brown, SPREP  
Mr. Viliame Burenivalu, Roko Tui Ba  
Peni Cavuilagi, Department for Culture and Heritage  
Alvin Chandra, UNDP  
Margaret Chung, Consultant  
Berndt Cordes, Packard Foundation  
Alisi Daurewa, Partners in Community Development, Fiji  
Elizabeth Erasito, National Trust of Fiji  
Marie Fatiaki, Live and Learn  
Emily Goodwin, Gordon and Betty Moore Foundation  
Nilesh Goundar, Greenpeace  
Hugh Govan, Foundation of the People of the South Pacific International  
Louise Heaps, WWF South Pacific  
Aaron Jenkins, Wetlands International  
Peter Johnston, Consultant  
Adi Banuve Kaumaitotoya, Ministry of Tourism and Environment  
Taholo Kami, IUCN  
Mohammed Hafiz Khan, Forest Enterprises Ltd  
Simione Koto, Live and Learn  
Padma Lal, Pacific Islands Forum Secretariat  
Vili Masibalavu, Birdlife International  
Mereoni Mataika, Partners in Community Development, Fiji  
Leba Mataitini, SPACHEE  
James Millet, Birdlife International  
Craig Morley, University of the South Pacific  
Christoph Muziol, GTZ  
Roko Tui Lote Naikasewa, Nadroga Province  
Fulori Nainoca, Partners in Community Development, Fiji  
Eveli Nasome, Department of Environment  
Doris Ravai, Live and Learn  
Asenaca Ravuvu, UNDP  
Bill Raynor, TNC  
Keshwar Reddy, National Planning Office  
Emma Robens, Partners in Community Development, Fiji  
Etika Rupeni, Foundation of the People of the South Pacific International  
Lea Scherl, TNC  
Erami Seavula, Nadroga/Navosa Province  
Pam Seeto, Packard Foundation  
Fanga Semesi, NZAID  
Peni Sikivou, National Planning Office  
Graham Southwick, Commercial fisherman  
Manasa Sovaki, Department of Environment  
Don Stewart, Birdlife International

Deborah Sue, Forestry Department  
Sevanaia Tabua, Native Lands Trust Board  
Kesaia Tabunakawai, WWF-Fiji  
Margaret Tabunakawai, FLMMA  
Dr Niумаia Tabunakawai, Ministry of Forests and Fisheries  
Randy Thaman, USP  
Susana Tuisese, Ministry of Forests  
Marika Tuiwawa, USP  
Iliapi Tuwai, Partners in Community Development, Fiji  
Joeli Veitayaki, Mositi Vanuaso and IOI/USP  
Saula Vodonaivalu, Seacology  
Keresi Vodonaivalu, Seacology  
Milly Vukunisiga, Birdlife International  
Kathy Walls, Wildlife Conservation Society  
Sunia Waqainabete, FLMMA  
Dick Watling, Consultant  
Tom Wilson, NZAID  
Robin Yarrow, National Trust of Fiji  
Kirk Yates, NZAID

## **Appendix C**

### **Attendees at the Review Findings Workshop**

August 10 2007,  
Raintree Lodge, Colo-i-Suva

*Chief Guest:* Permanent Secretary of the Ministry of Tourism and Environment, Mrs Adi Banuve Kaumaitotoya

Eveli Nasome Ministry of Tourism and Environment  
Viliame Kaitani Ministry of Fisheries and Forests  
Luisa Tagicalibau IUCN  
Craig Morley USP  
Dick Watling Environment Consultants Ltd and Nature Fiji-Mareqeti Viti  
Robin Yarrow National Trust of Fiji  
Philippe Gerbeaux IUCN  
Pepe Clarke IUCN  
Kathy Walls Wildlife Conservation Society  
Emma Mario UNDP  
Elizabeth Erasito National Trust of Fiji  
Avisaki Ravuvu National Trust of Fiji  
Juan Hoffmaester UNDP  
Aaron Jenkins Wetlands International  
Derek Cleland Department of Culture and Heritage  
Peter Johnston Environment and Energy Policy and Planning  
Leba Mataitini SPACHEE/National Council of Women  
Meretui Ratunabuabua Ministry of Fijian Affairs, Culture and Heritage  
Sefa Nawadra Conservation International  
Joeli Veitayaki USP  
Erami Seavula Nadroga/Navosa Province  
Kesaiia Tabunakawai WWF Fiji  
Bill Aalbersberg  
James Millett  
Fulori Nainoca Partners in Community Development, Fiji  
Volker Kohler Consultant, Department of Forestry  
Marika Tuiwawa USP  
Saema Deo Consultant

*Resource People, Austral Foundation*

Suliana Siwatibau  
Annette Lees  
Cedric Saldhana  
Joseph Grossman



## **Appendix D: A History of Conservation in Fiji**

The history of biodiversity conservation in Fiji is summarised in a timeline of major events in Appendix E. While the timeline records important events since 1880, this discussion is restricted to the period beginning in 1950 because of insufficient available information before that time.

A recent examination of the history of reef health in Fiji showed that perceptible declines in Fiji's reef fisheries resources due to human activities began only in the early 1900's about 100 years after significant European arrivals. The study concluded that this was probably due to loss of traditional conservation practices and the pressure of the cash economy (Vincent undated). On the other hand terrestrial vegetation had been systematically destroyed by fires long before European contact - creating "talasiga" lands over most of the leeward areas of larger islands. Conservation practices of terrestrial resources were restricted both in space and time to small areas of land to build up supplies for special occasions. Where available cultivable land was a premium, the use of specific intensive cultivation methods such as terracing, helped conservation of soils and natural resources to some extent.

Concerns over biodiversity conservation at the national level became evident only with the institution of a national level government by the British in 1874. The British united a set of independent warring tribes whose land and sea resources were managed under customary rules administered by their own separate tribal institutions. This local ownership and management arrangement is officially recognized in formal legislation such as that governing native lands (Native Lands Trust Act 1940) and native fisheries rights (Fisheries Act 1942). The imposition of national interests for conservation purposes over these local rights and interests, continue to be a challenge for conservation activities in Fiji.

One of the earliest attempts at setting national conservation rules, is the Birds and Game Protection Act of 1923. It protected all native birds except game birds in regulated, nominated seasons. The law did not cover reptiles (eg iguana, snakes), bats or other unusual land animals (e.g. coconut crabs, land crabs) populations of which have since decreased without much attention except for the iguana which is of global interest.

Human exploitation of both land and sea areas has taken a heavy toll on many species only some of which have been recognised. Since the 1950's Vincent noted in her study quoted above, that all guilds (categories of fisheries) studied except corals, had "become Rare, indicating that coral reef ecosystems have suffered severely from human impacts in recent times".

At the beginning of the 1950's Fiji already had the Native Land Trust Act (1940) and the Fisheries Act (1942) both of which had provision for the declaration of protected areas and both of which recognized prior rights of indigenous Fijians to land and fisheries resources. However, neither was used for many decades either to monitor the status of resources or to assist indigenous communities in conservation of their resources.

Fiji's population grew rapidly at an average annual rate of just over three percent along with migration from outer islands to mainland urban centres in the fifties and sixties. The Colonial government saw the need to open up more land for agricultural development and to exploit Fiji's timber resources as well as extend forest plantations. A forestry policy was formulated in 1950 and the Forestry Act passed by the Legislative Council in 1955. This Act, revised through the Forest Decree of 1992, empowers the Minister to declare protected areas requiring NLTB consultation and landowner agreement in the case of native lands which comprise about 83% of Fiji's total land area.

As part of the Forestry management process the government proclaimed twelve nature and forest reserves totalling some 21,467.8 ha, from 1954 to 1960. Annual Agricultural shows in rural and urban centres during the same decade encouraged the conservation of traditional crops such as yams and taro, and home garden biodiversity such as of cultivated multipurpose plants.

Tourism growth during the fifties increased pressure on already heavily populated coastal areas. This became a concern for government when it adopted national planning as a management tool in the following decade although its control of the tourism industry remained minimal.

National planning began in 1960 with a careful study of the natural resources of the country in what may be called an “ecological approach”. This tried on the one hand to investigate the capacity of islands to cater for the needs of growing populations and on the other to take account of human population and its activities. The high population growth rate of over 3% per annum, revealed by the population census of 1966 resulted in the adoption of an active family planning programme by the Department of Health continuing into the seventies and eighties and supported by international agencies such as WHO and UNFPA as well as IPPA. Fertility rates of both Fijians and Indians declined from the 1966 to the 1986 census evident in the decreasing population growth rates of 2.33% (1966-76) and 2.16% (1976 – 86).

The promising approach of ecologically sensitive planning in 1960 changed to one predominantly focused on economic development in the mid-1960’s. Consequently, Fiji has done little since then to “identify environment degradation vis-a vis population pressure” (IUCN 1992) while land and resource utilisation has continued with little effective management. Current forecasts indicate population densities of over 170/square kilometre of arable land by 2011(IUCN 1992). Implications for resource use and biodiversity conservation are of concern.

Towards the end of 1969 the University of the South Pacific was established in Suva with three schools one of which was a School of Natural Resources. A distinguished Professor of Botany from UK was appointed to that School. He and his team of biologists became active promoters of nature conservation in Fiji through the 1970s. They worked closely with the National Trust for Fiji and the relevant departments of the Fiji Government. They saw population growth and rapid economic development as threats to the conservation of the range of Fiji’s natural heritage. At the time Fiji had an excellent collection of specimens of its native flora in the Government Herbarium housed in the Agriculture Department. It had no equivalent for its animal or marine life. The USP marine biologists began a small marine collection at USP.

Concerns over the protection of national heritage was manifest in the passage of the National Trust of Fiji (NTF) Ordinance by the Legislative Assembly under the Colonial government during its last month of existence in September 1970. Established to protect both natural and cultural heritage, the NTF is empowered to declare protected areas for parks and reserves.

At the close of the sixties perceived major threats to biodiversity conservation were population growth and concomitant pressure on natural resources, growth of the tourist industry and heavy demand on environmental services including the processing of pollution, rapid agricultural based economic development and its impact on natural resources and the environment.

The decade of the seventies saw promising developments in response to the perceived threats and in recognition of the importance of environment conservation. These were reflected in activities both inside and outside of government.

Government took several measures to address issues of environmental management:

It took greater control over the tourist industry. A UNDP/World Bank study was commissioned in 1972/3 and produced a report on “Tourism Development Programme for Fiji”. The study report remained an important reference document in guiding growth in the tourist industry in subsequent years. Amongst its objectives the study was to examine the “use of tourism as an important means of environment and cultural conservation in order to maintain and accentuate the variety and uniqueness of Fiji’s landscapes, water features and life styles...” It recognised the “danger of tourism’s physical development detrimentally changing the attractive character” of Fiji’s natural heritage. Amongst the study’s recommendations were:

- the setting up of 6 terrestrial national parks and 2 large terrestrial reserves establishing criteria for identifying locations for visitors in the process
- the formulation of regional plans based on tourism attractions and demands
- the application of landscape architecture design to development, and
- the establishment of a Parks Department in government.

Government policy on tourism changed restricting its role to creating an environment conducive to continued growth of the tourism sector and leaving construction and development to the private sector. Its new approach focused on 4 elements: (1) active participation of landowners (2) appropriate level of

environment management of natural resources (3) assessment of likely environment impact of development (4) a planned locational framework for establishment of tourism activities. Under this policy, NLTB became active in promoting landowner-based ecotourism which saw the establishment of several local parks or amenity areas.

In 1974 government set up an Independent Tribunal to address recompense arising from foreshore development on fishing rights as the tourism industry continued its growth along coastal areas. Some environment and biodiversity considerations from this forum led to improvements in foreshore development.

The Fiji Forestry Department in the meanwhile acted not only to improve and increase its recreational services for the public through the setting up of the Colo-i-Suva amenity area for example, but also to improve forest management through the conduct of Fiji's first Forest Inventory in 1973.

Concern over the impact of development led to the appointment in 1976 to 1978, of an Environment Advisor (EA) within the Ministry of Finance which also administered the National Planning Office. The EA was to advise all Ministries. It is notable that the National Development Plan for the period 1976 – 1980, produced the year before (1975) devoted an entire chapter to environmental management. During the implementation of the plan from 1976 to 1980, the Central Planning Office included a regional planning unit. Detailed assessments were prepared of population, resources and infrastructure for each province and investment plans formulated according to local needs and resources.

However according to the EA, (pers. com.G.Baines) the overriding economic focus during the plan implementation inhibited the emergence of policy in support of issues addressed in the plan, except for mangroves.

On his advice, mangrove harvest and mangrove land reclamation were blocked by relevant Ministries. Unfortunately, by this time, some 320ha of the 360ha of mangrove area in Raviravi, Ba had already been converted and the largest concentration of swamps in Vanua Levu had already been drained at Seaqaqa. At this time as well, Selala, the hybrid mangrove, had been reported by a USP biologist increasing interest in Fiji's mangroves. Unfortunately, an attempt by the NTF to protect a stand of the Selala near Suva was rejected by the Lands Department in 1977.

That the impact of increasing human populations on natural resources and the environment was of wide concern during the decade is also evident from the conduct of the "Man and the Biosphere" study in the mid 1970's. The UNESCO/UNFPA study on the eastern islands of Fiji called "Man and the Biosphere" was reported in 1977 and took a total of 2,487 person days. However, its results were never subsequently integrated into Fiji's planning or policy formulation processes.

In 1980 the NTF with technical assistance from IUCN and funding from WWF and UNEP produced the first representative and comprehensive list of proposed natural heritage sites for Fiji. A total of 88 sites were identified in 7 planning regions. The report also provided clear guidelines for implementation and management of the range of protected sites and promoted "ecodevelopment" for Fiji. .

Through the seventies an additional 10 parks and nature reserves were established. Of these four small areas totalling 29.7ha were proclaimed by government while six others were developed by local communities largely as component of ecotourism services.

Participation of Non-Government Organisations (NGOs) in environment concerns grew in the 1970's. The committee Against Tests On Mururoa (ATOM) was formed in 1970 and while its focus was on the impact of nuclear tests in the Pacific region it was also instrumental in raising public awareness on environmental matters generally. This group received active support for its educational activities from the churches and the school systems. ATOM expanded into the Nuclear Free and Independent Pacific Movement which changed focus to political and economic issues. Another local NGO, the Foundation for the Peoples of the South Pacific in Fiji (FSP Fiji), was formed towards the end of the decade in 1979. This is now known as Partners in Community Development Fiji (PCDF) and is active in community based conservation efforts.

Two international NGOs, the International Union for the Conservation of Nature and Natural Resources (IUCN), now known as World Conservation Union and the World Wildlife Fund (WWF), now known as World Wide Fund for Nature, provided technical and other assistance towards the promotion of nature conservation in Fiji largely through the NTF.

Notable as well during this decade was the conduct in 1975, of the first Environmental Assessment (EA) in Fiji by a private sector developer who engaged USP to do an EA at a time when such was not a requirement either by policy or by legislation.

It appears therefore that concern for environment conservation had increased in the 1970's but in a sporadic manner, both inside and outside of government. Response to perceived threats tended to be from a national level perspective, addressing them through national plans and policies or through national surveys and studies. Some local level activities resulted in the creation of local parks associated with ecotourism. For the first time an EA was conducted as part of a local development by a private sector developer.

The approach to conservation in the eighties and nineties began to focus on localized geographic sites associated with local landowning groups or on single rare or threatened species. This has often invited the comment that conservation efforts have been largely project based. During these two decades it seemed to have been difficult to pull together activities in a coordinated manner at national level despite the formation of the Environment Management Committee in 1980, the establishment of the Environment Management Unit in 1982, the production of the National Environment Strategy in 1993 and the completion of the Fiji Biodiversity Strategy and Action Plan in 1999. A partial explanation is the low priority given to environment management as evident from the lack of allocated staff or budget during the first seven years of existence of the Environment Management Unit (1982 to 1989) and the absence of a budget allocation to it when it moved to the Ministry of Housing and Urban Development in 1991.

In the eighties, Government made isolated attempts to address environment conservation. These included for example – the creation of a full time Environment Officer position within the Department of Energy (1981), the adoption in the same year of a short lived policy for environment assessment by the board of the Fiji Electricity Authority (FEA), the production of a format for Environment Impact Assessment (EIA) by the TCP office (1982), the formation of an inter-Ministerial committee on Mangroves by the Department of Lands(1983) and the production of a Mangrove Management Plan(1985-86). Meanwhile Forestry had worked with NLTB and the Maruia Society of New Zealand to identify 15 conservation areas for terrestrial biodiversity (1988), engaged FAO technical assistance to formulate a Forestry Sector Development Study that led to the establishment of the Fiji Hardwoods Corporation Limited (1988), and engaged the German technical assistance agency, GTZ to conduct a second Forest Inventory Survey(1989/90). In conjunction with NLTB and Maruia Society, the Forestry Department began conservation efforts for the 20,421 ha of the largest wilderness forested area left in Fiji located in the Sovi Basin in the interior of Viti Levu.

The lack of focused attention on environment management in the 1980s was probably a reflection of the scanty recognition given it in the Government Development Plans of the decade. The 1981 – 1985 Development Plan made only a weak two paragraph reference to environment under “Leisure, Recreation and the Environment.” The 1986 – 1990 Development Plan gave a brief treatment of environment under “Social and Community Development”.

During the same decade the NTF was mainly engaged in activities to conserve the crested and banded iguanas as well as setting aside specific areas such as Patterson memorial garden (Levuka), Garrick Reserve (Deuba), Sigatoka Sand Dunes and Waisali Reserve (Cakaudrove). NLTB continued to work with local tourist operators following its “honey pot policy” and using tourism to conserve pristine terrestrial and marine areas.

Two notable developments for biodiversity conservation were the description of the endemic crested iguana in 1981 establishing its uniqueness internationally and the rediscovery of the endemic Fiji petrel on Gau Island in 1984.

A USP-based regional NGO, South Pacific Action Committee on Human Ecology and the Environment (SPACHEE) was formed in 1982 and ran several programmes including “Wainimate”

promoting medicinal plants and their traditional uses. This raised the awareness for conservation of garden as well as wild plant biodiversity.

In 1989, gross tourism income surpassed that from sugar. Despite high leakage from tourism earnings, its potential for further development was noted. The Government's Economic Statement in 1991 recognised tourism as a possible mechanism for establishing national parks and nature reserves both terrestrial and marine. It declared conservation of the natural environment to be integrally associated with cultural conservation, evident in its accession to the World Heritage Convention (1991). In 1992, Fiji joined the UN Conference in Rio and signed the Biodiversity Convention committing itself to conserving its biodiversity.

Subsequently, several International NGOs (INGOs) established office in Fiji during the nineties and early 2000's. These included Greenpeace (1993), WWF (1998), Wetlands International (1999/2000), Live & Learn (1999/2000), LMMA (2000), Seacology (2000), World Conservation Society (2001), Birdlife International (2002), Conservation International (2005) and IUCN (2006). In addition, the Packard Foundation became interested in the West Pacific region and in 1998 established the West Pacific Marine Conservation Programme. The involvement of Greenpeace widened attention to issues of the high seas and oceanic biodiversity including tuna fisheries.

During the latter half of the nineties and into the early 2000's the presence of INGOs saw a hive of activities for nature conservation largely based at local community level. These gave rise to the FLMMA network for coastal marine conservation, the development of widespread environmental education activities for communities (and to a lesser extent schools), the establishment of local community-managed protected areas, and a few national studies such as Birdlife International's Important Bird Areas, to establish national systems for biodiversity conservation.

Progress has continued to be made in activities to protect endangered species such as for the crested iguana and the Fiji petrel, as well as clear a few protected areas of invasive species such as rats from native bird sanctuaries and exotic plants from nature reserves.

Biodiversity conservation activities have continued to be largely 'project' based as agencies continue to expand coverage to more communities and to other rare or threatened species. The trend has been to focus on coastal communities with which the agencies establish MPAs. A total of about 200 sites are now engaged in these marine conservation activities. Fiji is reported to have 410 qoliqoli areas altogether. Action for conservation in inland and non-coastal areas cover larger tracts of land but are comparatively less in numbers.

Birdlife International (with partners) has identified 14 Important Bird Areas (IBAs) it declares sufficient to conserve Fiji's globally important bird biodiversity (2006). And in 2003 WWF convened a meeting of local and overseas stakeholders which identified 35 marine Priority Conservation Areas (PCAs) that if conserved "will contribute to the maintenance of integrity of Fiji's marine systems." A compilation of suggested conservation areas by various agencies including that of the Fiji Biodiversity Strategy and Action Plan has been completed by this review and it will be held at the Department of Environment.

Despite years after declaration of terrestrial nature reserves, there is yet no comprehensive system of national parks and nature reserves in Fiji. This has sometimes been attributed to weak and outdated legislation. However, a review of legislation in 2004 (C. Turk) noted that a total of seven reviews had been conducted since 1992 making hers the eighth in a span of 12 years. She also noted that the previous reviews had been largely ignored. Had any of them been implemented she claimed that "heritage in Fiji would be more comprehensively managed and protected".

The compilation of Fiji's Biodiversity Strategy and Action Plan which involved wide stakeholder participation has culminated in the launching of the published plan document in September 2007. Unfortunately the plan does not give clear priorities to activities itemized nor does it provide strategic direction on implementation.

Just how far current protected areas effectively conserve their complement of biodiversity is unknown given the absence of monitoring regimes. This is compounded by insufficient budget allocation for the national government agencies responsible to manage such areas properly. The Forestry Department for

example which manages most of Fiji's declared forest reserves had its budget for this activity cut from \$115,700 in 2006 to just over half at \$62,600 in 2007. The National Trust for Fiji for its total activities had an allocated budget of \$452,370 (including aid in kind) for 2007 from \$439,451 in 2006. Fisheries Department manages the only national marine reserve at Makogai Island. This is also its research centre where commercial fisheries species are investigated.

Awareness of the importance of biodiversity conservation for the long term sustainable development of the country has remained mainly with technical agencies. Strong advocacy and coordination skills are required in the leadership of the environmental sector to garner support and will at political leadership level.

## Appendix E: Conservation timeline

Year/month Body involved	National level	Local level	Notes
1880 Colonial Government	Rivers and Streams Ordinance		
1913 – 1926 Colonial Government	Several Reserved Forests proclaimed	Suva-Namuka Harbour islands (1913) Ravilevu, Taveuni (1914) Rewa water supply intake area(1919), Buretolu, Ba (1926),	Only two areas were over 1,000 acres in area – Ravilevu in Taveuni and Buretolu in Ba.
1923 Colonial Government /Agriculture	Birds and Game Protection Act		Protects all native species (birds, nests and eggs) except certain pigeons in the ‘season’. Ignored reptiles. (amendment can declare Protected Area)
1940 Colonial Govt./ Native Lands	Native Land Trust Act		Protected areas (PA) can be declared under this act.
1942 Colonial Govt./Fisheries	Fisheries Act		Can prohibit fishing in marine areas (MPAs) or seasons to protect fisheries or species.
1940s and 1950s Colonial Government	Annual Agricultural Shows – both rural and urban	Village subsistence farmers as well as commercial farmers home gardeners and schools participated	Kept interest in nature high. Encouraged conservation of traditional varieties of crops – hence crop biodiversity conserved.
1950 Colonial Govt./Forestry	Fiji’s first Forestry Policy adopted.		
1950 Colonial Govt./Forestry	Sustained Yield Management of the mangrove salt water swamp forest of Fiji.		Mangrove management guidelines incorporating sustainable yield.
1955 Colonial Govt./Forestry	Forestry Act		Empowered the Conservator to declare protected forest areas. For native land, this required NLTB consultation.
1950s Colonial Govt/ Tourism	Tourism industry began.		Pressure on coastal and island resources for tourism development.
1954 to 56 Colonial Govt./Forestry	Protected forest areas proclaimed. Nadarivatu-Nadala, Ba (1954), Batiwai Forest (1956).		Some 93.1 ha of forest declared nature reserve in Nadarivatu. An area of 15,750 acres of lowland rainforest at Batiwai, but logging was almost complete.
1958 Colonial Govt/ Forestry	Government established terrestrial nature reserves at Tomaniivi, Ba and Naqaranibuluti, Ba		Tomaniivi is 1,323.4 ha while Naqaranibuluti is 279.2 ha
1959/1960 Colonial Govt./Forestry	More nature reserves established at Draunibota Labiko, Rewa (1959) Ravilevu, Taveuni (1959) and Vuo Is, Rewa (1960)		Draunibota Labiko is 2.2 ha; Ravilevu is 4,018.7 ha; Vuo is 1.2 ha.

1960 Colonial Govt./ National Planning Office.	Central Planning began in Fiji. Planning was based on an 'ecological approach' that tried to investigate the capacity of islands to provide for the development needs of growing populations.		Planning carefully took account of natural resources of the country such as land use potential, forest inventory marine reefs and lagoons ecology, climate etc.
1964 Colonial Govt./ Agriculture	Noxious Weeds, Pests & Diseases of Plants Act		
Mid 1960s Colonial Govt	Central Planning approach changed. Became more focused on economic development.		National planning paid far less importance to natural resources such as land use surveys, forest inventory etc. along with population pressures on natural resources.
Through 1960s Colonial Govt.	Minimal control on tourism development.		
1961 – 1970 Govt./Forestry	Small parks and reserves declared	Vunimoli, Cakaudrove (1968); Tavakubu, Ba (1970); Saweni Beach, Ba (1970); Lomolomo, Ba (1970); Nukulau Is, Rewa (1970).	Vunimoli - 20.2ha Tavakubu - 1ha Lomolomo – 0.5ha Nukulau Is – 8ha.
1969/70 University of the South Pacific (USP) established in Suva.	Botany Professor at USP active in promoting conservation of representative vegetation types in Fiji. USP established a marine laboratory. Several staff members surveyed marine species and established a marine species collection.		Through the 1970s biologists at USP active in promotion of environmental and resource conservation. Worked with National Trust of Fiji, Forestry, Lands, Fisheries and government herbarium, as well as Finance and Planning. Linked natural and cultural heritage protection/conservation.
1970 Sept Colonial Govt. / National Trust of Fiji (NTF).	National Trust for Fiji (NTF) Ordinance		NTF established to protect both natural and cultural heritage. Can declare protected areas for parks and reserves.
1970 Colonial Govt. /Agriculture	Animal Importations Act		
1970 – 1975 ATOM committee	Against Tests On Mururoa (ATOM) Environmental NGO formed.		ATOM was instrumental in raising public environmental consciousness.
1972 United Nations/ NTF	UN Stockholm Conference on Environment.		Fiji was represented by the Chair of NTF. No follow up to the participation.
1972/3 Fiji Govt. United Nations Development Program (UNDP) /International Bank for Reconstruction and Development (IBRD) – World Bank	Produced a study on "Tourism Development Programme for Fiji" Recommended 6 national parks and 2 large reserves – all terrestrial.	Parks recommended – Nadarivatu, Nadrau plateau, Nausori Highlands, Nakauvadra Range, Makogai Is, South of Dreketi River.  Reserves : Taveuni, Rama-Korobaba.	Established criteria for identifying preferred locations of visitor regions. Study was part of the UNDP regional programme to assist tourism development in Pacific Island Countries



1973 Foreign & Commonwealth Office UK	Fiji Forest Inventory covered most of Fiji.		Senior Forestry officials mostly from UK saw and acted on the need for better forest management.
1974 Fiji Govt.	Set up Independent Tribunal to assess recompense arising from impact of foreshore development on fishing rights.	Some environment and biodiversity considerations arising from this forum led to improvements in foreshore development.	USP provided expert witness on environment issues.
1974/5 Forestry department with assistance from NTF.		Colo-i-Suva amenity area established –included nature trail with major plant species identified and labelled along forest paths.	Popular for local and international tourists
1974 NTF and International Union for Conservation of Nature and Natural Resources (IUCN) now known as World Conservation Union.	Approach made to Town & Country Planning to establish an Environment Officer post.		Fiji government did not follow through.
1975 NTF and Australian Govt.	Proposal for a protected area planner to be appointed		Fiji government did not follow through with a formal request.
1975 Private sector developer/ USP	A simple benchmark measure of water pollutants levels prior to development of Industrial Subdivision at Wailada undertaken by USP on behalf of Australian Consulting firm.	First Environmental Assessment by a private developer.	This was notable in that Environmental Assessment was not a policy or legislative requirement at this time.
1975 Fiji Govt. Plan	National Development Plan 1976 – 1980 devoted a chapter to environmental management.		In plan implementation overriding economic focus inhibited emergence of policy in support of issues addressed in the Plan (except for mangroves).
1976 - 1978 Fiji Govt/ Ministry of Finance with Commonwealth Secretariat funding.	Environmental Advisor (EA) appointed and based in the Ministry of Finance to advise all Ministries.	.Mangrove harvest and land reclamation blocked by relevant Ministries.	Concern over population growth and impact of development on environment led to appointment of EA in Ministry of Finance. Appointee was former USP academic.
1977/Jan NTF	Earlier report of unusual/unique hybrid mangrove selala, by USP biologist noted.	Laucala Beach (Suva) mangrove reserve proposed to protect selala.	Proposal to protect hybrid mangrove stand rejected by Lands Dept.
1977 Fiji Govt./ UNESCO/ UNFPA	Man and the Biosphere (MAB) programme study on Eastern islands of Fiji. UNFPA inclusion reflected concern over high population growth. Concern was to build “lasting equilibrium between man and the environment.”	Taveuni, Lau and Lomaiviti groups.	Twin objectives were to: 1. Explore through scientific study – human activity in and on specifically defined environments. 2. Provide researched guidelines for policy aimed at optimizing within limits of possibility the satisfactions of life for the people concerned.

1978 Fiji Govt.	National Trust for Fiji Act (Cap 265)		National Trust for Fiji (NTF) had by now forged strong links with USP, IUCN, CHEC, SPC/SPREP.
1978 to 1980 NTF with IUCN initiated jointly with WWF which, with UNEP, provided funding support.	First list of proposed natural heritage sites Dunlap & Singh promoted 'ecodevelopment' and incorporated biodiversity concerns in recommendations. Took historical and cultural aspects into account only where these overlapped with biodiversity.	National coverage. Gave guidelines on priorities for declaring and establishing conservation areas and prepared phased plan of action. Provided definitions for protected areas, management regimes and draft act for establishment of national parks and reserves.	Government was "concerned that clear guidelines do not exist to implement the protection of the country's plant and animal life and the natural landscapes."  International agencies had strong interest in creation of protected areas - also in other Pacific countries.
1979 Foundation of the Peoples of the South Pacific Fiji (FSPFiji) was established.	The Non Government Organisation (NGO) initially known as FSPFiji is now called Partners in Community Development Fiji (PCDF).	FSPFiji began the KANA project following the discovery through the National Nutrition Committee surveys of serious malnutrition in boarding schools.	FSPFiji signed an MOU with Fiji Government. Renamed as PCDF it is now involved in wider community development work including natural resource conservation.
Through 1970s Fiji Govt. NLTB and local landowners as well as private sector developers.	Govt policy on tourism changed – landowner involvement, environmental management, planned locational framework.	Local park development examples – Tavoro Forest Park, Waikatakata forest Park, Nadroga Tavuni Hill Fort. Namenalala, Namuamua Is, Vasuitetava.	Local landowners as well as private sector developers encouraged to establish 'ecotourism' concerns. However, only Forestry was engaged in environmental managements and only in the sense of forest protection.
About 1974 – 1980 Fiji Govt./Planning	Central planning included a regional unit and national development plans included chapters on environment issues.	Central Planning Office prepared detailed assessments of population, resources and infrastructure for each province.	Attempted to develop investment plans according to local needs and resources.
1980 Fiji Govt.	Environment Management Committee established	In order to co-ordinate activities/decisions.	Membership from concerned government ministries. However, this had no power.
1980 NTF		Yaduataba sanctuary proclaimed for iguana.	
1981 John Gibbons	Crested Iguana officially described		Status of the species as endemic to Fiji recognized.
1981 NLTB	NLTB Tourism Policy 'honey pot' development.		'Unspoilt' areas to be left as 'visitor interest areas'.
1981 Fiji electricity Authority (FEA)	FEA Board adopted a policy on environmental assessment requirements for major power studies and investments.	The policy was short lived and unofficially rescinded (or ignored) within 12 months.	Came about after constant criticism of poor assessments and lack of policies during the Monasavu hydropower development.
1981 Fiji Govt.	First full time Environment Officer position created within the Department of Energy.		Purpose was in consideration of the potential environmental impacts of proposed energy projects.

1981 Govt. Plan	National Development Plan 1981-1985 lacked recognition of environmental issues.		Government. failure to recognize significance of environment reflected in very weak two-paragraph reference under 'Leisure, Recreation and the Environment.'
1982 Fiji Govt.	Environment Management Unit (EMU) established in the office of Town and Country Planning (but no staff appointed until 1989).		Approval for Town and Country Planning (TCP) to establish EMU.
1982 Fiji Govt.	TCP produced format for EIA		EIA format includes full description of impact on any endangered species and important habitat types.
1982 USP staff and students established South Pacific Action Committee on Human Ecology and the Environment. (SPACHEE).	Originally with a regional coverage based at USP.	Spawned 'Wainimate' project, partnership with 'Ecowoman' and an active awareness programme.	Aimed to raise awareness about sustainable development. "Human Ecology" in the name reflects focus on socio-economic development that is environmentally sustainable.
1983/ Feb. NTF		Patterson Memorial Garden Levuka	Garden area of 11 perches.
1983/August NTF		J H Garrick memorial park on freehold land in the Deuba- Namosi area.	Some 426 ha of lowland forest area conserved. Unfortunately, this was logged illegally afterwards.
1983 Fiji Govt.	Dept of Lands & Survey establishes inter-ministerial mangrove committee.		This committee met only on a 'need basis' and had no real power of decisions.
1984	Fiji Petrel rediscovered on Gau Island.		129 years after the unique specimen was taken on Gau island the Fiji Petrel was found to still survive on the island.
1985 Fiji Govt.	Update of Animal Importations Act.		
1985 -1986 Fiji Govt.	Mangrove Management Plan for Fiji – Phases 1 & 2 prepared.		Plan covered two –thirds of Fiji's mangroves – Rewa, Ba, and Labasa Deltas, Suva-Navua Corridor and Nadi Bay.
1986 Govt. Plan	National Development Plan for 1986 - 1990		Brief treatment of environment under 'Social and Community Development'.
Mid- 1980s Fiji Govt. and private sector developers.		Sheraton complex development began to be completed by 1997. Up to 100ha of mangrove lost.	Development undertook mangrove management plan following Government mangrove policy and set aside resource reserve as well as zone for traditional use.
1988 Maruia Society and Forest and Bird Protection Society of New Zealand, with NLTB	15 Forest areas identified nationally to conserve important biodiversity.		Maruia Society and Forest and Bird Protection Society survey to identify key forest conservation areas in Fiji for the NLTB.

1988 Food and Agriculture Organisation (FAO)/ Forestry.	Forestry Sector Development Study Report resulting from a comprehensive sector review.		Made recommendations for the establishment of a Fiji Hardwoods Corporation Limited (FHCL) and for sustainable forestry but no discussion of biodiversity conservation.
1988 Fiji Govt./ Forestry	Formulation and establishment of Fiji Hardwoods Corporation Limited (FHCL)		FHCL took over 11 forest plantations. Forestry retained the reserves.
1988 NLTB, Maruia Society, Sovi 13 landowning units in 12 villages in the interior of Viti Levu.		Sovi basin conservation efforts began for the 20,421 ha of the largest forest wilderness area remaining in Fiji	Has some of Fiji's rarest biodiversity including the long-legged warbler and <i>Acmopyle sahniana</i> – both on the IUCN critically endangered species list.
1989 Fiji Govt./ Tourism	Tourism gross income surpassed sugar although leakage was large.	Government took greater interest in tourism as a result.	Increasing government focus on tourism not only for economic development but also as a tool for environment conservation.
1989 Fiji Govt.	EMU within the TCP office staffed at last.		EMU staff comprised one expatriate specialist and 2 locals
1989 Fiji Govt.	ADB technical assistance to Fiji govt to formulate National Environment Strategy.		Intention was to produce a State of the Environment Report followed by a National Environment Strategy. Also included the intention of producing a comprehensive land use plan by 1992.
1981 - 1989 Govt./Forestry/NTF	Parks and Reserves declared/established. Garrick Memorial Park, Namosi (1986); Sigatoka Sand Dunes, Nadroga (1989)	Smaller nature reserves; Yadua Taba, Bua (1981); Namenalala, Bua (1984)	Garrick memorial – 427ha Sigatoka sand dunes – 650ha Yadua Taba – 50ha Namenalala – 43ha
1989/90 Fiji Govt. and German Govt.	GTZ on bilateral arrangement located in Forestry Dept.	Coverage of GTZ forest inventory not as wide as earlier inventory of 1973	Capacity building for forestry extension and conduct of forest inventory
1990/July NTF		Sigatoka Sand Dunes reserve declared as a national park through Cabinet Decision.	After important discovery of lapita pottery in the area.
1990 NLTB	As part of policy on community participation in ecotourism.	Bouma conservation area was initiated with a 99 year covenant agreement with the landowners.	
1991 Fiji Govt./ UNESCO	Fiji became signatory to World Heritage Convention		Fiji committed to identification and conservation of natural and cultural sites of significance including those of international significance.

1991 Fiji Govt./Economic Statement	Government Economic policy and strategy statement emphasized conservation of natural environment.		Govt. stated use of tourism as a mechanism to establish national parks and nature reserves – both terrestrial and marine – particularly for ecotourism.
1991 Fiji Govt.	EMU transferred to Ministry of Housing & Urban Development.		EMU with NO budgeted resources
1991 Fiji Govt./ SPREP			Fiji proposes northern half of Taveuni for support under SPREP's SPBCP.
1991 German Govt.	GTZ moves to regional role with SPC forestry programme.	Work in Drawa community in Vanua Levu	Focus changed to community-based assistance
1992 Fiji Gov and GTZ	Fiji Forest Inventory Published		Part of the inventory process was the establishment of a plot to monitor natural forest regeneration.
1992 Fiji Gov.	Forest Decree revised Forestry Act.		
1992 Fiji Govt. /United Nations	Fiji govt. created a position of a Minister of state for the Environment and the United Nations organized the UNCED conference in Rio.		Fiji Govt signed the Biodiversity Convention committing itself to conserving biodiversity.
1992 Fiji Govt. World Bank	Fiji informally requested assistance in amending national accounts to incorporate environment assets and their changes as a policy tool.		The assistance request never eventuated.
1993 Department of Environment	National Environment Strategy		Included list of sites of national significance for biodiversity conservation.
1993 entry of first BINGO with environment interest.	Greenpeace Pacific office established in Suva		Greenpeace Pacific registered to establish its office in Fiji.
1993 SPREP/ Fiji Govt./ NLTB	Fiji formally joined SPREP's South Pacific Biodiversity Conservation Programme (SPBCP).	Biodiversity Conservation area in Abaca- Koroyanitu outside Nadi established. Bouma in Taveuni also identified as SPBCP area.	To protect threatened Dakua stands and re-introduce the Fiji falcon that had disappeared from the Abaca-Koroyanitu area, ecotourism was developed as alternative livelihood source.
?? NTF & partners	Captive breeding of crested iguana in Kula Park, Fiji and in Australian Zoos		MOUs between NTF and the NSW zoological parks Board for Captive Breeding, as well as between NTF and Kula Ecopark for captive breeding of the crested iguana.
1994 Fiji Govt./ NTF	Fiji tendered submission of four tentative World Heritage sites to the World Heritage Committee.	Levuka town, Sovi Basin, Sigatoka Sand Dunes, Yaduataba Crested Iguana Sanctuary.	The sites had been approved by Cabinet in 1991 following ratification of the Convention by the Fiji Government.

1994 Fiji Govt./Forestry	AIDAB funded Fiji Forest Resource Tactical Planning Project		Included training for foresters regarding ecological and archaeological aspects of their work.
1995 NTF and Fiji Museum.	Review of heritage legislation – discussion paper produced.		Noted need to revise/update legislation covering museum activities. Nothing substantial eventuated.
1995 NLTB, Maruia Society	'Integrating Conservation and Development. A Future for the Sovi Basin Waimaro'	Details of proposal to establish a trust fund to secure Fiji's largest conservation area of 20,421ha.	Important remaining habitat of endangered wildlife and unlogged indigenous forest.
1990 - 1995	NLTB Policy adopted concept of small scale resorts in Type B regions.		Type B regions have less than 1,000 accommodation units.
1995 WWF Pacific	Pacific Office moved from Sydney to Suva		WWF Pacific established in Fiji.
1995 USP/IOI	Meetings in association with SOPAC		
1996 USP/FDOA/IOI-PI		Marine awareness workshops in Taveuni, Kadavu, Lautoka, Beqa Lagoon.	Over 200 people involved in this collaborative effort with the Fiji Dive Operators Association.
1996/ Sept NTF		Established Waisali Dakua Reserve, Vanua Levu (native lease).	Some 120 ha of tropical lowland forest home to two native frogs and two endemic lizards.
1997 Ministry of Lands/NTF with ISME and ITTO	Global Mangrove Information System database project commenced (GLOMIS)	Fiji was an active member of the network.	Establishment of a global network of mangrove information to be made available on the internet.
1997 USP/IOI-PI/FDOA	Regional marine awareness workshop		
1997/ 1998 DoEnv/ WWF	Fiji Biodiversity Strategy and Action Plan process commenced.		1997 WWF officer provided consultancy services for DoEnv to begin developing the FBSAP. 1998 DoEnv recruited Consultant and team to continue FBSAP process.
1998 NLTB		Waitabu Marine Park in Bouma, Taveuni.	Established MPA coupled to ecotourism.
1998 Packard Foundation	Established west Pacific marine conservation programme	Potential impact on funding for Fiji activities.	Interest in West Pacific as region of great biodiversity and threatened in various ways.
1998/99 WWF.	WWF formally established in Fiji		WWF signs MOU with Fiji Govt.
1998?? USP & WWF		Piloted MPA in Verata, Tailevu and in Kadavu	Good example of NGO collaboration and participatory community work.
1998 Fiji Govt.	National Trust Amendment Act		Does not provide for protection of sites nor for management mechanisms and procedures once sites are declared and registered.

1999 Department of Environment (DoEnv) of Fiji Govt.	Fiji Biodiversity Strategy and Action Plan exercise completed	No funds for publication. No prioritization or clear strategies for implementation.	This process involved wide stakeholder participation.
1999 Fiji Govt.	Fisheries Dept facilitated establishment of several fisheries associations to encourage sustainable harvesting.		Beche-de-mer Association, Ornamental Fish & Corals Association, Offshore Fisheries Council. No special concern for Biodiversity conservation.
1999? NLTB ?	Low Impact Tourism (LIT) report (undated). Report promoted LIT which it describes as supply driven rather than demand driven ecotourism.	Central planning office had advocated for this development in the 1970s but no Cabinet support.	LIT promotes modest size ecotourism ventures locally managed and protective of both environment and culture.
1999/2000 USP/WI/WWF	Wetlands International (WI) Oceania expert recruited to USP to teach.		WI signs MOU with Fiji Govt.
1999/2000 L&L and Fiji Govt.	Live & Learn - an international environmental education NGO was established in Suva		Live and Learn implements environment education for schools as well as communities.
1999/2000 USP/Lisbon University	Fiji wide bat survey	All islands involved	Report submitted for publication in 2006
2000 USP/NTF		Survey of 17 Yasawa islands for crested iguana.	
2000 Roundtable on South Pacific Nature Conservation conference held in Fiji	This led to the establishment of Locally Managed Marine Areas (LMMA)		A network of organizations in the Pacific and Asia working on community-based marine conservation.
2000 WWF/USP/PCDF/Fisheries etc	Fiji Locally Managed Marine Areas (FLMMA) network formed		Organisations working with local communities on inshore marine conservation.
2000 Seacology	Seacology began activities in communities in Fiji.	Has established 17 community based conservation areas by June, 2007.	Meet communities' self-identified needs in exchange for the conservation of a specifically dedicated area for at least 5 years.
2000 USP Darwin Project	Crested Iguana survey in the Yasawa and Mamanuca groups.		Report published in 2006
2001 USP/ FLMMA		"Mositi Vanuaso" initiative, for Vanuaso village in Gau Is. (Mositi Vanuaso may be translated as nurture Vanuaso	Focus of the conservation project extends to the whole of human and environment interaction and resource use (land and sea)
2001 Wildlife Conservation Society (WCS)	Office established in Fiji, began conservation activities.		MOU signed between DoEnv and WCS.
2000 - 2002 NTF and RARE		Bird conservation programme/activities began in Kadavu	Awareness workshops and community planning activities for conservation.

2000 - 2003 NTF & RARE		Gau Fiji petrel project. Chiefs suggested a bird sanctuary be set up in Gau upland forest. (2003)	Intensive awareness activities and community planning workshops conducted.
2002 Birdlife International and DoEnv	Birdlife International formally established in Fiji		MOU signed between BI and DoEnv. Birdlife International regional Office also established in Suva.
2002 to present USP	Establishment of the Pacific – Asia Biodiversity Transect (Fiji) programme.	Systematic biodiversity assessment surveys began for Sovi Basin, Wabu Forest reserve and greater Monasavu catchment area and Savura/Vago Forest reserves and Nasoata Is.	As part of the capacity building programme in taxonomy for Fiji was launched with funding from the FAB and MacArthur Foundation.
2002 Fiji Govt.	Endangered and Protected Species Act. (CITES)	A new Fiji Act in support of CITES.	A list of species incorporated into the Act now needs to be reviewed.
2002 NTF/USP/WCS	Vegetation survey of Yadua Taba in Bua, Vanua Levu.		
2003 NTF & PCDF		Yadua Is. Bua, Marine management plan	Community workshop raised awareness and facilitated community plan for conservation.
2003 NTF		Yadua Taba, Bua finally cleared of goats.	NTF goat clearing programme took several years.
2003 NTF/USP	Invasive plants eradication programme.	Yadua Taba eradication programme for Wedelia, Raintree, Guajava.	
2003 Fiji Govt	Mangrove Management Plan		
2003 WWF and partners.	35 Priority (Marine) Conservation Areas identified		Of these 5 were ranked of global importance, 15 of sub-regional importance and the rest of national importance. Group considers conservation of these marine areas will be sufficient to protect Fiji's marine biodiversity.
2003 DoEnv	Fiji Biodiversity Strategy and Action Plan to Cabinet.		This had input from a wide range of stakeholders including NGOs and landowners.
2003 Fiji Govt./ Fisheries Dept.	National Controls on Coral Harvesting		Corals exported although it had been harvested for local use for many years.
2004 NTF		Yadua Taba iguana sanctuary officially leased by NTF from landowners.	
2004 Fiji Govt.	Marine Pollution Prevention Bill		



2004 NTF	Examination of options for laws for the protection of heritage in Fiji A discussion paper was produced for NTF consideration.		Considered current legislation provided sufficient basis for recognition but insufficient for protection of sites. Recommended tiered system for heritage protection.
2004 NTF		Tavuki, Kadavu – Muanakaka bird sanctuary	Community planning activities led to a decision to set up sanctuary for tourism attraction as well.
2004 NTF		A 33 year lease finalised with landowners for Yadua Taba sanctuary	To protect Fiji's Crested Iguana and its habitat.
2004 NTF	Status report of the national register of Significant National Sites		Recommended merging treatment of cultural and natural heritage and having the same standard for the two in agreement with approach of the World Heritage Committee and Centre.
2004 FAO/Fiji Govt.	ITTO Mission report on Forestry sector performance		Important recommendations for improving national forest management.
2004 USP/CI	USP decided to reactivate Sovi Basin (SB) conservation initiative	Set up SB steering committee and SB working group. Revocation of logging concession. Signatures of 75% landowners from 13 mataqali consenting to get DoForestry to declare SB a Conservation Area.	DoForestry chairs SB steering and working groups while USP provides secretariat.
2005 WCS,WWF, USP and Wetlands International (WI)	2 year ecosystem-based management project started.	Focus of EBM is the Vatu-i-ra and Cakau Levu seascape; the 2 project sites selected are Kubulau (Bua province) and Macuata.	
2005 USP/Local communities		Lomani Gau Committee established for sustainable development planning for Gau island as a whole.	Inspired by the example of Vanuaso district of Gau.
2005 NTF/Conservation International	Conservation International established in Fiji		
2005 USP/Fiji Hardwoods Corporation Ltd. (FHCL)	FHCL sought USP assistance in an attempt to apply for certification by the Forest Stewardship Council (FSC).		Currently on hold.

2005 Fiji Govt.	Environment Management Act		Much simplified version of earlier Bill passed by Parliament.
2005 Fiji Govt./NZAID/NTF	Sustainable Community Development project.	This project funds Koroyanitu, Bouma, Waisali, Muanakaka-Kadavu	For 2005 to 2008. To protect areas of national interest with clear benefits to landowners.
2005 NTF	Captive husbandry of Crested Iguana at Kula Eco Park and overseas zoos.		Crested Iguana population scanty in all islands it is found in except on Yaduataba.
2005 USP/NTF	Vegetation mapping of Fiji Petrel nesting grounds.		Initiate discussion for the protection of Gau's montane cloud forest.
2005 NTF & RARE		Plan to establish CPA in Gau highlands	For the Fiji Petrel nesting ground.
2005 NLTB/CI	.	Sovi Basin Steering Committee membership expanded.	by MoEnv, NTF, with CI as National Coordinator
2005 Fiji Gov.	Cabinet endorsed comprehensive Rural Land Use Policy. Biodiversity conservation included in issues considered.		Result of wide consultations with government agencies, NGOs and community representatives.
2006? IUCN	IUCN office established in Fiji		IUCN& Fiji Govt to sign an MOU in 2007.
2006 Fiji Govt.	National Environment Council (NEC) formed. Membership set but no meetings yet.		No regulations as yet to guide the work of the NEC.
2006 NTF and Partners	Global Mangrove Information System (GLOMIS) database concluded.		Global Mangrove Information System made available on internet globally and through distribution of CD rom.
2006 Frontier Fiji – a local NGO		Gau Is – survey work began on marine fisheries areas.	Coordinated from USP.
2006 Birdlife International (BI) & partners.	14 Important Bird Areas (IBAs) identified for Fiji		BI considers the conservation of the 14 IBAs will be sufficient to protect Fiji's globally important bird biodiversity.
2006 USP	Establishment of permanent vegetation monitoring plots in 3 PABITRA (Fiji) core sites.	For invasives impacts, climate change.	1ha plots in Wabu, Sovi, and Savura/Vaqo.
2007 NTF, CI & partners.		Draft management plan for Sovi basin 2007 – 2009 completed.	
2006/2007 DoEnv & partners	Review of FBSAP		Document updated by adding an Appendix of accomplishments and ready to be published and launched in September 2007.
2006/2007 Birdlife International and PII		Removal of rats from Vatu-i-Ra Island.	The first successful eradication of rats from an island in Fiji.
2007 Nature Fiji/Mareqeti Viti (NF/MV)	A local conservation NGO was established.		NF/MV is a membership based local conservation NGO.

2007 Fiji Govt/ Forestry	Expected completion of third Forest Inventory Survey (FIS).		Unfortunately results of this FIS will not be able to be compared with either of the two previous FISs.
-----------------------------	-------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------

## **Appendix F: International conventions for conservation ratified by Fiji**

	<b>Name of Convention</b>	<b>Date Ratified</b>
1	Rio Declaration on Environment and Development (1992) DOE	1992
2	Convention on Biological Diversity (CBD 1992)	1993
3	Stockholm Convention on Persistent Organic Pollutant	2001
4	Convention on International Trade in Endangered Species on Wild Fauna and Flora	1997
5	Kyoto Protocol (Climate Change Convention)	1998
6	Cartagena Protocol on Biosafety	2001
7	United Nations Framework Convention on Climate Change	1992
8	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (RAMSAR 1971)	Not yet signed
9	Convention on International Trade on Endangered Species (CITES)	1997
10	International Convention on the Regulation of Whaling (1946)	
11	United Nations Framework Convention to combat Desertification	
12	Convention for the Protection of the World Cultural and Natural Heritage (World Heritage 1972)	1990
13	Convention on the Conservation of Migratory Species of Wild Animals (CMS Bonn 1979)	
14	Agreement for the Implementation of the Provisions of UNCLOS of 10/12/82 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995)	
15	United Nations on the Convention of the Law of the Sea (UNCLOS 1982)	1982
16	Stockholm Declaration of the United Nations Conference on the Human Environment (1972)	2001
17	International Tropical Timber Agreement (1994)	
18	Forest Principles – UNCED (1992)	
19	Convention to ban the Importation in the Forum Island Countries of Hazardous and Radioactive Waste and to Control the Transboundary Movement and Management of Hazardous Waste within the South Pacific Region (Waigani 1995)	1996
20	Convention on the Prohibition of Fishing with Long Drift Nets in the South Pacific (1989)	
21	Convention on Conservation of Nature in the South Pacific Region (Apia Convention 1976)	1989
22	Washington Declaration on Protection of the Marine Environment from Land-Based Activities (1995)	
23	Convention for the Protection of the Natural Resources and Environment of the South Pacific Region and Related Protocols (SPREP Convention 1986)	1989
24	Convention on the High Seas	1970
25	International Plant Protection Agreement	1956
26	Convention on the Continental Shelf	1970
27	Plant Protection Agreement of the South East Asia	1971
28	Convention on Fishing and Conservation of the Living Resources of the High Seas	1971
29	International Convention for the Pollution of the Sea by Oil	1972
30	International Convention Relating to the Intervention in the High Seas in Cases of Oil Pollution Casualties	1975
31	International Convention on Civil Liability for Oil Pollution Damage	1975
32	South Pacific Forum Fisheries Agency Convention	1979

## **Appendix G: Organisations working on conservation in Fiji: staff and budgets**

### *Notes:*

1. The figures given below are in Fiji dollars for the most recent year available (in almost all cases 2006). In some cases, the budget figure given is based on an average of several years. In other cases, the budget figure is an estimate of the amount spent on biodiversity conservation from a larger overall budget. Some staff figures are aggregated part time positions.
2. The budget figure given for provincial offices is based on grants given to them by the GEF UNDP/NZAID small grants funds for biodiversity projects, as well as an estimate of salary for provincial office staff working on conservation outcomes at the community level. It is likely to be an under-estimate. At least one province has a full time conservation/environment officer. In others, the Roko and Assistant Roko's spend some of their time on community conservation activities.
3. Funds for ecotourism ventures through the Ministry of Tourism and Native Lands Trust Board are not included in this analysis although these enterprises are sometimes established with conservation objectives in mind.
4. GTZ is not an NGO but is included with this group as it is working on project implementation in the field.
5. The budget for community and vanua groups is based on grants given to these groups by the GEF UNDP/NZAID small grants funds for biodiversity, with additional funds included for one other community group we know of. There are likely to be other groups in this category receiving international funds that we are not aware of. Therefore this budget line is probably an under-estimate.

### *1. Fiji Government Ministries, Departments and other government agencies*

<i>Government agency</i>	<i>Staff</i>	<i>Budget</i>
Fisheries Department	12	200,000
Forestry Department	8	115,000
Environment Department	1	296,900
National Trust of Fiji	17	439,400
Provincial offices	7	210,000
<b>Total</b>	<b>45</b>	<b>1,261,300</b>

### *2. Local organisations working in conservation and development*

<i>Organisation</i>	<i>Staff</i>	<i>Budget</i>
FLMMA	2	46,000
Nature Fiji/Mereqeti Viti	In kind	In kind
Partners in Community Development, Fiji	8	1,043,700
University South Pacific	14	2,600,000
Community & vanua groups	In kind	257,700
<b>Total</b>	<b>24</b>	<b>3,947,400</b>

3. International conservation and development NGOs with offices in Fiji

<i>Organisation</i>	<i>Staff</i>	<i>Annual budget</i>
Birdlife International	7	527,300
Conservation International	2	320,000
FSPI	2	600,000
Greenpeace	6	1,600,000
Live and Learn	15	1,000,000
OISCA Fiji	10	290,000
Seacology	2	85,000
SeaWeb	1	19,200
Wetlands International	1	160,000
Wildlife Conservation Society	15	1,600,000
IUCN	4	640,000
WWF Fiji	7	757,500
GTZ <sup>1</sup>	6	350,000
World Fish Centre	1	50,000
<b>Total</b>	<b>79</b>	<b>7,999,000</b>

4. International conservation organisations providing technical or management support, based outside Fiji

These organisations offer in kind support through the provision of skilled consultants and staff, as well as some financial support. We have not attempted to give a financial value to the in-kind support as there was no common methodology between organisations to value this.

<i>Organisation</i>
Coral Cay Conservation
Frontier Fiji and Society for Environmental Exploration
Green Force
Pacific Invasives Initiative
Pacific Invasives Learning Network

**Total annual funding for biodiversity conservation in Fiji (not including in kind support): \$F13,207,700 (USD8,508,400). Total staff positions for biodiversity conservation within Fiji: 148.**

## **Appendix H: References**

*A selection of references used for this review.*

ADB 1992 'Environment and Development: A Pacific Island Perspective'

ADB, 2004 'ADB Country Environmental Analysis, Fiji. A Report on the Consultative Workshop.'

ABD: *Fiji Islands, Republic of the Country Strategy and Program Update 2006-2008.*

Anon 2002 'Sustainable Coastal Resources Management for Fiji'. Background paper to the Fiji National Workshop on Integrated Coastal Management. April 9-11 2002 Suva. USP and Packard Foundation.

Berry, MJ and WJ Howard, 1973 *Fiji Forest Inventory*, Land Resource Study no 12. Land Resources Division

Burke, Christine, 1995 'Heritage Legislation Review –Discussion Paper for the Fiji Museum.' Internal document at National Trust for Fiji (NTF).

Departments of Agriculture, Forestry and Fisheries. Annual Report for 1998, 1999, 2000, and 2001.

Dunlap, Richard and Birendra Singh, 1980 'A National Parks and Reserves System for Fiji' National Trust for Fiji

Erasito, Elizabeth, Sarah Pene and Avisake Ravuvu. 2002 'First Levuka Heritage Workshop Report' Internal document National Trust for Fiji

Fiji Biodiversity Strategy and Action Plan, 2003, updated 2007 Department of Environment. Government of Fiji.

Fiji Natural Forest Inventory 1991-92. Data Bank, Management Services Division, Fiji Ministry of Forests

Foundations of Success, 2005 'Review of the David and Lucile Packard Foundation Western Pacific Program.'

Government of Fiji Annual Budgets for 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006.

Government of Fiji: Laws of Fiji

Birds and Game Protection Act Ch.170. Revised Edition 1985

Endangered and Protected Species Act 23<sup>rd</sup> December, 2002

Environment Management Act 2005.

Fisheries Act of 1941/2 Laws of Fiji Ch 158 and its various revisions up to the Fisheries Decree of 1991

Forestry Act of 1953 and Subsidiary Legislations for Protected Forest areas

Forest Decree 1992

Forest Policy, Legislative Council Fiji Council Paper No. 5 1950

Land Conservation and Improvement Act of July 1953 Laws of Fiji Ch 141 Revised 1985

Marine Spaces Act of 1978 Laws of Fiji Ch. 158 A.

National Trust for Fiji Act of 1970 and 1978 Laws of Fiji Ch.265 and Amendment 1998.

National Trust for Fiji Ordinance 1970. Fiji Government 3<sup>rd</sup> September 1970

Town Planning Act Ch. 139 General Provisions. Nov.1999.

Harlow, Peter; and Pita Biciloa 2000. 'Report on the Abundance of the Fijian Crested Iguana (*Brachylophus vitiensis*) on two islands with different goat grazing regimes.' Internal document. National Trust for Fiji.

Harlow, Peter, Rick Hudson and Allison Alberts. 2006 'Fijian Crested Iguana *Brachylophus vitiensis* Species Recovery Plan.' Draft, May, 2006. Internal document National Trust for Fiji.

Institute of Applied Sciences, 2006 Annual Report. University of the South Pacific.

Institute of Marine Resources, USP 2004 'Priority environmental concerns in Fiji' IWP-Pacific Technical Report. International Waters Project #6

ITTO 2004 'Achieving the ITTO Objective 2000 and Sustainable Forest Management in the Republic of the Fiji Islands.' Diagnostic Mission

Laqere, Kone and Suliasi Lau 2002 RARE Conservation Education Awareness Programme Annual Report . 'Nai Sakisaki kei Kadavu na Kaka' Bird Awareness Campaign. Internal document - National Trust for Fiji.

Leslie, David and Inoke Ratukalou 2002 'A Rural Land Use Policy for Fiji'.

Lillywhite, Malcom and Lynda (undated) 'Low Impact Tourism: Coupling Natural/Cultural Resource Conservation, Economic Development and the Tourism Industry' Discussion paper in the National Planning Office.

Live & Learn Environmental Education, 2006 Annual Report

Lovell, E., et al 2004 'Status of Coral Reefs in the South West Pacific: Fiji, Nauru, New Caledonia, Samoa, Solomon Islands, Tuvalu and Vanuatu' in C. Wilkinson (ed.). *Status of coral reefs of the world: 2004. Volume 2*. Australian Institute of Marine Science, Townsville, Queensland, Australia.

LMMA Network (undated) 'Social Contract - Agreement of Our Promises to Each Other.'

Maruia Society and Royal Forest and Bird Protection Society, 1989 'A Representative National Parks and Reserves System for Fiji's Tropical Forests.' Maruia Society Policy Reports Series No 9. Nelson New Zealand.

Masibalavu, Vilikesa and Guy Dutson 2006 *Important Bird Areas in Fiji. Conserving Fiji's Natural Heritage* Birdlife International.

Ministry of Agriculture, Forestry and Fisheries and Alta. Strategic Plan 2001 – 2003.

Ministry of Fijian Affairs (undated) 'Community Capacity Building in Rural Areas: A Framework.' Internal document

Ministry of Fisheries and Forestry Annual Corporate Plan 2002 for National Strategic Plan 2002 – 2006.

Ministry of Fisheries and Forestry Strategic Development Plan 2004 – 2006.

Ministry of Fisheries and Forests 2007. 'National Forest Policy Statement' Third Draft. May

Morrison, Claire 2006 'Diet, Habitat Preferences and Abundance of the Fijian Crested Iguana (*Brachylophus vitiensis*) on Yaduataba, Fiji.' International document National Trust for Fiji

National Trust for Fiji – Annual Financial Statements for 2001, 2002, 2003, 2004, 2005.

National Trust for Fiji 'A Report on the Roles and Responsibility Workshop on 28th – 29th May, 2004 at Waitabu Village, Taveuni.' Internal document NTF



- National Trust for Fiji 'Corporate Plan 2002 – 2006'
- Nawalowalo, Nele 2002. 'Status of Tangible Cultural Heritage Protection – Fiji Country Report' Internal document National Trust for Fiji
- Niukula, Jone and Milika Ratu 2005 'Gau Workshop Report' Internal document National Trust for Fiji
- Niukula, Jone; Josefa Ravuso; Avisake Ravuvu. 2004 'Muanakaka Workshop. A report of the Muanakaka bird sanctuary management workshop held in the village of Solodamu, Tavuki, Kadavu on 24<sup>th</sup> – 26<sup>th</sup> February, 2004.' Internal document. National Trust for Fiji.
- Partners in Community Development Fiji, 2003 'Marine Management Plan Workshop Report' Denimanu Village, Yadua, Bua 6<sup>th</sup> – 9<sup>th</sup> May, 2003. Internal document National Trust for Fiji
- Partners in Community Development Fiji 2006 Annual Report.
- Ratu, Milika (undated) 'Gau Island Final Report'. RARE Conservation Education Campaign. Internal document National Trust for Fiji
- Reddy, Chinnamma and Helen Sykes 2007 'Waitabu Marine Park: Biological and Economic Report' Resort Support.
- Reynolds, Jim and Alifereti Tawake, 2005. 'Learning Framework Database User Guide.' LMMA Network IAS, USP
- Savu, Sereana, 2004 'Status Report of the National Heritage Register Project.' Internal document. National Trust for Fiji
- Savu, Sereima, 2005. 'Report of A Special Experts' Meeting on the World Heritage Convention: The Concept of Outstanding Universal Value.' Kazan, Tatarstan, Russian Federation. Internal document National Trust for Fiji
- SPREP, 1993 'South Pacific Biodiversity Conservation Programme (SPBCP) Project Document'
- Sustainable Tourism Development Consortium, 2007 *Fiji Tourism Development Plan 2007-2016*.
- Taylor, Jennifer, Peter Harlow and Jone Niukula, 2005 'Invasive Plant Assessment and Weed Management Plan for the Fijian Crested Iguana Sanctuary Island of Yadua Tabu, Bua' Internal report National Trust for Fiji
- Tourism Council of the South Pacific, 1990. 'Guidelines for the Integration of Tourism Development and Environment Protection in the South Pacific.'
- Tuiwawa, Marika, Clare Morrison, Alivereti Naikatini, David Boseto and Baravi Thaman. 2004 'Baseline Floral and Faunal Survey of Waisali Reserve, Cakaudrove, Vanua Levu, Fiji Is" 2<sup>nd</sup> – 7<sup>th</sup> March, 2004'. South Pacific Regional Herbarium
- Turk, Cate, 2004. 'Legislations Options Discussion Paper.' Internal document. National Trust for Fiji.
- Turnbull, Jane, 2004 'Explaining complexities of environmental management in developing countries: lessons from the Fiji Islands.' *The Geographical Journal*, March 2004 v170 i1 p64(14)
- UNDP, IBRD (World Bank) and Government of Fiji, 1972. 'Fiji Tourism Development Programme.' Draft Final Report.
- UNESCO/UNFPA MAB 1977 'Project 7. Population and Environment Project Eastern Islands of Fiji – Ecology, Population and Development'. Development Studies Centre, Australian National University.
- Vincent, Ida V. (undated) 'Historical ecology of Fiji's coral reefs and the recent road to recovery.' Honours Thesis. School of Integrative Biology, University of Queensland, Brisbane.

Veitayaki, Joeli , (undated) 'Addressing Human Factors in Fisheries Development and Regulatory Processes in Fiji: The Mositi Vanuaso Experience' *Ocean Yearbook* 21: 289-306

Veitayaki, Joeli, 2006, 'Caring for the Environment and the Mitigation of Extreme Events in Vanuaso Tikina, Gau Island, Fiji Islands: A Self-help Community Initiative.' *Island Studies Journal* Vol 1, No.2,

Wabnitz, Cletter, Michelle Taylor, Edmund Green and Tries Razak, 2003. 'From Ocean to Aquarium: The Global Trade in Marine Ornamental Species.' UNEP WCMC

Watling, Dick 2007 'Management Plan for the Sovi Basin Nature Reserve, 2007-2009' National Trust for Fiji

Watling, Dick 2007 'Conservation Crusading or Neocolonialism – the Role of International NGOs in the Island Pacific?' Invited Plenary Presentation at The Biodiversity Extinction Crisis – An Australasian and Pacific Response, Society for Conservation Biology, University of New South Wales, Sydney, 10<sup>th</sup>-12<sup>th</sup> July 2007

Watling D and S Chape 1992 'Environment: Fiji. The National State of the Environment Report' IUCN Gland

Watling, D. and S. Chape 1993 'The National Environment Strategy, Fiji' IUCN Gland.

Wilconson, Peter, (undated) 'Environment Management of Coastal Tourism Development in Fiji.' Department of Town and Country Planning. Internal Discussion Paper.

WWF 2003 *Setting Priorities for Marine Conservation in the Fiji Islands Marine Ecoregion.*