

Living from the Sea: Culture and Marine Conservation in Fiji

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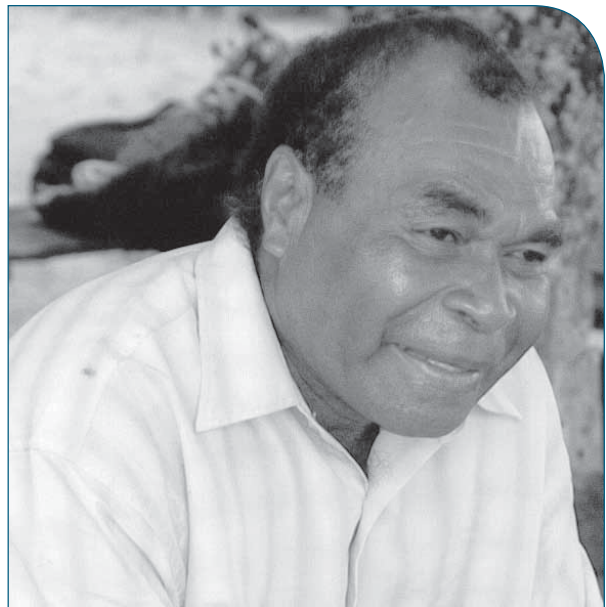
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DEDICATION

To the memory of Josese Rogo and Jone Bola, who recognized the value of community-based resource management in Gau and committed a great deal of time promoting the cause. You will be missed and always remembered.



Jone Bola



Josese Rogo

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We are grateful to the University of the South Pacific for the opportunity to undertake this work and for the special support from the different sections and colleagues, too many to name, from whom we sought and received assistance.

We hope this book will contribute to our collective goal of improving the wellbeing of Pacific Island communities.

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To our family members, we are hopeful that you appreciate the reasons for our long absence. Your continued support and understanding motivated us to persevere with this crusade to convince our people of the benefits of MMAs today as well as in years to come. To all these institutions and good people, vinaka vakalevu (thank you very much) for your assistance and support. The book and its shortcomings, however, are all the result of our own doing.

Joeli Veitayaki, Annette Breckwoldt, Tareguci Sigarua, Nanise Bulai and Akosita Rokomate.

CONTENTS

	Dedication	?
	Acknowledgements	?
	List of Acronyms	?
CHAPTER 1	INTRODUCTION	
1.1	Fiji Context	?
1.2	Conservation Implications	?
1.3	Existing Science	?
1.4	Contribution to MMA Science	?
		?
CHAPTER 2	THE FIJI SCENARIO	
2.1	Fishing Culture	?
2.2	Fisheries	?
2.2.1	Marine Fisheries	?
2.2.2	Inland Fisheries	?
2.2.3	Aquaculture	?
2.2.4	Utilization of the Catch	?
2.2.5	Development Prospects	?
2.2.6	Institutional Arrangements	?
2.2.7	International Linkages	?
2.2.8	Research and Training	?
		?
CHAPTER 3	CULTURE AND TRADITIONAL PRACTICES	
3.1	Fisheries	?
3.1.1	Food Sources	?
3.1.2	Farming Systems	?
3.1.3	Traditional Medicine	?
3.1.4	Social Relations	?
		?

CHAPTER 4	ORGANIZATION AND STRUCTURAL FEATURES	
4.1	Social Organization	?
4.2	Organization Structure	?
4.3	Review of Indigenous Fijian Administration	?
4.4	Resource Use Regulation	?
4.4.1	Marine Fisheries	?
4.4.2	Resource Management	?
CHAPTER 5	MARINE RESOURCE MANAGEMENT INITIATIVES	
5.1	Marine Management Areas	?
5.2	Integrated Coastal Management in Gau	?
		?
CHAPTER 6	CHANGES ASSOCIATED WITH MMAS	
6.1	Changes Associated With MMAs	?
6.2	Challenges to be Addressed	?
		?
CHAPTER 7	TAKING ADVANTAGE OF CULTURAL ROLES	
7.1	Use of Cultural Roles	?
7.2	Improving Marine Resource Management	?
7.3	Improving Indigenous Fijian Administration	?

LIST OF BOXES, FIGURES AND TABLES

Box 1	Objectives of the Study	?
Table 1	Fiji Locally Managed Marine Areas (FLMMA) Sites	?
Table 2	Attributes of Indigenous Fijian Villages in Three Periods	?
Figure 1	Variables that influence Marine Managed Areas	?
Figure 2	Map of the Republic of the Fiji Islands	?
Figure 3	Map of the Pacific showing the Fiji Exclusive Economic Zone (EEZ) amongst the large ocean states in the Pacific	?
Figure 4	Fringing reef and barrier reef in Gau Island	?
Table 3	Summary of Economic Characteristics of Fijian Communities	?
Figure 5	A traditional fish drive in Malawai Gau	?
Figure 6	Porcupine fish an example of targeted inshore fisheries	?
Figure 7	Lobsters are an example of targeted inshore fisheries	?
Figure 8	Moray eel is an example of targeted inshore fisheries	?
Figure 9	Sundried beche-de-mer products for export in Dravuni, Kadavu	?
Figure 10	Freshwater mussels (kai ni waidranu) at the Suva Market	?
Figure 11	Biogas energy from pig's waste targeting zero emission from integrated farming at Monfort Boys Town, Veisari	?
Figure 12	Integrated farming- raising ducks, sheep and poultry in fish pond at Monfort Boys Town	?
Figure 13	Using chicken manure to enrich the water for algae at the Vitawa milkfish farm	?
Figure 14	Processed fish commodities for sale in the local market in Suva	?
Figure 15	Beche-de-mer for export in Labasa	?
Figure 16	Live rock and ornamental fish for export at Walt Smith in Lautoka	?
Figure 17	Surface Fish Aggregation Device (FAD) on Gau to enhance fishing in the lagoon	?
Figure 18	Submerged Fish Aggregation Device trialed on Gau	?
Box 2	Treaties, Conventions and Agreements	?
Box 3	Research Activities of the Fisheries Division	?
Figure 19	Traditional outrigger canoe on display at the Fiji Museum in Suva	?
Figure 20	Traditional way of cooking food in Fiji earth oven or lovo	?

Figure 21	Preparing for fish drive. Children learn traditional fishing methods through practice	?
Figure 22	Customary knowledge allow fishers to fish spawning aggregations	?
Figure 23	Polluted island coastline in Macuata	?
Figure 24	Traditional food sourced from the environment	?
Figure 25	Traditional fish fences (ba ni ika) off the coast of the Bilo Battery Site, Navakavu, Rewa.	?
Figure 26	Concluding a traditional fish drive in Malawai, Gau	?
Table 4	Traditional Fijian Calendar	?
Figure 27	Multicropping in Malawai, Gau	?
Figure 28	Multicropping in Lamiti, Gau	?
Figure 29	Social hierarchy in Fijian communities	?
Figure 30	Rural Development Administrative structure	?
Box 4	Moturiki Project Activities	?
Figure 31	Lutu Cooperative nursery, Wainibuka	?
Figure 32	Taro garden harvesting for export to New Zealand	?
Table 5	Ranged of management measures in 9 customary fishing grounds in Fiji	?
Box 5	Integrated Management Approach (Vanuaso Tikina, Gau Island	?
Table 6	Vanuaso Tikina Self Determined Resource Management Activities	?
Table 7	Mositi Vanuaso Management Activities	?
Figure 33	Lomani Gau receives the Prime Minister's Award for Forest Conservationist of the Year 2013	?
Figure 34	Navakavu MMA, Muaivusu	?
Figure 35	Kubulau MMA, Bua showing management activities	?
Figure 36	Rehabilitated mangrove forest providing coastal protection and coastal fishing areas	?
Figure 37	Proper disposal of domestic waste now practiced	?
Figure 38	Turtles are culturally significant and ecologically threatened	?
Box 6	Why Resource Management Practices Fail	?
Figure 39	FLMMA's map of Fiji showing some qoliqoli and FLMMA sites	?
Box 7	WWF South Pacific Program Principles	?

LIST OF ACRONYMS

ACIAR	Australian Centre for International Agriculture Research
BCN	Biodiversity Conservation Network
BLV	Bose Levu Vakaturaga
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Flora and Fauna
CMT	Customary Marine Tenure
EBM	Ecosystem-Based management
EEZ	Exclusive Economic Zone
EIMCOL	Equity Investment and Management Company Limited
FAD	Fish Aggregation Device
FAO	Food and Agriculture Organization
FDB	Fiji Development Bank
FEA	Fiji Electricity Authority
FFA	Forum Fisheries Agency
FLMMA	Fiji Locally Managed Marine Areas
FNU	Fiji National University
FSPI	Foundation of the Peoples of the South Pacific
GCC	Great Council of Chiefs
GEF	Global Environment Facility
IAS	Institute of Applied Science
ICLARM	International Centre for Living Aquatic and Marine Resources
ICM	Integrated Coastal Management
IDA	Inside Demarcated Area
IOI	International Ocean Institute
IOI-PI	International Ocean Institute – Pacific Island
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated
JICA	Japan International Cooperation Agency
MMA	Marine Managed Area
NBF	National Bank of Fiji
NGO	Non-Government Organization
ODA	Outside Demarcated Area
OFCF	Overseas Fisheries Cooperation Foundation
PAFCO	Pacific Fishing Company
PLA	Participatory Learning and Action
SIDS	Small Islands Developing States
SOPAC	Pacific Islands Geoscience Commission
SPC	Secretariat of the Pacific Community
SPREP	Secretariat of the Pacific Regional Environment Programme
TVET	Technical Vocational Education Training
UNCLOS	United Nations Convention on the Law of the Sea
USP	University of the South Pacific
WCS	Wildlife Conservation Society
WWF	World Wide Fund for Nature

1 INTRODUCTION



Woman line fishing from a bamboo raft in Malawai, Gau - Photo by Takeshi Murai

At the World Summit on Sustainable Development in 2002, it was widely agreed that poverty, unsustainable development and environmental degradation were prevalent in coastal communities, particularly those in rural areas. As people in these rural communities got involved in development and the formal 'western' economy over time, their independence and resilience were lost and replaced by their reliance and integration into the globalized economic system in which they were usually disadvantaged.

Poverty, environmental degradation and food security therefore became prominent features of life in rural areas as people exchanged their food resources for income, new and more permanent economic and development activities and increased productivity. Consequently, governments, development agencies and Non-Government Organizations (NGOs) formulated policies, strategies and development projects to meet people's basic needs, to allow them to manage their environment resources and pursue sustainable development activities. Community-based resource management was widely accepted as a suitable approach in many of these rural communities, particularly in areas where the people still observe their customary practices.

The resurgence in the interest and use of traditional resource management practices were largely associated with the desire to improve the condition of life in rural

areas and the appreciation of the value of traditional knowledge that had allowed the people to live in these communities throughout history. In addition, these evolving and dynamic systems were cheaper and more effective to implement.

The principle of tabu, no-take or prohibition that was widely practiced throughout the Pacific Islands, for example (Williams 1982), is the basis of the community-based resource management initiatives now undertaken in these countries with the variance on the style and length of the embargoes determined by the people that declared them. In these cases, fear of God, respect of the traditional and chiefly systems and commitment and honor to other members of the group was the reasons for observing the tabu.

The resource management vision was that people involved in rural development first and foremost must protect their sources of food if they were to attain sustainable development while effectively fighting poverty. Unfortunately, coastal communities were not consistently observing contemporary and government-instigated resource management arrangements largely because they were unfamiliar with the systems and their requirements. In comparison, the popularity of community-based resource management arrangements attracted more attention because of the people's

traditional resource management practices that were part of their culture, knowledge and tradition.

Although the focus of most contemporary conservation research had been on the bio-physical and the economic features of Marine Managed Areas (MMAs), better understanding of the cultural roles was critical because of their influence on the resource management decisions people made and the level of compliance these decisions were given. Moreover, thorough cultural roles studies were important because resource management is about better organising people's activities (Jentoft et al. 1998). As Jacques Weber, quoted in Henocque and Denis (2001:5) explained, 'Environmental management is not a question of humans' relationship to nature; instead it is a question of human relations on the subject of nature'.

This book examined the influence of cultural factors in the effectiveness of community-based resource management arrangements, which are expected to contribute significantly to the international commitment to improve the use of available environment resources now and in the future. This was why Conservation International (CI) commissioned and funded this study - to provide some lessons to enhance the local communities' resource management activities.

Cultural roles included:

- people's culture and traditional practices associated with marine resource use;
- cultural organization, structure and features of the community resource use activities and regulations;
- community marine resource management initiatives; and the
- related changes including the challenges, achievement and potential for future development associated with the establishment of MMAs.

Special features of the study covered gender roles, the distribution of responsibilities and suggestions on how cultural roles can improve marine resource management in the country.

The remainder of the book is a sketch of the state of MMAs in Fiji and some of their important characteristics that need to be taken into consideration. This contribution should enlighten those partners that require justifications, encourage those in need of reassurance and challenge the practitioners and the communities involved to make their MMAs more successful and rewarding for them as well as their environment.

1.1 FIJI CONTEXT

The 2002/2003 household income and expenditure survey in Fiji placed the national poverty level at 29 per

cent of the population; an increase from the 25 per cent previously used (Baleinakorodawa et al. 2006:1). In this category, which continues to worsen, the lowest income earners are in rural Fiji, where poverty is increasing amongst people who do not have steady sources of income and yet, are paying the most for the goods and services they need. Most of these people are not actively involved in economic development, have remained in their semi subsistence rural world and are the least knowledgeable about contemporary development issues. Meeting the needs of this sector is the biggest challenge now facing developing countries throughout the world.

Local communities in Fiji and other countries in the Asia-Pacific region are declaring MMAs to protect their marine resources from depletion and overexploitation. These communities are using their customary practices as the basis of their community-based resource management activities and are trying to understand the influence of the cultural roles on the effectiveness of their MMAs and how to address the challenges that are part of their rapidly changing process.

At the Mauritius meeting of the Small Islands Developing States (SIDS) in 2005, the Fiji Government promised to have 30 per cent of all its national waters managed by 2020. This initiative to contribute to the global targets for saving the world's marine environment was more importantly to assure the well-being of the local people into the future. To this day, nearly all of the marine management activities made have been by local communities using their customary rights. These local communities have made the hard decisions to restrict, reduce and manage their coastal resources for themselves today and their future generations in years to come. The challenge is to support these initiatives to effectively conserve the resources to benefit the resource owners and users as well as the environment.

Ironically, these changes were taking place at a time when customary practices were eroding in rural areas. This is important because the declaration and the effectiveness of MMAs are dependent on the existing social structures and circumstances in the local communities involved. As is observed by a commentator, the respect for chiefs now depends on factors such as their strength of character, knowledge and authority (Vunisea 2002), while their role is increasingly questioned. Chiefs are now expected to be experts and competent leaders in contemporary societies, which demand that they be successful in dealing in both the contradictory worlds in which they live and operate.

This research involved the gathering of empirical data and information through workshops, focus group

meetings, interviews and observations in as many of the communities undertaking resource management as possible. The information from these activities was compared with those from secondary sources where both published and unpublished reports were used. In addition, the project built local capacity through the community consultation workshops, the use of research assistants from the University of the South Pacific, and the offer of postgraduate scholarships in relevant areas that promote this approach. Moreover, the publications, reports, and public lectures and conference presentations publicized the objectives and the results of the study. The objectives of the study are covered under: Research; Capacity Building and Outreach and are outlined in Box 1 below.

The influence of cultural roles in the MMAs was investigated and analyzed to make MMAs more effective. The study initially focused on the literature, particularly on studies that were conducted on Fijian culture and its changing context. Reports on existing MMAs activities show how the cultural roles have been handled in the different cases and the influence of these different approaches. The ideas were then validated using the empirical information from local interviews, community workshops, focus group meetings and participant and non-participant observations. The information presented here is thus amongst the most focused and up to date on the influence of cultural roles on the local communities' resource management activities.

Knowledgeable women and men in the villages in each of the sites visited (see below) were involved in the study. These selected people were asked for their opinion on how they saw the changes taking place in their villages, the people, their culture, their resource use practices and their concerns, hopes and perspectives for the future. The information derived from the focus group meetings;

interviews and observations were then crosschecked against the information from the literature to ensure credibility.

The study sites were the same as the ones picked for the CI research on the economic and social factors. This calculated decision was to enhance the comparability of these topics studied in the CI research but was also a hindrance as most of the communities chosen were not able to separate the related issues that were pre-determined by the researchers. In the end, there were repetitions and feeling of 'research overload' in the communities where the different studies were undertaken, as the people could not distinguish the difference between the cultural, economic and the social factors and how they affect the operations of the MMAs. The cultural roles study focused on individual villages and tried to reach as many people in these communities as possible. The researchers went with the local partners to a number of the sites such as Verata, Cuvu and Waiqanake and proceeded by themselves to others such as Kubulau and Gau.

The study was conducted in Fiji Locally Managed Marine Area (FLMMA) sites. The number of the sites covered depended on the budgetary constraints and the alternative arrangements that were possible. Site selection was based on the project requirements, accessibility, uniqueness and the length of time involved in resources management. Most of the sites have existing biological, social and economic data. The sites that were visited for this study are summarized in Table 1(on page 4).

1.2 CONSERVATION IMPLICATIONS

The customary system of resources management offers an alternative to contemporary, government-instigated resource management only in communities where

Box 1 Objectives of the Study

- Determine people's cultures, cultural contexts, cultural values and cultural roles in communities involved in marine resource management
- Determine the extent to which marine resource management deliver the range of social and cultural benefits required to sustain community support
- Assess the cultural influences, relations, practices and values that affect the people's resource management activities
- Promote the knowledge of marine resource management initiatives
- Examine the changes accompanying the establishment of MMAs
- Highlight the gender roles and distribution of responsibilities
- Examine the challenges to be addressed
- Promote the achievements of communities with MMAs
- Highlight the potential uses of cultural roles

there is strong, wise and respected leadership (Muehlig Hofmann 2008). In such communities, people have taken resource management action because they believed that their intervention was important to them and their future generations and that the people needed to act instead of waiting for government directive, guidance and leadership.

The study was timely given the experience and success of the FLMMA network, which demonstrated the popularity and positive effects of community-based resource management practices and the partnership with non-government organizations and government agencies. The study aimed to enhance FLMMA, which continued to strive for ways to make MMAs efficient and involve

the people in the satisfying and meaningful management of their marine resources. For this purpose, FLMMA partners have channeled increased resources into local communities and contributed to resource management and poverty reduction in rural communities that depended on the use of their marine resources (Aalbersberg, Tawake and Parras 2005:151) and witnessed, not just the management of their marine resource but the empowerment and mobilization of the community at large to address pertinent rural development issues.

This study examined the management decisions that were made and those that needed to be better enforced within the customary system. The conservation implications of the study were important given the

Table 1 Fiji Locally Managed Marine Areas (FLMMA) Sites

Site	Partner Org.	Management regime	Year of Establishment	Available Data
Tikina Kubulau, Bua	WCS	Seascape and community-based	2004	<ul style="list-style-type: none"> Wildlife Conservation Societies, (WCS) Biological, Social and Economic monitoring reports
Gau	IOI-PI, IAS, WWF	Integrated Coastal Management	2002	<ul style="list-style-type: none"> Muehlig-Hofmann's papers and PhD thesis Veitayaki's papers
Waiqanake, Navakavu	IAS	Full LMMA and community based.	2002	<ul style="list-style-type: none"> LMMA's Biological, Social and Economic monitoring reports SPC and PROCFISH's Biological and Socioeconomic reports TNC MPA and Poverty Reduction Socioeconomic Cakacaka's MA thesis (biological) Economic Valuation reports (SE)
Verata	IAS	Full LMMA	1990	<ul style="list-style-type: none"> Tawake's MSc thesis Vunisea's MA thesis and papers Tawake et al. papers Aalbersberg et al. papers
Kadavu	IAS, WWF	Full FLMMA and co-management	2004	<ul style="list-style-type: none"> Reports from Tawake Johanessen paper Calamia' PhD thesis
Nadogo, Namuka, Dogotuki, Udu	Macuata Provincial Office/ IAS	Full LMMA and co-management	2004	<ul style="list-style-type: none"> LMMA Biological and Socioeconomic reports SPC PROCFISH Biological and Socioeconomic report.

changes that were part of contemporary community life in Fiji and the Pacific Islands. While the customary system was still largely observed, some of its features and its context had changed drastically due to the modernization of life in coastal communities.

The CI study provided the basic cultural information for assessing the outcomes of the MMAs. The lessons learned were shared widely to enhance the community resource management effort and to maximize the benefit to the people involved. The work by Cooke and Moce (1995), Muehlig-Hofmann (2008) and Sano (unpublished) showed that management strategies and the level of government involvement varied greatly across Fiji and depended on the individual fisheries officers, chiefs and the communities involved. The stakeholders involved in the setup of an MMA influenced what was done and the effectiveness and sustainability of the MMA activities. In some instances, the chiefs and their people declared the MMAs, while in others, the MMAs were set up only by the chiefs or only by the people in defiance of their chiefs. In some places, the people changed their resource management positions at will when their situations altered. As a result, the MMAs in some of these communities were declared and opened whenever the people decided.

Problems and conflicts arose when people, for some reason felt that they were misled, mistreated or disrespected by their partners. For this reason, it was important that regular meetings and consultation were organized for the stakeholders to avoid misunderstanding. On many occasions, Governments relied on the local governance and self-regulation arrangement of the coastal communities because they lacked funds and capacity to operate effectively at the local level.

This CI study showed that communities alone with their present structure, skills and resources, could not establish and carry out the management arrangements needed to effectively mitigate the increasing pressure on their marine resources. Clearly, resource management needed the support and leadership of Government, the involvement of the customary owners and all stakeholders to be effective and sustainable.

1.3 EXISTING SCIENCE

Numerous studies on different aspects of Fijian culture have been undertaken. For instance, it was claimed by Frazier (1973), that commercial crops, wages and commercial activities were just being established in the villages in the 1960s and that decision-making was transferred from hereditary chiefs and community councils in the pre-1643 and post 1874 periods to community councils, government officials and magistrates Table

2 (on page 6). Consequently, the role of hereditary chiefs declined as individuals and groups take on more independent roles. Fijian villages are now unlimited in size and are influenced by their proximity to urban areas which was different from the pre 1643 and post 1874 periods when the main size regulators were the minimum viable defense force or the maximum number that the food supply would provide for. Furthermore, villagers were attracted to urban life, opportunities for higher incomes and a desire for higher status. Although the village is still the basis of indigenous Fijian social and economic organization (Overton 1993:99), some of these changes were already shaping the life that the villagers live (Veitayaki et al. 1996).

The arrival of the explorers, missionaries, whalers and traders in the earlier years of colonization contributed greatly to contemporary Fiji (Brookfield et al. 1978:1-7). Although traditional agriculture was well established at the time of European contact, the introduction of metal tools and seeds of various types of introduced plantation crops such as sugar cane, coconuts, cotton and tobacco, made a large impact on the surrounding environment (Farrell 1972:38). In addition, the sandalwood and bêche-de-mer trades were associated with deforestation, the depletion of bêche-de-mer stocks and permanent settlement (Ward 1972:102; Narayan 1984:16).

Shifting cultivation, which had provided the people with food for consumption and social obligations, was replaced by permanent farming practices that were part of the modernization process. By 1850, commercial activity had changed from collecting products to trading commodities and well-organized plantation agriculture. These organized farming operations heralded the commencement of the labor trade, which was based on the principle that a local person could not work well because of custom and kin ties and therefore had to be taken elsewhere to be productive (Narayan 1984:23). This was a dreadful way of treating people who had never worked in this manner before but showed the degree and extent to which the transformation of the subsistence lifestyle under modernization was taking shape.

Modernization was promoted in Fiji around independence in 1970 because of the belief amongst some that indigenous Fijians' tradition, culture and sociocultural systems were backward and thwarted Fiji's economic progress (Spate 1959:1; Burns 1963; Belshaw 1964:282; Watters 1969:12; Fisk 1970:3). Consequently, there was a concerted effort to transform traditional indigenous Fijian society into a modern society tailored on the European system. Rural development initiatives were to reduce the movement of better-educated, competent people into urban centers as well as improve the lives of

Table 2 Attributes of Indigenous Fijian Villages in Three Periods

Attributes	Pre-contact village (pre 1643)	Post-cession village (post 1874)	Village of the 1960s
Major goals	<ul style="list-style-type: none"> - Survival in war - Food and shelter - Preservation of social unit - Protection of lands 	<ul style="list-style-type: none"> - Food and shelter - Preservation of social unit - Retention of lands - European goods 	<ul style="list-style-type: none"> - Continuance of social unit (diminishing) - Personal freedom and status - European possessions and foods - European style houses - Capital goods (ploughs etc) - Health services and education - Good communication with urban areas
Economic base	<ul style="list-style-type: none"> - Swidden agriculture - Hunting, fishing, gathering - Static stone age technology - Minimal specialization 	<ul style="list-style-type: none"> - Swidden agriculture - Hunting, fishing, gathering - Contract labor wages - Tax on garden surpluses - Minimal specialization 	<ul style="list-style-type: none"> - Swidden agriculture (declining) - Limited hunting, fishing, gathering - Commercial crops - Wages - Incipient entrepreneurial activities - Incipient specialization
Location regulators	<ul style="list-style-type: none"> - Defense - Access to food - Political groupings 	<ul style="list-style-type: none"> - Access to food - Administration - Health 	<ul style="list-style-type: none"> - Health - Communications - Commercial opportunities or access to food - Education and social services - Ownership of land
Size regulators	<ul style="list-style-type: none"> - Minimum viable defense force - Maximum which food supply would support 	<ul style="list-style-type: none"> - Minimum viable production group - Maximum which food supply would support 	<ul style="list-style-type: none"> - Virtually no minimum - Maximum which total local economy would support
Population regulators	<ul style="list-style-type: none"> - Balance of high death and birth rate - Battle casualties - Migration to safety 	<ul style="list-style-type: none"> - Balance of low birth rate and high death rate - Migration to work 	<ul style="list-style-type: none"> - Balance of high birth rate and low death rate - Migration to work (largely to urban areas) - Independent farming
Decision making	<ul style="list-style-type: none"> - Hereditary chiefs and community councils 	<ul style="list-style-type: none"> - Hereditary chiefs and community councils - Appointed chiefs - Government officials and magistrates 	<ul style="list-style-type: none"> - Hereditary chiefs (declining) - Community councils - Government officials and magistrates - Individuals and groups
Agency Enforcing decisions	<ul style="list-style-type: none"> - Life or death power of chief - Community attitudes 	<ul style="list-style-type: none"> - Community attitudes - Native police (jail & fines) 	<ul style="list-style-type: none"> - Community attitudes (declining) - Police and Fijian Provincial constables (jails & fines)
Centripetal forces	<ul style="list-style-type: none"> - Safety - Leadership - Tradition - Group organization - Reciprocal assistance 	<ul style="list-style-type: none"> - Leadership - Security - Tradition - Group organization - Reciprocal assistance 	<ul style="list-style-type: none"> - Tradition - Security (diminishing) - Sense of identification - Limited reciprocal assistance - Official restraints on out migration
Centrifugal forces	<ul style="list-style-type: none"> - Nil 	<ul style="list-style-type: none"> - Desire for Nayacakalou's cash income - Labor contracts - Incipient desire for freedom from community obligations and restrictions 	<ul style="list-style-type: none"> - Strong desire for freedom obligations and restrictions - Attraction to urban life - Opportunities for higher incomes - Desire for higher status - Education

Source: Adapted from Frazer, R., 1973. 'The Fijian village and the independent farmer', in H.C. Brookfield (ed.), *The Pacific in Transition: geographical perspective on adaptation and change*, Edward Arnold, London:78–9.

people in rural areas. However, the outcomes of these rural development initiatives were disappointing. The poor state of the markets and infrastructure and the people's customs and traditions hindered the operation of viable profit-making ventures in rural areas (Spate 1959:36; Fisk and Honeybone 1971:137; Nayacakalou 1978:40; Ravuvu 1988a:202, 1988b:8). Rural development objectives and programmes were designed to assist people to help themselves by encouraging those at the grassroots to define their development needs and to identify the resources available to meet these (Nayacakalou 1975:143; Lasaqa 1984:141).

Marine resource management is being taken to communities in Fiji in a variety of forms. In some communities, there are collaborations with NGOs and educational institutions (Veitayaki et al. 2005a; Veitayaki 2005; 2006; Muehlig-Hofmann 2008) while in others, the people work on their own or through local chiefs, officials, academics and researchers. In many of the cases, resource management activities are dependent on the ambitions of the communities, the individuals involved (Muehlig-Hofmann 2008) and the approach adopted by the group. In all the cases, the effective management of marine resources by community groups required government support.

Following the proliferation of MMAs, the effectiveness of community resource management activities became the subject of interesting studies (World Bank 2000, Johanessen 2004; Muehlig-Hofmann et al. 2005; Muehlig-Hofmann 2008; Sano unpublished). Some of these studies were reviewed in this work to determine the human cultures, contexts, values and roles that influenced the activities in communities involved in marine resource management.

Indigenous Fijians have exclusive customary fishing rights in their *qoliqoli*, extending out to the barrier and some offshore reefs. However, the sea and sea floor belong to the state (South and Veitayaki 1998). This mixed arrangement and dual ownership arrangement has been a source of confusion for over 140 years (Cooke and Moce 1995; Ruddle 1994). Since independence in 1970, attempts had been made to return the full ownership of the *qoliqoli* areas to the indigenous owners. Finally, in August 2006, a *Qoliqoli* Bill was put before the Fiji Parliament, to return all proprietary rights to *qoliqoli* areas to the traditional *qoliqoli* owners. A notable feature of this proposed change in legislation was the establishment of a *Qoliqoli* Commission to administer and manage fisheries operations within *qoliqoli* areas.

The Bill caused anxiety and controversy amongst the stakeholders, some of whom harbored the belief that the Bill overly privileged the indigenous Fijian resource owners. In a society that was increasingly becoming individualistic and where ownership rights were in the hands of land-owning groups (*mataqali*) that were based in the villages, the Bill, it was argued, undermined responsible community-based resource management and equal benefits for the entire community (Muehlig-Hofmann 2008). Although the Bill had been under discussion for more than a decade, it was cancelled by interim Prime Minister Voreqe Bainimarama in December 2006. It was obvious that other more pressing issues in Fiji had to be addressed first for the better use of *qoliqoli* and coastal marine resource conservation (Muehlig-Hofmann 2008). Issues that had not been dealt with properly were community leadership, responsibility over community resource management activities, the effectiveness of MMAs and how they could be improved.

In addition, it was important that a transparent system was in place that recognized the rights of indigenous owners of fishing grounds while upholding the interests of the other stakeholders such as developers and investors. Indeed, a localized version of the United Nations Convention on the Law of the Sea should be formulated to direct such engagements. It was also important that local communities were fully aware of their responsibilities as resource owners on whom resource sustainability must be a paramount consideration.

1.4 CONTRIBUTION TO MMA SCIENCE

The MMAs in Fiji are based on the belief that sustaining healthy living standards and income for local communities can be achieved only with properly managed marine environment and fisheries resources. Although a more sustainable approach to exploitation was pursued over the last decade, the varying degrees of success in Fiji were a reminder of people's inability to get organized (Zann and Vuki 1998; Veitayaki 1998). In many areas, the people managing their fisheries resources were simultaneously modernizing their fishing methods, which was contradictory to the aims of MMAs.

Given the current harvesting capacity, fisheries resources such as *bêche-de-mer* can easily be exploited beyond sustainable levels. For this reason, the precautionary approach to fisheries should be effectively implemented at village level. According to Muehlig-Hofmann (2008), the main challenges of many coastal communities can only be met by a strong bond between the communities and officials, based on continuity, community consensus and trust. This can be achieved if every community has

an experienced fisheries manager or leader working with them to formulate and plan conservation measures, surveillance, compliance, communication, networking, data collection and analysis. There is a great deal to be done to improve MMAs.

This book demonstrated the ‘social-cultural reality’ of MMA processes in specific locations in Fiji. At the national level, it provided human ecological connections amongst the various locations and resources while promoting the inclusion of cultural factors into MMA design and implementation. At the local community level, the work focuses on the relations that influence what people do and their motivations and reasons.

Cultural roles can be good or bad for resource conservation, depending on what the people are doing and how they have conducted their activities. While the MMAs are based on the people’s traditional practices, their maintenance is dependent on how traditional leadership and governance are organized in modernizing Fijian villages. Culture needs to assimilate contemporary challenges. Issues that must be addressed include trade and the commercialization of resources, including food sources, erosion of traditional authority, burgeoning population in urban centers, and the proliferation of non-biodegradable, hazardous and toxic waste, representing the ever-changing conditions where culture operates. The

study highlighted the issues that needed to be kept in mind if there were to be effective MMAs.

Some of the issues considered for this study included the: types of cultural and traditional practices associated with MMAs; organization, structure and features of communities; resource use activities and regulations; knowledge of MMAs within the communities undertaking MMAs; changes associated with establishments of MMAs; gender roles and responsibilities; challenges that hinder the efficiency and effectiveness of MMAs; achievements of local MMAs and potential for further developments. The interrelations between and interaction amongst these variables as shown in the conceptual framework below demonstrate the complexity of the context in the local communities where resource management occur and the multitude of issues and factors that need to be considered for the effective operation of the marine resources management activities (Figure 1).

The effectiveness of MMAs in a modernizing Fiji will depend on how well the influence of cultural roles is understood and used in planning, formulating, implementing and monitoring the resource management activities of all Fijians. This is the reason why more cultural roles studies need to be promoted and encouraged. This book is a part of that process.



Figure 1: Variables that influence Marine Managed Areas

2 THE FIJI SCENARIO



Net fishing in Kaba - Photo by Joeli Veitayaki

Under the United Nations Convention on the Law of the Sea, coastal states such as Fiji have sovereignty and sovereign rights over the living and nonliving resources within their maritime zones but are simultaneously responsible for the sustainable use of these resources. Moreover, while the coastal states are allowed to go after the resources within the areas beyond their jurisdictions, they must respect the right of others states to these resources.

This Fiji national study was part of an iterative process to determine the influence of cultural roles on the effectiveness of Marine Managed Areas (MMAs) that were being declared in customary fishing areas across the country to enhance the sustainability of coastal resources. Like in many Pacific Islands Countries, the use of local marine space and resources was controlled by a customary marine tenure system built on local autonomy and self-reliance and a contemporary arrangement based on legislation and science.

The traditional system worked well in the past because its institutional structure was operating well in Fijian societies at the time when production and human population were low. In addition, people did not trade at the level now used and resources were adequately managed for local consumption.

With the transition to a modernized and globalized economy, the people have exploited their marine resources to levels where resources depletion and collapse are now threatening food security and livelihood in coastal communities. It is in this context that MMAs have been established to make people who own and depend on these resources be responsible for the health and integrity of the ecological services that support these communities. For the Pacific Island Countries as a whole, this is significant given the people's dependence on these resources and their importance in these communities. The ownership of the resource areas, the associated tradition and practices and the management arrangements in traditional societies are testament to this.

The main challenge today is to incorporate the people's traditional resource use and management arrangements into the contemporary system. Although this has been attempted over a long time, the current mixed results of MMAs indicate the work required to attain the desired state of co-management which represents the coexistence of the best features of the traditional and modern systems of resources management.

Fishing is an important activity in coastal communities. In traditional times, master fishers (*gonedau*) were one of the social groups that constituted society. There were also the *qoliqoli* (customary fishing grounds from

which the community is expected to source its fish and marine products), fish totems and fishing practices that demonstrated the importance of fishing to people.

The customary marine tenure system supports closed access, which limits fishing access and enhances the sustainable use of the resources. The system regulates the use of the fisheries. Co-management, which requires the effective incorporation of traditional practices into the modern system, should augur well in the drive to sustainably use the resources in coastal communities.

The sustainability of the fisheries is critical given the increase in demand related to higher population and the tendency in coastal communities to sell the food sources. It is therefore important that the decisions are taken to ensure the sustainable use of the fisheries resources. The declaration of MMAs has been practiced in the past but is most needed today. Furthermore, the MMAs must be allowed to take effect.

This chapter briefly describes the fishing context in Fiji. It explains the Fijian fishing culture and the state of the various fisheries operating in the different parts of the country. The chapter covers fishing in the wild, cultured fisheries, subsistence, export, industrial and recreational fisheries and their particular features.

2.1 FISHING CULTURE

There are 410 registered customary fishing rights areas in Fiji (*qoliqoli*), which support only subsistence fishers but now cater for an increasing amount of commercial interests. In the more heavily exploited *qoliqoli*, resource management is important as fishing pressure has increased and is no longer sustainable (Muehlig-Hofmann 2008). This study highlights specific cultural issues that enhances coastal resource management programmes and activities; pertinent issues given the mixed performances of MMAs.

Even though customary practices are the basis of the community-based marine resource management activities spreading across Fiji and other parts of the Pacific Islands over the last decade, little research has been undertaken on the influence of cultural factors that are still observed in these areas. Such research and analysis will explain the changes, conflicts and frustration in rural areas that resulted in the political upheaval that started in 1987 (Overton 1988:1) and continues today. Close to thirty years later, the cultural factors are still to be better understood and incorporated.

Only the people that have rights, which are recognized by the entire community, can declare resource management in the area. In addition, the management activities declared by people in local communities will be adhered to by all that know of the arrangements but will exclude those who, for some reason, were not aware of the decisions made. This is a concern because of the wide sphere of operation of some of the stakeholders. For this reason, coastal communities in rural Fiji are not protected from the threats emanating from outside their communities and have to defend their MMAs from commercial fishers based in the main centers.

Traditional institutions in most of these areas are ill equipped to enforce the community-based resource management arrangements undertaken in Fiji (Tu'uakitaui et al. 2003). The challenges such as poaching faced by community-based marine resources management made it critical that the influence of cultural roles be better understood and addressed. Weak authority of chiefs and village institutions and the lack of appreciation of how the courts work makes enforcement of traditional resource management practices difficult. It is obvious that cultural roles must join the ecologic, economic and social factors as important parameters that must be better understood to enhance the effectiveness of community-based marine resources management.

Unlike in some Pacific Island Countries where the customary ownership rights of the people are recognized in the Constitution, a dual system of coastal resource management exists in Fiji; where an informal management system devised and observed by customary resource users, coexists with a formal government-instituted management arrangement. This customary system is handed down through generations and is the cornerstone of the community-based resource management process undertaken across the country and the Pacific Islands region but one that still needs to be better organized.

Contemporary experiences in Fiji show the usefulness of some of these traditional practices (Veitayaki 2000a). The customary system reflects the ethnic, clan, kin, class and gender situations and responsibilities. In many instances, the assumption is that the cultural system still works and that all the community members adhere to the decisions made by the groups and their leaders. A review of the published reports from some of the NGOs undertaking community-based conservation in Fiji shows how little the people involved in community-based resource management reflect on the influence of customary resource management arrangements and practices on

the modern system. There is little consideration of the influence of cultural factors on community leadership, governance and compliance in a modernizing and globalized world.

Questions on people's perceptions and whether they are happy with their management plans persist with those who want to improve on the effectiveness of MMAs. Other relevant unanswered questions that were raised in the study include: what effects does resource management activities have on the people involved? What were the views of people before the resource management decisions were made? How was the resource management decision made, and how was it communicated to the people? Was the customary system functioning effectively at that time? Why was poaching the biggest threat to community-based resource management? Could there be a better arrangement to deliver the objectives of marine resources management in

traditional coastal communities in transition? How could resource management be sustained over the long term and what should be the role of the governments in the management of coastal resources in Fiji?

The existence of customary marine tenure and rules that include the unwritten, informal (customary and traditional) practices through which people gain use rights and define specifically those acts that are required, permitted and forbidden by resource users, makes this study important and timely. A good understanding of the indigenous Fijian principles enhances appreciation of why the coastal communities do what they do and prescribes what the partners need to pay attention to (Ravuvu 1983). Such knowledge allows people to understand why the turtle fishers observe orders from their chiefs and received gifts of food and property in recognition of their performance (Williams 1982).

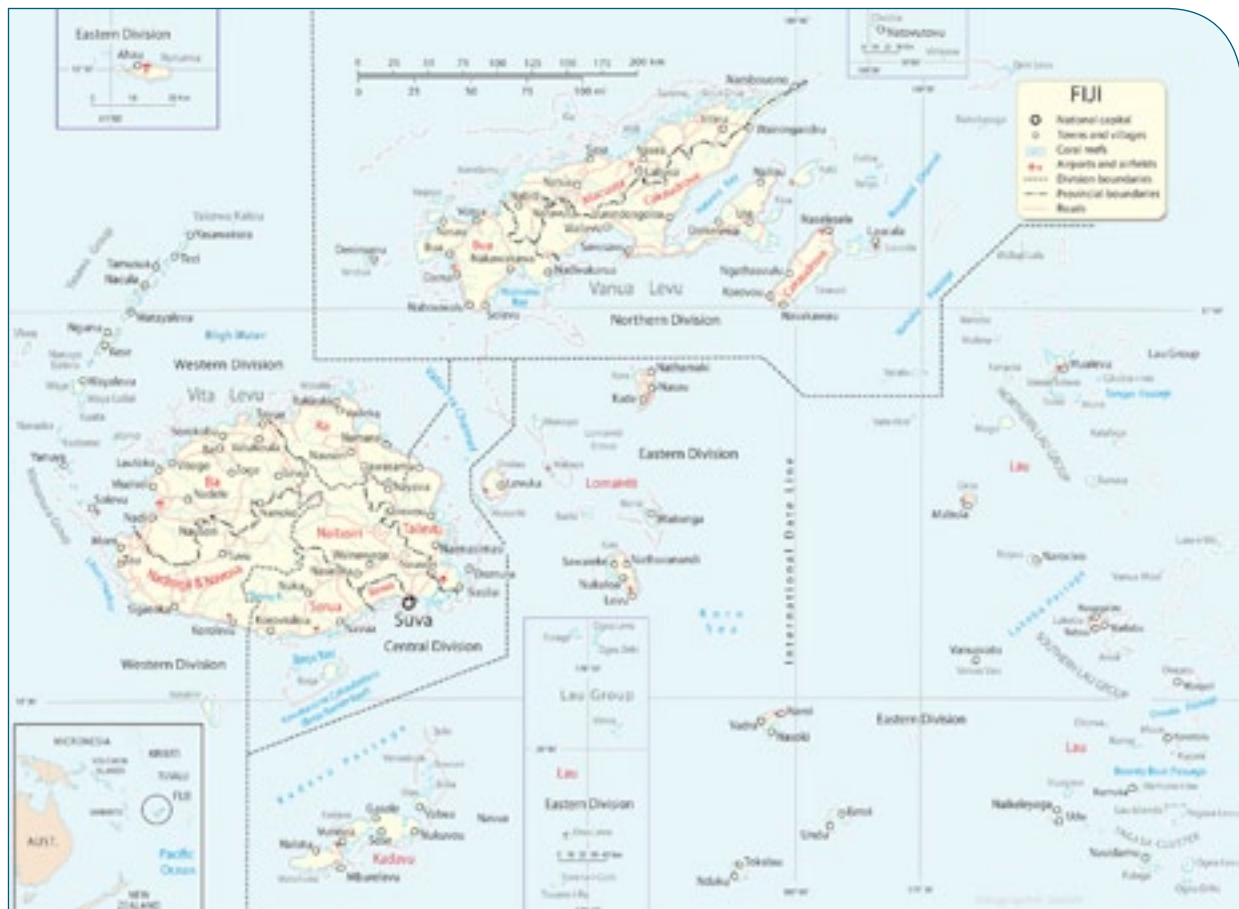


Figure 2: Map of the Republic of Fiji Islands © Geographic Guide – Travel and Tourism

2.2 FISHERIES

Knowledge of the fisheries sector in Fiji is important in understanding the influence of culture on the people's MMAs as these are set in specific contexts. The importance of the fisheries to people is reflected in the annual regional per capita consumption of fish estimated to be between 44 to 62 kg (SPC 2008). In addition, the people relate to their fish and environment and have formulated rights and responsibilities around their marine resources.

Fiji is an archipelagic nation, comprising about 300 islands (Figure 2 on page 11) with a total land area of 18,272 sq. km. and a surrounding Exclusive Economic Zone (EEZ) of about 1.3 million sq. km. (Figure 3).

Most of the country's islands are surrounded by fringing and barrier coral reefs, which support the people's fishing

activities and make them coastal fishers (Figure 4 on page 13). Substantial river systems in the bigger islands, a few lakes and some man-made water bodies allow for fresh water fishing and aquaculture, but marine fisheries clearly dominate in Fiji.

Although the indigenous Fijians own and control much of the inshore fishing areas and do most of the subsistence fishing, commercial fishing in coastal areas is mainly carried out by fishers who have secured the right to fish in customary fishing areas (Inside Demarcated Areas-IDA) and those beyond the reefs (Outside Demarcated Areas-ODA). Commercial fishing is at present dominated by non-indigenous Fijians but the latter are quickly taking up the opportunity to earn an income from other fishing activities. Recreational and industrial fisheries are undertaken in deep and more distant areas and are not directly related to this study.



Figure 3: Map of the Pacific showing the Fiji Exclusive Economic Zone (EEZ) amongst the large ocean states in the Pacific

The management of fisheries needs to involve all of the stakeholders but the increasing numbers and usage are now quickly overwhelming the fisheries stocks. These stakeholders include: the chiefs, customary landowning units (the clan), fishers (women and men), private sector operators, different government agencies, scientific organizations, NGOs and development agencies.

In an early regional study undertaken by Anderson and Mees (1999), six customary fishing grounds in Fiji were surveyed (Table 3). By that time, different locations around the country were already subjected to varying levels of fishing pressure. While the fishing pressure was low or medium in Verata, Yanuca, Naweni and Cautata, it was high in Tavua and Vitogo – two areas that are close to heavily populated centers where full-time fishers enjoy higher incomes. This trend has continued as commercial fishers venture out further in search of better fishing areas.



Figure 4: Fringing reef and barrier reef in Gau Island, Fiji
Source - Google Earth

Table 3: Summary of Economic Characteristics of Fijian Communities

Qoliqoli	Boats	Trucks	Retail	Cash Crop	Livestock	Fishing	Employed Full-time	Subsistence Earnings
VILLAGE								
Naweni								
Naweni			3	2	1	1	1	
Tacilevu	7*	1	3			1	3	
Verata								
Ucunivanua	7	2	1	20	1	1		56
Kumi	6	1	1					72
Naloto								
Vitogo/Vidilo								
Vitogo	8	1	3	26		8	31	172
Namoli	5	0	1	1		5	100	298
Naviyago	14	1	1	22		7		125
Tavua								
Korovou			2	10	5		3	122
Nabuan				70	2		158	200
Tavuavevu			2	12	17		10	494
Vatutavui					24			220

*Include bilibili (bamboo rafts)

NB. Data derived from 6 research sites around Fiji



Figure 5: A traditional fish drive in Malawai, Gau: Photo by Soeri Rokoiga

2.2-1 Marine Fisheries

Fiji's marine fisheries are divided into three sections: subsistence and artisanal, coastal and nearshore commercial and offshore recreational and industrial fishing. The distinction between subsistence and commercial fishing in the coastal areas is blurry as fishing is becoming increasingly monetized. Any surplus to the household requirement is exchanged for money. Anderson and Mees (1999) provide a good account of the use and influence of Customary Marine Tenure (CMT). The subsistence fishery is and influence of Customary Marine Tenure (CMT). The subsistence fishery is dominated by members of coastal communities, fishing within their customary fishing areas, using traditional skills and techniques such as fish drives and other traditional fishing practices (Figure 5). The fishery targets finfish, bêche-de-mer, octopus, various seaweed, lobster, mud crabs, bivalves and mollusks (octopus and bivalves) that people glean, trap, spear and catch with nets and fishing lines for their own consumption (Figures 6-8 on page 15). These resources contribute greatly to domestic food supplies. It has been estimated that the majority of all rural households were involved in subsistence fishing that provided more than half of all the domestic production (Lal and Slatter 1983; Nandlal et al. 2002; Veitayaki et al. 2005b).

These special features of the fishery were well illustrated in a socio-economic baseline survey of the Qoliqoli Cokovata (combined customary fishing grounds), involving the Districts of Mali, Dreketi, Sasa and Macuata, in Vanua Levu (Bolabola et al. 2006), where 62% of the 90 fishers in the four districts fished nearshore with 22% fishing in mangroves, 15% in offshore reefs and 1% in estuaries. Geographic Information Systems data on the use of qoliqoli in Tavua showed that of the 92 fishing trips, only 2 (2.2%) were outside the reef and only 11 (12%) were west of Cakau Drala (Anderson and Mees 1999:20-21). Similarly, analysis in Vitogo/Vidilo showed that licensed vessels fished in at least 11 *qoliqoli*, indicating gross abuse of the condition of the license (Anderson and Mees 1999:20-21).

With over 12 months of fishing data in Tavua, Anderson and Mees (1999:15) found that a total of 363 metric tons of finfish were extracted for an income of \$FJD1.28 million. These figures excluded the catches taken by unlicensed and subsistence fishers whose outputs remained unrecorded. In Naweni, a total of 14.5 metric tons of fish were extracted by indigenous Fijian fishers, who shared \$FJD54, 226 over the 24-month period. However, only 22% of the catch was sold with the remainder used or consumed in the house. At that same time, fishers in Tacilevu had extracted 11.9 metric tons of



Figure 6: Porcupine fish:
Photo by Takashi Murai



Figure 7: Lobsters:
Photo by Takeshi Murai.



Figure 8: Moray eel:
Photo by Takeshi Murai.

finfish valued at \$FJD44, 144; the people sold 67% of the produce and consumed the balance.

Two social and economic surveys in Northeast Macuata (Nandlal et al. 2002; Veitayaki et al. 2005) showed the rapid changes that are part of this sector. In 2002, the only forms of artisanal fishing conducted in the villages in Northeast Macuata involved the sale of *bêche-de-mer* and *trochus* to the middlemen and their representatives, the processing of salted sundried mullet and the culture of seaweed. Artisanal fishing activities were only seriously undertaken in villages such as Lakeba Nabubu, Druadrua and Kavewa. In some of the other villages such as Sogobiau in Nadogo, there was only subsistence fishing because of the lack of fishing equipment.

By 2005, the situation had changed drastically due to Government intervention. By this time, there were signs of commercial fishing in all of the villages visited. The old freezers that used to store ice in some of the coastal communities have been replaced by quality iceboxes supplied by the Overseas Fisheries Cooperation Foundation (OFCF) through the newly established Wainikoro Rural Fisheries Centre. These boxes, which can keep ice for about a month, were found in all of the villages and settlements visited by the survey team. The Wainikoro Rural Fisheries Centre demanded that Fisheries

Cooperatives were revived in the district and that the people were encouraged to have fishing licenses.

The average total monthly income per household per *tikina* in the area was estimated to be \$786.48 (Veitayaki et al. 2005b) compared to the \$650 per month recorded prior to the establishment of the Wainikoro Rural Fisheries Centre (Nandlal et al. 2002). There was a 21% increase in income. Fishing accounted for 59% of the income for individual households. Fishing income in Nadogo was approximately \$633.67 (60%) compared to the \$338.80 (67%) for Namuka, \$411.00 (49%) for Dogotuki and the \$448.00 (68%) for Udu, which showed the relative importance of fishing income in each *tikina*. Although income sources in the different *tikina* were dependent on distance from the markets and resource endowment, the domination of fishing as a source of income was marked.

Commercial fishing in coastal areas included fishers in villages and those in urban centers whose main target was to earn money. These operators required fishing licenses from Government to trade their catch and to fish in Inside Demarcated Areas (IDA) and Outside Demarcated Areas (ODA). Licensed fishers included the owners of vessels and those that man the vessels that have been authorized by the District Commissioner to fish in specified areas where the customary owners have

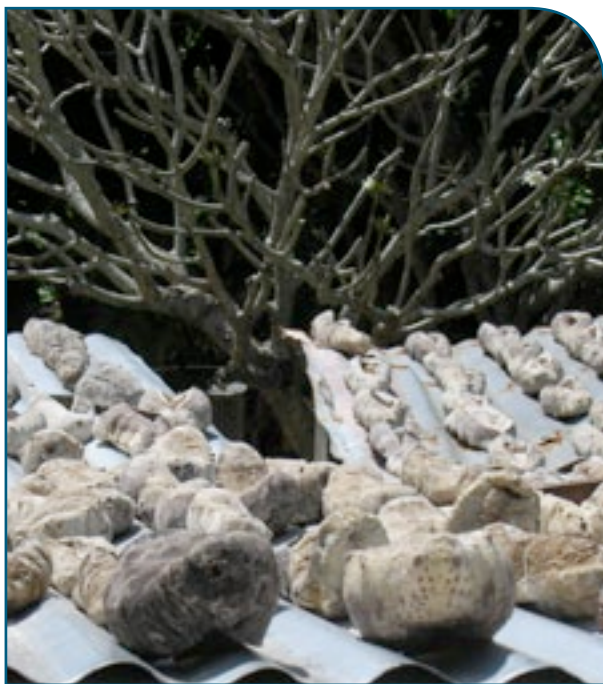


Figure 9: Sundried beche der mer for export in Dravuni, Kadavu: *Photo by Joeli Veitayaki*

given their consent. These fishers feed the majority of the local population and therefore must operate in an environment that is sustainable.

Private sector operators of fisheries businesses such as mariculture for seaweed, pearl, ornamental and aquarium products and prawn farming were also part of the commercial fisheries in coastal areas.

Exports from the coastal commercial fisheries included, bêche-de-mer, trochus, aquarium fish, live coral and live food fish (Figure 9). A small quantity of reef fish was exported as live food fish. Commercial fisheries were contentious because of the overfishing that was associated with rural development. The desire to earn more income for the increasing number of people, and the alteration of natural habitats were contributing to the worsening problem of decreasing productivity, which was a major challenge faced by the local communities that relied on these resources for food. Consequently, operational rules were formulated to influence the use of the resource “by setting out how, where, when and by whom resources may be harvested” (Anderson and Mees 1999:11).

Customary area closures and bans on efficient and destructive fishing methods, such as gill netting, the

use of dynamite and fish poison, had been observed by customary area owners in Fiji in attempts to protect and restore stocks. Although fisheries were not fully developed in outer areas constrained by lack of access to markets, the conditions were quickly changing as commercial operators with better resources were extending their sphere of influence outward from their bases in urban areas and/ or the main islands.

In Vitigo/ Vidilo, 61 licenses were granted in 1997 compared to 71 in 1998 (Anderson and Mees 1999:33). Out of these licenses, only 11 in 1997 and 8 in 1998 were for indigenous Fijians; the remainders were for those who paid goodwill money. However, the low number of indigenous Fijians did not accurately show the reality because many of them fished without license in their own qoliqoli. This is a major concern because it shows the huge potential for Illegal, Unregulated and Unrecorded (IUU) fishing taking place in our coastal areas and the poor data that we have to manage our fisheries.

The industrial fishery was deep-sea, distant waters and tuna-focused and had the following components:

- a pole-and-line fishery, targeting skipjack and small yellowfin tuna. This fishery had declined in recent years because of lack of bait that in the past was obtained from customary fishing areas, the economics and expenses of pole-and-line fishing and the overwhelming efficiency of purse seining
- a longline fishery, targeting large big eye and yellowfin tuna, taking most of its catch within Fiji waters, and landing the chilled catch for export by air to fish markets in the United States and Japan. The fleet of domestic longliners had increased substantially, raising sustainability issues. The mainly Taiwanese vessels fishing under charter to the Pacific Fishing Company (PAFCO) targeted albacore tuna, fish within Fiji's EEZ as well as the EEZs of neighboring countries, and international waters. Transshipment from Fiji to other destinations also remained a contentious issue
- a purse seine fishery associated with the U.S. Multilateral Treaty fished in Fiji during El Nino years

Industrial fishing directly affects local communities through the involvement of local people in fishing operations and activities such as bait fishing, processing and canning. Women dominate the processing and cannery work while the men work with fishing boats. The social and economic impacts of industrial fisheries are important to local communities in the urban centres while the nutritional contribution of the sector is gaining importance as increasing quantity are entering the local markets. In many places, local communities are trading and bartering with Distant Water Fishing Nation vessels. Prostitution



Figure 10: Freshwater mussels (*kai ni waidranu*) at the Suva Market. Photo by Johnson Seeto

and illegal activities such as smuggling are regularly associated with this sector, which also brings into the country much-needed foreign exchange.

2.2-2 Inland Fisheries

Freshwater mussel (*Batissa violacea*) is the largest inland fisheries resource (Figure 10). It is based in the main rivers in Viti Levu and involves rural women who take their produce to the markets in the main centers or sell from the roadside. Interestingly, this fishery, which is dominated by women is not managed and is wholly under the control of customary resource owners. Other notable inland fisheries include indigenous freshwater fish and eels, tilapia, prawns and shrimp farming.

This sector is increasingly used for aquaculture activities as wild production approaches its limits and the fishing becomes intensive. An integrated farming system that targets zero emission has been successfully trialed at the Monfort Boys Town in Veisari on the outskirts of Suva and is being promoted as a sustainable community development activity. This type of technology not only lessens humanity's ecological footprint but also provides economic returns as well as use goods that would otherwise go to waste.

2.2-3 Aquaculture

Aquaculture is dominated by the culturing of various



Figure 11: Biogas energy from pigs' waste - targeting zero emission from integrated farming at Monfort Boys Town, Veisari : Photo by Joeli Veitayaki

species of tilapia (*Oreochromis* sp.) and prawns (Figure 11) either to provide protein sources or secure income in places where these are required. Two local companies used to produce shrimps on a commercial basis but the folding of one is indicative of the challenging commercial environment in Fiji and the need to have governments that are supportive of the involvement of the private sector. The entry of the Crab Company Fiji to commercially farm local mud crabs is welcomed for the scientific opportunities that it embodies and the commitment to promote its revolutionary techniques.

At the Monfort Boys Town, the vocational school students are farming tilapia, their major source of their protein supply and income. The school has conducted applied research on mullet and mudcrabs. In addition, the school has raised chickens and ducks in sheds inside their fishpond and kept sheep around the pond boundaries as part of an integrated farming model (Figure 12 on page 18).

Pigs, chickens and ducks complement the school's protein supply and provide food supplements for the fish, which survive on the algae from the feces-nourished water. The pigs' waste is harnessed to provide biogas and nutrient-rich water for algal growth necessary for the fishponds while the sheep take care of the grass around the farm.



Figure 12: Integrated farming - raising ducks, sheep and poultry in fish pond at Monfort Boys Town: Photo by Benedict Yamamura.

A private company farms black-lip pearl shell (*Pinctada margaritifera*) in north-eastern Viti Levu while a commercial pearl farm owned by Justin Hunter operates in Savusavu in Vanua Levu with some technical assistance from the Australian Centre for International and Agricultural Research (ACIAR) and the International Centre for Living Aquatic and Marine Resources (ICLARM).

Researches have also been undertaken to set up a bêche-de-mer hatchery with improved breeding techniques and the re-seeding of reefs with juveniles. In 2012, the Fiji Government launched its Reef Enhancement initiative to promote the scientific intervention in the rehabilitation of coral reef fisheries. Milkfish (*Chanos chanos*) culture has been attempted for sometime to provide the bait for the tuna longline fishery and it is now trialed in Vitawa, Ra as a community-based alternative livelihood and food security project (Figure 13) with the generous support of the Japan International Co-operation Agency (JICA). The farming of *Eucheuma* seaweed has been on and off for the last two decades. The national objective has been to organize commercially viable farms, involving local coastal communities. However, the lack of reliable markets, the presence of diseases and irregular and low production has hindered the farming of seaweed for export.



Figure 13: Using chicken manure to enrich the water for algae at the Vitawa milkfish farm. Photo by Joeli Veitayaki

2.2-4 Utilization of the Catch

Most of the fish from inshore waters is consumed fresh locally while the remainder is sold through the municipal markets and other outlets. Fresh fish is sold unprocessed or frozen, though traders in the local market outlets employ a range of processing methods including cooked, fried, salted and sundried food (Figure 14 on page 19). The sale of processed food in the main markets is closely monitored due to the concern over the safety of these products.

Cultured prawns from Navua are frozen and sold locally to supplement the imported prawns and the quantity sourced from the wild. Sadly, the desire for maximum benefit has led to the use of destructive fishing, the use of chemicals and traditional fish poison.

Dried and processed bêche-de-mer is exported (Figure 15 on page 19) to China and Hong Kong where the prices are often many times the local buying price. At the time when the product was being bought for F\$40 per kilogramme in Dravuni in Kadavu, for instance, the commodity was being sold at US\$200 per kilogramme in Hong Kong markets. The high prices have made management difficult as the dealers continued to fish down the preferred species hierarchy and undermine the effort to sustain the stock.



Figure 14: Processed fish commodities for sale in the local market in Suva. *Photo by Alan Resture*



Figure 15: Beche-de-mer for export in Labasa. *Photo by Apisai Sesewa*

Trochus shells are needed locally and for export. There is shortage of supply for button blanks, which are exported to button factories in Asia and Europe. Trochus meat is also an important source of protein.

Aquarium fish and live coral (Figure 16 on page 20) are air freighted to the west coast of the United States and Europe. The sustainability of these products has been the subject of debate amongst the local communities and the NGOs. Fiji is the world's second largest exporter of live reef products for the aquarium trade (Wilkinson, 2002) with a well-established industry that has been operating for over 16 years exporting coral reef fishes and curio coral (Lovell 2001; Comley et al. 2003). The villagers involved are earning money and adapting measures to ensure sustainable harvesting. Many of these communities are operating their own coral gardens to ensure minimal ecological impact and sustainability.

The Pacific Fishing Company (PAFCO) cannery in Levuka, on Ovalau Island, is the biggest and oldest fish processing operation in Fiji. It cans domestically caught and imported tuna, principally for export and produces tuna loins for overseas canneries. PAFCO, and its global food processor partner, Bumble Bee, are the mainstay of the economy on Ovalau, employing people, mostly village

women. Smaller canneries and processing factories in Suva are producing specialized commodities such as loin, canned mackerel and tuna for the domestic as well as the export markets.

2.2-5 Development Prospects

The scope for increasing production from the inshore and coastal areas is restricted given the limited nature of multispecies fisheries in the tropics. The Government needs to increase the management of fully exploited inshore fisheries because of their importance as sources of food and income for coastal communities. Resource management options include the formulation of new products and resources, improved use of existing resources, aquaculture and the farming of the resources, the rehabilitation of coastal habitats and the development of new non-fisheries alternatives.

The use of Fish Aggregating Devices (FADs) by artisanal fishermen allows them to utilize the offshore tuna and pelagic resources, thereby diverting the fishing effort away from the heavily exploited inshore and coastal areas (Figures 17 on page 20 and 18 on page 21). The use of FADs also reduces the trolling expenses and reduces the distance to the barrier reefs. The loss of surface FADs through storms and vandalism has necessitated the formulation of submerged alternatives.



Figure 16: Live rock and ornamental fish for export at Walt Smith in Lautoka. *Photo by Joeli Veitayaki*

Aquaculture production is small but is gaining momentum. Export-oriented aquaculture will continue to face stiff competition from countries in Asia and Europe with low production costs and efficient transportation links to the major markets. However, local aquaculture and mariculture can enhance heavily fished species that are to provide for the local population in years to come. It can also be a good alternative source of livelihood and income where the involvement of the private sector can be welcomed.

The value of the landings from coastal and inshore fisheries can be increased through improvements in the post-harvest processing. Increased use of ice and value-adding processes are the most promising areas for future development. The scattered nature of the islands present difficulties for marketing, but the growing demand for fishery products present new opportunities for many of Fiji's islands, which have devised arrangements to access resources from outer islands to meet part of the demand. Improved transport arrangements and practices are needed so that the fishery products can be harvested in rural areas for marketing in urban centers where the prices are higher. This requires that safety standards be set and met and that new and higher capacity-building demands are generated. The effective involvement of local communities will depend on the training they are provided.



Figure 17: Surface Fish Aggregation Device (FAD) on Gau to enhance fishing in the lagoon. *Photo by Takeshi Murai*

The involvement of the private sector in fisheries development is expected to yield better results. A more management-oriented focus of the Government will require skills that are not presently available, and some re-training. Mechanisms must be developed to ensure that government interventions in the fisheries sector are relevant to the interests of stakeholders who are supported in their pursuit (Carleton 1983). The current effort by Government to increase local food production is an excellent first step.

A central feature of the recent management initiatives is the devolution of management authority to local government units and, beyond this, to coastal communities that have the customary rights of marine tenure. This empowerment is likely to yield better results than resource management initiatives instigated and led from the main center by Government. This makes it critical that we examine how aspects of community-based marine resource management activities that are influenced by people's cultural roles can be elucidated and advanced.

2.2-6 Institutional Arrangements

The use of marine resources in Fiji is set out in Chapters 158 and 158A of the Laws of Fiji. Also known as the Fisheries Act, it:



Figure 18: Submerged Fish Aggregation Device trialed on Gau: *Photo by Frontier Fiji*

- Defines the Fiji fisheries waters as all internal waters, archipelagic waters, territorial seas and all waters within the exclusive economic zone;
- Establishes a Native Fisheries Commission charged with the duty of ascertaining the customary fishing rights in each province of Fiji;
- Prohibits the taking of fish in Fiji fisheries waters by way of trade or business without a license;
- States that every license granted under the Act terminates on the 31st December next after the day of issue, licenses are personal to the holder, and licenses are not transferable;
- Authorizes any licensing officer, police officer, customs officer, honorary fish warden and any other officer of the Minister to enforce the Act;
- Empowers the Minister to appoint honorary fish wardens whose duties shall be the prevention and detection of offences;
- Empowers the Minister to make regulations:
 - (a) Prohibiting any practices or methods, or employment of equipment or devices or materials, which are likely to be injurious to the maintenance and development of a stock of fish;
 - (b) Prescribing areas and seasons within which the taking of fish is prohibited or restricted, either entirely or with reference to a named species;
 - (c) Prescribing limits to the size and weight of fish of named species, which may be taken;

- (d) Prescribing limits to the size of nets or the mesh of nets which may be employed in taking fish, either in Fiji fisheries waters or in any specified part thereof;
- (e) Regulating the procedure relating to the issue of and cancellation of licenses and the registration of fishing boats and prescribing the forms of applications and licenses therefore, and the conditions to be attached;
- (f) Prescribing the fees to be charged upon the issue of licenses and the registration of fishing vessels, which fees may differ as between British subjects and others;
- (g) Regulating any other matter relating to the conservation, protection and maintenance of a stock of fish, which may be deemed requisite.

Fisheries Regulations 1992 cover licenses/registration, prohibited fishing methods, mesh limitations, size limits, and exemptions.

The Marine Spaces Act (Cap. 158A) establishes the archipelagic waters of Fiji and a twelve nautical mile territorial sea. The Act also establishes a 188 nautical mile exclusive economic zone over which Fiji has sovereign rights for the purposes of exploring and exploiting, conserving and managing the natural resources of the seabed, subsoil and super adjacent waters. The management of living marine resources in Fiji is the responsibility of the Fisheries Division, which has taken this responsibility from the customary owners of the resources. The Division maintains offices in Rakiraki, Tavua, and Ba, in the Western Division; Taveuni, Savusavu, Lekutu and Nabouwalu in the Northern Division; Navua, Tailevu and Wainibokasi in the Central Division; and Lakeba, Vunisea and Levuka in the Eastern Division.

2.2-7 International Linkages

The Fisheries Division maintains international linkages with technical regional and international organizations dealing with fisheries. Policy and other regional matters such as the determination of maritime borders were managed through the Ministry of Foreign Affairs.

Fiji is a member of the Pacific Islands Forum (although it is suspended at the moment), the Secretariat of the Pacific Community (SPC), the University of the South Pacific (USP), the Pacific Islands Forum Fisheries Agency (FFA), the Pacific Islands Geoscience Commission (SOPAC), now a division of SPC and the Secretariat of the Pacific Regional Environment Programme (SPREP). These technical and regional organizations assist Fiji in managing its maritime zones and resources. Fiji is a party to a number of treaties, conventions and agreements relating to the management of regional fisheries summarized in Box 2 on page 22.

Box 2 Treaties, Conventions and Agreements

Treaties and agreements relating to the management of regional fisheries which Fiji is a party to included:

- The Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America;
- The Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific; and
- The Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region.

Fiji was the first signatory to the United Nations Convention on the Law of the Sea (UNCLOS) and was a signatory to, among others:

- The Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of 10 December 1982
- The Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks;
- The Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean;
- The Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The Fisheries Division is responsible for research and training in support of resource assessment, management and the development, of aquaculture and new products. The Research section in Lami conducts the research and monitoring initiatives and maintains freshwater aquaculture research stations at Naduruloulou, Galoa and Dreketi and the mariculture research station on Makogai, where the cultured giant clams (*Tridacna* sp.) are maintained for distribution to reefs and MMAs around the country.

The USP, Forum Fisheries Agency (FFA), SPC and the regional institutions offer training to fisheries staff. USP for example, offers certificates, diplomas and degrees in fisheries and marine science, resource management as well as specialized research in areas of marine

biodiversity, aquaculture, ocean law and post-harvest fisheries development. Other regional organizations offer training in areas related to their mandate.

The Fiji National University (FNU) offers training in navigation, engineering, refrigeration and other vocational skills relevant to the fishing industry. The School of Maritime Studies and Fisheries offers seamen's training and certification, including various classes of skippers and engineers licenses.

Some members of the Fiji fisheries sector have undertaken graduate and post-graduate training in overseas universities and technical colleges. The research activities carried out by the Fisheries Division are summarized in Box 3.

Box 3 Research Activities of the Fisheries Division

- Aquaculture research on bêche-de-mer, tilapia, pearl oysters, prawns, carp and milkfish;
- Monitoring of fish sales, invertebrates and aquatic plants handled through Fiji's main markets;
- Study of the nature and effects of the subsistence fishery;
- Assessment of baitfish stocks and of the impacts of baitfish harvesting on juveniles of other commercially important species; experimental culture and re-seeding of giant clams (*Tridacna* spp.);
- Stock assessment of reef fisheries, fresh-water prawns (*Macrobrachium* species), fresh-water mussels (*Batissa violacea*) and mud-crabs (*Scylla serrata* and allied species)

2.2-9 International Assistance

Fiji receives technical assistance in fisheries from a number of bilateral donors, including Japan, Australia, Canada, France, New Zealand, the United Kingdom, the European Union, the United States, Korea, Iceland and Taiwan.

Assistance is also secured from other international development organizations, including the Food and Agriculture Organization (FAO) and other United Nations agencies. Regional organizations serving Pacific Island Countries have supported different aspects of Fiji's fisheries sector.

Assistance is also received from the international development organizations such as the JICA that emphasizes sustainable fisheries development and management; the ACIAR that promotes research-based development of giant clams, pearl farming, and aquaculture; the World Fish Centre that has supported aquaculture, the Foundation of the Peoples of the South Pacific (FSPI) that advocate coral reef management, alternative livelihood; World Wide Fund for Nature (WWF) and Wildlife Conservation Society (WCS), which work in the areas of coral reef management, ecosystem-based management; advocacy institutions such as the Biodiversity Conservation Network (BCN); the International Ocean Institute (IOI); Conservation International (CI); and the Fiji Locally Marine Managed Area network (FLMMA) that promote community-based coastal resource management. Greenpeace and WWF advocate the sustainable use of the region's oceanic fisheries. These NGOs are assisting Government agencies and representatives in determining the sustainable resource use arrangements (Comley et al. 2003; Marnane et al. 2003; Bolabola et al. 2006).

Sustainable fisheries are the focus of fisheries management and development in Fiji. The Government agencies and NGOs are leading with funding, research and the promotion of different globally acceptable approaches such as Ecosystem-Based Management (EBM), Integrated Coastal Management (ICM) and the promotion of alternative sources of livelihood, food security and poverty alleviation. The success of these initiatives would ultimately depend on the proper understanding of cultural roles and the formulation of more efficient MMAs throughout the country.

3 CULTURE AND TRADITIONAL PRACTICES



Fish drive, Malawai Gau. Photo by Maleli Qera

Culture and traditional practices are intriguing study topics in these rapidly modernizing times. After the colonial era when most cultural and traditional practices of the colonised and minority groups were treated as out-of-date and irrelevant, the recent unrelenting interests in these practices are contributing to the resurgence and interest in this body of knowledge and practice.

At present, there is recognition and respect for the ingenuity and wisdom of cultural and traditional practices in different areas. In some cases, even some of the much criticised and discarded cultural and traditional practices such as cannibalism and infanticide have been re-examined under new light and better appreciated. For instance, in warring societies that were dependent on natural resources from their surroundings, these barbaric practices were important survival strategies. The eating of the slain enemies was important for revenge, group morale and psyche as well as the optimal use of available resources (Williams 1982; Veitayaki 1994a). Furthermore, traditional practices such as herbal medicine and traditional healing have been allowed in hospitals because they are suited to local conditions, accessible and cheap. In many instances, the people today are recognizing the ingenuity and sophisticated science in local culture and traditional practices that allowed these people to live in their demanding local environment for centuries before

they were integrated into the global Western European dominated system.

The interest and focus on traditional practices and culture are, in part, due to the inability of people in local communities, who use and own a significant proportion of the world's resources, to use the contemporary resource management arrangements, which are based in law and promoted by the Government. Added to this, is the deteriorating state of the world's resources caused by their over exploitation and the alteration of the natural environment that are threatening people even in the most remote places.

In this chapter, the focus is to highlight some features of indigenous Fijian culture and traditional practices that can be the basis of discussions in the following chapters.

3.1 FISHERIES

Spate (1959), Belshaw (1964), Nayacakalou (1975; 1978), Williams (1982), Wallis (1983), Routledge (1985), Ravuvu (1983; 1988b), Lasaqa (1984) and Seruvakula (2000) amongst others, have provided useful insights into the life, tradition and the transformation of indigenous Fijian society after the arrival of Western colonialists. These historical glimpses were important in providing noteworthy features of a culture that was ridiculed and often banished



Figure 19: Traditional outrigger canoe on display at the Fiji Museum. *Photo by Charlotte Bennett*

in spite of their relevance and use. Williams (1982:60-64) described how, side by side with the wildest savagery, was found a well-developed and sophisticated system of agriculture unmatched in the other islands of western Pacific. He reported on the skill and industry of the women who worked indoors to manufacture household goods and quotes Captain Cook that indigenous Fijians 'seem to excel the inhabitants of Tongataboo in ingenuity, if we might judge from several specimens of workmanship which we saw; such as clubs and spears, which were carved in a masterly manner, cloth beautifully checkered, variegated mats, earthen pots and some other articles; all of which had a cast of superiority in their execution' (Williams 1982:65).

Williams (1982:76) also highlighted the well-built and excellently designed indigenous Fijian canoes (Figure 19) that were a lot more superior to those of other islanders in the Pacific. Routledge (1985:17-18) concurred and added that the 'great war canoes of historical times were the constructive triumph of the age. The largest *drua*, plank-built and with an outrigger hull, were up to eighty feet in length and had a mast almost as high as the vessel was long. In addition to their crew, the canoes were capable of cramming over two hundred warriors on the deck between the hulls.' Likewise, the earth ovens or *lovo* (Figure 20), which were sometimes eight or ten feet deep and fifty feet in circumference and cooked several



Figure 20: Traditional way of cooking food in Fiji-earth oven or *lovo*. *Photo by Ola Bergset Ulvedal*

pigs, turtles and large quantities of vegetables and root crops, could show English roasters of entire ox or sheep how to thoroughly and equally bake the carcass (Williams 1982:147).

Land, which defined indigenous people, was held under customary ownership by a clan or group. Indigenous Fijians, who are known as *fleš of the land (leweni vanua)* did not previously attribute monetary value to land nor had any idea that land could be bought and sold for personal gain (Farrell 1972:38). Shifting cultivation, which provided the people with food for consumption, social obligations and exchanges, was available to all members of the group until it was replaced by permanent farming practices that marked the beginning of the modernisation process. By 1850, commercial activity had changed from collecting products to trading commodities and well-organised plantation agriculture. Land was by this time a commodity that could be individually owned and sold.

The transformation of indigenous Fijian culture has continued since and is associated with the current search for better solutions to the problems the people face. For instance, the present poor state of inter-island shipping and the search for renewable sources of power to replace the ever-so-expensive fossil fuel, has made people realise that the sailing that allowed their ancestors to move around the Pacific while their counterparts in Europe were



Figure 21: Preparing for a fish drive. Children learn traditional fishing methods through practice: *Photo by Soeri Rokoiga*

still stuck close to the coast for fear of falling off the edge of a flat earth surface, is a good example of an advanced and suited technology that has been abandoned for lesser appropriate introduced replacements. Like everyone else in the world, indigenous Fijians are now forced to pay exorbitant costs for fuel and machinery that they chose to replace their advanced, renewable, clean and cheap sailing technology.

Culture is localized and evolving. This is the reason why culture and traditional practices must be examined and used wherever appropriate to address contemporary challenges. While the changes are expected, the fundamental principles that form the basis of customary practices must be understood and not lost. These systems have been tried and proven and must be adapted to be appropriate.

Indigenous Fijians live in villages, which are the basis of their social and political organization. Originally small, the main size regulators in villages are the minimum viable defense force or the maximum number that the food supplies provide for (Frazer 1973:78–9). This is why ‘Most villages were ring ditched and sited to take advantage of any natural camouflage such as mangroves or twists in the waterways’ (Routledge 1985:33). While the majority of the villages have only one ditch, larger and more



Figure 22: Customary knowledge allow fishers to fish spawning aggregations: *Photo by Joeli Veitayaki*

important villages have sets of ditches with a complicated set of maze to make access easy only for the inhabitants.

Village size has increased over the years but the composition remains basically the same with each village consisting of one or more closely related clans or *yavusa*, whose members claim descent from a legendary founder. The clans consist of *mataqali*, which are functioning units charged with formal aspects of living such as owning and cultivating the land and include a number of extended families or *tokatoka*, which, in turn, are made up of individual households. The *mataqali* are allocated ritual and ceremonial responsibilities and have use and ownership rights over environmental resources such as land and customary fishing areas for their sustenance (Routledge 1985).

The village and other social units above it operate because the different groups consisting of *mataqali* and *tokatoka* as well as *yavusa* and *vanua* perform their particular responsibilities (Seruvakula 2000:21–29). From the different *mataqali* and *tokatoka*; *yavusa* and *vanua* come the chiefs, heralds (*mata ni vanua*), warriors and planters (*bati*), fishers (*gonedau*), priests (*bete*) and carpenters (*mataisau*). People know who they are and their roles and responsibilities because these have been pre-determined. The *gonedau*, for example, are from

known family groups and areas that are responsible for providing the fish and resources from the sea. For ceremonies, the *gonedau* will fish day and night to provide the catch required for these occasions. Members of the other social groups, in the meantime will be performing their given family-based duties because that is what they are expected to do to have a functional social system. Only members of the groups, who do not know themselves well, do not attend to their roles because of the negative reflections their actions have on their family and place.

The chiefs and their clansmen are the traditional owners and guardians of the land, waters, resources and the people in any place. Indigenous Fijians, in pre-contact days, did not attribute monetary value to land nor had any idea that land could be bought and sold for personal gain (Farrell 1972:38). Land was a highly valued social capital that was only given in exceptional circumstances such as a marriage gift to highly regarded female members of the group. The close ties with the land and sea are demonstrated in the customary practices where social positions were given to close relatives. Within the family, practical sessions were used to teach the younger generations skills and practices (Figure 21 on page 26). Girls' umbilical cords were taken to the reefs while those of boys were planted with trees on land to keep the ties with the sea and the land and the traditional roles associated with the sexes in indigenous Fijian communities (Ms Alisi Daurewa 2008 Personal comms).

Customary marine tenure (CMT) refers to the formal or informal ownership of sea space by a social unit or a group of individuals (Calamia 2003). Indigenous Fijian groups that own customary fishing areas determine their use (Figure 22 on page 26). The use of customary fishing grounds by outsiders is permitted, provided access conditions are met. The system is believed by some to hinder economic progress as the indigenous owners of the resources are given the right to determine the development undertaken in their areas. The fear at the time is that the indigenous people may not appreciate the significance of the proposed development projects to appropriately decide on them. In reality, the arrangement offers a system for the publication of the development activities, particularly their impacts, which affect the people who will live with the developments in their areas.

The location and size of the customary tenure fishing grounds are not based on biologically optimal management units but on historical developments, societal, traditional and geographic features. The sizes of customary fishing grounds and the quantities of resources there, as formalized by the determination of boundaries between the 1890s and 1996, are not related to the size

of the population that depend on them (Muehlig-Hofmann et al. 2005) but on how important the social unit was in the past. Of course, conflicts have arisen as the rights that used to be shared by word of mouth are recorded and codified, some times enriching some groups at the expense of others.

Village life has greatly evolved since European contact. The dense population and the intensive cultivation of cash crops are new features linked with the developing economic and political order while the established social structure saw the inclusion of two extra units (Routledge 1985). *Yavusa* combined into larger units known as *vanua* that consisted of one or more villages, *tikina* or district and were led by the chiefs of the largest or most significant group. By the end of the 18th century, federations of *vanua* had resulted in the establishment of *matanitu*, the flexible and fragile alliances, held in place by the force and loyalty to powerful chiefs that headed these confederacies (Routledge 1985). The three confederacies in modern Fiji are those of Kubuna, headed by the Vunivalu in Bau, Tailevu; Burebasaga led by the Roko Tui Dreketi in Lomanikoro, Rewa and Tovata headed by the Tui Cakau in Taveuni, Cakaudrove.

Shifting cultivation, that highly efficient and appropriate agricultural system, provided the people with food for consumption and social obligations. In the delta of Viti Levu, via or giant taro (*Cyrtosperma chamissonis*) was cultivated in a series of semi-permanent small plots that made use of the land and drainage. The plots, which presented a maze-like appearance from the air, required effort to build and skill to maintain, but provided high yield and continuous food supply (Routledge 1985:34). This system has been replaced by the permanent farming practices that are part of the modernization that continue today. Small and numerous gardens with multiple crops are replaced by large mono crops and plantation farms that require fertilizers, chemicals and the permanent use of large equipment that alter the landscape as well as the habitats.

Commercial intercourses between European traders and settlers and indigenous Fijians began in 1806 with the sandalwood and bêche-de-mer trade along the northeast part of Vanua Levu (Williams 1982:93). In 1864, the first Melanesian laborers were shipped to Fiji to work on the plantations. In subsequent years, some 20,000, Ni Vanuatu, I Kiribati, Tuvaluans, Tokelauans and Solomon Islanders were brought to Fiji (Narayan 1984:23), making the place the melting pot of races that it is presently.

Indigenous Fijian chiefs ceded their country to Britain and became subjects of Queen Victoria in 1874. For close to a century, the British laid the foundation for modern Fiji. In



Figure 23: Polluted island coastline in Macuata.
Photo by Maleli Qera

1970, with independence, the political leaders formalized Fiji's relations with the United Nations, the International Monetary Fund, the South Pacific Community now known as the Secretariat of the Pacific Community and the Pacific Islands Forum, and became a party to treaties and international instruments that influenced how Fijians governed themselves. Forty years after attaining political independence and after four coups in 20 years that demonstrated the complexity of the search for workable development direction, the people of Fiji are currently using the National Charter for Building a Better Fiji (Daurewa 2008a) to map their development into the future.

The role of hereditary chiefs has consequently declined from when they had determined life and death to the present when they are equal to their people whom they must convince at all times to represent to the best of their abilities. Individuals in these communities now take on more independent roles while the groups have to address many issues relating to their interests and obligations. Human rights and personal freedom are affecting life in Fijian villages, which the Government at present is trying to address and regulate.

Interestingly, the current attempt to chart the future of the country has involved the review of many of the institutions and organizations that have been part of modern Fiji.

The Great Council of Chiefs was suspended by the Bainimarama Government in 2006 and has since been disbanded while reviews have been made to the Native Land Trust Board, the i-Taukei Administration and the Provincial and Village development activities. At the village level, atonements are in place to ensure that villagers perform their duties and obligations. Good governance and leadership are emphasized to ensure that the people look after their interests and those of their future generations.

Over the years, Fijians in rural areas have become the poorest people in the country even though they own most of the land and natural resources. These people do not have regular sources of income and are mesmerized by the attraction of modernization. Consequently, village people have flocked into the urban centers in search of better life, which often eludes them given their rural background and limited contemporary skills. The hope is that the new arrangements will be good for the people and the country as a whole as the villagers attempt to be actively involved in the economic activities of the country so that they can share greater benefits from the proceeds.

Destructive fishing methods and bad land use practices have been blamed for the extensively damaged reefs and the dominant algae and seaweed cover along the coast. Other threats to customary fishing grounds include pollution from land-based sources (Figure 23) and sedimentation associated with poor farming and logging practices (Veitayaki 2006). Throughout the country, burning hillsides and the increasing use of pesticides are affecting the marine environment. Unfortunately, in the drive to involve rural communities in economic activities, sectors such as Agriculture, Fisheries, Forestry and Public Works cut corners to achieve their mandated goals without carefully examining the dire consequences of their activities on the environment. Expansion of development therefore has led to the loss and alteration of natural habitats, the introduction of pests, invasive species and diseases and the pollution of coastal zones due to inadequate waste treatment and inappropriate management strategies and practices. The destruction of coral reefs and seagrass beds, the loss of mangrove forests and wetlands and widespread pollution of coastlines are all illustrative of the extent of the problems that are part of Fiji's drive towards economic development.

Mosley and Aalbersberg (2002) in a study of the Coral Coast found levels of nitrate and phosphate exceeded levels considered harmful for coral reef ecosystems. In Mualevu, in Vanua Balavu, the villagers wanted to know why destructive chemicals were being promoted



Figure 24: Traditional food sourced from the environment. Photo by Randolph Thaman

and introduced to them so freely by government and development agencies when they were damaging to the environment. In Gau, the arrival of the taro beetle and cane toad was either due to the introduction of commercial taro tops or the poorly monitored transfer of road and building machines, and materials from elsewhere in Fiji. Sadly, environmental destruction has been regarded an acceptable trade-off for the development that the people needed. Government and the people have continued with the reactionary stand to address these negative ramifications of development rather than the cheaper and more effective preventative approach.

Customary roles and duties are blurry today given the modernization of life in Fiji. The traditional tenure system and resource management strategies that prevailed throughout the region in the past are eroded with the increased impact of colonization in the 20th Century (Govan et al. 2009:25). While traditional roles and resource use systems within the communities are still well defined, leadership structures, protocol, respect and beliefs are changing and the usefulness and relevance of born leaders are now questioned by an increasing number of people (Vunisea 2002).

Traditional marine resource management is being promoted as an alternative to existing conditions

where the people are mere spectators and the state is responsible for all the resource management activities. Unfortunately, this arrangement had conveniently freed the people to do as they pleased and not be responsible for the consequences of their actions on the health and state of the environment and the fishing ground because the Government alone is responsible for managing these resources. To make matters worse, the contemporary system has not worked well to address the increasing alteration and pollution of coastal habitats, the extensive damages of the reefs caused by the heavy and destructive fishing methods used and the regularity of the fishing associated with the high population that needed more and more food and income.

The success of community-based resource management in recent years is pleasing because of the concern that the *qoliqoli* and other traditional systems will not cope with the rapid exogenous change independently and hence fail to meet their role and obligation of managing the fisheries, which many believe they are capable of fulfilling (Anderson and Mees 1999; Muehlig-Hofmann 2008). Whilst there is strong support for the MMAs in local communities, there are people who perceive the initiative to be an attempt to deprive them of their customary rights to their environmental resources. In

Navukavu, there were those who questioned the length of the closure and the frequency of the periodic opening (van Beukering et al. 2007). In the Qoliqoli Cokovata communities in Macuata, in Vanua Levu, the high numbers of primary and secondary school drop outs, who already have limited livelihood options, were argued to add more pressure to the already diminishing marine and terrestrial resources of the area (Bolabola et al. 2006).

3.1-1 Food Sources

Food is symbolic to indigenous Fijians and is central to their traditional social and economic activities (*Ravuvu* 2005:41). On such an occasion 'there was provided for the entertainment of the friends assembled, a wall of fish five feet high, and twenty yards in length, beside turtles and pigs, and vegetables in proportion. One dish at the same feast was ten feet long, four feet wide, and three deep, spread over with green leaves, on which were placed roast pig and turtles' (Williams 1982:170).

Traditional food sources in Fiji are found exclusively within the surrounding environment (Figure 24). There are no external food sources except during special occasions when food is bartered or exchanged in the customary manner. During such exchange, coastal dwellers take fish and other marine commodities as offerings to their relations inland who will reciprocate with gifts of root crops and vegetables available on their land.



Figure 25: Traditional fish fences (*ba ni ika*) off the coast of the Bilo Battery Site, Navakavu, Rewa. Photo by Stephanie Robinson

Food sources include those that are farmed and those in the wild, which the people have the techniques to utilize. Local people periodically consume wild food sources to save up on their crops or substitute for failed crops. In addition, there are tree crops such as breadfruits, which periodically provide the staples when in season. The two sources complement each other to guarantee continued supply. Wild food sources are a bulwark against starvation in times of disaster and famine but the utilization of these resources often requires skills and knowledge.

People know how to prepare and consume normally poisonous giant taro (*Alocasia indica*), puffer fish (*Arithron stellatus*) and moray eel (*Gymnothorax fimbriatus*) and when and how to look for wild yams (Thaman and Clarke 1987) and food supplements. They quench their thirst when in the forest away from rivers by drinking from newly cut vines (*Eutada phaseoloides*, *walai*), sugarcane (*Saccharum officinarum*) and green coconut (*Cocos nucifera*). Areas of secondary growth are some times burnt to allow the people to locate wild yams (*Dioscorea nummularia*). Indigenous people observe customary practices that assure the building and strengthening of relationships that are important for food security and preservation. Some of these practices remain today (Daurewa 2007a) but are eroded due to the changes in village life.



Figure 26: Concluding a traditional fish drive in Malawai, Gau. Photo by Maleli Qera

The people practice different ways of conserving food. Indigenous Fijians are intricately related to each other through their social networks that enable them to freely borrow and share surplus supply, which is reciprocated in due course. Surplus breadfruit and cassava are buried in specially prepared pits to ensure that the surplus is saved for some time in case it is needed (Aalbersberg et al. 1988). Yams are harvested and stored in specially built houses while fish and other protein sources are smoked to allow longer storage and shelf life. Traditional turtle fishers work under orders from their chiefs who will reward them with gifts of food and property whenever they are successful (Williams 1982:90). Turtle catches are kept alive in stick enclosures called *bi* until they are needed while the fish caught in fish fence (*ba ni ika*) are alive until the fishers collect them for use. The wide range of fishing and hunting techniques people possess illustrate their extensive understanding of their food sources (Veitayaki 1995).

In the sea, people use passive as well as active fishing methods. Fish traps of all types ranging from woven structures such as fish traps (*dai ni ika*) to erected structures such as fish fences (*ba ni ika*) (Figure 25) and stone weirs (*moka*) demonstrate the local fishers' intimate understanding of their prey. Most fish traps are founded on the principle that most fish only propel themselves forward and cannot reverse. These types of

Table 4 Traditional Fijian Calendar

January	February	March	April
Abundant rabbitfish/ <i>nuqa</i> (<i>Siganus vermiculatus</i>), shellfish, <i>bivalves/kaikoso</i> ; <i>Trochus/vivili</i> ; land crabs/ <i>lairo</i> (<i>Cardisoma carniflex</i>) spawn; breadfruit/ <i>uto</i> (<i>Artocarpus altilis</i>). Early yams dug. Banana planted, <i>ivi</i> / Tahitian chestnut (<i>Inocarpus fagiferus</i>) and <i>wi</i> mature	Yam gardens mature. Offering of the first produce (<i>sevu</i>) to chiefs, landowners and the church – the people who are credited for the produce. <i>Wi</i> and <i>ivi</i> / Tahitian chestnut (<i>Inocarpus fagiferus</i>) plentiful, <i>dawa</i> ripe. Men fish for turtles, women make <i>ivi</i> (<i>Inocarpus fagiferus</i>) bread. Sugarcane planted	Crabs/ <i>qari</i> (<i>Scylla paramamosain</i>) mature and carry eggs. Harvesting of yam and construction of yam houses. Oranges ripe and new leaves of <i>ivi</i> / Tahitian chestnut (<i>Inocarpus fagiferus</i>) sprout. With Feb and April <i>vulai uca</i> – rainy months. Turtle fishing	Reeds/ <i>gasau</i> (<i>Miscanthus floridulus</i>) mature and flower. House building. Breadfruit, oranges, <i>kavika</i> ripen and the bigeye scad/ <i>tugadra</i> (<i>Selar crumenophthalmus</i>) is found in huge schools at sea and in river estuaries. Turtle fishing. Yam digging. March and April are <i>vulai kelikeli</i> – digging months
May	June	July	August
Yams mature and are harvested. A lot of chub mackerel/ <i>salala</i> (<i>Rastrelliger brachysoma</i>). Men use <i>vau</i> seine for fish. Building. Tarawa ripe. Yam digging ends and new gardens cleared and some early yams planted	Clearing of the new yam gardens begin. Silver biddy/ <i>matu</i> (<i>Gerres</i> sp.) and goldspot herring/ <i>daniva</i> (<i>Herklotsichthys quadrimaculatus</i>) are abundant. <i>Vau</i> seine in use. Oranges, <i>kavika</i> , <i>wi</i> , and <i>dawa</i> are ripe. <i>Kawai</i> mature	Abundance of octopus/ <i>kuita</i> (<i>Octopus</i> sp.); rock cod/ <i>kerakera</i> or <i>kawakawa</i> (<i>Epinephelus chalcostigma</i>). Preparation of the yam garden continues. June and July are <i>vulai liliwa</i> – cold months	Yam planting. Flowers are plentiful. Abundance of little priest/ <i>vaya</i> (<i>Thrissina baelomo</i>) and the continuation of July conditions
September	October	November	December
May to now is <i>vulai teitei</i> – planting months. Planting yams, <i>kawai</i> , <i>kumala</i> (<i>Ipomoea batatas</i>). Yams sprout and sticks are put in place to support the sprawling plant. Rock cod spawns and mango trees (<i>Magnifera indica</i>) flower	Breadfruit matures and sea worm/ <i>balolo</i> (<i>Eunice viridis</i>) fished. <i>Kawai</i> planting, <i>kavika</i> and breadfruit plentiful, <i>ivi</i> / Tahitian chestnut (<i>Inocarpus fagiferus</i>) in bloom - air filled scent of violets	Fishing of <i>balolo</i> , the maturing of crabs and the abundance of Spanish mackerel/ <i>walu</i> (<i>Scomberomorus</i> sp). Local fruits such as mangoes, breadfruit, Tahitian chestnut (<i>Inocarpus fagiferus</i>), <i>dawa</i> (<i>Pometia pinnata</i>), <i>kavika</i> (<i>Syzygium malaccanese</i>) and wild yams mature	Spawning of spinefoot, rabbitfish (<i>Siganus vermiculatus</i>) and trevally/ <i>saqa</i> (<i>Caranx ignobilis</i>). Banana planted. Some breadfruit.

fish are caught by the gills because their bodies, which are nearly always bigger than their heads are firmly stuck. Active fishing methods include *samu* when the fishers chase the fish towards their set nets by creating noise and disturbance as they proceed towards their pre-set nets. Veitayaki (1995) describes some of the fishing methods used in Fiji. Fish drives are communal fishing methods involving the use of long lengths of joined vines intertwined with coconut fronds or *rau* to herald fish that are required for special occasions (Figure 26 on page 30). Under the command of a master fisher, the people skillfully move towards the coast as the tide ebbs so that, at low tide, the fish are forced into a small circle that will allow people to make the kill, often as the prey is no

longer able to swim away. Empirical Fijian knowledge of their surrounding environment is exemplified by the traditional calendar, which guides people on what to do and what sources of food to harvest at available and different times (Table 4 above) (Williams 1982:101).

3.1-2 Farming Systems

The indigenous Fijians' agricultural systems of slash and burn, shifting cultivation and multi-cropping are sophisticated and well developed in many rural areas. With the crude tools that people use, the clearings are restricted. The undergrowth is slashed and then burned after it has dried. The burning completes the clearing, controls the weeds in the garden area and adds ash to



Figure 27: Multicropping in Navukailagi, Gau: Photo by Randolph Thaman

enrich the soil. The small size of the gardens and the use of the digging sticks minimize the damage to the environment, which will quickly return to its original state when given the time to do so.

The practice of shifting cultivation ensures that people continually move to new sites when productivity from the land reduces and weeds get more established. Cultivation on a piece of bush land lasts for about three years before the farmer moves to a new garden. Shifting cultivation allows time for the land to replenish itself; a practice that renders unnecessary the use of fertilizers, which is an integral feature of contemporary farming and is a potential threat to the environment. The fallow periods allow for the natural regeneration of vegetation through succession, the replenishment of nutrients and the elimination of weeds and pests.

Multi-cropping ensures that a wider variety of crops is simultaneously grown at any one time to allow continuous food availability that reflects the qualities of different crops. Even after a garden is abandoned and the farmer has moved to a new site, there are coconut trees, plantain, banana, breadfruit, wild yams or fruit trees that the farmer harvests from the old garden to provide supplementary provisions (Figures 27-28).



Figure 28: Multicropping in Lamiti, Gau. Photo by Kana Miyamoto

Furthermore, fire, hurricane, flooding and drought that are prevalent features of the environment are less destructive to crops like yams (*Dioscorea alata*) and sweet potatoes (*kumala*, *Ipomoea batatas*) compared to cassava, taro and banana. Wild food sources supplement the produce from the gardens and provide relief when drastic conditions prevail.

There are also intensive and semi-permanent systems of cultivating irrigated taro (*Colocasia esculenta*) and giant taro (*Cyrtosperma chamissonis*). These farming systems are still used today. Irrigation, terraces and swamp draining systems provide long-term crops that are less vulnerable to drought and pests and are easier to keep free of weeds, which make these farming systems attractive to people. This system of farming may also be useful in a world affected by higher temperatures and rainfall.

3.1-3 Traditional Medicine

Medicinal plants are freely available in the surrounding areas. The roots, barks, leaves and shoots of plants are used to cure all types of ailments that people suffer from. Knowledge of some of the medicinal plants is secretively passed down family lines and is not publicly known while others are more commonly available.

Some of the well-known medicinal plants used to treat common cold include *Terminalia catappa* (*tavola*), *Rhizophora* sp. (*titi*), *Physalia angulata* (*cevucevu*), *Bidens pilosa* (*batimadramadra*) and *Zingiber zerumbet* (*cago*) (Parham 1972). Cuts and sores are treated with *Mikania micrantha* (*wa bosucu*), *Cantella asiatica* (*totodro*), and young coconut roots (*Cocos nucifera*) (Wainimate 1997, Weiner undated). Healing power is possessed by specially blessed individuals whose gift to cure sicknesses and mend fractures and broken bones are associated with magical powers bestowed on them and their families. The medicine men and women are revered within their communities and are widely known.

The abilities to prepare and offer medicine are special gifts amongst indigenous Fijians. Some of the medicines are a concoction of plant parts, while others are extracts from one plant. Traditional medicine can be consumed directly or specially prepared. Some of the medicine is offered under specific conditions, while others are more relaxed in terms of requirements. Indigenous healing and medicine is cheap, easily available and used by people until they can get to a medical center. In some instances, indigenous healers have cured people who could not be treated in hospitals using Western medical science.

3.1-4 Social Relations

Indigenous Fijians live in well-defined social units that are the basis of their social groupings and activities. Their culture is founded on mutual respect, care for one's social group and people listening to each other and working together. The social groupings are strengthened by the relations people have. Elders are revered and obeyed because of their wisdom and experience while relations are respected and valued. Likewise, conflict resolution is based on humility, consultation, forgiveness and love (Nauqe 2008). 'It is our custom to be protective of our own people. We need to strengthen our ties with our people because we are all related. We cannot do that well if we do not know our own relations and ties' (Sefa Nawadra, 2009 Personal communication, Ucuivanua, Verata).

A fascinating feature of the Fijian social system is the close relation that people have. Indigenous Fijians recite common links and bonds that make them close relations. Complex social relationships in indigenous Fijian society is closely tied to the women because people have special rights in their mothers' place (*vasu*) and will always contribute to its glorification. Indigenous Fijians at times offer pieces of land to female members of their families who marry outside their group. This land is symbolically to be used by the woman and her descendants (*covicovi ni draudrau* - to gather the leaves to seal their pots) and is a reminder of the intimate ties between the groups – this is

one of the few cases where customary land is given out by the group.

Indigenous Fijians are related to one another because of where they are from and not only because they know each other. Social relations of *mataqali* (a respectful relation between people from the *Kubuna* Confederacy, which include the provinces of Tailevu, Naitasiri, Lomaiviti, Ra and parts of Ba), *tovata* (a respectful relation between people from the *Tovata* Confederacy, which cover Cakaudrove, Bua, Macuata and Lau), *tauvu* (jovial but close relation between people who have common ancestral gods), *naita* (jovial but close relation between people from *Kubuna* and *Burebasaga*, which cover Rewa, Kadavu, Ba, Nadroga and Serua), *takolavo* (relation between particular districts within *Viti Levu*) and *dreu* (jovial but close relation between the people from *Tovata* Confederacy and those from some parts of *Viti Levu*), are some examples of the social networks that guaranteed that people assist each other because they are related.

Burenitu people are *tauvu* to the people of *Vunaniu* in *Serua*. The same is the case for the people from *Vanua Levu* and *Lomaiviti* and between those from *Kadavu* and *Nadroga*. This relation is observed by people from *Burebasaga* and *Narocivo* in *Rewa* and between villagers from *Lamiti* on *Gau*, and those from *Natogadravu* in *Tailevu* or people from *Namacu* on *Koro* and *Malawai* on *Gau*. Furthermore, this relation is also observed between the villagers of *Vutuna* on *Nairai* and members of *mataqali Nabuni* in *Malawai* on *Gau*. These close relations, will as a matter of honor, try to outdo each other by their deeds but will be ready to stand up for each other when the situation demands it.

Coaching about the extended family relationships are undertaken in the villages and homes. Toren (2004) describes this social process by asking school children in her study site in *Sawaieke* in *Gau*, to draw the people having lunch at home on a Sunday, when people will normally gather in their social groups. The majority of the children reported having their grandparents and uncles and aunts who are known to relate stories about the group, their role and relations to the children. People also share stories about their totems as all indigenous Fijians have a bird, a fish and a plant totem. Protocol is well set up to allow effective communication within the network. During presentations in social ceremonies, these relations will be recited to strengthen and publicise the linkages. These close relationships are strengthened by inter-marriages, regular visits and sharing.

On some occasions, grandparents will encourage younger members of their families to accompany them to their gardens or to the sea to share with them their

knowledge and wisdom, which are learned through practice. On these occasions, the elders will plant trees for the children or bring cooked yams or fruits from the gardens to introduce and emphasise the relations with land. Similarly, the elders will take their younger siblings sailing, fishing to teach them about the sea. The same approach is used in determining people's social relations. The elders are role models who pass on the tradition to their children through practical lessons (Daurewa 2008b).

The importance of males in Fijian communities does not preclude the females from influencing and sustaining family and community affairs. Although they remain in the background, women either encourage or discourage the men about ideas or proposals they discuss. They are involved because the execution of numerous household chores and other social and economic activities for the welfare of the family, community, district, *vanua* and *matanitu* depend, to a large extent, on their support and resourcefulness (Ravuvu 2005:2).

Women are recognised and admired for their contribution and commitment. They are respected for displaying their specific female qualities in accordance with accepted values and beliefs and are greatly acknowledged for performing their role appropriately within the family and community hierarchy (Ravuvu 2005:2). In 'Fijian society then and now, a man's sister's son (and to a different extent her daughter) had a particular claim on his counsel, loyalty, assistance and even property. The sister's son was termed as *vasu* and the privileges became highly important in Fijian power politics, for it was established that when the men involved were chiefs, the entire resources of the chiefdom were mobilised to fulfill the obligation to the *vasu*' (Routledge 1985:35-36). Thus, 'a chief endeavored to contract high-ranking marriages with as many great families as possible, but success was something of a two edged sword.' More so, 'sons of the same father were of different rank according to that of their mothers'. This was very important because the ability 'to exact advantage without having to concede it to the same extent became a test of political success' (Routledge 1985:35-36). Additional examples that demonstrate the importance of *vasu* is described by Williams (1982:34-37).

Indigenous Fijian in their villages depended on their surrounding for most of their sustenance. They were predominantly self-sufficient and practised intricate exchange arrangements. Sharing with relatives ensured that the resources were efficiently used and that people looked after each other in times of need. Hoarding was neither practical nor necessary because people's basic

requirements were supplied through their kin-based networks (Narayan 1984:13). Economic specialisation and the production of durable goods that were characteristics of Western and Eastern civilizations were restricted because of subsistence, self-sufficiency and the use of simple technology in these societies.

The differences between the Fijian and Western economic systems are marked. Village labour in Fiji, for instance, included the entire village population of working age and was determined by the people's physical ability to work. Labour was generalised and therefore flexible, with a high degree of mobility between occupations and between households, between household use and communal use and between sexes and age groups (Nayacakalou 1978:107). Village labour could be mobilised on a series of principles, including the authority of the senior members of the household, or those of the local kin-group, senior members by virtue of age or sex; or people holding special positions within such groups.

Villagers were committed to put in unlimited hours when a situation demanded it. On such occasions, there was no time clocking and the reward was not gauged by the length of time put in by the individuals, but rather by the effort made to complete the tasks. "The major sanctions which will urge men to work are the considerations of one's reputation as a hard worker, the force of public opinion and a sense of obligation to the other members of the group who are carrying on the work" (Nayacakalou 1978:108).

People holding authority were respected and obeyed because they had greater knowledge and experience of the local context (Nayacakalou 1978:15). Planning was undertaken only to ensure success and minimise clashes of organised activities. The use of factors of production in Fijian villages was fundamentally an act of social service, not an economic one in exchange for one's labour, land or equipment.

The incentive to work in an indigenous Fijian community was based on the principle of reciprocity rather than monetary reward. The financial rewards that may accrue became a secondary consideration in a system where one "has obligations to one's own group; and one is involved in the obligations of one's group to other groups" (Nayacakalou 1978:119). In such situations, the compulsion to work was related to the knowledge that one day one would require the assistance of others. Public opinion was a powerful sanction for culturally acceptable practices and there was keen competition between groups that use the exchange system and

reciprocity to show one's social standing. The system gave indigenous Fijian society its structural strength and provided a safety net for its members.

The village economy is characterized by 'subsistence affluence' rather than the abject poverty that is prevalent in many other developing countries (Fisk 1970:1; Knapman 1987:1). People are self-sufficient and practice intricate and lavish exchange arrangements. Sharing with relatives ensures that the resources are efficiently used and that people look after each other in times of need. Hoarding is neither practical nor necessary because people's basic requirements are supplied through perishable goods using their kin-based networks (Narayan 1984:13). Economic specialization and the production of durable goods are restricted because of self-sufficiency and the simple technology in these societies.

Traditional goods had monetary value while the need for money in villages had heightened due to the needs for school fees, transport, church and government levies and the purchase of household goods. Consequently, most indigenous villages today have an economy with an intricate mixture of traditional reciprocity and contemporary money-based system. The challenge is to make this cross between the two systems more consistent so that people can meaningfully carve a niche for themselves in the modern system while maintaining their traditional values and customs – the Pacific Way.

Common social practices that are observed by indigenous Fijians influence their resource use methods. *Sevusevu* is an introductory protocol where the visitors' present *yaqona* (kava) (*Piper methysticum*) on their arrival to those they are visiting. The presentation is received and reciprocated by the villagers who are informed of the purpose of the visit and hence welcome their visitors. This protocol ensures that the people are informed about their visitors presence in their midst.

Sevu, is the offering of the first crop from the garden to the chiefs, the landowners and to the church as a token of appreciation for the land and the harvest. In Vanua Balavu, the *sevu* was offered during the Men's Circuit Methodist Church service around February when the first yam crop was harvested. The offer of money by people in paid employment is also practiced. *Sevu* demonstrates the people's appreciation of sources of production and the blessings that allow them to make a successful yearly harvest or employment.

Qusi ni buno (wiping of sweat) is a feast provided by a person or group to thank those who contribute to a collective effort that was asked for by the hosts. *Qusi ni loaloa* (wiping off darkness) is a similar gesture but on a much bigger level. This is a ceremonial presentation and the feast that is hosted by the village, the district or the province for those it sought assistance from in their times of difficulty and need. This is a ceremony to repay one's debt and acknowledge the assistance rendered to them.

As a matter of honor, indigenous Fijians do not speak the truth and express themselves in figurative terms to belittle their own contribution for fear of being judged arrogant, boastful and self-centered. Describing this custom, Williams (1982:155) related how on a number of occasions, he had received valuable presents of food that the donor had described as nothing much or not important. Humility is considered a virtue amongst indigenous Fijians, who despise ambition and drive for personal gain.

Matanigasau and *bulubulu* (atonement) is the presentation of *yaqona* or *tabua* (whale tooth) to seek forgiveness for any serious breach of protocol, norms and custom. A man who elopes with a woman will present a whale's tooth to the woman's families to inform them and seek atonement. Likewise, a person caught illegally fishing in the MMA will seek forgiveness and pardon from the village or district chief by presenting an offering of *yaqona* or *tabua* depending on the severity of the situation.

In other instances, people who feel that their misfortune and mishaps are associated with a wrong they or any of their elders have committed would make the same presentation to appease the spirits that they believe were punishing them. This form of seeking atonement is used by the turtle fishers of Qoma Island to ensure they succeed with a catch when they are out fishing (Veitayaki 1990; 1995).

Kana veicurumaki or the sharing of subsistence resources with people from other groups is a common practice between groups that share common borders. Verata people and those from Kubuna on one side and Dawasamu on the other observe this tradition which is practiced only for sustenance and not for commercial purposes. The practice allows an extension to the *qoliqoli* available to people who need to consult and work with their neighbors whenever they venture into their neighbor's territory. In Verata and Kubuna, the feeling is that they should continue to share their *qoliqoli* with those that seek to use it for subsistence but that commercial activities cannot and should not be supported this way.

Kerekere, is 'a system of gaining things by begging for them from a member of one's own group' (Capell 1991:95). It ensures that the surpluses are shared by people, thus preventing the accumulation of wealth (Nayacakalou 1978:40). Although no money is used and communal ownership of property is observed, people use goods such as *tabua* (whale tooth), mats, other artifacts and food to obtain and return favors (Nayacakalou 1978:102). This social kinship system is the safety net that enables people to meet their needs and live their lives.

The incentive to work in an indigenous Fijian community is different because the principle of reciprocity rather than the monetary reward is a strong determinant in whether one is involved or not. The financial rewards that accrue is a secondary consideration in a system where one 'has obligations to one's own group; and one is involved in the obligations of one's group to other groups' (Nayacakalou 1978:119). In such situations, the compulsion to work is related to the knowledge that one day a person will require the assistance of others.

Qalo (1997:38;134) referred to the local people's 'subsistence economy mindset' and how their conspicuous consumption affect their commercial activities. A person therefore, will take time off work or spend a great deal of money in a ceremony because that is the expected thing to do, according to custom, even though this is economically irrational (Watters 1969:198; Ravuvu 1988a:188; 1988b:73).

Public opinion is a powerful sanction for culturally acceptable practices. There is keen competition between groups that use the exchange system and reciprocity to show one's social standing. The system gives indigenous Fijian society its structural strength as the people work well in groups. Indigenous Fijians put in unlimited hours when a situation demands it. At such times, there is no time clocking and the reward is not gauged by the length of time put in by the individuals, but rather by the effort made to complete the tasks.

The major sanctions which will urge men to keep at work are the considerations of one's reputation as a hard worker, the force of public opinion and a sense of obligation to the other members of the group who are carrying on the work (Nayacakalou 1978:108).

People holding authority are respected and obeyed because they have greater knowledge and experience of the local context (Nayacakalou 1978:15). Thus, the use of factors of production in indigenous Fijian villages is fundamentally an act of social service, not an economic one in exchange for one's labor, land or equipment.

Many questions are being asked today about leadership at community level. Referring to the challenge, the former President, Ratu Josefa Iloilo warned that indigenous Fijians were facing a leadership crisis (Nawaikama 2008) and that they needed to better understand the modern system they were in and must appropriately look after their communities if they were to live comfortable and successful lives.

4 ORGANIZATION AND STRUCTURAL FEATURES



Installation of a chief in Sawaieke, Gau. Photo by Joeli Veitayaki

Indigenous Fijian organization and structure are integral parts of any activity undertaken in a local community. While kin-based relations remain the foundation in most villages, changes such as where people are, village location and people's education and vocation influence their role in their communities. Whereas power and influence over the domain was held together by force in the past (Routledge 1985:29), both the organization and structural features are currently based on different laws and motivations.

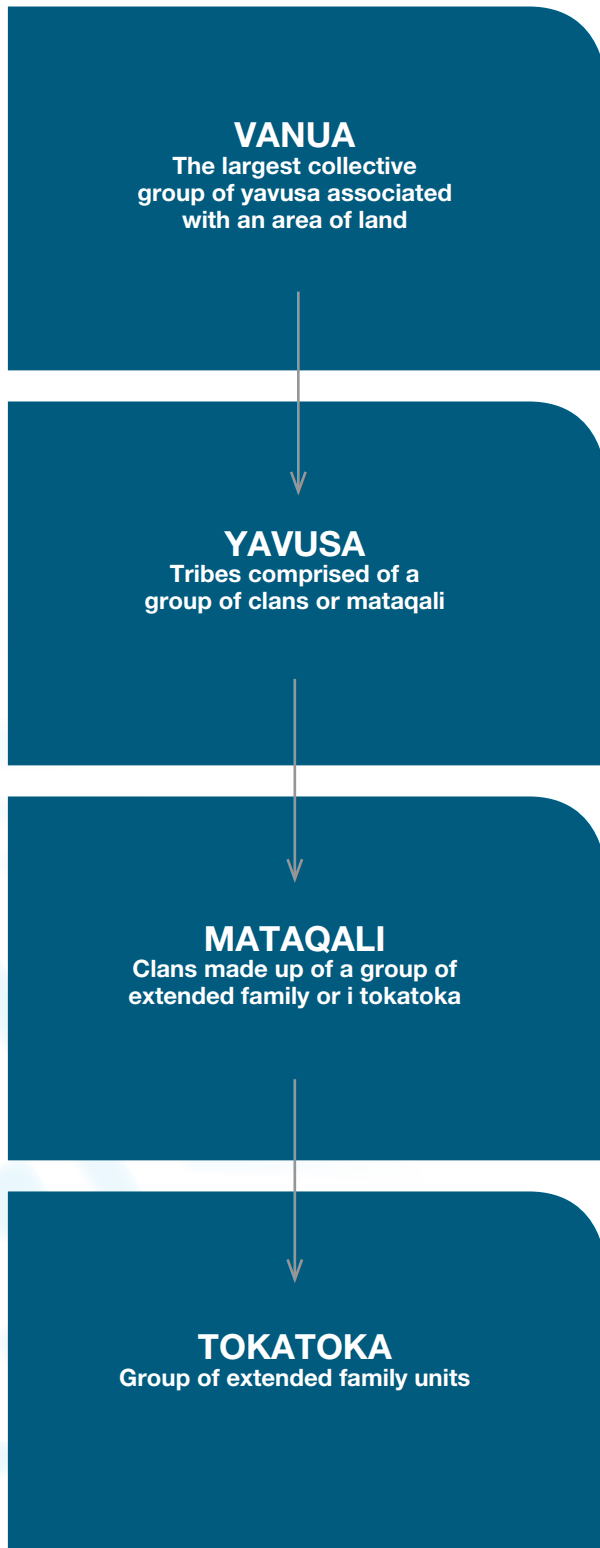
The organization and structural features in indigenous Fijian communities have been intriguing subjects of debate. While some people are happy with the status quo, others lament the apparent deterioration of indigenous Fijian endeavor. According to these people, the ineffective leadership, the lack of unity and progress, the weakening of traditional ties and practices and the apparent loss of morale as symptoms to the problem that can only be corrected through better organization of local community groups.

Local governance is critical for the attainment of the desired level of rural development for local communities. Although the organizations and structures are in place, the improvements of living standards in local communities have not really progressed at the desired level. While there are many explanations for the poor

performances, the lack of capacity and resources are major considerations given the scattered nature of coastal communities and the distance from the main centres. In addition, the effectiveness of governance is dependent on the communication between these main centres and each and every community in Fiji. While the Provincial Governments and Offices are responsible for their people, their weak and poor performance has been the subject of debate for some time. The poor performance, accountability and leadership have all been aired about local governments and are major reasons for their current review and modification.

At the village level, the *Turaga ni Koro* (village headman) is expected to plan, lead, implement, monitor and report on village activities. He therefore needs to be mature, successful, visionary and respected by all the villagers. The *Turaga ni Koro* is the villagers representative in all of the relevant committees that operate within and outside the village and is the point of contact for all outsiders. He is also responsible for the communication with the Provincial office and all other areas where the position of the village is required. Again, the current review of indigenous Fijian administration has resulted from the rather mediocre performance of these officers.

In this chapter, the focus is on the social and structural organisations and some of the commonly asked



questions such as: how rural indigenous Fijians should be organized; what system of governance should they be using; and how should the people be supported in their development activities? While some people are advocating a return to previous arrangements when personal rights were restricted and people responsibilities were more regulated, others are emphasizing the disparity between Fijian villages and those elsewhere and the new challenges that need to be addressed in contemporary Fiji. The current review of the indigenous Fijian administration is an attempt to address some of these concerns. In addition, the system adopted for use needs to be widely promoted to people who are confused, uncertain and lost amidst all the changes and alterations that are influencing community life in contemporary times.

4.1 SOCIAL ORGANIZATION

The *vanua* is the largest grouping of “kinsmen who are structured in a number of social units, the living or human manifestation of the physical environment, which the members claimed to belong to” (Ravuvu 1983). The *vanua* comprises the *yavusa*, which is made up of people in the village and consists of a number of *mataqali* and *tokatoka*. The *mataqali* is often the landowning unit while the *tokatoka* is the primary social division that springs from the subdivision of naturally increasing families (Figure 29).

The *vanua*, amongst the indigenous Fijians, refers to the social and cultural aspects of the physical environment identified with a social group (Ravuvu 2005). Thus, the *vanua* connotes the people and how they are socially structured and relate to one another, while on the cultural side, it embodies their values, beliefs and tradition. The people are *leweni vanua* (the flesh or body of the land), the social identities of the land and the means by which the land resources are used and protected for the sake of the *vanua*, people and their customs (Ravuvu 2005:76). Land thus is an extension of the self and the way the self is part of and an extension of the land.

On top of the basic social structure, two further orders of social groupings are formed, primarily as a result of the political process. Questions of prestige, or of protection against the predatory designs of ambitious neighbors, cause the *yavusa* to combine together by recognizing the chiefs of the largest or otherwise most important of their members as head of a *vanua*. The swearing of military allegiance and special ceremonies of installation, including the conferring of a title linking a chief with the locality of the *vanua*’ (Routledge 1985:28) and with political alliances are essential practices for maintaining order and control.

Figure 29: Social hierarchy in Fijian communities

'Some of the powerful chiefs proceeded to form confederations or matanitu by increasing their vanua's sphere of influence through 'conquest and the formalization of tributary or even by less dignified relations for the conquered' (Routledge 1985:28).

Contemporary indigenous Fijians regard *lotu* ("worship," "Christianity"), *vanua* ("land and people" in a particular territory under a chief) and *matanitu* ("bureaucratic government") as the tripartite basis of indigenous Fijian culture and society (Tomlinson 2002; 2004). They are the three 'pillars' of indigenous Fijian life. The *vanua* refers not only to the common people, but also to their chiefs and what they stand for, while *matanitu* designates the "bureaucratic national government". Institutionally, *lotu*, *matanitu* and *vanua* lead relatively separate existences, but their actors interact with great frequency (Tomlinson 2002; 2004). Thus, a village chief can be a lay preacher under the leadership of a village pastor, who may be a younger member of his *mataqali*.

Lotu and the *vanua* are powerful cultural entities with the most authority in any indigenous Fijian social institution (Tomlinson 2002; 2004). Friction is often culturally productive. *Lotu* and *vanua* involve different actors and discourse; they also carve out spheres of practical authority. While a church service is an affair of the *lotu*, conducted by preachers, pastors, catechists, and ministers, a kava session is an affair of the *vanua*, with the explicitly hierarchical order of seating and service, reflecting rank and role in society.

Vanua, *matanitu* and *lotu* have their own arrangements, which take up a lot of time and place a lot of demand on the people. The *vanua* means "place" and "land" with multiple meanings from microscopic to macroscopic levels and "people" specifically united under a chief and *lotu*, which means "worship", are closely linked and at times raise questions on which comes first and whether the church is for the *vanua*. In the word "*lotu*", there is the conjunction of religious action and its institutionalization; in the word "*vanua*" there is conjunction of geographic and social locations (Tomlinson 2002:1). The *vanua* is God's gift to people in an area. Ironically, the modern churches had demolished the *vanua* because of its association with the traditional gods and its institutions.

Kaci ni vanua is associated with the wishes and desires of the *vanua*. This concept is important because the declarations of MMAs are taken under this arrangement. In such cases, the chiefs and people make their decisions, which are adhered to by everyone in the community. People who disobey the decision of the *vanua* are ridiculed and expected to seek redress by performing the *matanigasau* or *bulubulu*, which is the

traditional offering of kava or whales tooth (*tabua*) for atonement.

Indigenous Fijians use a number of concepts to describe desired personality. *Vakaturaga* for instance, denotes that one's action and character is chief-like and befits the presence of a chief who shows and commands respect (*veidokai*), deference (*vakarokoroko*), attention and compliance, love and kindness (*loloma*), and humility (*yalomalua*) (Ravuvu 2005:103). A person displaying these qualities is highly regarded while someone who lacks them is ridiculed and criticized.

There is also the notion that tomorrow will take care of itself, meaning that life is to be lived and enjoyed and that the immediate needs are to be addressed first as the other things will be resolved as they occur (Ravuvu 2005:106). This principle discourages planning, drive and ambition and has been blamed for the people's lack of development and progress.

The village is the basis of indigenous Fijian social and economic organization (Overton 1993:99). Everything from the resources to the social and economic activities is controlled by the village, which is headed by the chief, the village headman, the head of government and the head of the church. Together, these leaders must collaborate to ensure the well-being of all the villagers, each having an important function. The system requires closer working relations to avoid clashes and conflicts in activities. In many communities, the complaint is that the three institutions are independently pushing their own agenda and are not properly coordinating their activities, which all require people's involvement and the use of their resources.

Village labour includes the entire village population of working age and is determined by the people's physical ability to work. Labour is generalized and flexible, with a high degree of mobility between occupations and between households, between household use and communal use, and between sexes and age groups (Nayacakalou 1978:107). Village labour can be mobilized on a series of principles, including the authority of the senior members of the household, or those of the local kin-group that hold special positions within such groups by virtue of age or sex.

The bases of authority have efficiency within definite limits; each can be evaluated relative to the others according to seniority and other social considerations and according to the immediate needs of the situation. There is some scope of individual choice and decision regarding the allocation of labour resources so as to achieve maximum work in all directions (Nayacakalou 1978:108).

Continuous westernization results in the transformation of village life (Bedford 1988). Subsistence and self-sufficiency are replaced by semi-commercial activities, while communal labour and ownership are replaced by paid labour and individual ownerships (Ward 1995:222-5). Chiefs are not all respected because the less popular ones, depending on how well off and successful they are, are sometimes ignored by their people.

Traditional goods and food sources now have monetary value, while the need for money in villages has heightened due to the needs for school fees, church and government levies, as well as the purchase of household goods such as building materials, sugar, clothes and cigarettes. Most indigenous villages have a dual economy with an intricate mixture of traditional reciprocity and contemporary money-based system operating simultaneously. Similarly, turtle meat that used to be exclusively for chiefs, are now shared with them and are sold for income.

Government attempts to involve indigenous Fijians in their villages in commercial activities have involved little success, making some people blame local cultural factors. These initiatives include the Auxiliary Unit's Operation Veivueti and the Qarase Government's Blueprint. The Army's Auxiliary Unit was to stimulate commercial activities in the villages after the coups in 1987. The unit operated at a loss but appeased the rural villagers who benefited by having their needs for market and income met at a point in time. The failure of the initiative was attributed to both the villagers' inconsistent effort and the project officials' inability to commit to operating standards that were critical for the success of the development.

After a while, the villagers lost interest in the project and returned to their own semi-subsistence schedules. The problem was exacerbated by the restrictions on what the villagers produce and sell, which were dominated by farmed and marine fisheries products. The project officials were mostly army personnel that lacked the skills to operate commercial ventures. As a result, goods were unsold or unaccounted for. There were cases where the produce was sold below the purchasing prices due to the deterioration of the products after acquisition. There were a lot of empty trips to rural areas by project officials because the local people, who were not ready for the visits, were not able to provide enough produce to justify the visits.

Similarly, the post-2000 Caretaker Government of Laisenia Qarase introduced the Blueprint for the Protection of Fijians' and Rotumans' Rights and Interests and the Advancement of their Development, by which indigenous Fijians and Rotumans were supported in

the form of legislative action and policy direction. The legislative action included a new constitution, land classes and ownership, leases, ownership of customary fishing areas (*qoliqoli*), the Great Council of Chiefs, a development trust fund, royalty and tax exemptions.

These attempts to uphold indigenous Fijians' interests and to involve them in commercial activities were laced with good intentions but did not improve living conditions in rural areas, where in some cases, they actually caused problems such as the overexploitation of resources such as fisheries and the relocation of village people to the urban centers. Moreover, these strategies focused only on development and not on conservation or resource management that were required for the sustainability of the process (Veitayaki 2000b).

4.2 ORGANIZATION STRUCTURE

An understanding of the social principles of indigenous Fijian society that provides a framework within which the people can be engaged with their beliefs, values, rituals and practices (Ravuvu 2005:v) is important to any study of Fijian culture. A good knowledge of when and how the principles of the importance of males, chiefs, extensive kinship ties, age and seniority, industry, loyalty, humility, perseverance, division of labor and reciprocity applied, allows meaningful appreciation of why Fijians behaved as they do (Ravuvu 2005; Kikau 1981).

At the time of European contact, indigenous Fijian communities were reliant on subsistence systems in which the bulk of the vegetable foods were cultivated or foraged from the surrounding forests and the marine fisheries caught or gathered from the sea (Golson 1972:17). Williams (1982:214) explained how 'Food of every kind abounds, and, with a little effort, might be vastly increased. The land gives large supply spontaneously, and undoubtedly, is capable of supporting a hundred times the number of its present inhabitants'. Fishing for reef and inshore species using traps, nets, spears and poison were widely practiced (Veitayaki 1990:50-5). Introduced domestic animals such as cattles, pigs, chickens, dogs, and wild terrestrial vertebrates such as lizards, rats and snakes were supplementary sources of animal protein in different areas.

The arrival of the explorers, missionaries, whalers and traders contributed to contemporary Fiji (Brookfield et al. 1978:1-7; Narayan 1984:15). Their introduction of metal tools and the seeds of various types of plantation crops such as sugar cane (*Saccharum officinarum*), coconuts (*Cocos nucifera*), cotton (*Gossypium barbadense*) and tobacco (*Nicotiana tabacum*) affected Fijian villages, which by this time were limitless in size and influenced by how close they were to urban areas.

The village headman, the Government representative in each village (*turaga ni koro*) is responsible for all development operations in the village. The headman coordinates the villagers' activities, leads the village meetings and attends the *tikina* as well as the provincial meetings where he represents his village. The provinces are administered by the provincial councils headed by a *Roko* (Provincial Administrator), who works with his assistants to coordinate development activities within the province and the *tikina*.

The 14 Fijian provinces constitute the three confederacies of Kubuna, Burebasaga and Tovata. There is a system of representation in all of these units but understanding of this system is eroding and not working well in some instances. The sharing of information with the representatives is also poor so that people often do not know what is going on, as the communication channel is not well established.

Leadership roles are important because upon these hinge the community's desire to work cooperatively with one another for their development. At the Great Council of Chiefs meeting on Nov 6th 1944, Ratu Sir Lala Sukuna warned that "Chiefs require a different type of training and preparation to perform their duties effectively in modern times. It is crucial that we are clear that our people will only be willing to be led by us if we perform our roles as leaders with vision, skill, courage and wisdom that transforms to better the lives they live" (Tu'uakitaui et al. 2003:ii).

Leaders are successful and highly regarded if they care for the community members, listen to them and invite them to be part of the decision-making process, especially when these concern them. Building and strengthening this relationship and adopting a more participatory style of leadership are challenging responsibilities in Fijian communities today (Nauqe 2008). There are chiefs and leaders at all levels of the social system and a well-established system of communication is necessary to allow the confederacies to organize activities involving all their provinces, *tikina* (district) and villages. The efficiency of the system is dependent on the users and their management arrangements. For good effective leadership, chiefs and leaders are to be trusted and not questioned openly; protocols are to be adhered to; group interests are to prevail over individual interests; 'others' are to be careful of the 'real' members; while disputes are to be resolved internally even if the wait is endless, remorseful and pitiful (Appana 2005).

After the 1960s, Fijians could choose where and how they live, how they allocate their time and their material possessions. If they want to, Fijians can pursue their

goals outside their villages under the system of *galala* or independent farmers, the alternative to life in the villages (Watters 1969:192; Scarr 1980:43), where indigenous Fijians live outside the commercial and formal sectors and are involved only haphazardly in the economic activities (Spate 1959:9). Nevertheless, indigenous Fijians are influenced and affected by external economic pressures and aspired for Western European lifestyle.

Modernization has not been wholly beneficial. Positive changes such as the improvement in living conditions and life expectancy have been balanced by the arrival of new diseases and the dispossession and displacement of indigenous people. The people are made to participate in economic activities that are crucial to the new governance system. For example, the 1967 Provincial Administration re-organization made major structural changes, which greatly affected village community life. 'Underlying these changes were new values and practices of which there was no prior counseling and training. In most cases, these changes had been imposed on villagers without any prior consultations and public awareness programs. It is not therefore, surprising that the villagers resisted these changes' (Tu'uakitaui et al. 2003:40).

Overfishing due to intensive commercial and subsistence fishing, has driven people further into deeper and distant areas, increasing their costs and threatening their livelihood. The people use more efficient, expensive and consequently more damaging fishing methods. Intensive fishing extends the fishing grounds while destructive traditional fish drives are still conducted in villages such as Uruone in Vanua Balavu, Denimanu in Yadua in Bua and Vanuaso, Nacavanadi, Malawai and Lamiti villages on Gau Island.

By the late 1970s, the traditional system in Fiji has been replaced by a nationwide trading system where all the connections were with Suva, the main urban center (Brookfield et al. 1977, 1978, 1979). Although the island communities by this time still produced much of their own food, they were also centers that depended on trade for their food, clothing, furniture, building materials, fuel and Western luxuries such as cigarettes and alcohol. The permanent migration of indigenous Fijian families into the main islands and urban areas started and caused depopulation in the outer islands.

Indigenous Fijians who left their villages for their independent farm dwellings or for urban areas believed that their communal tasks left them little or no time to pursue their commercial activities (Watters 1969:192–203). The independent *galala* farmers generally have more business acumen, energy, and strength of character than their kin in the villages (Frazer 1973:89) and were the first

indigenous Fijians to understand the conflict between village life and economic activity.

Some people viewed the *galala* or the freedom for people to choose what they want to do as a threat to communal living because some villagers undertook their community chores as if these were matters of personal choice. The social development issues faced today also raises questions about the relevance of the social administrative arrangements instigated by Government. The approach expects people to organize themselves and be involved in contemporary activities they are unfamiliar with. The decision by the colonial government to keep indigenous Fijians in their villages to protect them and safeguard their culture (Chandra and Gunasekera undated:43; Scarr 1980:11) has been blamed for their slow progress.

Indigenous Fijian villagers are, at present, transiting between their traditional and contemporary worlds and are not strictly adhering to their traditions and practices. Indigenous Fijians can settle outside their villages while the state has assumed the roles of resource owner and regulator. Under the Fisheries Act, the traditional resource owners are mere stakeholders in the state's decision-making process, relating to resource use and management. This situation represents the weakening of the traditional system and the transition to the contemporary arrangements where the state has sovereignty and sovereign rights within its borders and the people are free to determine their activities.

A third generation urban dweller had shared how her granddad, migrated from his village to live in Suva, was happy to see his children succeed in the new way. The man, who reminded his descendants that there were no poor indigenous Fijians, only "lazy ones", had left his village with his young family for medical treatment in Suva in the 1930s (Daurewa 2008a). He decided to raise his children in Suva to better prepare them for their changing world. The man was happy with how well his children performed in their urban schools and later in their work areas. In his home, the man insisted that the family conversed in their dialect, which was how he shared with the grandchildren a lot of his values and traditions. Fiji is now divided into those that are living in the subsistence and informal rural-based economy, and those that are part of the modern cash and urban-based system. The subsistence and informal economy are based on indigenous Fijian villages where community decision-making, resource allocation and management and community development are attempted using local technology and a high degree of local environment knowledge (Hunnam et al. 1996:49). The modern economy, on the other hand, is based on economic

activities that are part of the formal sector, largely based in urban areas and on the main islands.

The main objectives of rural development understandably emphasize the: creation of the necessary economic and social environment, which would stimulate and strengthen rural community development efforts; provision of an effective institutional framework for consultation, cooperation and involvement at the community level; coordination of the effort with existing agencies in rural areas at the most appropriate decentralized level; stimulation of rural communities to seek their own improvement, through the satisfaction of people's needs, through their own effort and resources and provision of advisory, technical, financial and other material assistance, particularly where economic benefits would result (Fiji, Central Planning Office 1980:302; Fiji, Ministry of Rural Development 1987a:1, 1987b:2; Fiji, Ministry of Rural Development and Rural Housing 1992a:3–4, 1992b:9–10, 1994:1, 1995:2–3; Fiji, Department of Regional Development 1996:2).

The Rural Development Administrative Structure (Figure 30 on page 43) shows how the development work in Fiji is coordinated between urban and rural areas and amongst different racial groupings in different areas. Indigenous Fijians in villages submit their development proposals to their respective Bose Vanua or Bose ni Tikina (District meeting), which prioritizes the proposals and then forwards its recommendations to the Provincial Council. The Council discusses and ranks these proposals for the District Development Committee, which in turn passes the ranked proposals to the Divisional Development Committee (Lasaqa 1984:146).

The structure allows for coordination and prioritization of the development proposals, but approval and implementation are time-consuming and do not augur well for communities seeking rapid attention to their needs. The process demands long-term planning of three to five years, which is often, not possible at the community level, where the needs are immediate (Nayacakalou 1978:15).

A typical case to improve rural living conditions in Fiji was the Community Development in Moturiki (Hayden 1954:9). The project was undertaken in the early 1950s to stimulate community development amongst villagers who were willing to be part of the development. However, instead of identifying and involving only those who were willing to be part of the project, the project engaged all the villagers in the island, who had different development needs. Project activities are highlighted in Box 4 on page 43.

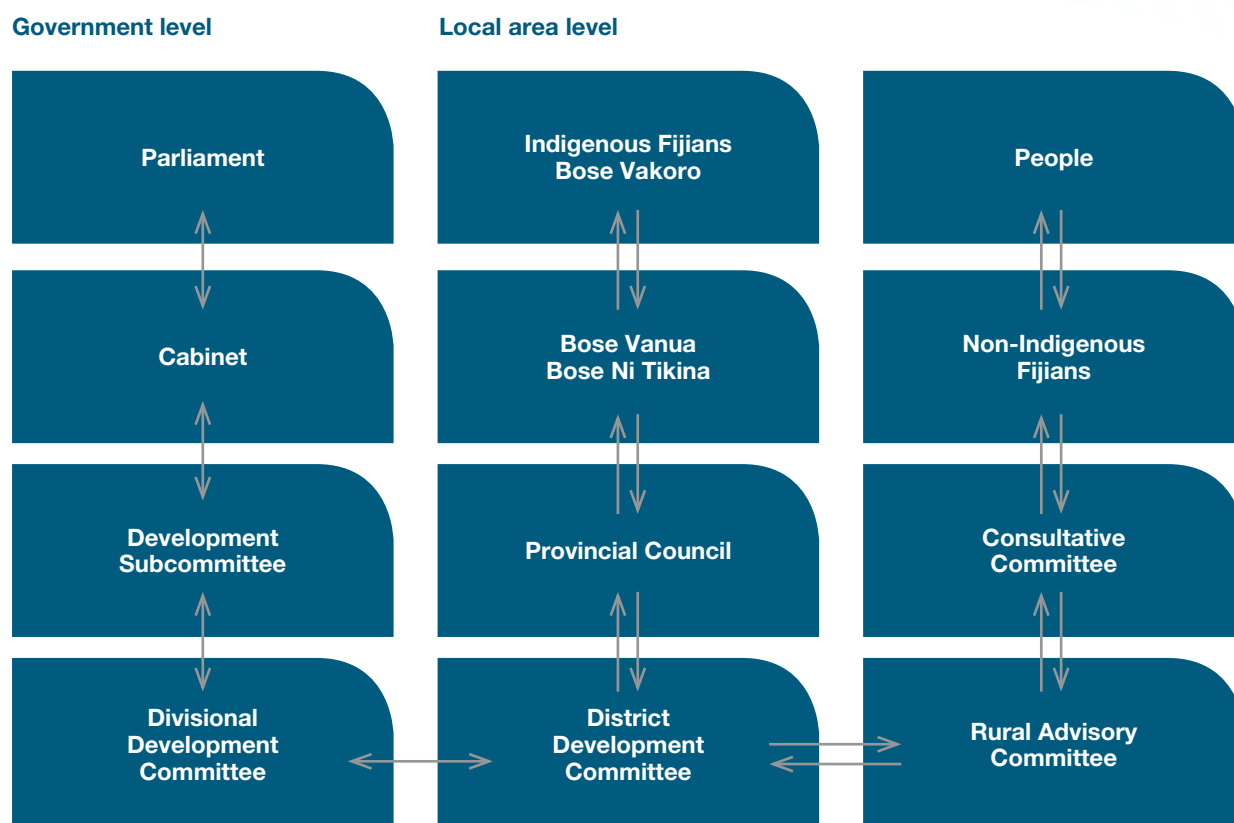


Figure 30: Rural Development Administrative Structure (Adapted from Lasaqa 1984:146-8)

Box 4 Moturiki Project Activities

The project activities included the following activities:

- Rebuilding of houses,
- Improvement of latrines and water supply,
- Copra and pineapple production,
- Formation of cooperatives for farming and marketing,
- Introduction of small livestock,
- Health education and nutrition,
- Development of local craft,
- A literacy campaign and the construction of a jetty and
- Promotion of the reorganization of settlement.

Through this development project, life in Moturiki, which was originally pleasant and leisurely with no food problems, was transformed to one that demanded steady work and organization to which the people were unaccustomed (Hayden 1954:6). The project demanded consistent effort and cash income. The developers were uncertain about the capacity of the people to meet the

demands of a regularized lifestyle and were convinced that incentives would solve the problem. This did not work.

The project failed for a number of reasons that remained relevant to indigenous Fijian development today. The people in their initial enthusiasm agreed to contribute 50

per cent of their copra sales income to a development fund (Hayden 1954:43, 51). This contribution was agreed to before the project started, but was later found to be burdensome. In the end, the people felt they were working only for the project and personally were not benefiting at all.

The capable and inspired leadership that was critical for community development was lacking, with one of the scheme Chairmen accused of misappropriating project funds, which is a common problem with community development. The people were not familiar with how the committees operated and kept on changing their resolutions. Other problems that were faced included a lack of cooperation when things were not done as the people wanted; jealousy, particularly amongst the women; the people only turning up to work when publicity was likely; and the influence of people's private affairs on official work (Hayden 1954:131). These problems are still evident to varying extent in the MMAs in Fiji and need to be addressed if the effectiveness and efficiency of MMAs are to improve.

Some scholars have been sympathetic with the indigenous Fijians on Moturiki and blame the failure of the project on the externally formulated top-down manner in which the project was designed and imposed on the people. Ironically, this type of approach led to the preference for bottom up as well as participatory learning and action methods. The project benefited the promoters of the project rather than the people of Moturiki, who were the intended primary beneficiaries (Watters 1969:247). There was no trained local leader and the project did not provide any tangible benefits at an early stage to justify the continued involvement of the local people (Spate 1959:79).

The high input from outsiders hindered the involvement of local people, who were soon disillusioned and desperate (Crocombe 1976:12). It was tragic that, after awakening hope and instilling new needs in the local community, the project team withdrew without ensuring adequate follow-up activities to enable the people to achieve their hopes and satisfy their needs (Spate 1959:79).

By the end of the 1960s, it was clear that the disparity between the different communities was increasing. Modernisation was promoted around independence in 1970 because indigenous Fijians' tradition, culture and social and cultural systems were regarded backward and a hindrance to Fiji's economic progress (Spate 1959:1; Burns 1963; Belshaw 1964:282; Watters 1969:12; Fisk 1970:3). Consequently, there was a concerted effort to transform traditional indigenous Fijian society into a modern society tailored on the European system. It was

the belief that the involvement of private enterprise and the achievement of economic growth would stimulate the development of the country through a trickle-down process. Commercial crops were introduced and promoted, while the people were levied taxes to pay for government services.

In many cases however, the initial enthusiasm in development activities in time 'slowly regresses to a slightly modified version of the old life' (Chung 1988:99). Indigenous Fijians need to master the new system, which they would only do well in once they have worked out how to organize themselves. This was easier said than done because indigenous Fijian culture was often contradictory to the introduced system. Nevertheless, the experiences of Mualevu Tikina, Lau Investment and Ba Provincial all exemplify successful indigenous Fijian commercial operations that are doing well today.

In addition, the experience of some of the villagers and galala farmers illustrated successful rural development initiatives and the appropriate revision of village life and organization to allow the people to operate commercial ventures. These galala settlers were the first indigenous Fijians to understand the conflict between traditional village life and economic activities; these people knew they had to move out of their villages to realize their economic and social aspirations.

The coups in 1987 and 2000, which were argued to be part of the attempts to address the ethnic problems associated with the colonial influence, prompted 'revolutionary' political and economic changes in Fiji. Positive racial discrimination that emphasised the needs and interests of the indigenous communities became the basis of government policies and strategies. The Army's Auxiliary Unit was established to stimulate commercial activities in the villages. The unit was originally allocated F\$20 million, which was reduced to F\$12 million because of the unit's limitations and lack of regulatory mechanisms. Like in other rural development initiatives, this project met people's needs at a point in time. The failure of the project was attributed to both the villagers and the project officials. The villagers lost interest after a while and returned to their own schedules. Furthermore, there were restrictions on what the villagers produced and sold. On the other hand, the project officials, lacked the skill to operate the venture. As a result, goods were unsold or unaccounted for. There were also cases where the produce was sold below the purchasing prices due to the deterioration in the quality of the product. Furthermore, there were a lot of empty trips to rural areas because the people who were not ready for the visits were not able to provide enough produce.

The Equity Investment Management Company Limited (EIMCOL) was another attempt to induce indigenous Fijians and Rotumans participation in the commercial activities. In this case, married couples were trained and allocated a store or supermarkets that were secured through a joint Government and Fiji Development Bank (FDB) operation (Fijilive 1999g, 1999h). The scheme set up eight stores and supermarkets. Like the Auxiliary Unit, EIMCOL failed because the participants in the scheme were ill prepared to operate these commercial ventures (Qalo 1997:96, 196). The shops were poorly chosen, as they were located in places where larger and well-established supermarkets provided competition for which these businesses were unaccustomed. In addition, there were allegations of careless buying and wastage by the people involved in the programme.

The affirmative policies were also supported by special loans from the FDB. In most of the cases, the results were disappointing because the people assisted were not the most appropriate to undertake the chosen development activities but were the ones who were in a position to benefit from the initiatives. In other instances such as with the sale of shares in the Fijian Holdings and the National Bank of Fiji (NBF) saga, the benefits of the affirmative initiatives were beneficial only to the indigenous elites. The majority of the people particularly those in rural areas were never affected.

On the other hand, the Lutu Cooperative in Wainibuka is exemplary of a community-based enterprise that has successfully operated for close to 50 years in the demanding local dairying and taro (dalo) exporting businesses (Figure 31). Lutu Cooperative is owned by Lutu Tikina, which consists of the three villages of Lutu, Nanukuloa and Navuniyaro.

The success of this initiative is attributed to good leadership and its motto to place people and their families above profit-making and the commitment of the people who genuinely aspire for a better life for themselves and their children. The Lutu Cooperative philosophy depicts the spirit of sharing and caring that demands that the people give their time, knowledge and experience to the cooperative activities, which has been diligently organized to yield returns that improve the living conditions in the district. The people choose farming, which they are well accustomed to as their source of livelihood.

The Lutu Cooperative emphasizes the Christian values of love and care for their people, quality in products, timely delivery and cost-effective operations. The Lutu villagers submit to the advice from their educated relations who although, live in towns and cities where they work as teachers, agricultural officers, lawyers and magistrate,



Figure 31: Lutu Cooperative nursery, Wainibuka. *Photo by Akosita Rokomate*

are intricately involved in the organization of the village operations. This is important because most of the villagers are unfamiliar with the opportunities beyond their villages where they have been most of their lives. This approach enables the villagers to work together and for the villagers to benefit from the experience, knowledge and skills of their urban-based relatives. The commercial operations in Lutu demonstrate the importance of getting the villagers trained and advised on the requirements of their initiatives and what they need to do to meet them.

The Lutu villagers designate the 10th of October each year as Lutu Day, when villagers from around the country return to Lutu to raise funds and review reports that explain the state of their Cooperative from their elected officials. The project emphasizes that the men take their responsibilities to look after their families and provide for their women as expected. The Cooperative Committee works closely with the church and chiefs to coordinate village activities while the people work to have equal share in all these activities. This initiative demonstrates the effects of good leadership, planning and decision-making to indigenous Fijian communal ventures.

The people have agreed to observe community rules on their use of time. For them to spend the maximum time working their gardens, the mainstay of their economic activities, the villagers decided to allocate all of their

working days to their farming activities (Figure 32). This decision allows the people to devote appropriate time to their development activities. The villagers also decided that all activities of the church, community and the government take place on Friday or Saturday. This revolutionary village decision has been conveyed to the district, province and Government officials to inform them.

In addition, the villagers have agreed on a kava drinking ban during the week up to Thursday so that the men and their women can begin their day at 5 am and spend about 7 hours on their farms, while only working during the part of the day when the sun is not at its hottest. This approach is widely known to people in farming communities but is often not possible given the way village matters are hap-hazardously organized. For example, kava drinking, extending to the early hours of the morning often prevents the villagers from an early start to work and shortens the time they have to attend to their daily activities while unplanned village visits and activities by village visitors normally disturb the villagers' programmes. The ban on kava drinking ensures that the people are not pressured into staying up late when they expect to have an early day the following morning. The ban also enables the men to spend quality time with their families and to observe and conduct family devotion. The families are required to operate joint bank accounts so that the family units work together to decide on the use of their money.

Over the last decade, Lutu Cooperative has supplied 20 tonnes (1 container) of dalo per month to New Zealand and earned around F\$30,000. The money is shared amongst the farmers who sell their dalo to the Cooperative to fill the next container. A balance of around F\$12,000 to F\$13,000 a month is made from each container of dalo purchased from the farmers. This money is used by the Cooperative to pursue development activities to improve the villagers' living standards. Lutu Cooperative also operates three dairy farms on freehold land it had acquired from the previous owners. The Cooperative had purchased these freehold properties and allocated some parts of the land to its members and plans, in due course, to sell these plots to interested members.

Through the success of these new and existing ventures, the Cooperative has contributed positively to improving living standards in the community - constructing footpaths, providing electricity and offering scholarships to secondary and tertiary students from the tikina. The villagers regard education as a means of advancing the lives of the community development. Lutu is, today, amongst the districts with the highest number of graduates in the country (Mr Eroni Sauvakacolo, personal communication, 2010).



Figure 32: Taro garden harvesting for export to New Zealand. *Photo by Akosita Rokomate*

The villagers of Lutu have realized that humans are the most vital resource for their development and growth. They are demonstrating that the best way to proceed with their community activities is to look after each other and focus on activities they are familiar with – farming and dairying.

This case shows that indigenous Fijians working together are a powerful unit. However, they need good leaders to realize their potential. In this case, the local villagers have agreed to be led by their educated elites, who provide the guidance and advice to benefit their people in the villages. The local elites, on the other hand, take their roles seriously and provide the best advice for their people, many of whom are unfamiliar with contemporary issues.

Referring to the importance of leadership amongst, indigenous Fijians generally, the former President, Ratu Josefa Iloilo once compared the Fijian leadership crisis to a broken oar in a storm and equated chiefs at the Bose ni Turaga as the oar to steer the Fiji boat through stormy waters (Nawaikama 2008). According to him, contemporary Fijian leaders can be blamed for sleeping on the job if they do not look after the interests of their people and that poor leadership and its problems hinder Fijian development. There is general agreement that Fijian chiefs and community leaders (including church) need to take into account their responsibilities and address these with the seriousness they deserved (Daurewa 2008a).

The suspension of the Great Council of Chiefs (GCC) by the Bainimarama Government is a fascinating development that raises interesting questions about the future role of the GCC and its influence on development in Fiji. Although vehemently opposed in its earlier years, Government activities to improve the lives of all the people, particularly those in rural areas is continuing to gather the support of the people. Most of the traditional leaders who now support the Government, have acknowledged their mistake in earlier opposing it. The review of the Indigenous Fijian Administration is being undertaken to improve the delivery of services to the people that require them as well as promote good leadership at all levels of society.

4.3 REVIEW OF INDIGENOUS FIJIAN ADMINISTRATION

The purpose of the Indigenous Affairs Act [Cap 120] and the establishment of the Indigenous Fijian (I Taukei) Administration are to provide 'good governance and wellbeing of the people' (Tu'uakita et al., 2003:7). 'The most difficult challenge facing Fijian leadership today is the conflict between traditional and the non-traditional values and practices' (Tu'uakita et al., 2003:10). For this reason, the Review Team has promoted a small-scale, more manageable approach to change amongst Fijian communities. In its view, the roles and duties are already in place and the challenge is to improve on the performance of these roles and duties at all levels of Fijian Administration, from the Village Councils to the Tikina, Province, I Taukei Affairs Board and the Great Council of Chiefs (Bose Levu Vakaturaga (BLV)).

Section 3(2) of the Fijian Affairs Act outlines the duty of the BLV to submit to the 'President such recommendations and proposals as it may deem to be for the benefit of the Fijian people, and to consider such questions relating to the good governance and well-being of the Fijian people as the President or the Board may, from time to time, submit to the Council, and to take decisions or make recommendations thereon' (Tu'uakita et al., 2003:13). Regulation 11 of the Fijian Affairs Regulation (1993) adds to the list the following duties: 'the Council to deliberate, review, formulate and determine issues, policies and legislation, touching on the rights, interests, health, welfare, peace, order and good governance of the Fijian and Rotuman people' (Tu'uakita et al., 2003:14).

Some of the identified cases showing the indigenous Fijians' lack of development include their:

- Key economic and resource development issues;
- Communal, joint resource ownership;
- Lack of legal titles and non-productive subsistence practices and lifestyles;

- Conflict with modern development values, needs, practices and lifestyle;
- Underutilization of human resource due to inadequate technical skills;
- Increasing poverty and youth unemployment;
- Under-achievement in education compared to other groups;
- Poor performance in financial, business and management operations, low-saving aptitude, poor investment competence;
- Poor time management, non-productive values, attitude, practices and lifestyles; dependency, lack of initiatives and loss of resilience; and
- Lack of quality leadership at all levels of governance from family, group, village, right up to the national level (Tu'uakita et al., 2003:16-17).

All of these issues and challenges have been identified since the colonial days and are worsening, despite the fact that indigenous Fijians have been in control of Government for all, except less than three years, since independence in 1970. The need for improvement of indigenous Fijian performance and those of their decision-making institutions, including the GCC is clear. Such improvement is needed in a surrounding where there is 'increasing knowledge, information and communication to complicate the view of people' (Tu'uakita et al., 2003:19). According to Tu'uakita et al. (2003), there is need for more proactive approach and leadership with vision at all levels. Indigenous Fijian leaders and decision makers need to foresee the conditions creating the issues that are important to their people and take action to address these (Tu'uakita et al., 2003:19). It is interesting to see what the Bainimarama Government is bringing in in these areas. Its stance to support rural development and to emphasize the responsibilities of local communities and leadership is refreshing and is expected to have far-reaching effects.

Good leadership at all levels is needed in Fiji. Indigenous Fijians are reliant on their leaders to direct and guide them and to embody good and exemplary qualities. In turn, people need to support their leaders by working with them. On many occasions, the indigenous people have demonstrated their strength when they work together towards a common goal. Whether in building a traditional bure, in planting a garden or in raising funds, great things have been achieved with exceptional leaders. However, when leadership had been unpopular, there is disunity and little achievement. It is also obvious when people withdraw their support because they are dissatisfied with their leadership.

This is the reason an observer supported the Government's undertaking to equally distribute the land

lease money and not to give more to the chiefs who have not been sharing these with their people as was envisaged. A result of the arrangement; only popular chiefs are sharing their wealth with their people while others are not, making one see the wealthy and poor in the same villages.

4.4 RESOURCE USE REGULATION

Indigenous Fijian societies have close relations with their environment. Some even have relations that defy logic but illustrate the intimate linkages people have with their surroundings. In Vanua Balavu, the people only fish the inland lagoon in Masomo after the bete (traditional priest) has authorized the fishing. On the chosen day, ceremonial presentations are conducted in thatched houses built for the fishing near the lagoon. Afterwards, everyone is expected to wade into the shallow lake where they sing and dance for up to six hours before they come out of the water after midnight. The fishers wear only skirts made from plant leaves and oil their bodies well. By dawn, up to 2000 fish can be collected from the lagoon (Koroi 1989:22). The priest's share will be placed on the special stone on the side of the lagoon.

Indigenous Fijians have traditional gods, which they revere. People in Cakaudrove for instance, have Dakuwaqa, their shark god while those in Kadavu, have an octopus. According to the legend, the people from both these places are protected when at sea because of a pact the two ancestral gods made after they had fought in a duel that was won by the octopus. To be spared, the shark promised to look after the people of Kadavu whenever they were in the sea. This legend was recently proven scientifically in that octopus, a mere invertebrate, overcome and kill sharks, the ocean's top predator.

Indigenous Fijians have local birds, fish and plant totem that depict their close relationship with nature. The association contributes to nature conservation as the totem restricts particular clans, families, age groups or sexes from catching or eating the species concerned (Veitayaki 2000a:120). This association with nature is exemplified on Vanua Balavu where in Namalata, the people have the Tahitian Chestnut or ivi (*Inocarpus fagiferus*) and saqa leka (*Caranx ignobilis*) as their totem. The villagers share food with those from Narocivo and Lomaloma where even the commercial fishers still offer the big giant clams (vasua) to the Rasau, their chief. In Tuvuca, the villagers' totem plant is damanu (*Calophyllum vitiense*), and their fish is tabace (*Acanthurus triostegus*) while vasua (*Tridacna* spp.) is the people's offering during traditional ceremonies.

In Cakaudrove, where the Tui Cakau is the overlord, the people do not eat their shark totem and ancestral god,

which protects them whenever they are at sea. In one such occasion where this relation was demonstrated, the former President and Tui Cakau was a passenger on a Fiji Navy boat on a surveillance trip caught in a freak storm near Conway Reef, when a big fish that was longer than the boat, propped the badly listing vessel until the storm passed (Fiji Times 1985; Veitayaki 2000a).

A similar story was reported during the last visit to Fiji of Her Majesty, Queen Elizabeth II of England, when a barracuda stationed itself at the landing spot at Suva Wharf prior to her arrival. The fish only swam away after the former President and Tui Cakau arrived at the scene. Such close association defied logic but was believed by the local people to indicate the mana and sau or supernatural power chiefs and gifted people possess (Sunday Times 1982).

Other special qualities and gifts indigenous people in specific areas enjoy include the shark calling observed in Lakeba and the turtle calling in Nacamaki in Koro and Namuana in Kadavu (Tora 1990:22). These extraordinary feats are associated with special gifts and extraordinary power such as that that allow the firewalkers of Beqa to walk on red-hot stones or unknown pregnant women to be stuck at the entrance to the cave in some areas such as Yasawa. In all these cases, people have special relations with features of their environment.

In Naigani, the trevally caught in a fishing ceremony sanctioned by the traditional spirit man, is eaten that day and not kept overnight. In addition, the un-severed bones are thrown into the sea in the morning for a new fish to swim away (Veitayaki 1990; Tagivetaua 2010a; 2010b).

Food prohibition and protocol are observed in Vanua Balavu as is the case in many Fijian communities. Whenever balolo (*Eunice veridis*) is fished in Susui, it is presented to Narocivo where the people of Susui are traditionally received and cared for (tadutadu). This type of social arrangement facilitates people's movement and activities outside their villages and depicts the close kinship relations and ties. Susui villagers determine if some of their catch is to be presented to the Ravunisa in Lomaloma. The people manage the kaikoso (Anadara antiquate) to use in traditional ceremonies.

Social relations make it mandatory in many parts of the country that, during traditional feasts, the chiefly mataqali and villages provide fish from the sea, the traditional food for the warriors (bati) while the bati reciprocate by providing the traditional pudding (vakalolo), pork and fresh water fish for the chiefly mataqali and villages. Turtles and trevally are the only two marine fish that are reserved for

the chiefs. These relations enhance people's connections and links.

4.4-1 The Situation Today

The practices used and observed by the indigenous people in Fiji have changed as a result of the situation they are in. The increasing population and the need for money have led to the intensive fishing and the sale of sources of food. The people are making decisions to suit them in the present with little or no regard for future generations. For example, when the villagers decide to fish commercially or to log their forests, they often do not consider the influence of that decision on the importance of securing food sources for future generations and the need for the people today to be good role models for their children.

It is also critical that people safeguard their inter-generational interest because it is easiest for them to ignore their long-term interest in the pursuit of short-term economic goals. Sadly, some people are driven by the need to maximize their catch to use their resources with the conviction that the future will take care of itself.

In a traditional fishing trip along one of the two rivers in Malawai, Gau, the head of the bati group conducting the fishing authorized the use of fish poison. The trip was successful and the people met their obligation after picking the sizable fish and discarding the rest, causing devastation in the river system. When confronted about the implication of what the group committed, their leader was unrepentant that he needed to meet his commitment to the village then rather than to future generations. This community leader was prepared to let the future generations fend for themselves as long as he was successful in doing the same now. This selfish position has been repeated in countless other communities as contemporary challenges and temptations are presented to local communities that are least prepared for them.

This situation is not too different from the fishers who are adamant they should be allowed to use three-inch-mesh nets because their parents have always used it. These people were oblivious to the damage caused by their ancestors' fishing activities over the years and believed firmly in the capacity of the environment to recover. Unfortunately, these people have not taken into consideration their own influence on the dwindling ability of the ecosystem to recover.

Traditional regulations are now not strictly observed and respected in villages because of the erosion and degradation of traditional authority. People no longer listen to the directives of their turaga ni koro [village headman] or the turaga ni vanua [chief of the village or

elders] and are doing their own thing and not integrating their activities with those of their communities. The individualism that is presently featuring in many villages is indicative of the lack of or weakening of organization and leadership in the villages and the desire and intention people have to improve their own personal positions. In some cases, religious affiliations are associated with this type of standoff. These changes in the local people's behavior and attitude contribute to the disunity, conflicts and division in their commune.

Village custom is rapidly changing as money is required in increasing amounts to meet the people's financial commitments that include subsistence expenses, church soli (fees/donation), levies and education for the children. In many instances, the villagers do not have any steady income source. This is where changes are required as people need steady sources of income and must now work to ensure that these are secured. The system of sharing and reciprocity (kerekere) in villages is fast becoming qualified as everything is paid for monetarily.

There are also many behavioral changes - 'sa sega na loloma' [there is no love/ pity/ kind-heartedness and care], 'sa sega na vakarokoroko' [there is no respect and politeness] (Muehlig- Hofmann 2008). Social problems that are faced include ineffective community leadership (which results in lack of respect), lack of organization, lack of communal sense and pride, lack of cooperation and lack of trust (Veitayaki 1999:13). These alterations are perpetuating the rapid changes taking place in villages. Youths are greatly influenced by Western culture and values, which clash with the traditional ways of life and contribute greatly to these changes (Muehlig-Hofmann 2008).

In many villages, the people have little time to undertake their own household work as they are regularly providing for and attending to their visitors whose arrival are often not well coordinated. In many cases, the different institutions in the villages are independently organizing their own events that require money and time. Moreover, there are often clashes in the different community-organized activities because of poor co-ordination. This places more pressure on the use of the resources as the need for money in the communities is too much for the fisheries resources to sustain. This is a reason why stealing from MMAs is common, even among some of the fisheries committee members and honorary fish wardens. The people have nowhere else to turn to meet their financial obligations.

The ever-increasing population and modernization place intense pressure and reliance on the environmental resources used for subsistence and commercial

purposes. In recent times, the self-sufficient societies have become part of the unlimited market outlets in urban areas and export destinations. The direct result is intensive and over exploitative resource utilization.

In Qoma, a traditional fishing village where the turtle fishers for the Ratu Mai Verata (chief of Verata) live, the people have changed their tune about the changes taking place in their fishing ground. About 20 years ago, the people were adamant that their God, that had provided for their forefathers and was providing for them, would also support their children and future generations. They are now unanimous that the fishing grounds have been affected by their years of use and that the only thing that can assist them into the future is resource management, conservation and the securing of alternative sources of livelihood. The people now have an MMA for beche-de-mer.

There is poor connection between the communities and the meetings at district (tikina) and provincial levels. Community representatives at these meetings often do not have an effective system to relay their messages so the people they represent are commonly ill informed. Village representatives who attend MMA workshops and training do not prepare well for them or did not effectively communicate their resource management initiatives on their return to their villages. The people are often unaware of what is happening.

The people used to blame other resource users that share the fishing grounds with them and are, at times, ignorant of their own impacts on their resources. There is now better appreciation of the impacts of people's many activities on their marine resources.

4.4-2 Resource Management

The main marine resources management practice in Fiji is the ownership of the customary fishing areas, extending to the outer reef slope, and the right to organize fishing activities within the specified area. Customary fishing areas are owned by different, but closely related, social groups (such as yavusa and vanua) that regulate their use and exploitation.

Customary Marine Tenure (CMT) is used in many Pacific countries as a form of marine conservation and management (Calamia 2003). Between 1986 and 1988, Manava Reef around Manava Island in Tavua was closed to all fishing activities. This measure was to enhance stock recovery because of the noted declines in mackerel (*Rastrelliger spp*) and mullet (*Mugilidae*) (Anderson and Mees, 1999:12). Similarly, Verata has not granted any commercial gill net fishing license since 1994 when the Turaga Ratu banned the fishing method after a resource

survey was undertaken by the Fisheries Department (Anderson and Mees, 1999:14). People use their own customary fishing areas, and those fishers seeking to use grounds belonging to others, are expected to get permission from the owners. This is not always observed in recent times, resulting in uncontrolled and highly exploitative fishing and conflict amongst adjacent groups.

Fishing grounds owners, from time to time, declare a portion of their fishing areas out of bound (*tabu*) to preserve the resources for an intended purpose such as a wedding, birth, or death-related ceremony (Ravuvu 1983). The villages of Naweni declared a closure of their *qoliqoli* in 1996, following the death of their chief, Tui Naweni (Anderson and Mees, 1999:11). The closure was not a conservation activity but was due to the observance of traditional protocol of paying respect to the dead. Traditional fishing rights however, are not just a means of conserving fish stocks. They have evolved, in part, as a means to minimize conflicts and distribute resources effectively, and are an intricate aspect of the social fabric of the cultures that possess them (Calamia 2003).

Different communities managing their local waters have established institutions to restrict gear, regulate spawning aggregations, impose minimum size limits, and establish permanent or temporal community-based marine protected areas, sanctuaries, or refugia. Customary marine tenure regulate marine-resource use, meet the social objective of guaranteeing traditional resource use, and is closely related to indigenous sea tenure system and territorial-enclosed entitlements observed in Kadavu (Calamia 2003). Anderson and Mees (1999) examined the performance of CMT in Fiji and Vanuatu and in their frame survey in Fiji reported an interesting range of management measures observed in 9 *qoliqoli* (Table 5 on page 51).

Traditional management arrangements are enforced through traditional authority, which means that there are protocols to be followed. Under such a system, the chiefs and the elders make the decisions and give the directives to other members of the group on the use of the resources. However, not all the decisions have been good as many of the traditional leaders have not lived outside their villages and are unfamiliar with the contemporary issues confronting them. In some villages, the people make good decisions that are quickly revised such as in Vunani in Serua and Tuvuca in Lau where the people started their MMA but then relaxed these shortly afterwards. In Kaba, the people asked their chief to reduce the number of fishing licenses offered to outsiders but they continued without reducing their own fishing activities. These cases show the challenges to be addressed in all Fijian villages.

Table 5 Range of Management Measures in 9 Customary Fishing Grounds in Fiji

Site	Types of Management Measures	Coverage	Explicit Intention	Implicit Intention	Observance
Namuka/ Dogotuki, Vanua Levu	Ban gill netting at night	Whole qoliqoli	Conserve fish/ eliminate waste	Improve equity of access for locals	Good
	Ban diving at night	Whole qoliqoli	Conserve fish		Fair
	Area closure to commercial fishing		Protect juveniles	Claims areas within combined qoliqoli	Good
	No license for Indo-Fijians	Inshore bays	Restrict access for non locals		Good
	Goodwill payment for licenses	Locals only	Finance community projects	Demarcate sub area	
Naweni, Vanua Levu	Ban on all fishing	Tacilevu village	Ritual purpose	Demarcate sub area	Good
	Ban on all fishing	Naweni village	Ritual purpose	Demarcate sub area	Good
Navadra, Vanua Levu	Ban on all fishing	Partial	Ritual purpose-death of tui (related village)		Good
	Ban on all fishing	One disputed reef	Protect resources	Enforce tui's claim to area	Good
Nasavusavu Vanua Levu	Goodwill payment for licenses	Commercial fishers	Finance community projects		Poor
Tavua, Vanua Levu	Goodwill payment for licenses		Finance community projects		Good (Indo Fijians) Poor (Fijians)
	Ban on set gill nets	River mouths	Protect juveniles and spawners		Good
	Ban on all fishing	Manava Reef	Protect resources/ giant clam project		Poor
Cautata, Vanua Levu	Ban on licenses for non locals	Whole qoliqoli	Protect resources for primary access right holders		Non-issued
Vitogo/ Vidilo, Vanua Levu	Goodwill payment for licenses	Whole qoliqoli	Finance community projects		Good (Indo Fijians) Poor (Fijians)
Yanuca, Viti Levu	Goodwill payment for licenses	Whole qoliqoli	Limit fishing activity		Poaching

In many areas, the licenses granted have not been properly controlled and were excessive. In Tavua, a total of 132 licenses were issued in 1992. 'However, there appears a unanimously-held belief amongst both indigenous Fijians and Indo-Fijian stakeholders that the number of unlicensed vessels operating in the qoliqoli is actually around 100 - 150 with one individual reporting that there were 300 vessels operating in Tavua' (Anderson and Mees 1999:14). This is a common difficulty in regulating fishing in areas where the total number of users has not been determined. This is why it is important for the Fisheries Department to work closely with the

customary owners to bring about effective resources management. This is important because some indigenous fishers regard resources management only as the reduction of outsiders' fishing effort while the local fishers carry on in maximizing their catches.

In Verata, Navakavu, Gau and the Qoliqoli Cokovata in Macuata, the social structure and close-knit units are used so that the people follow their tradition and respect for each other. In these places, the traditional system of retribution is an effective deterrent to others in the community (Siwatibau 1984). However, while adherence

for management is high in areas with good and strong leadership, compliance is weaker in areas where leadership is poor. In addition, these traditional ties are not recognized by those from outside the group, which affect adherence to traditional practices.

Although it is hoped that the bigger units and higher level of governance will be more effective in bringing about the welcomed changes, the reality is that the channel of communication is more complex at those levels, which poses challenges. Thus, the attempts are made to convey the decisions by these different groups through the social channels of communication to ensure that all the people are aware of the group's decisions and their role in managing their marine resources.

The engagement of the tikina is based on the strength of the social unit and traditional practices. These close-knit social units can enhance the enforcement of resource management practices if the people are convinced of the credibility and relevance of the activities they are to undertake. People are naturally reluctant to change and must be convinced that the proposed change will benefit them if they are to support it. This demands that the agents of change are trusted by people.

Resource ownership and traditional knowledge combine with local awareness of the need for instant action are the starting points for these community-driven ideas (Govan 2009:35). This is why community-based resource management is favored; it is easy to organize and can produce quick and effective results.

The involvement of local people is also significant because they own the resources and are taking care of their own interests by agreeing to manage them. This proves the strength of the traditional governance system (Daurewa 2007c). Traditional practices are easier to implement because they are known to the people, who remember their effectiveness and are directly involved. This needs to be understood and customized to complement and enhance the introduced concepts and systems for the sake of the present and future generations (Daurewa 2007c).

The concept of sacred ground is prominent in indigenous Fijian societies (Siwatibau 1984). Sacred fishing grounds are areas where special rules are observed. At such sites, fishing is conducted only when the traditional spirit man

(bete) grants permission, or when the special conditions and requirements are met. In Qoma, the villagers going to Cakau Davui (the sacred reef) perform the rituals of a visiting party and fish according to the rules that are widely known (Veitayaki 1990). Failure to observe protocol is believed to attract mishaps or failure. On one occasion, an unsanctioned fishing visit was so successful that the fishers threw their supplies and emergency gear overboard. On the trip back, the team encountered foul conditions and bailed their boat by emptying their catch back to the sea. They returned empty handed and cautioned others not to repeat their mistake.

The land and its adjoining fishing grounds are associated with the spirits that protect them. These spirits judge people's performance. In such cases, the environment is 'but an integral part of one's self, providing the physical manifestation of the vital link between the living and the dead' (Siwatibau 1984:366). Outsiders therefore, must observe the code of conduct in any area where they are visiting. It is expected that visitors make offerings (sevusevu) to publicize their arrival at a place. This practice ensures that the members of the community are aware of the presence of visitors among them, and protects the visitors from the wrath of the spirits who show offense when customary protocol is not followed (Siwatibau 1984). The arrangement also means that the customary owners of fishing grounds are consulted every time outsiders want to fish in their area.

The association with the supernatural ensures that the fishing grounds are respected and protected at all times and not only when enforcement officers are watching. In such cases, a close association is perceived between the living and the dead, whose spirits inhabit sacred areas and show offense when customary taboos and rituals are not adhered to (Siwatibau 1984). In Kaba, the customary bathing spot for the paramount chief of the Kubuna Confederacy is fished only when the chief requests the fishing. Otherwise, a complete ban on all fishing is observed (Veitayaki *et al.* 1996).

Among the turtle fishermen of Qoma, the belief is that the people need to please their gods by being righteous if they are to be successful in their fishing. According to the villagers, their ancestral spirits will provide for them a catch that meets the purpose for which the fishing was asked for and conducted. The fishers also know that

once a turtle swims through their net, then they will not catch any more on that trip (Veitayaki 1990).

The inland lagoon at Masomo in Vanua Balavu is fished by the community when the traditional priest authorizes it. On such occasions, the fishers observe strict protocol and are likely to be admonished and punished, if the rules are not observed. These strong beliefs make people adhere to the fishing traditions and customs, and render unnecessary the involvement of full-time enforcement officers.

The threat of retribution by the ever-vigilant gods is a continuous reminder to the people to behave and treat their resources properly. In Qoma, the turtle fishers will only catch turtles if they are righteous. In Natumua in Kadavu, pigs causing damage in the village is a warning to people that things are not properly done according to custom. In Verata, shark attacks are indicative of a catastrophic mistake committed to the vanua. For these reasons, some people are suggesting that the MMAs must be sanctified by the traditional leaders as well as by the church to be effective. Perhaps this is the reason why turtle management has not succeeded; it has not been supported by the chiefs to whom this is a delicacy offering by their people. It is obvious that the use of either the church or the traditional system is inadequate as most of the people believe in the power of both.

People's social links also influence fisheries consumptions and use. In Uruone in Vanua Balavu, the customary owners prohibit the use of gas and fish poison. The same activities are banned in Verata, but some people are alleged to be providing gas to the fishers. Several years ago, some commercial fishers were caught using scuba in Lau and Kadavu, without the knowledge of the customary owners. These fishers had compressors, gas tanks and diving equipment. On Gau, there are bans on the use of fish poison while in Tuvuca, the villagers were pleading for the reduced use of pesticides because of their negative impacts. People's social links also influence fisheries consumption and use.

Fishing is traditionally solely for the *gonedau* (fisherman). This changed as people fished for subsistence and income, making it difficult to control the fishing. The Tui Macuata, a local community conservation leader, was charged for larceny when he authorized the confiscation

of fish from some fishers he was told were fishing illegally in their customary fishing area. This action was unlawful and, according to the Government, unacceptable because customary fishing rights owners have no right to charge fees other than what is stipulated by the Government, which is responsible for the management. Government must also be mindful of the importance of marine resources to people.

For a good part of the country, the *qoliqoli* is impoverished because the people no longer observe their tradition and are fishing at a higher level. Given the higher demand for fisheries products, the resources are no longer adequate to allow people to carry on as they have been doing. In Susui, Vanua Balavu, there is depletion of trochus (*Trochus niloticus*) and bivalves (*tofe*, *vivili*, *kaikoso*) as well as *bêche de mer* (*Microthele fuscogilva*; *Microthele nobilis*; *Actinopyga mauritiana*); all of which are important sources of food and income. This is why it is now appropriate to promote more concerted effort to articulate sustainable development within each and every community.

Most of the indigenous Fijian fishers are still based in traditional villages in rural areas where appropriate institutional arrangements and structures are needed to allow for strategic planning and implementation. Indigenous Fijian villagers need to be better organized to improve their living conditions and prepare for the challenges the future is expected to bring. This is why many coastal communities have organized their own resource management arrangements. These communities are aware that the better management of their fishing grounds is too important to be left to chance and have taken the difficult decisions to manage their food sources for the sake of their future wellbeing.

5 MARINE RESOURCE MANAGEMENT INITIATIVES



Mangrove groves in Navukailagi, Gau. *Photo by Randolph Thaman*

The popularity of MMAs in Fiji and other parts of the Pacific Islands region testifies the attractiveness of traditional resource management arrangements to people who have some experience with them. Although formulated long ago, the people are familiar with the arrangements and have witnessed their effectiveness. The use and endorsement of these management arrangements by local communities with ownership rights to these areas are indicative of the relevance of the approach and the lessons that humanity across the globe can learn from these traditions. The revival of traditional resource management presents a welcomed alternative to contemporary methods that have not worked as well as expected. Ironically, this traditional resource management system was ignored and discarded after contact when the western European system was introduced. Fortunately, indigenous Fijians have kept some of their traditional practices that they now turn to as the basis of their community-based resource management activities. The challenge now is to convince the people to use their traditional practices to strengthen their science-based contemporary methods and lead initiatives to manage their marine resources, which are critical for their sustenance and development.

While the preparation for and the setting up of this approach is time consuming, it is relatively easy to

organize as the local people are familiar with the system and its effectiveness and can easily be actively involved. However, the experience over the last decade, which has seen the proliferation of community-based resources management, has highlighted the challenges that need to be addressed in making traditional resource management arrangements effective under existing conditions. The lessons discussed in this chapter are particularly relevant for various reasons.

Experience with MMA in Fiji, as examined through a number of examples in this chapter, depicts the traditional system or what is left of it. The complexities surrounding the application of MMA in Fiji demands proper review to find the best forms in which it can be incorporated into the contemporary methods. Following that, the issues of gender and youth involvement are discussed while the chapter concludes with the examination of the integrated resource management approach now tried in Vanuaso Tikina, Gau Island, as well as in other parts of the country.

5.1 MARINE MANAGED AREAS IN FIJI

The declaration of MMAs in different parts of Fiji follows the engagement activities such as the organization of consultation meetings, resource awareness and management workshops and trainings by conservation organizations, education institutions and local

communities. These meetings are normally held at the invitation of local communities that want to manage their marine resources. In many of these predominantly rural communities, the MMA activities that are organized and observed subsequently diffuse into adjoining areas.

Indigenous Fijians and other Pacific Islanders are more tuned to the problem of depleting resources and its solution. The people in these subsistent societies are aware of the consequences and limits of resource exploitation and the facts that heightened catch or overfishing in an area can only be effectively solved through an initial reduction in fishing effort. The people know that they have to stay away from the resources if more is to be attained later or if the resources are to recuperate. Unfortunately, this knowledge and understanding is now ignored or forgotten by people who argue feverishly about other ways of solving the problem without reducing the fishing effort.

At the moment, more than 200 villages from the 14 provinces in Fiji have established some form of community-based resources management measures. The numbers of MMAs in Fiji have increased progressively due to the widespread concern about the sustainability of the marine resources in coastal communities, the diffusion of information and skills from village to village and the promotion of the needs of interested communities that have been met (Govan et al. 2009:35).

Following the community workshops, which promoted the importance of resources management, the options that are available and the actions to be considered by the local communities, the expectation is to have the traditional owners take leadership and make relevant and appropriate resource management decisions. Tabu or “no take” areas have to be declared by the chiefs and their people and at times marked by the traditional practice of planting a tree branch in the designated MMA. In some instances, there is also the traditional presentation of yaqona and the dedication of the area by the church. While the people are free to observe whatever arrangement they choose, the traditional protocol is observed to enforce the management decisions and inform the people of the prohibition in the area.

Unfortunately, the customary practice of planting tree branches at sea or placing marker buoys to notify people of the protected status of the area also attracts attention from illegal fishers. Marker buoys that were used initially to keep local people away were later removed because they were providing an open invitation to outside poachers

who were targeting the MMAs. There was also concern that MMA maps showing the boundaries were being used to reach the areas of special significance.

In Ucuivanua, Verata, clam (*Anadara* sp.) harvesting was banned in Lomo, Wailevu, Daveta and Matana ko Verata. These sites belong to different chiefly families, who, for some time after the passing of the last Turaga Ratu Mai Verata, had periodically authorized the relaxation of the tabu on their own fishing grounds after their respective mataqali members approached them. Sadly, some of the villagers took advantage of the situation and repeatedly approached their chiefs to circumvent the community's resource management stand for any family, mataqali or village obligation. After two MMA follow up workshops in the village funded under the Culture Roles study, the chiefs got to know of what was being done and vowed to better coordinate their conservation effort to lessen the occasions when the prohibitions are relaxed. In spite of these lapses in the management activities, everyone in Ucuivanua agreed that the MMA has reduced the fishing effort that is critical for the stock enhancement that eventuated.

Interestingly, the establishment of MMAs has elevated the importance of fishing as a source of income. In the majority of the households in Waisomo Village, Ono in Kadavu and northeast Macuata, fishing is still the number one source of income to meet the family obligations and household expenditure (Tabunakawai et al., no date). In other places such as Gau, there is an upsurge in commercial fishing activities, which has presented a huge challenge to resource management because of the large amounts of money now demanded in rural communities for education, church activities and other social commitments. Consequently, fishing has intensified in many of the MMA areas and is a serious threat to resource sustainability given the poor resource management and control measures in inshore fisheries in Fiji.

Unlike in the past when most of the fishing was conducted in groups under strict traditional guidelines, fishers today go out individually to fish when and wherever they like. This is one of the reasons why the declaration of MMA is difficult to monitor today because fishing is undertaken individually and marketed externally, resulting in the overexploitation of targeted species (Tabunakawai, et al., no date). In the heavily exploited qoliqoli, resource management is critical because fishing pressures have increased greatly and are no longer sustainable (Muehlig-Hofmann 2008).

MMA throughout Fiji have been determined by people who are aware of the choices they have made and are convinced of the need to manage their environmental resources. The MMAs are timely and show real commitment from their owners to look after their wellbeing and the interests of their future generations. This comes at a time when most other resource owners are focused on maximizing their fishing effort given the desire of their people today to use their fisheries resources to improve local living conditions. By comparison, fisheries management by the State and the public sector partners has been much more difficult to agree to even though the signs are obvious. Fisheries stakeholders in a contemporary set up often cannot agree on a cause of action unless legal instruments are in place to direct and support the cause of action. The situation is also difficult if the State is not taking a proactive role in the declaration of *tabu* or prohibition areas.

The maintenance of the MMAs is demanding as the people need the resources including the institutions and capital to enforce their decisions and must change some of their activities such as the reduction in the reliance on fishing as a source of income and the focus on appropriate non-fishing activities to allow for the protection of the marine resources that they depend on. Resources such as patrol boats and fuel budget are required for effective control. Institutions and legislations are also needed to support community-based management activities. This is where innovative and creative leadership is required at all levels to provide alternative sources of livelihood and arrangements.

The rapid disappearance of traditional knowledge and the lack of interest amongst younger people, have serious implications on the management of marine resources by coastal communities (Ruddle 2008:13). In all of the coastal villages, the people need to manage their environmental resources better today if they and their future generations are to enjoy the use of the same resources in years to come. Local resource management action is required so that the resources people use, have a chance to recover. In addition, regular follow-up activities are required to introduce new ideas and techniques to those that share their resources and to consolidate the involvement of local communities in the management of their MMAs.

Unfortunately, community awareness and empowerment have not reached all the people in the villages with MMAs in spite of all the workshops, meetings and follow up activities undertaken in these communities. In Ucuivanua, Waiqanake, Kubulau and Gau some of the villagers particularly the women and youth claimed that they know little about their MMAs and the activities

related to them because they were busy cooking and catering for the meetings and because of poor follow up communication within the village. The people of the village often are not well informed about what is going on in their villages. Moreover, the representatives of local communities to the MMA meetings and training workshops allegedly are not effectively sharing the information they acquire at these meetings and hence remain the only ones in their communities that know about their projects activities and plans. For this reason, village training and meetings must be encouraged within MMA sites because it is unrealistic to expect the whole community to know about their resource management initiatives unless these have been widely publicized in the community. It is also important to target those people who for some reason were still not involved in the communication and promotion of the project activities.

In a study in Tikina Wai and Tikina Cuvu in Nadroga, Sano (unpublished) explored the perception and behavior of individuals in a community to understand why some people followed the MMA rules while the others did not. She contended that people's behavior is shaped by their day-to-day social networks, including many of the social customs, norms and bonds that defined them (Sano unpublished). According to Sano (unpublished), these practices are measures through which social capital in rural areas is translated into MMA action.

The Turaga ni Koro or village headman in Votua Village in Cuvu Tikina, used to ignore the MMA because he wrongly believed that the MMA was for the district chief's sole benefit. The man had objected to the chief's declaration of the MMA because he thought that the chief has disrespected his birth right in his *kanakana* (the place to secure sustenance from), a place where he could fish whenever and however he pleased. A follow-up workshop in his village some years later clarified the issues for the man who vowed from then on to support the initiative and promote it to the children and youth in his village. The man used to oppose the MMA because he did not understand the reasons why he and his people were being disallowed from using their marine resources. At the workshop, the man was made to realize the importance of the marine resources to him and his people today and in the future as well as their responsibilities in maintaining the resources given the challenges to make the MMA more effective.

Tradition in many instances does not allow women to be equal with men in the village decision-making circles, which is unfortunate as women are responsible for gathering inshore fisheries resources and have unique knowledge of them (Aalbersberg, Tawake and Parras 2005:150). In many Fijian societies, men make the final

decisions about family or clan activities but are expected to consult the womenfolk who are responsible for half of the household chores (Ravuvu 2005:8).

The MMA activities have helped the women to cooperate more and be better organized and coordinated. Women go out to the reefs together to collect fish and invertebrates for visitors undertaking studies in their villages and greatly affecting their interaction in a positive way. These women are also assisted to improve their position and work.

Sadly, women are still not represented in some of the MMA Committees, where it is important for them to voice their advice, concern and criticism of the way the Committee is doing its job. In the Navakavu Qoliqoli Committee, the women rarely have anything to do with the MMA management despite their regular fishing activities, meetings and institutions. Committee members regard women's roles in the community as "homemakers" and not "decision-makers" (van Beukering et al. 2007). This position is slowly changing as the importance of women as resource users and contributors to the formulation and implementation of effective resource management strategies is realized.

In Verata, the story is different as the women collect and monitor the kaikoso (anadara) so that the men can make the decisions, regarding the management of fishing activities. For the continued success and sustainability of the MMAs, the better involvement of women and youth need to be addressed (Aalbersberg, Tawake and Parras 2005:150) so that their contribution is recognized and used.

For the past three years, the women of Waitabu have been selling handicrafts and hand-woven mats and cloth to the tourists visiting the Waitabu Marine Park in Taveuni. The greatest sales come from visits by large tourist groups or cruise ship passengers, but the sales vary greatly with some women selling everything they offer, while others barely selling anything at all. This marketing reality has given the women useful insights into the requirements of this new market that they have to accommodate.

The women of Waitabu in 2008 participated in a short workshop conducted by Ms Nanise Ledua from the Beqa Adventure Divers on community marketing strategies and stock control (Sykes and Reddy 2008). The women were trained to: be self-confident and to carry out basic conversation with the visitors; be presentable in terms of their attire and attitude; show creativity and originality in their products and offer a wider variety of high quality local items for sale rather than having cheap imported

products; be collaborative and to help each other with the making of good quality handicrafts and souvenirs.

These qualities need to be employed by all villagers engaged in the sale of their produce. Vendors are not always well prepared for the market; selling their goods without bags to pack the purchased produce or having no loose change to efficiently serve their customers, who are forced to wait while the vendor asks around for assistance. The market vendors need to realize that getting their products to the market is but a part of the process and that addressing these details will influence how they sell their produce in a competitive marketplace.

It also is suggested that a certain day of the week/month should be allocated to learning new skills and building capacity in the community. The use of local products instead of cheap imported materials and decoration for handmade handicrafts are encouraged.

Local cultural symbols used on mats and tapa are commended while the villagers are encouraged to include in-season fruits and vegetables in their food menus. Additional training for business management and entrepreneurship skills are recommended to help boost enthusiasm and interest in the project activities (Sykes and Reddy 2008).

For the youth of Navakavu, Rewa, the formation of a youth environmental drama group has been an important empowerment exercise. The Institute of Applied Science (IAS) of USP facilitated the formation of this drama group, which consists of 25 youths from the four villages. The group performs short drama, that highlight environmental and conservation issues and has performed at different venues commemorating events such as the Fiji Environment Week in 2008, the USP Open Day, workshops and outreach to primary and secondary schools and other villages. The group has developed their acting skills and opened a bank account where their income is kept and their expenses are paid from.

The drama group is encouraged to acknowledge the role of youth and the need to hear from them. Youth in Fiji do not participate in decision-making as it is considered disrespectful for them to speak in village meetings attended by their elders (Calamia 2003). Under the traditional societal norms, it is complicated for young people to partake in decision-making, as they will not have a say in the meetings (Aalbersberg, Tawake and Parras 2005:150) unless special arrangements are made to allow for this.

Youths normally do not disregard instructions or demands from their seniors nor question their authority

(Ravuvu 2005:7) but they must be given opportunities to organize certain community activities. In Verata, Gau and Navakavu, youths are involved in MMAs as agents of environment management, fish wardens, community biological monitors and as youth drama educators.

The use of Participatory, Learning and Action (PLA) approach for engaging people, particularly women and youth, is adopted to address some of the complicated traditional issues such as effective leadership and the active participation of women and youth in community affairs. This approach allows people to reflect on what they need to do as a group and to find ways to carry them out effectively. Participation of local people is now critical in the improvement of their own lives while learning is crucial because of the new issues that have to be acquired by local communities. Action by all concerned, particularly the local people, is required to bring about positive and lasting results. PLA activities are addressed through a well-directed system of group discussions and reporting. Women and youth must be active in the organization of their marine and other resources because their lives, in time to come, depend on the activities undertaken in their communities today.

A Community Leaders Good Governance Workshop organized by the Partners in Community Development in 2008 and opened by Fiji's former Vice President, Na Turaga na Rokotuibau, Ratu Joni Madraiwiwi advised of the importance of equal participation by allowing women and youths to be part of the decision-making processes. Ratu Joni explained that the active participation of women and youths in decision-making in community life would enhance development in the tikina and the villages because it should entice these groups to be part of the tikina and village activities. Moreover, passive listening is slowly disappearing as education and the media has broadened people's outlook. Ratu Joni also stressed that the involvement of women and youths will not overturn traditional structures but instead elevate their status (Nauqe 2008).

5.2 INTEGRATED COASTAL MANAGEMENT IN GAU ISLAND

This pilot project undertaken initially by the five villages in Vanuaso Tikina on Gau Island, is now pursued by the entire island since 2005 to promote integrated coastal management. The project demonstrates the development of the activities that can be pursued in local communities that are organized to manage their MMAs. Like in all rural areas, the pressures on the use of coastal resources are felt in the villages in Vanuaso Tikina and Gau Island, where the need for money in subsistent societies in transition has increased and the use of resources intensified, at times with appalling consequences.

In addition, the introduction of new technology has hastened the alteration of natural habitats. As a result, the people have declared MMAs to address their fisheries management challenges and are managing their environmental resources and their development activities to ensure they are well prepared for the uncertain future ahead.

The plan under this initiative is to make Vanuaso Tikina and, in time, Gau Island, places where people make calculated resource management decisions to allow for a sustainable future for themselves as well as their future generations. The project addresses the mistakes and the challenges faced in the coastal areas where people live and focuses on assisting people to use their competitive advantage to formulate alternative sources of income and livelihood and be prepared for global changes such as worsening poverty due to heightened population and loss of sources of livelihood, fully exploited and depleting resources, need for money, climate change and disaster preparedness. The project aims to consolidate the peoples' resource management activities by convincing them of the need for integrated management in coastal communities to address all of the important challenges they face and take advantage of existing and new opportunities.

The approach involves working with the villagers to formulate coastal habitat management and rehabilitation plans for each of the communities. The main project activities include the: rehabilitation and protection of coastal vegetation such as mangroves, wetlands, coconut and coastal littoral plants; the protection of water catchments and farming areas; the management of domesticated animals that roam freely and damage coastal habitats; the management of village waste and effluence; the involvement of the villagers in participatory decision-making processes, enhancement of leadership and governance and the securing of appropriate sources of income.

The project is expected to benefit all the people in the villages including their future generations, improve life in the villages, protect critical coastal habitats, provide alternative sources of livelihoods and compliment the initiatives that have been taken by Government and the people to better use the resources of the environment in accordance with global sustainable development aspirations.

The engagement process in Vanuaso Tikina began after the University of the South Pacific (USP) and the International Ocean Institute-Pacific Islands (IOI-PI) organized a series of two to three days training workshops. The initial workshops were conducted for

Box 5 Integrated Management Approach (Vanuaso Tikina, Gau Island)

- Using proper land use guidelines
- Planting and management of coastal forests and special habitats
- Protecting valuable coastal habitats and trees
- Reducing deforestation and uncontrolled cutting of trees
- Reducing unnecessary burning
- Reducing farming on hill slopes and encouraging farming in nearby lowland areas
- Reducing the use of pesticides and artificial farming implements
- Improving management and disposal of waste
- Improving cooking facilities to reduce demand for firewood
- Improving water and drainage
- Using participatory manner of making decisions
- Adopting an integrated resource management approach
- Providing piped waters for local communities
- Protecting water catchments and avoiding contamination of drinking water

the tikina followed by a series of follow-up meetings in each of the villages. Using participatory tools such as community mapping, time lines, resource transects, and visions for the future, USP and IOI-PI partners assisted the communities to prioritize the issues they needed to address in the different villages. From these meetings, the people from the different villages formulated their management plans for the rehabilitation and management of their coastal habitats. People prioritized these activities and divided them into those that required no outside input and thus could be addressed immediately and those that needed investment and expenses and thus would take time to attend to.

Once the coastal rehabilitation plans that had been agreed to at the workshops were endorsed by the people in the villages, the villagers undertook those activities that they could address immediately. Examples of these self-determined resource management activities included the ban on the use of destructive fishing methods; the declaration of MMAs; caution on uncontrolled forest clearing and ban on burning of hill slopes; formulation of committees and action to address health and community requirements; the designation of proper waste disposal methods and practices; the management of forests and the replanting of useful trees such as mangroves; fruit trees such as coconut palms and breadfruit; and the formulation of proper land use guidelines.

The five villages under this project - known as Mositi (Care for) Vanuaso were each given financial assistance of up to a maximum amount of US\$2,500 to fund activities that will assist them to rehabilitate their coastal habitats. These activities that required finance included the purchase of grass cutting machines; making of nurseries;

the purchasing of seedlings and planting materials from outside the communities; improving the health facilities such as waste disposal and cooking facilities; improving community facilities like toilets and drainage; providing well protected sources of good drinking water and catchment areas; improving animal raising practices to reduce harm to coastal environment and people; and securing alternative sources of income that would reduce the fishing pressure.

The types of activities undertaken during the project convinced the people of the reasons why coastal habitats should be better used and managed. This integrated approach to village development has a better chance to make a positive impact on the lives of rural communities than just the biological monitoring of the impacts of MMAs that the people have declared. Under this integrated approach, the people are made to address a wider range of interlinked issues as well as an understanding that MMAs are not the solution to all of the people's resource management and rural development woes. Some of the activities undertaken by the villagers to address the issues associated with the rehabilitation of their coastal habitats are mentioned in Box 5.

Follow-up visits were organized regularly to coordinate and monitor the management activities, using the management plans in the different villages. The results of this project are publicized widely through video and DVDs, reports, lectures and publications that were publicized to promote the self-determined resources management lessons learned from the initiatives in the different villages. The project was expected to contribute positively to the management of marine fisheries resources now undertaken by the people in

Table 6 Vanuaso Tikina Self-Determined Resource Management Activities

Issues	VILLAGES					
	Lekanai	Vanuaso	Nacavanadi	Malawai	Lamiti	Naovuka
Dumping of rubbish along shoreline	✓	✓	✓	✓	✓	✓
Pigs roaming freely and not fenced	✓	✓	✓	✓	✓	✓
Unnecessary cutting down of trees	X	✓	✓	X	✓	✓
Burning of vegetation	✓	✓	✓	✓	✓	✓
Protection of water source	✓	✓	✓	X	✓	✓
Protection and maintenance of drains	✓	✓	✓	✓	✓	✓
Upholding of communal lifestyle	X	✓	✓	✓	✓	✓
Education issues	X	✓	✓	✓	✓	✓
Sources of food and income	X	✓	✓	✓	✓	✓
Cutting down of mangrove forests	X	X	X	✓	✓	✓
Preparedness to take part in development initiatives	X	X	X	✓	X	✓

Gau, elsewhere in Fiji and in the USP region where the experience and lessons have been shared.

The people are very happy and supportive of the project and are extending their resource management activities from their marine environment to the coastal and land areas where their other activities are based. This approach has made people more appreciative of the interconnected nature of the environment, their wellbeing and those of their future generations and their role in their maintenance. The project promoted better land use practices amongst the people and contributed to sustainable development initiatives in rural areas. The project benefited all the people in the villages, including their future generations who are expected to benefit from the activities currently undertaken to improve the living standards in the villages, protect critical coastal habitats, provide alternative sources of livelihood and compliment the initiatives that have been taken to better use the resources of the environment in accordance with sustainable development aspirations.

Consultative meetings and visits have been undertaken since 2002 to monitor the resource management activities people undertake and instigate additional required work. Discussion topics covered in some of the follow-up visits and discussions include the project cycle, leadership and project planning. During these

visits, individual village initiatives were observed and assessed. This way of checking on the project activities that the people were undertaking enabled the visitors and their hosts to gauge the effectiveness of the project in the different villages and to make considerations about their own initiatives. The exercise, which is based on the tradition of butu (to set foot on or (ground truth), boosted the learning activities and consequently the involvement of people in the project.

The people in the different villages in Vanuaso Tikina, were supported in their self-determined integrated resource management activities (Table 6) to complement their MMAs. These resource management and development activities were proposed by the people as part of their village group discussions on the threats to their communities that they needed to resolve and the various options available to them to better their own lives.

Through their involvement in these initiatives, the people of these rural communities were helping themselves and undertaking the activities they could handle on their own. The people were thinking of their future and were working on setting the standard from which their children could learn. In addition, they were learning from each other and were forging closer social linkages that augured well for these rural communities.

Table 7 Mositi Vanuaso Management Activities






Village	Activities (Activities highlighted in bold are depicted in the pictures)
Lekanai	<p>Reduced forest burning, fenced pigs using natural materials (bamboo), clean village, improved drainage of waste water, replanting of native trees, an investment account opened with the project money</p> 
Vanuaso	<p>Reduced forest burning, fenced pigs using natural materials (fallen coconut trees), gardens are close to the village, proper waste disposal areas, village shop was re-opened after 10 years using the project money</p> 
Naovuka	<p>Rehabilitating coconut palms along coastal areas, planting of native trees, construction of breakwater, construction of drainage within the village, built pig pen, reduced burning of hill slopes, opened a store using portion of their fund from the project</p> 
Malawai	<p>Replanting of coconuts and coastal vegetation, planting of pandanus, fencing of animals, ban on burning of hill slopes, operation of youth cattle farm, mat buying initiative, planting of mangroves and protection of mangrove forests</p> 

Table 7 Mositi Vanuaso Management Activities

Village	Activities (Activities highlighted in bold are depicted in the pictures)
Lamiti	<p>Reduced burning of hill slopes, rehabilitation of young coconut trees, replanting of mangroves and coastal vegetation, invested in Unit Trust, building of stone wall along the coast</p> 
Nacavanadi	<p>Ban on burning of hill slopes, rehabilitation of coastal habitats, fencing of pigs, farms close to the village (watermelon), village opened an investment account with Unit Trust</p> 

Alternative sources of livelihood were welcomed because it was agreed that each village should have its income-generating activities to help reduce the fishing effort as well as provide new opportunities to the villagers. Some of the initiatives that the communities within the tikina pursued included cattle farming and the farming of commercial crops such as yaqona, ecotourism, small commercial ventures and the sale of handicrafts. Some of the related resource management activities that were undertaken are summarized in Table 7 on page 61 & above.

The Mositi Vanuaso initiatives to manage the environmental resources in the district was made possible with the partnerships of community members, resource owners, conservation practitioners, researchers, government officials and international funding agencies that provided the financial support. This collective group of people, with expertise in some aspects of project development, all played a critical role in the project. The number of people practicing effective community-based resource management in Gau and their skills has increased tremendously and has made the network responsive and effective.

Biological, social and economic surveys and monitoring were undertaken by the partners to confirm the effectiveness of the people's chosen interventions. These exercises were important to maintain people's commitment to their resource management initiatives and publicize the impacts of their community-based interventions.

Biological, social and economic surveys and monitoring were undertaken by the partners to confirm the effectiveness of the people's chosen interventions. These exercises were important to maintain people's commitment to their resource management initiatives and publicize the impacts of their community-based interventions.

This was crucial because of the temptations local communities were living with to relax their management arrangements. In all of these communities, there was the ongoing dilemma of choosing between incomes from the immediate and unsustainable use of their resources and the more remote futuristic benefits of conservation activities. The presence of the middlemen



Figure 33: Lomani Gau receives the Prime Ministers Award for Forest Conservationist of the Year 2013. *Photo by Jale Tauraga*

in the villages offering ready-markets for marine resources is demonstrative of the pressure that people have to deal with. The people therefore, have to be continually reminded of the importance of maintaining the effectiveness of the conservation activities they have taken.

All the villages in Vanuaso Tikina have MMAs and are involved in the management of their resources and their development activities. At all levels from the communities, to the tikina, province, and the national government, the villagers and their partners promote and practice integration, collaboration and iterative management, which are the pillars of the community-based resource management approach. Guidance, funding and capacity building support are critical and must be provided to the villagers who often are unfamiliar with and unprepared for the scientific and financial requirements.

The Mositi Vanuaso approach has been successfully shared with and introduced into the other villages in Gau where the villagers are also trying to manage their environment and development. The resources of Gau Island, like the coastal resources in each of the villages, are complicated and interlinked and need to be taken into consideration in a holistic way. Nevertheless, the involvement of Gau Island allows for the application of

ecosystem-based resource management on an island of that size. The aims of the conservation and management activities in each of the villages reflect the necessity to manage the marine resources together with all the activities associated with these and to involve the people in all stages of the process.

The people of Gau Island are aware that their main hope for the future rests with them having access to healthy environmental resources, which they have made the basis of their livelihood and any development aspiration. They are aware that they need to make painful decisions now if their future generations are to have a chance at a satisfactory, meaningful and dignified life in the future. This is an important point because even though the environmental resources the people have access to are limited, these can be used in a sustainable fashion.

Lomani (treasure) Gau was formed as an extension of the Mositi Vanuaso initiative. Lomani Gau was launched after an island fisheries management workshop in Lovu village, where the participants asked for the island to unite in its pursuit of sustainable rural development where the improvements of local conditions are accomplished simultaneously with the maintenance of a healthy island environment. All the village representatives at the workshop were aware of the challenges facing them and of the strengths and advantages available when their combined effort was mobilized and coordinated. As with the Mositi Vanuaso initiative, all the sixteen village representatives were asked to organize their own project activities based on their own village challenges and their chosen development activities. This community-based initiative yielded national recognition in 2013 with the Prime Minister's Forest Conservationist of the Year award at the annual Agricultural Awards (Figure 33).

These villages have taken the logical next step to promote the message that it makes positive ecological, economic and cultural sense for people in communities to look after their environment resources. For most, if not all of the people in these communities, the healthy and productive environment and its resources that they inherited from their ancestors will be their most important gift to their children and future generations.

By their actions, these villagers are showing that they want the best for their children and future generations. Lomani Gau, with representatives from all villages, leads this difficult but noble task to manage the environmental resources of the island and all the people for their benefit and advantages today and in the years to come. This is a difficult calling but one that the people are now supporting because of their interest in their wellbeing now and in the future years to come.

Communities such as some of those mentioned in this chapter are aware of the importance of the choices they make now as these will affect them and their future generations. Those that are currently making environment management decisions such as the communities in Kubulau Tikina in Bua, Tavualevu in Tavua, Waitabu in Taveuni, Qoliqoli Cokovata in Macuata, Tikina Nadogo, Tikina Namuka, Tikina Dogotuki and Tikina Udu in Macuata and Cakaudrove and Kadavu Provinces are already demonstrating their commitment and are beginning to witness the benefits.

The challenge is to get more villages and people involved in managing their resources because it is critical that this is done. Without management, the environmental resources including fisheries are under threat because of our higher numbers and demands. If the difficult resource management decisions are not taken, the resources will be overexploited and depleted; situations that have to be avoided at all costs.

Government support must be forthcoming to enhance the commitment at the local level. At a time when Governments throughout the world are committing themselves to all types of instruments at the international level, it is critical that the same support is manifested at the local level. This long and demanding process results in the lag time between the signing off by Governments on these international arrangements to ratification and implementation. This is the reason why every effort must be taken to support the involvement of local communities as these resource owners in rural areas often can take the difficult resource management decisions easily but often are unable to put together the resources required for operating functional MMAs. This is why government support is critical to the effectiveness of community-based resources management. It needs to support and enhance community-based resources management activities. After all, resource management is about managing human activities and therefore must be supported by all stakeholders at the different levels to be effective.

6 CHANGES ASSOCIATED WITH MARINE MANAGED AREAS



School of fish, Gau Island: *Photo by Frontier Fiji*

MMA have been declared in different parts of Fiji where the local communities see these interventions as effective ways of managing their marine resources and of looking after their interests and those of their future generations. Local communities involved in managing their marine resources are unanimous in the use and value of MMAs. The people in these communities are adamant that their resources are in better shape because of the resource management activities they have taken, which have allowed them benefits they would have otherwise missed as well as provided new ways of thinking about their future.

The people are now more informed of the sustainable development issues they need to take into consideration and the importance of maintaining healthy ecosystems to serve them for the long term. They are convinced of the need for resource management, the importance of effectively engaging everyone in the community and the significance of the monitoring data for their resource management effort. The results of the ecological monitoring so far show the remarkable recoveries and rehabilitation that have taken place when these processes were allowed for. The hope for the future is to attain improved results, which will be better for both the people and the environmental resources that are managed if the MMAs are operating more effectively.

The many social and economic changes associated with community-based resource management in different parts of Fiji highlight some of the activities that have been taken and their results. The changes highlight the various resource management activities that have been made by the people, which represent what they think are needed to bring about improvements in their fishing areas. In most of the cases, the people, because of their traditional resource management practices, are aware that the most effective way to manage their resources is to reduce the fishing effort, which has been the most difficult intervention to instigate under any contemporary resource management arrangement. Unfortunately, the people in these communities in transition are also aware that the well-maintained MMAs are also the best areas for fishing. This knowledge presents the people with the burden of maintaining their MMAs for the long term or cashing it in for immediate return when the situation is justified. The high incidence of poaching and the poor deals that are agreed to with local communities make it close to impossible for the people to maintain their MMAs for the long term.

This chapter examines the changes that MMAs have caused and influenced and the challenges that need to be addressed to improve the effectiveness of MMAs in the communities where they are observed. The

lessons learned from this study can contribute to the understanding of how MMAs operate and how they can be made more effective. In all the cases, there were collaborations and partnerships of all kinds. These partnerships between local communities and government agencies, environment NGOs, development agencies, research institutions and private sector groups allowed for the pooling of resources and expertise, the sharing of lessons and good practices and the drive for effective resource conservation. In most of the initiatives, the community-based activities only started after some external group activity triggered the interest and nurtured the momentum that we have witnessed.

MMAs are attractive as indicated by the huge number of sites being declared around the country. What is needed is the support largely from Government to allow the communities that are committing themselves to MMAs to be spared the challenges of exerting their resource management decisions to those who are not members of their group and to make MMAs the vehicle to stimulate improvement of life and living conditions in these areas.

6.1 CHANGES ASSOCIATED WITH MARINE MANAGED AREAS

MMA-related changes have been revolutionary in terms of their influence on local communities. For the first time in many cases, local communities were assisted with livelihood issues that have not been seriously addressed. People were trained and supported to be involved and to work together to shape their own future. External partners provided welcomed training, assistance and advice to convince people to look after their environmental resources and their wellbeing. In a number of areas, MMA work has evolved new ideas, consciousness and activities that are creating income generating enterprises, opportunities and options.

In Ono, on Kadavu, conservation measures implemented after the declaration of their MMA included: the ban on the use of traditional poisons (*duva*) in Waisomo and the neighbouring village of Vabea, the restriction on the use of fire to clear land within Waisomo village and the declaration of no-take areas in the two lagoons on the Great Astrolabe Reef. In partnership with WWF and the Fiji Fisheries Division, some of the villagers and community leaders were trained and certified as Honorary Fisheries Wardens and were given the responsibilities to enforce relevant components of the fisheries legislations. These villagers were later on provided a community hall and a powered fiberglass punt by organizations that supported their resource management actions.

In Vanua Levu, a village-by-village follow-up visit was organized by WWF and the Wildlife Conservation Society

(WCS) after the people in the Qoliqoli Cokovata in Macuata committed to manage their marine resources. The visit was organized between September and October 2005 to inform the households in each of the villages of their resource management plan, the processes in its development and to solicit the villagers input and support for the MMA activities. This important task also involved a social and economic household survey to gather important information about the local communities that did not exist then. This follow up visit was based on the perception that the people need to be familiar with their MMA activities and responsibilities if they are to be actively involved in these.

In November 2005, the Tui Macuata offered the network of MMAs in his province in support of the Fiji Government's commitment to the Small Islands Developing States conference in Mauritius to establish MMAs over 30 per cent of its inshore and offshore areas. This gesture demonstrates the advantages of collaborative community-based resource management (Tabunakawai 2006) and the valuable contribution of local communities and their non-government partners to the conservation targets of States.

Local MMAs support and ownership in Navakavu is strong. The people established the Yavusa Navakavu Qoliqoli Committee to coordinate their MMA activities, as they did not trust their district chief to work alone with that responsibility. The Committee set out the resource management activities as well the institutional connections to the villages as well as to the district and beyond. Positive changes such as the increase in abundance and size of fish and invertebrates within their fishing grounds, fewer disturbances to their habitat and the positive impacts of the MMA on the peoples' social and economic wellbeing were observed by the villagers (van Beukering et al. 2007).

The Qoliqoli Committee in Navakavu coordinates the MMA work within the district as well as with the relevant institutions outside. The Yavusa Navakavu Qoliqoli Committee consists of a representative from each of the seven land-owning units in each of the four villages, community biological monitors, fish wardens (one from each village), leader of the youth drama group and the four village headmen. There are, in total, 21 members of the Committee that meets once every two months. At the meetings, the members discuss the progress with their management action plan, provide meeting updates, review their specific action plans and address emerging concerns about the implementation of MMA within their villages and district (van Beukering et al. 2007). The Committee decides on the management of the MMA after consulting with the local people through



Figure 34: Navakavu MMA, Muiavusu. *Source: FL MMA*

their village councils meetings. The Qoliqoli Committee decisions are taken as proposals to the bose vanua (district council meeting), which has the final say on the issues and concerns submitted to it. The resolutions of the bose vanua, which consists of representatives from the different clans in the four villages, are reported by the headmen at each of the village meetings where the village households are represented. The Committee sources funds to undertake its work. In October 2006, the Qoliqoli Committee opened a bank account called the Vueti Navakavu Fund to keep all income generated from their MMA activities (van Beukering et al. 2007).

The Management Action Plan for the district was drafted in a workshop in Muiavuso in 2002. The same workshop decided on the establishment of an MMA, which was later moved to a more appropriate location in Waiqanake (Figure 34). The USP partners facilitated the formulation of the action plan and printed the posters to publicize and inform the households of it. These promotional materials were distributed within the villages and used by the Committee for monitoring the changes taking place (van Beukering et al. 2007).

The MMAs allow for close collaboration between local communities, NGOs and Government and development agencies and donors. The partnerships complement and strengthen each other's work, allowing for better results. Without these partnerships, it is unlikely that effective community-based resource management action will take place. Community members in Navakavu, for example, mentioned the numerous times when MMA visitors and researchers had visited the villages as a result of the partnerships, bringing much needed money, ideas and contacts that maintained and promoted the communities' effort (van Beukering et al. 2007).

Laje Rotuma, a local NGO, spearheads the community-based resource management activities in Rotuma. It promotes the MMAs through an engaging community consultation process that undertakes a campaign involving environment awareness, education and community initiatives such as 'Adapt a Habitat Programme', 'Rotuma School Eco Camp' and the weaving of fish traps by the elders (Alfred Ralifo, 2008 Personal communication). It is now spearheading Rotuma's climate change adaptation initiatives.

There has been international recognition and awards for some of the MMA work undertaken in Fiji. This has been a major step forward for people who normally are regarded as victims of the changes or those that have to be shown how to cope with the challenges rather than those that set the pace. This international recognition has boosted the interest in traditional knowledge and practices, which are stimulating new admiration and studies. For example, traditional governance systems and environment conservation and management are inspiring scholars and donors to learn the way Pacific cultures manage their natural resources (Daurewa 2007b). These are the same cultures that were discarded at the time of colonization. However, the local communities' ability to manage their resources today are hampered by the continuous pressure on them to relax the MMA arrangements and utilize their resources, their lack of funds to pay for the MMA activities and the restricted information on what they can do to determines the use of their resources in the future. Most of the MMA work in the local communities has been supported by external funding secured by the partners after they have shared with the donors the plight of the local people. The partners are united in their emphasis of local participation, effective conservation and the improvement of living conditions in rural areas for these communities.

In many of the MMAs, there are now trained and licensed honorary fish wardens who try to ensure compliance from all the villagers in their district. However, in Kadavu, Verata, Navakavu and Gau, the trained honorary wardens require equipment and tools to conduct their work while in Kumi, Verata, Tavua, Qoliqoli Cokovata in Macuata and Kubulau, the enforcement is undertaken and supported by those who monitor and maintain the use of the qoliqoli. In areas such as Kubulau and Kadavu some of the enforcement is supported by the tourist operators and other related stakeholders operating in the vicinity.

People's perception and position on MMAs remain mixed. For instance, some people want the length of the closure of their marine areas shortened, while others feel that it is best to have permanently closed areas, particularly as the carrying capacity of the MMAs cannot provide for the increasing population (van Beukering et al. 2007). Others argue that the MMA can be a sustainable source of revenue for people as illustrated in Kubulau (Figure 35). The benefits of the MMAs and sustainable development are shared and promoted to the women and youths to gauge their interests and get them actively involved in MMA-related activities. People are also taking a stand to protect their interest and to guard their qoliqoli because they are aware of the importance of the MMAs to them (WCS et al. 2004).

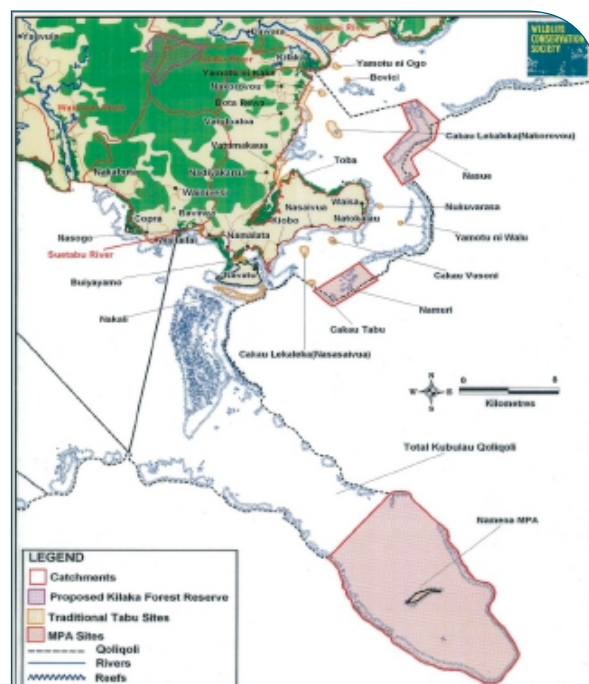


Figure 35: Kubulau MMA, Bua showing management activities. *Source: Wildlife Conservation Society*

There is an increase in community awareness and knowledge of environmental and development issues. The training and follow up workshops and the distribution of information in these communities has heightened the interest and awareness of people on local challenges and opportunities. Moreover, the financial assistance from the partners enables the people to organize themselves and undertake environment and development activities. All of the reports from the different MMAs agree that the people are benefiting from the management of their environmental resources (WCS et al. 2004).

In Ucuivanua, the site of the first MMA that was declared over a decade ago, the villagers' incomes have risen significantly because the kaikoso (clam, *Anadara*) is again, abundant (Aalbersberg, Tawake and Parras 2005:144). Similarly, in Waitabu, Taveuni, the numbers of both fish and non-fish species in the MMA rose from 1996 to 2002. This was constant from 2002 to 2005, and then declined slightly from 2005 to 2008. Interestingly, the drop was with the targeted "food-fish species", especially the larger Groupers and Wrasse, and not the smaller species that were not specifically targeted for food. The trend pointed to the possibility of poaching, which was still a problem even though the MMA has been observed by the people for over 10 years (Sykes and Reddy 2008).



Figure 36: Rehabilitated mangrove forest providing coastal protection and coastal fishing areas. *Photo by Joeli Veitayaki*

The people are aware that a healthy environment is important to their wellbeing and have explored the future that they face by planning for relevant and appropriate development options. Training workshops have been important for the local communities and the MMAs because most of the people are still not familiar with the ideas behind the project. Through the training workshops that should be organized regularly in all the villages, local communities can be better informed about their project activities as well as understand the associated issues and the importance of people's involvement in the initiative.

Ironically, as the results of the fisheries recovery in the managed areas in many of the communities are known, the most serious threats to the MMAs come from commercial operators outside the communities. This is a big challenge as it involves people who are not from the communities directly or indirectly are helping themselves to the people's MMAs. This negative impact of commercialization is evident in rural communities where the better-equipped and difficult to control outsiders, are stealing from the most disadvantaged members of society. It is disturbing that the effort of local communities to guarantee their future supply of food and other resources is enriching these better-resourced stakeholders, who are not even members of the local community group. Sadly, some members of the communities are lured by the prospects of earning an



Figure 37: Proper disposal of domestic waste now practiced. *Photo by Sangeeta Singh*

income to be part of the cunning schemes to steal from the MMAs.

Artisanal and commercial fishers are, periodically, sighted fishing within the villagers' MMAs, while most of the villagers are oblivious to what is happening. These communities have honorary fish wardens who have the support of the community to uphold their resource management decisions but they need better equipment to carry out their responsibilities over people that did not know and respect their communities' decisions. There is also the feeling in the local communities that the onerous task of enforcement should be the responsibility of Government and not them. Obviously, the stakeholders have to work together to agree on a solution.

In many of the districts with MMAs, the people have extended their environmental management activities and are rehabilitating their coastal habitats and undertaking alternative sources of income and livelihood. These initiatives complement the MMA activities and encourage the people to adopt the broader and all-encompassing integrated resource management approach. In these cases, the people have agreed that the management and recovery of their fishing grounds need to be complemented by the reduction of land-based sources of pollution and the implementation of an appropriate environmental management strategy.

Some of the issues that had been addressed under this initiative included the protection and rehabilitation of mangrove forests and coastal vegetation, the promotion of sustainable land use, the fight against deforestation and wild fires, the promotion of good drainage and the protection of water supply, the proper disposal of domestic waste, the treatment of waste water and the fencing of domesticated animals to protect special habitats such as wetlands and allow the cultivation of nearby lowland areas (Figures 36 - 37 - on page 69).

The engagement and involvement of local communities has been achieved through the use of some of the principles of effective community-based resources management. These principles include: the delineation and strengthening of traditional rights and boundaries; appropriate leadership with good project direction and motivation; accountable organizational roles and responsibilities for all stakeholders; regular monitoring; community willingness, awareness, and participation; existing skills/capacity; and long-term vision and inclusiveness (Parks, Aalbersberg, Salafsky 1999). Fortunately, these principles can still be observed in most local communities with their traditional institutions, protocols, norms and practices.

As Cicin-Sain (1993) has advised integrated coastal management is a never-ending process of revision and changes because environmental issues are evolving as human numbers, activities and level of sophistication increase. New markets and commodities are developed and new impacts have to be addressed. Integrated resource management requires that all the relevant people monitor the activities taking place around them and put in place appropriate management action to effectively address these issues. This is part of the challenge that MMAs were proposed and are to a widening respect fulfilling.

There is presently no law in place in Fiji to support a tabu declared by local communities. Poachers who have been detained by the community and handed to the local police for example, have not been appropriately dealt with and have been released without due appreciation of the seriousness of their action. Subsequently, poaching continues to be the largest problem faced by the MMAs.

In Waitabu, illegal fishing has impacted both fish breeding populations (Grouper aggregations), and tourism perceptions (fish reacting negatively to the presence of a human swimmer), which have been built up with great effort by the community (Sykes and Reddy 2008). Poaching has increased in the past two to three years and there is an urgent need to take the problem seriously and prosecute the offenders before poaching reaches

levels that permanently impact the breeding populations so painstakingly protected over the years by the Waitabu community. This is a pity as over the last 10 years, the vanua, researchers and individuals have witnessed the recovery of this once severely degraded and overfished reef (Sykes and Reddy 2008). Sadly, the Waitabu communities' commitment to their MMAs has already erupted into community conflict and violence that led to the death of a villager.

Activities that are required in all the MMAs include: the formulation of management plans (operations and management activities, education and awareness), the establishment of institutional structures to oversee the implementation of the plan (covering infrastructure, communication, system of reward and fines), identification of income-generating activities (ecotourism, levies and fees) and the organization of biodiversity surveys (regular surveys to monitor changes, training of locals). These activities should encompass training in MMA governance and sustainable living.

Community workshops have created greater awareness among the participants on their roles and responsibilities. The people have been introduced to the principles of good governance and leadership that allow them to evaluate and examine their practices and attitudes, and to adapt to the changes in village society. These huge challenges have to be addressed with skill, sensitivity and wisdom. With enhanced awareness and leadership capacity, the people can reflect and describe the meaning of good governance based on their understanding and perception of traditional leaderships, modern governance principles and the context in which they need to work.

With the empowerment of local communities to manage their resources, good quality leadership will be required to strengthen, unite and make the management activities of local communities pragmatic and meaningful (Veitayaki 1999). Most people agree that good governance is badly needed and that this should be guided by vision and decisions for the betterment of all people and their environmental resources (Nauqe 2008).

Leadership, be it traditional, religious or civil is the responsibility of the community members. Local people will gladly shoulder their responsibilities if they trust and value their leaders. If they see that they are cared for and attention is paid to their development, the people will support and strengthen their ties with the leaders (Nauqe 2008). This is crucial because customary leaders can make the best decisions for their people only if they are respected by people who understand and trust them.

A good leader is remembered for his deeds in performing his duties to his people, serving the vanua, church and government. Chiefs who serve as such are hailed as men of the people because they listen to the people and lead from the front. People remember their leaders and how they handle their responsibilities. Unfortunately, as Ratu Joni Madraiwiwi explained, the very issues that people are silent on should be the ones they address systematically and vigorously. This will be possible only if the leaders are aware of their people's needs and provide an enabling environment to allow the full participation of their people. The leaders need to be familiar with the changes around them and those that the villagers are interested in (Nauqe 2008).

In an interesting case, the Turaga na Ka Levu, because of poaching in their original MMAs, declared a no-take (tabu) on all of the qoliqoli for Cuvu and Votua, extending from Yanuca Island to the passage in Yadua. Under the arrangement, fishing was allowed for only a little area next to the Fijian Hotel. This fishing area was later extended to support the Nadroga Rugby Team that was in camp to prepare for one of its campaigns. On that occasion, the Turaga na Ka Levu offered to buy fish for those of his people who wanted fish. Of course, no one accepted the offer, which would have been taken to mean that the people needed fish from the MMA for themselves and that they didn't support their chief in this endeavor. This is a common customary practice for chiefs and leaders to challenge their people to gauge the support they have from them.

In Malolo and Nacula, the whole qoliqoli areas are declared MMAs by the chiefs. While these were impressive commitments by the chiefs, it was not certain if these positions were supported by their people who were barred from the fishing grounds. This arrangement might also be flawed if the people were not provided alternative sources of livelihood. Malolo and Nacula are well known tourist destinations where the people are not as dependent on the sea for their livelihood as those in other areas. Even then, the position of the community members should still be sought for the sake of community unity and solidarity.

After a long time campaigning for MMAs, the late Mr Josaia Ravula, a champion community worker in Kadavu, reported that he no longer talked to people about conservation but was urging them to perform their duty to their vanua because that was what they would hand over to their future generations. This was an interesting way to relate resource management to the valued, sensitive and emotional Fijian concept of vanua and all that it embodies. In Mr Ravula's mind, MMAs and conservation are the responsibilities of the vanua, which will be handed

to future generations. However, Mr Ravula was also aware of the communities' needs that will influence their commitment to their MMAs when he remarked that: 'I am trying to secure things that the villagers need because it is often not considered by those working for them'.

Mr Ravula's approach and sentiments emphasize the close links between the people, their vanua and their resources management and development aspirations, and the integrated resources management arrangements that incorporate development and resource management in all of their activities. It also alluded to how people in communities can be engaged in resource conservation and rural development for the long term.

Although the people are not well informed about the foreign and imposed concept of sustainable development and need to be better trained on all aspects of the process, they understand the traditional explanations of why they need to look after their resources, which are critical for their sustenance and to those of their future generations. This is why capacity building is crucial in all communities where some of the issues are new while some of the solutions maybe proven and available because they are associated with the people's traditional ecological knowledge and practices.

Local people must be supported to strengthen their connection with their vanua and made to understand the close linkages with their environment. Acknowledgement of the interrelated issues of people, environment and development will ensure that environmental management is better perceived and supported in all coastal communities. Closer working relations between the communities, civil society organizations and Government departments must be established so that the people are assisted with their sustainable development activities that contribute to the Government's goals in this area.

6.2 CHALLENGES TO BE ADDRESSED

The main challenges in MMA sites can be addressed through the strong collaboration of communities, government officials and development agents, based on continuity, community consensus and trust. This renders possible the acceptance of conservation measures, general compliance, communication, networking, data collection and analysis. Under a system of extension workers similar to that for fisheries officers, marine advisors and champions can be appointed to monitor their projects, make marine conservation and education matters of everyday life for the communities and support long-term thinking and planning (Muehlig-Hofmann 2008).

The challenges to community-based resource management include: the not clearly defined customary

fishing area boundaries within the tikina, which lead to conflicts between neighbouring villages; reliance on the owners of traditional fishing grounds to make decisions that are consistent with sustainable practices when determining what to do with their fisheries resources; misunderstandings between the traditional owners and the state on the issuing of fishing licenses; difficulty of ensuring that management programs are tailor-made to encompass various social and economic systems; control of illegal fishing in traditional fishing areas and the lack of consistency and coordination between traditional practices, national legislation, policies and strategies.

Resource ownership and CMT claims are frequently contested amongst closely related groups because of the formulation of boundaries, which were previously passed from older to younger generations by word of mouth. For example, the Native Land Fisheries Commission confirmed and defined the extent of fishing grounds of the vanua Ono, which was communally owned by the seven villages under the legal custodian of the Tui Ono (chief of the Ono district), currently held by the chief of Vabea village. Although the fishing grounds of Ono encircled the entire island, the specific boundaries for the fishing area for each village has not been surveyed nor registered and has caused conflict relating to the use and ownership rights between neighboring villages and qoliqoli owners (WWF, no date; Calamia, 2000).

Within existing power relations, some people's claim to resources and territory take priority over those of others (Calamia 2003). Based on their work in Ono in Kadavu, Tabunakawai, Wilson, Aleki (no date: 19, 21), observe that the relations between the mataqali determine the effectiveness of MMAs as dominant clans have the most say on the management of the protected areas. Moreover, social actors are not positioned to mobilize endowments such as labour or capital that are necessary to make effective use of other resources such as land and sea. These customary rights are based on cultural-historical claims, predating state-codified laws that protected endangered species, and can be construed whenever convenient to legitimize poaching (Calamia 2003).

Customary practices hinder resource management if all the community members and their relations are not united because all those who are related traditionally to the group observing the MMAs do not need permission to fish in the customary area as they too have rights to these resources. These relatives can fish whenever and wherever they like. For this reason, the MMAs should be publicized and promoted amongst all the people that have ownership rights to the resources. The villagers also need to examine the full impacts of the decisions

they make, particularly when they allow periodic and partial relaxation of their management activities. Regularly allowing some of the relations to fish the MMAs, is unjustified because it weakens the support for the cause from other villagers and makes it hard to have a genuine MMA. It is also unfair for only a few to benefit from the whole group's effort to manage the collectively owned resources.

For most households in coastal communities, fishing is still a very important source of income; with the households undertaking more fishing activities compared to five years ago. Income from fishing and gleaning of invertebrates helps to fulfill social and traditional obligations within the community. Poaching is a big issue and, according to some people, regularly takes place within the MMA. A Yanuca fish warden once mentioned that it was difficult to have a good catch because of depleting fish stocks caused by poaching (Kikau 2009).

Three years into the closure of the fishing ground in Navakavu, some of the community members were caught breaching the resource use rules because they were tempted by the richness and health of the marine resources within the MMA (van Beukering et al. 2007). Similar occurrences have been observed in other areas. In Lamiti, Gau, young men have sought forgiveness from the chief for violating their MMA over the years since their MMA was declared.

Illegal fishers come into the MMAs at night or when the people are not watching, leaving behind evidence in the form of coral breakage, and increased wariness of targeted species such as Grouper, Emperors and large Parrotfish. In the Waitabu MMA before 2005, several large Grouper and Humphead Wrasse were regularly seen, and it was hoped that the area would become a ground for breeding aggregations. However, the number of these fishes dropped in 2005 and 2006, and it was presumed that these were taken by night spearfishers (Sykes and Reddy 2008). The appointment of close family relations as honorary fish wardens generated the perception that certain members of the community would get away with poaching, and that the MMA was not equitably observed and policed. 'It's not that the fish wardens are not carrying out their assigned jobs but the fact that these are people who are next of kin', they may let the issue pass (van Beukering et al. 2007). This perception was similar to what Calamia (2006:43) observed in Ono, Kadavu that local people found it difficult to serve fairly as honorary fish wardens and exercise their police powers to enforce the community arrangement when relatives were involved.

It was also difficult for the fish wardens to effectively perform their duties because they lacked the resources.

For instance, in Navakavu, one boat was not enough to patrol the MMA. The patrol boat was looked after by each of the four fish warden in a 3-month rotation, and the boat was also used for fishing and hire. Needless to say, poaching of the MMAs by community members and outsiders still took place (van Beukering et al. 2007).

There was no doubt that the formation of the Navakavu Qoliqoli Committee improved the social setting and the relationship amongst the members of the community and brought together the people from the four villages. The ongoing work of the Qoliqoli Committee has fostered better communication and cooperation amongst the people in the four villages.

The establishment of the MMA brought together the different clans within the community. There is better cooperation amongst members of the community in attending to the need of the vanua and social obligations within the village and district. This is particularly important since changes in community life, brought about by modernization such as the new road, took people away from the village when they are supposed to attend to community work such as village cleaning up on Mondays (van Beukering et al. 2007).

Strong, wise and respected leadership is necessary for the sustainable management of natural resources in coastal communities (Fong 1994; World Bank 2000; Veitayaki 2006; Muehlig-Hofmann 2008). The communities are taking responsibility for the enforcement of their management measures and locally developed regulations and rules (Crawford et al. 2004); yet for this to be effectively accomplished, people first have to understand, be informed and involved in developing these measures, which require good community leadership. As Ratu Joni Madraiwiwi explained, 'leadership roles call for the encouragement of views that contribute to the general well-being. Everyone needs to be alerted to this as it is common human nature to advocate one's own importance' (Nauqe 2008).

In Tomlinson's study (2004), the chiefs in the community the study was based had not been formally installed within living memory, exacerbating the sense of lost power. Without a formal installation, indigenous Fijian chiefs are considered ineffective (Tomlinson 2004) and without power. In Tikina Vanuaso, some people actually felt as if the community during this period was without a leader altogether, supporting, not only the feeling of lost power but also lost identity (Muehlig-Hofmann 2008).

Tomlinson's (2004) observation that people and society in the past were unified, proper, and powerful while the present was fragmented, improper, and

relatively powerless in comparison is corroborated by the present study. Future community-based marine resource management plans will be difficult to develop and implement in a sustainable way given the current changes taking place in rural communities. For example, middlemen are providing modern fishing equipment to village fishers while overseas investors and buyers are purchasing directly from coastal fishers in their villages.

The traditional respect for *i kanakana* (place to eat from) is breaking down because people know that the waters, according to law, belong to the State (Calamia 2003). In other cases, people play with and take advantage of the customary system to benefit them personally, particularly when there is no clear decision-making body or when there is no properly installed chief. In some cases, the people know and take advantage of their chiefs or leaders who can be influenced even to change their positions.

Depending on the case in each place, the requirements for leadership have varied. Some people did not follow the MMA declared by their chief because they were not party to the decision. There are people who did not believe in the resource management activities, which restricted their income earning activities while others highlighted the point that resource management would be more acceptable if it was legally endorsed and enforced by the Government. Moreover, the honorary fish warden appointed could not effectively enforce the communities' resource management arrangements on their own without the involvement of everybody. For example, in Navakavu, the four fish wardens in the four villages could not possibly enforce the resource management in the whole district. Worse, some honorary fish wardens had been caught fishing in the MMA.

Limiting the number of fishing licenses offered to members of the clan is difficult in places where the Turaga ni Yavusa (head of the clan) is the sole decision maker (Thaman and Tamata 1999). The local chief is required to give his or her consent for any use of the customary fishing ground although the Fisheries Department issues the license (Veitayaki, Aalbersberg and Tawake 2003). In many instances, the villagers were not consulted in this process and consequently did not know the other people who are licensed to share with them their fishing grounds. This is the reason why people need to make sure their chiefs are supportive of their MMA and that the award of licenses are known to all the members of the community.

In some of the MMA sites, the chiefs ignored the villagers' point of view and decided on issues that would benefit themselves (Calamia 2003). These chiefs quickly lost the support and respect of their people. In some such cases as we had mentioned, the people formed their fisheries



Figure 38: Turtles are culturally significant and ecologically threatened. *Photo by Susanne Weissflog*

management committee to manage their resources and ignored the deals struck by their chiefs. For effective resource management, the people and their chiefs need to work together.

The offer of fishing license is a challenge because local people did not require a license when fishing for subsistence within their qoliqoli. This is increasingly becoming an issue as more and more villagers take up fishing as their main source of income. Moreover, there is no advice on the number of licenses that is available in an area and the people decide on what they want, based on their situation. While there is no fishing license given in Verata in 2008, in support of their desire to manage their fisheries, there were 16 in Matakaucau with whom Verata shares a common boundary. It was thus assumed that some of the licensed fishers from Matakaucau fished in the Verata fishing grounds. In addition, some people alleged that the Government was offering deep-water licenses in parts of Verata's qoliqoli without their consent. These claims need to be investigated and clarified to avoid double standards, which would weaken resource management at the local level.

The social and customary obligations to the family, village and the church contribute to the overexploitation of marine resources because of the many requirements that need to be met by people whose sources of income

are limited. Some of the people with MMAs continuously asked their chiefs to relax their management arrangement or to allocate more areas for subsistence use. The argument in these cases is that such relaxation reduces the violation of MMAs because the people get to witness the change while meeting their obligations by using their customary resources.

Good resource use decisions should be made because all of the people's financial commitments equated with the resources that have to be secured from some local source. This is the reason why proper planning is critical in local communities where the people need to have the financial resources to meet their obligations. Similarly, resource management will work well if the people's subsistence requirements are properly catered for. Meanwhile, MMAs also attract outside fishers who are drawn to the expected increased number of fishes at the sites (Aalbersberg, Tawake and Parras 2005). For obvious reasons, poachers do not report on other poachers, which make the problem difficult to address.

Resource management practices instigated by the Government are less efficient for reasons such as those highlighted in Box 6 on page 75. These same factors are likely to be the responsible for the poor results of turtle conservation that is promoted by the Government because chiefly support has not been sought. Turtles are a chiefly ceremonial icon and delicacy (Figure 38) that can only be effectively managed if they are supported by the people for whom the traditional fishing is done. Without such support, the turtles will still be fished to fulfill the people's obligation to their *vanua*.

People who resettled into their villages after spending time away commonly question and, at times, disobey the MMA arrangements in their villages. This is sometimes due to the social changes that have made these people less committed to communal obligations. In other cases, these people have returned with some ideas to develop their fisheries and income earning ventures and regard MMAs as a hindrance to their plans. In these cases, the people consider the MMA an unnecessary imposition on their personal right to use their resources.

In line with the transition of subsistent societies, the traditional systems are sometimes exploited by urban dwellers to deceive their relations in rural areas. People working for middlemen or for themselves undermine the MMA activities in their villages or where they have traditional connections for their personal advantage. It is common to hear of visitors present their *sevusevu* to the people to ask for permission to fish in their waters. This exploitative arrangement results in products worth hundreds of dollars changing hands with a minimal

Box 6 Why Resource Management Practices Fail

Resource management plans instigated by Government are ineffective and associated with:

- The lack of understanding and consultation of the leaders in the communities in making decisions pertaining to resource use;
- A lack of understanding about the method or the importance of the management strategy, and
- A lack of follow-up activities by organizations responsible for the management initiatives (Thaman and Tamata, 1999).

amount, if any, accruing to the rural villagers. In other cases, marine resource development and management schemes fail because they are designed with little understanding of the resource users, the ecological settings in which they are operating and their cultural milieu (Ruddle 2008). For instance fishing is attractive because instant profit can be secured - "matua ga ni kua" (matures today).

The search for alternative sources of income in coastal communities has been particularly attractive because of the great need for income in rural areas where the people are paying higher prices for goods and services than for those in areas where the people have secure and regular income and live in centers of economic activity. This coupled with the point mentioned above makes fishing highly contentious. For example, fishers in areas farther from the markets will harvest twice as much as those in nearby villages to cover their higher costs (Tabunakawai, Wilson, Areki, no date).

Calamia (2006) highlighted the need for training, environmental awareness and marine conservation in rural areas. The challenge is to formulate resource use and development plans at all levels. People need to be convinced of the need for new and better resource development ideas, sustainability and management. People need to acknowledge the threats to food sources posed by commercialization of resources and work continuously for sustainable resource use strategies. Although training is now offered through workshops, the effectiveness of this training in all the rural communities is difficult to gauge. Training is important because people in rural areas are, at times, unaware of the requirements of their development activities, particularly the relationship between their business and resource management operations.

In a characteristic case that demonstrated the need for proper understanding of local reality, an uncle chose to relinquish his post as Chairman of their community fishing venture because the boat captain, his nephew, was swindling the project and he could not confront him because they were not allowed by tradition to talk to each other. The owners of the project should not have

allowed the two to work together under this condition. As it played out, instead of relieving his nephew of his duties, the Chairman resigned and allowed his nephew to carry on with his illegitimate activities that were harmful to the venture. Needless to say, the project eventually collapsed in spite of good fishing areas and experienced fishers.

Traditional knowledge, while adequate for many purposes, is no longer applicable under increasing population pressure, new technologies or where new export markets have arisen, and a cash economy developed as a result of Westernization (Ruddle 2008). In Vanuaso Tikina, the Rokotuni from Vanuaso village declared an MMA over his fishing ground, beginning from the passage in Nacavanadi, the neighbouring village. There were allegations that fishers from Nacavanadi regularly fished in his side of the passage as they have very little area left for fishing. Ironically, a number of people in Nacavanadi at that time were operating fish marketing ventures.

In the whole district, the declaration of MMA initially caused social conflict as neighbouring villages disagreed over their common boundaries. Villagers had different boundary claims over their fishing areas and held varying positions when it came to resource management. This volatile and explosive situation fortunately was resolved in traditional fashion, which in a number cases, allowed the neighbouring villages agreeing to declare joint management areas.

In many cases, the full benefit of the MMA is not realized as poaching continues to take place. In these places, not only were social relations strained, the expected recovery in the MMAs did not occur – weakening the argument for resources management in spite of the amazing recovery of the resources within their MMAs. In Navuikailagi, Gau, the regular poaching in the MMA forced the villagers to periodically relax their management arrangements so that they could secure some of the benefits of their MMA. This is the reason why MMAs need to be better enforced.

Community leadership is challenging in rural settings where the customary leaders have not been traditionally installed because more than one member of chiefly

families were giving directives, permission and orders that influence the operation of the MMAs. It is critical that village leaders are properly installed to avoid this type of confusion. Good governance is also challenging because it is difficult for the people to speak frankly if their chiefs are present at meetings (Nauqe 2008). For this reason, the best times are when the chiefs take the leadership and encourage their people to participate in initiatives such as MMAs that benefit them.

Differing views in local communities need to be handled delicately because they often are seen as confrontational challenges to local leadership. Those with differing views are sometimes singled out, criticized or reprimanded. It is important that the people in leadership encourage the people to share their views frankly so that good decisions can be agreed upon. Ironically, good ideas, which are not considered initially, at times, result from the discussions, as long as the people are encouraged to air differing views. It was therefore useful to encourage frank and open discussions if the final decisions are to be comprehensive and inclusive (Nauqe 2008).

The MMA will be better if the chiefs and people unite in their support of their resource management effort. This is difficult with the older generation but can be done by encouraging and strengthening dialogue. As Ratu Joni Madraiwiwi queries, 'How can people be heard if they remain silent? It is not traditional for someone to speak one's mind. However, it is clear that people need to adapt their culture and tradition to suit the conditions they are in' (Nauqe 2008).

The bases for good MMAs – consensus in issues concerning the entire community and traditional respect accorded to the chiefs – are declining everywhere in Fiji (Cooke 1994; Ruddle 1995; Tomlinson 2004; Toren 2004). Research findings also show that the lack of respect is dividing the villages into different economic status and their religious beliefs (Tomlinson 2004). The politics of who is in charge of the community's resources, their use and management influences leadership at the local level.

Indigenous people who can cope with a 'modern' individualistic self-determined life, independent of the kerekere system tend to separate from those that still respect the traditional social structure and deem this as a

precondition for community function and leadership. The notion of having 'too many people who talk', meaning the inability to submit to one leader and consensus is obvious in some of the villages (Muehlig-Hofmann 2008). In Kadavu, some people lament that some 'commoners who earn more money think they are chiefly too, and begin to act – inappropriately – like chiefs' (Tomlinson 2004: 656).

The problems associated with modernization are moving through the country and communities faster than the rate at which solutions are formulated and proposed by those responsible for these. New resource-use technologies are diffusing into the countryside faster than the ability of those involved to formulate and implement resource management plans and actions. The presence of foreign investors and their machines in rural communities are fuelling the rapid exploitation of environmental resources. Although the threats associated with these inventions are recognized easily, the people are slower to organize themselves because the threats are supported by the middlemen and business operators who fund most of the resource exploitation in rural areas.

On Gau, artisanal and commercial fishers in the villages are assisted by the commercial fish dealers in Viti Levu, who provide the boats, engines and the finance to allow these villagers to fish in Gau and to sell their catch in Suva. The pressure on these villagers to produce has pushed some of them to take pain killers (stop ache) to allow them to reach depths they cannot get to naturally. The arrangement with the middlemen is also interesting because it is unlikely that the villagers are benefiting from the undertaking. Apart from their elevated social status associated with their ability to regularly transit between their villages and the main urban centers and the increasing debt they built up, these fishers are effectively working for free for the owners of fishing businesses that provide these equipment and support that are instantly withdrawn when their debt piles beyond a certain level.

Decentralized responsibility in Fiji should not be classified as co-management yet because most of those in position of responsibility have not proven themselves through their resource management activities. Rather, there is a parallel arrangement between the Government and rural communities with the latter relying heavily on their partners to carry the bigger responsibility for

the management of their resources. In these cases, the Government relies on the local governance and self-regulation skills of the coastal fishing communities because of their lack of funds and personal capacity (Muehlig-Hofmann et al. 2005).

Local communities need to learn and put in place new structures, skills and human as well as financial resources to establish their resource management arrangements to mitigate the increasing pressure on their resources. Knowledge of the different options, practices and sustainable management regulations remain scarce, as the resource owners and Government officials still do not have the means to quantify the impacts and pressures on the fishery (Cooke et al. 2000). Hence, they require input from outside agencies (Muehlig-Hofmann 2008).

In Kubulau, some of the people continuously threaten to fish the tabu area if no assistance is received from their partner organizations. This is a serious error of judgment where the resource owners have relinquished their responsibilities to maintain the health and quality of the marine environment because they are focused on maximizing the return from their use while the partners are more committed to managing the local communities' sources of food. This should not be the attitude in local communities because the MMAs belong to them and they are the main beneficiaries. In many of these cases, people need to realize and appreciate the hard work put in by others to assist them in their management of their marine resources.

The strengthening of individual rights in some societies has disrupted community order and arrangements whereas at other times, it leads to social tension. In some cases, some of the elites and leaders involved the communities to line their own pockets. This is why there is agreement about the need for better leadership and decision-making processes in many local communities where the people are unlikely to defend their interests.

The people of Kubulau share their fishing grounds with their neighbours from Wainunu and Wailevu as their ancestors have always observed for subsistence. In recent times particularly after the commitment in Kubulau for their MMAs, it has been suspected that the neighbours have been taking advantage of the enriched fishing ground because of the MMAs in Kubulau. It

has been suggested that the practice of shared fishing be better regulated because it is being abused by the relatives on either side of Kubulau, who are illegally fishing commercially and benefiting from the MMA in the Kubulau district. This is where Government support is needed to ensure that commercial operators meet the requirements of their licenses and do not exploit local communities.

Ongoing changes in local communities make it necessary that people consider their role as stakeholders in their management plan and to facilitate their participation in the management process. In some of the cases, non-community members are either unaware of the tabu or they do not respect it and continue to fish in the tabu areas (Calamia 2003). Moreover, the issue of how many resistant stakeholders are there needs to be upgraded and addressed (Calamia 2006).

The Fisheries Division should be leading the initiatives by coastal communities to sustainably utilize their marine resources. It must put in place measures to enhance the effectiveness of MMA. The Fisheries Division should formulate policies and plans for the setting up of MMAs, provide support to assist community-based initiatives and monitor the implementation of the communities' resource management plans. Co-management will be attained only when all the parties are equally engaged and committed to making effective and successful MMAs.

The Fisheries Division needs to better monitor the use of marine resources throughout the country. At present, one cannot help but marvel at the many activities - some of them criminal - that are taking place around the country. Unlicensed fishers supported by the middlemen to poach in qoliqoli and MMAs; illegal, unregulated and unrecorded fishing; the pollution of rivers and coasts; the selling of fish from unhygienic places; the removal of mangroves, coral and the use of scuba gear by some of the fishers are signs of trouble that need to be addressed appropriately if the health and status of the marine resources are to be effectively addressed. These practices contradict the existing legislation, policies and regulations that must be more efficiently enforced. In addition, the communities that have demonstrated their desire to sustainably manage their marine resources deserve Government support and leadership. After all, it is the State rather than local communities, which has ownership rights over all the marine resources.

7 TAKING ADVANTAGE OF CULTURAL ROLES



Women net fishing off the coast of Nawaikama, Gau. *Photo by Takeshi Murai*

Cultural roles have been an important part of the resource management initiatives undertaken in Fiji throughout history. The people are familiar with many of these resource management traditions and, in most cases, use them. There are norms and effective institutions that support and enforce the people's resource management practices. The challenge at present is to incorporate these resource-use traditions into contemporary resource management arrangements and provide the support to see it work. Present indications are that cultural roles can improve people's resource management activities and make these more effective.

The uses of cultural roles are well illustrated in the MMAs in Fiji. In fact, the MMAs are popular in Fiji because of cultural practices that are the bases of these undertakings. MMAs are extensions of the traditional practices to restrict and reduce the use effort in preparation for events when a huge amount of the resources are required. MMAs in Fiji have taken advantage of the people's cultural roles, which although were prominent in the past, need to be strengthened if they are to be successfully incorporated into contemporary situations where resources management is needed as a matter of urgency to mitigate the increasing instances of overfishing, depleting fisheries resources and altering local conditions.

In many local communities where community-based resource management systems are observed, different uses of cultural roles are being adopted. While no-take areas have been declared in over 200 local communities in Fiji (Figure 39 on page 79), the resources management activities have varied greatly. Although the majority of the communities have declared no-take zones, the specific features for these range from permanent no-take areas, to those where the uses have been regulated, to those that are inclusive of permanent no-take areas, as well as managed areas that are used whenever the communities need to relax their resource management activities. In this concluding chapter, we examine the use of cultural roles in different parts of Fiji to improve marine resources management and will highlight some of the suggestions for how to improve indigenous Fijian leadership and organization.

7.1 USE OF CULTURAL ROLES

In Kadavu, WWF's resource management activities are aimed at developing the capacity of the local communities to design and manage integrated marine conservation initiatives that encourage and foster culturally appropriate conservation methods (WWF no date). The specific objectives of these initiatives are to:

- Design and facilitate the implementation of a community-based integrated marine conservation and development process and formulate a research framework that is culturally appropriate and replicable;



Figure 39: FLMMA's map of Fiji showing some qoliqoli and FLMMA sites. *Source by FLMMA*

- Build the capacity of resource owners and users to assess, develop and manage their marine resources;
- Establish supportive networks with neighboring qoliqoli, government agencies, non-government organizations and other community-based interest groups in marine conservation; and
- Initiate changes to procedures, policies and legislation in support of community-based marine conservation areas.

In Macuata, the WWF conducted a review to inform the staff of the Fiji Country Programme how well the MMA was implemented in the province; whether the current management structure was sufficient; how well the implementation was monitored; how knowledgeable and engaged the households in the 37 villages were about monitoring their management plan actions; and whether the process can be adapted to be more effective (Tabunakawai 2006).

The changes that MMAs have caused and influenced and the challenges that need to be addressed to improve the effectiveness of MMAs in the communities where they are observed are examined and assessed. The lessons learned from these sites can contribute to the understanding of how MMAs operate and how they can be made more effective.

Based on their research finding, WWF South Pacific Programme concludes that nature conservation in the Pacific should be centered on the local owners of natural resources and their cultures and customs (Box 7 on page 80).

Based on her study on Gau, Muehlig Hofmann (2008) argues that awareness (meaning understanding, responsiveness and consciousness) of marine resource management practices will not be achieved through decentralization alone and that there are many things that have to take place first, starting maybe with increased

Box 7 WWF South Pacific Program Principles

- Recognition of the indigenous peoples as the guardians of the natural resources of the Pacific and respect of their cultural values and rights to use their resources for their own development;
- Establishment of effective and innovative models of conservation and sustainable development by communities in four critical Pacific biomes;
- Promotion of the Pacific Island attitudes, policies, institutions and practices that support community-based conservation;
- Striving to work in appropriate partnerships with local communities, other organizations, and government agencies, respecting their positions and addressing their needs; and
Aiming for consistent best available information to seek solutions to the conservation and development issues of Pacific Island countries (WWF, n.d.).

information transfer, education and improved transport possibilities on and off the islands (Muehlig-Hofmann 2008). She argues that compliance by villagers will only be achieved through, strong and respected leadership, increased environmental education at all social levels, and greater support for meeting basic family needs, all of which require better connection of the outer islands with the authorities on the main island Viti Levu (Muehlig-Hofmann 2007, unpublished thesis).

Van Beukering (et al. 2007), adds that destructive fishing methods and other such activities are no longer allowed in Navukavu due to the awareness programmes that showed the people the positive impacts of their resource management actions.

The neglect of management and conservation responsibilities are thus caused by the general loss of 'community' perception and identity, coupled with the lack of knowledge of the surrounding environment. These people have not realized that while the resources are declining due to over-harvesting and altered habitats, the demand has continued to heighten due to larger population numbers, higher demands and more efficient fishing methods.

Community members therefore, invest in larger and more expensive nets, spear guns and newer fishing boats. The fishers smash coral heads and use nets with smaller mesh sizes to get the even smaller fish that are important to provide for future generations. As witnessed today, such an approach does not help because the problem only worsened. The solution is to manage the resources and use these at sustainable levels, which translates to having levels of use that allow the availability of the resources over the long term.

Traditional leadership can be used to spearhead the revival of the close association of people and their surrounding by strengthening their identity and responsibility for the environment, resources and their management (Muehlig-Hofmann 2008). The traditional

totem and special relations with nature are manifestations of the close links that people in traditional communities observed but are quickly disappearing from those in contemporary societies.

A great deal of the community-based resource management work is being tried in different parts of Fiji. In Kubulau, the people have formulated a system that allows them a network of MMAs. Apart from the expected flow on effects of MMAs, the people also benefit in terms of their newfound partners and their MMA and sustainable development work. The people are receiving scientific and financial assistance to manage their MMA as well as to better their lives. Their school children are provided an annual scholarship fund of F\$15,000 that is administered by the Resource Management Committee. The Committee also allocates F\$3,000 a year to Navatu Village to compensate for their fishers' loss of income because of their MMA.

In addition, Greenforce, a non-government and not-for-profit research organization now occupies a beach on Navatu and provides additional revenue and service to the villagers. Based on the advice from Greenforce, the people changed the location of their MMA to reduce poaching. Greenforce researchers worked with WCS personnel to conduct ecological surveys on the people's fishing grounds.

On Gau, the researchers from Frontier-Fiji have conducted scientific assessments and advised the villagers in Nawaikama, Nukuloa and Levuka about the high sedimentation in their coastal waters and their causes. The researchers, who have come from abroad at their costs to assist the local communities on the island with their community-based resource management activities, have provided scientific reports and conducted workshops in the villages to explain their activities and findings. In some of the cases, some specific studies have been undertaken such as the monitoring of turtle harvest during the national moratorium, protecting the shark nursery on the island's Naqali Passage and



Figure 40: A child planting trees in Lekanai, Gau: *Photo by Manasa Rokosuka*

highlighting the status of coral reefs and resources around the island. Frontier-Fiji injected around F\$10,000 yearly into their camp as well as their activities on the island. They were sending their waste back to Suva to demonstrate their commitment to maintain a healthy environment on Gau.

Since 2005, JICA has supported the organization of fisheries management meetings for the villages on Gau and financed some of the follow-up activities such as the research for new commodities and the deployment of fish aggregation devices in the lagoon. JICA has also taken its trainees to Gau to visit some of the village community initiatives. The gesture has pleased the people of the island, who are greatly encouraged by the recognition they are getting. The result of the initiative has been inspirational and motivating. All of the villages participated in the tree planting that is changing the island landscape. Figures 40, 41, 42 (on page 82) 43 (on page 82) show the result of this initiative in different villagers. Led by the Lomani Gau Committee, the tree planting is continuing throughout the island.

The Gau Island Council has been meeting regularly not only to share ideas and coordinate on what is to be done but also to monitor the progress and follow up on the activities that need to be undertaken. Capacity building organized and supported by the external partners has



Figure 41: Rehabilitated coastal vegetation in Nacavanadi, Gau: *Photo by Manasa Rokosuka*

been enhanced and boosted by the regular meetings and training workshops. Local leadership has been strengthened with the involvement and support of the chiefs and other groups such as women and the youth (Figure 44 on page 83). The villagers on Gau are now undertaking a US\$50,000 Global Environment Facility (GEF) Small Grants project to rehabilitate their Island Littoral Environment, strengthen their governance structure and produce educational materials.

JICA is extending its support in Gau through a Sustainable Development and Governance project that will support local people's development aspirations. It will partner IOI-Pacific Islands, Fiji Department of the Environment and the Island of Gau to support the articulation of sustainable development in the local communities. This initiative, with a budget of F\$450,000 will focus on agriculture, fisheries and energy in the first phase with the likelihood of a second phase that focus on alternative sources of livelihood, education, health and infrastructure development.

The joint project was launched in 2013 and has supported more than four study visits to Gau from Mie University colleagues (Figure 45). Some of the resource management and development activities undertaken as part of this new initiative include the construction of a beech de mer enclosure in Vione, to ensure that only



Figure 42: Sandalwood seedling in the nursery Vanuaso, Gau:
Photo by Manasa Rokosuka

animals above an optimum size are sold. The aim is to sell the animals at optimum size and maximum price, an approach that will revolutionize beche de mer trading in Fiji (Figures 46 on page 84 and 47 on page 85).

A number of village development activities have been offered to those that want to be involved in the chosen activities given their own preferences. The activities include 3 bakeries, 3 pig sties and a cattle farm. These new opportunities are to improve resource management on Gau as well as support income generating activities in the villages.

The future outlook for Gau is promising as the villagers are beginning to realise the positive changes they can make to improve their own living conditions while maintaining the well being of their environmental services (Figure 48 on page 85). The villagers are also being supported financially and technically by external partners who are committed to the improvements of living standards in these rural villages. Together, the partners are sharing the lessons that can enhance the transition to the globalised world that we are a part.

In Ucuivanua, Verata, the heads of the *yavusa* plan to establish their Fisheries Management Committee to involve their people more effectively in the management of their MMAs. The people are fostering closer ties with



Figure 43: Cultured seaweed for income in Lekanai, Gau:
Photo by Manasa Rokosuka

relations with whom they share customary rights to promote their MMA activities. Likewise, the people are trying to find effective ways of dealing with their relatives who break the community rules relating to MMAs. The general feeling is that these relations should be brought to the community elders and chiefs to be counseled and, if necessary, reprimanded and punished.

Good leadership qualities amongst community groups are promoted, nurtured, encouraged and shared widely for effective MMAs and community development. The irony is that at a time when leadership is most critical because of the fundamental changes that have to be undertaken in modernizing communities, the traditional leadership system has weakened. Good leadership, whether in government or in the communities, needs to be based on the principles of respect, care, hard work, fairness, righteousness and truth. These leaders need to be competent in the traditional and contemporary issues and challenges. In the Great Council of Chiefs meeting in 2007, the plea was for the chiefs to put aside their armor of pride, and put on a sack of humility, lay all linen, dirty and clean on the table, affirm the right, admit the wrong, seek forgiveness, reconcile, consolidate resources and move forward into a new Fiji (Daurewa 2007a).

The link between the chiefs and the people has strengthened and, consequently, made the traditional



Figure 44: Chiefly support for Lomani Gau: *Photo by Joeli Veitayaki*

system relevant. Both the groups need to be aware of their rights and obligations, just as they need to know that their collaboration within the community is as important as the ties with external partners. Community leaders need to make decisions that benefit the people, lead by example, set and achieve goals, listen to the people, accept advice and share their commonly-owned wealth with their people to earn their support. The people, on the other hand, need to respect and obey their leaders, trust them, work hard, unite, look after each other and work together on the set goals.

The declaration of MMAs by the local communities allows for the immediate reduction in fishing effort, which is the biggest threat to fish stocks in coastal communities around the world. The MMAs declared in the different communities around Fiji provide protection for coastal fisheries and force people to better manage these. The declaration of MMAs represents the best management action taken by the people even if it is without scientific basis because its network greatly enhanced the fisheries. Unfortunately, many of the communities with MMAs have not realized the real impacts of their resource management activities because they continue to prematurely relax these arrangements or are robbed by poachers before accurate data on the state of recovery can be obtained, processed and shared.

MMAs have revived cultural traditions as well as strengthened the links with the outside partners and institutions such as the USP, WWF, WCS, CI, IUCN, JICA, Frontier Fiji and IOI-PI. These partnerships increase the sense of security and belonging in a community (van Buekerling et al. 2007) as it forges links to the past through the cultural roles as well as into the future where the partners are better informed. Recognition from the Government in supporting customary owners is needed to work effectively in contemporary circles.

This study shows that the management strategies and the level of Government involvement varies greatly across

the Fijian qoliqoli and depends on the individual fisheries officers, chiefs and communities involved (Muehlig-Hofmann 2008; Veitayaki 2006). The experience in all the areas with MMA have all been praised because of the positive changes the people have witnessed.

The monitoring that is undertaken in local communities is a direct outcome of the MMA activities. The approach to regularly observe the impact of a development activity is new and has been favorably accepted in the communities to allow for evaluation and assessment. Moreover, the monitoring, which has been dominated by scientific interests, is extended to include social and economic factors that are just as important for making good decisions.

Monitoring results are interesting, even in sites where poaching is known to take place. Although the full benefits of MMAs at these sites are not realized and the results of the monitoring are not conclusive, there are marked improvements and therefore, major differences between closed areas and those used by the people. In the Waitabu MMA, even the visible impacts of poaching did not yet appear to cause permanent damage to the fish population as shown by the large Groupers and Wrasse seen in 2008. If poaching is controlled, fish numbers will quickly return to pre-poaching levels (Sykes and Reddy 2008).

7.2 IMPROVING MARINE RESOURCE MANAGEMENT

All activities undertaken in the local communities require local commitment. All Fijians know their qoliqoli and kanakana so it is easy to control the MMAs if the chiefs and their people work together to enforce their management decisions. According to a villager, it is not proper for their paramount chief to be chasing people off the fishing grounds as the Turaga ni yavusa or heads of the clans should be there to enforce their chief's management arrangements because they have the



Figure 45: Visit to Gau by Mie University partners: *Photo by Kana Miyamoto*

people to carry out their orders. The proposed approach is to use the customary arrangements to improve the effect of MMA in the local communities.

To cope with the effects of change and re-establish a firm basis for MMAs, each community needs to make its own resource management decisions, independently. Functional MMAs require good and enlightened leadership, fair and transparent decision-making and an effective enforcement arrangements, which are absent in many communities. Within the villages, effective MMAs demand better understanding, planning and organization. Outside the villages, the Government needs to recognize the effort of local communities and provide appropriate support. On Gau, and in many other places in the country, the state of the MMAs depend on the people involved, their education and character and a good succession process for chiefs to prevent the long delays in the appointment of their leaders (Muehlig-Hofmann 2008).

The process of re-establishing strong community leadership and stability is highly complex, varying from communities, tikina and the national levels. Contemporary leaders at all these levels need to be well versed in the issues and challenges of the traditional as well as the modern worlds; that cannot be found only by looking back into history. To make MMAs work,



Figure 46: Beche de mer enclosure in Vione, Gau to control beche de mer trade (2): *Photo by Manasa Rokosuka*

individual communities have to find ways of establishing a stable community structure, and an effective system of leadership and governance. If this is not possible by following the customary way of installing a chief, then a new type of leadership, including non-traditional leaders and an appropriate new system of governance can be formulated to address these responsibilities. Resource management is about people organizing themselves to use the resources wisely and ensure the sustainable utilization of the resources they depend on.

In Gau, some of the villagers in Vanuaso Tikina long for respected leaders as elucidated by the following direct quotes, which highlight the potential for taking advantage of the cultural roles (Muehlig-Hofmann 2008):

“It’s up to the elders, it’s up to the church elders, or the family elders, to tell the children how to keep the village and the life for tomorrow; it’s up to the family, [they] got to teach their children, [they have to] see the future of Lamiti, and make a good Lamiti in the future”.

“There is no chief here now; the one that died in February was not installed the Fijian way to be a chief. We have to make a chief, and [then]



Figure 47: Beche de mer in the enclosure in Vione, Gau

he can speak, one command and the others listen; at the moment there is none [no chief] but if we have one next year, we will see the change.”

“It will be better next time in the future, more people to come to the village, good for the tikina and the school, many school kids would be good.”

“I am praying for a good chief, a good village, one voice, people respect each other, that’s what I hope.”

Properly installed chiefs are respected by community members, who cooperate and agree to be governed by the chief with the established rules that are enforced through the customary institutions. This is a strength that must be used properly because it has been lost in some of the villages. In some of the other places, the declaration of the MMAs has strengthened the traditional system because the community members show “respect for resource rules and the leadership.”

In cases where there is no traditional succession process to the current leadership, periods of uncertainty and confusion follow the passing of an installed chief. MMAs



Figure 48: Lomani Gau Committee providing sandalwood for villages

have been direct victims of such leadership vacuums, particularly when those warming the seats (Fiji Times 2009:8) are not committed to the MMA and have no power to stand up to their people who will nearly always take advantage of the situation to ask for the relaxation of their MMA activities. Although this practice of seat warming is known to happen elsewhere in the Pacific Islands, for example in Palau (Shuster et al. 1998), it is not common and may be impossible to achieve in Fiji.

In some of the places in western Viti Levu such as Vuda, the succession process is immediate to avoid the leadership vacuums between the installations of chiefs. It will also be good to have the input of the predecessor. A strong and continuous connection to the Government as well as to other development agencies, supported by an effective transport and communication system will help traditional leaders play an active role in the development of their communities. This partnership is essential if rural communities are to fulfill their responsibilities and resolve to build an appropriate community structure in modern Fiji (Muehlig-Hofmann 2008).

Christianity and tradition, such as *vaka viti* (Fijian way) or *vakavanua* (traditional way), are used to mobilize the community spirit required to formulate and implement the MMAs. While these approaches work well in the past and result in the declaration of close to 200 MMAs,

the current challenge is to improve on the effectiveness of these areas. For this reason, it is suggested that the time is right to use the church to bless the MMAs. All the churches emphasize the teachings of God that are clear on what should and should not be done in terms of the people's relations with one another and their environment. The churches also emphasize that the people live and speak the truth and that they confront their relatives if they behave inappropriately. Moreover, the MMAs can be dedicated and blessed by the church, which can teach local communities some lessons on organization, communication and management.

The Fijian Administration needs to formulate resource management and development plans that all tikina and village meetings implement. This organized approach can quickly mainstream the community's resource management practices and facilitate closer working relations between the Government and the communities. Given the fact that no ceremonial function is considered complete without a presentation of food (Ravuvu 2005:41), the resource management effort should be attractive and meaningful to all the people of Fiji.

Resource management in villages is the best defense against poverty in places where there are no social support systems. Food security is expected to be critical in the future because of the increasing number of people that have to be catered for and their desire to sell their food sources for income. Protecting the food sources is one of the main reasons behind the setting up of MMAs as Fijians do not have the social support to keep them out of poverty if they have no regular income.

MMAs promote sustainable development into many communities and rekindle the close relations these communities have with their environmental resources. However, the task is made more difficult by aspirations in these communities for the maximum utilization of the environmental resources for better income. This explains the regularity with which the MMAs are poached, revised and relaxed. The MMA partners are adopting different approaches such as ecosystem-based management and integrated coastal management to improve people's lives as well as to use their marine resources in a manner that keeps some of the resources available for future generations. These approaches cover the watershed, land use systems and patterns and their impacts on the inshore fishing areas, which were part of the areas under customary ownership. In addition, the approaches also provide for the social, cultural and economic factors that influence or are influenced by the utilization of natural resources by these communities.

The environment management approaches mentioned above take into account the interrelations between the watersheds and inshore fishing areas, in terms of the biodiversity and the habitats they support, and the need to maintain the integrity of these systems from the disturbance and change caused by human activities. The approaches also emphasize the integrity of natural resource systems in supporting income, health and food security for the communities' dependent on these resources and vice versa (Bolabola et al. 2006:102).

Divisions, conflicts, rivalry and jealousy exist in the villages which mean that systems and arrangements have to be put in place to ensure that the community is united and working together. Good governance has been discussed with many of the villagers who agreed that local communities are more powerful working together. Moreover, a system to amicably settle conflicts and disputes must be established. The village is a power base and should not be divided as this weakens the village's institutions. It is the responsibilities of the chiefs, turaga ni koro and church leaders to maintain village unity and purpose and to guard against divisions and factions, which weaken the community spirit.

Sustainable resource use requires that the Government reviews its service to people and supports improvements in communication, information and transport services to enable the people to make their own choices based on genuine understanding of the local context. For the Government to believe that the social and economic situations in the rural areas can be ignored for years, while all of its resources are used to address 'pressing' urban issues is unacceptable and no longer an option.

The fact that the majority of the population is currently and, for the first time, in urban areas is a sign of the contemporary challenges we face. The Government needs to work with these urbanized communities to feed themselves, despite their burgeoning poverty and the loss of food sources. Fortunately, the present Government in Fiji appreciates the importance of the rural communities as it balances the development of the country and safeguards it (Muehlig-Hofmann 2008).

Development and livelihood issues, traditions and traditional authority as well as environment use today and in the future, require specific considerations and adaptations. In order to face these challenges and adapt to future changes while supporting the livelihoods of island communities, the villages require strong and knowledgeable leadership with direct consequence on community welfare and function, the distribution of responsibilities, transfer of knowledge and acceptance of management measures. Sadly, leadership at community

level in many areas has continued to weaken and erode (Muehlig-Hofmann 2008).

The relation between rural communities and Government must improve. Report writing and recording amongst villagers should be improved and promoted to ensure accurate records of peoples' activities are made known to Government. In the meantime, the people need to have better understanding of Government processes and procedures. Such mutual understanding can improve and enhance the collaboration between these two important but often remotely linked circles of influence for local people. The cooperation and collaboration of Government development agencies and local communities are required for the good life of all in the future. People must act collectively and as individuals to address the common problems they face. Moreover, the local people must unite in doing MMA work in their places because they are the main beneficiaries. The various new topics that the people learn in training should be manifested in the action they undertake afterwards.

Community-based management and enforcement plans must be in accordance with the will of the majority who need to make decisions on the basis of their own interests. The terms and conditions of the MMA should be decided by the people after taking the best advice available to them. Thus, there can be periodic relaxation of management but the time has to be determined and agreed to by all because all of them have made sacrifices for the cause. Anything less will cause uncertainty and conflict, easily divide the community and weaken support for community initiatives. This has to be avoided at all cost.

The law of the country must be obeyed in the villages. Unlicensed fishing for commercial purposes must be stopped. Bans on turtle harvesting and the harvest of endangered fish and shellfish species must be observed. In addition, duva (fish poison and stupeficient) and the use of underwater breathing apparatus should not be allowed while the fishing of undersized fish must be prevented because these will be better used when mature. Night fishing must be regulated while the fishing of spawning aggregations must be banned because of the negative impact on stock enhancement. These activities are essential to the desired recovery of the fisheries resources and need to feature in an education and awareness programme that must be put in place to support these local initiatives.

The community-based resource management projects in Vanuaso Tikina on Gau (Muehlig-Hofmann 2008) have built a holistic approach to the management of resources in this area, an approach that can make management

measures more meaningful, sustainable and successful. The consideration of these community initiatives to improve local resource management and conservation must be supported widely and incorporated into funding opportunities and policy-making processes.

Rural communities are in danger of becoming less and less traditional, and more and more underdeveloped in relation to the urban regions of Fiji. Although villagers aspire for improved quality of life, better access to sources of income, up-to-date information, improved infrastructure and reinforced community leadership, attempts to attain these conditions have been slow and often unsuccessful (Muehlig-Hofmann 2008). Muehlig-Hofmann's (2008) study on Gau gave an example on how villagers can be caught between needing development and wanting adaptation and improvement, and their former traditions, which they lost but still mourned. People, in the meantime, are becoming less dependent on the traditional cultures, a situation they never imagined a few decades ago.

Many people who have made their way to towns or abroad cannot imagine going back to their villages. At the same time, the people in the villages are adopting commercial fishing and farming practices and are asking for infrastructure and development that will positively impact their lives (van Buekering et al. 2007). According to Muehlig-Hofmann (2008), what remains are societies that are not traditional anymore but are 'developing' versus the 'old' traditional but undeveloped ones. While there is some truth in the perception that the traditional system is eroding, it is uncertain if the rural communities have already moved too far from their traditional lifestyles to "turn back" and re-establish their pre-colonial traditions. These communities have to adapt their lifestyles to the changing circumstances in modern Fiji, a country that is continually debating whether or not to move away from its pre-independence status, characteristics and identity.

The people interviewed on Gau considered "returning to the system used in the past" not the best option for community welfare, nor for the management and conservation of their resources, as these communities do not want to stand back while Fiji and the world progress and develop around them (Muehlig-Hofmann 2008). How then can MMAs that are based on customary practices work successfully in these communities? The dilemma of being caught between the past and the future without direction for the present will shed some light by the enforcement of the leadership, authority and governance, for instance, through the faster installation of new chiefs, under the responsibility of each individual community and each island.

The villages and all management processes and levels within Fiji require appropriate and continuous leadership, useful for all aspects of community reality and linked to the Government, NGOs and other stakeholder activities. A key element of success has been the teamwork approach that united traditional values and modern science (Aalbersberg, Tawake and Parras 2005:149). Otherwise, the “traditional” independent life in the small islands and villages will be further detached from the general way in which the country steers and identifies itself.

Whether the present traditional chiefly system can survive these changes and regain the ability to fulfill its duty of leading and sustaining the communities, or whether it will be replaced by a new type of leadership, for example by including non-traditional leaders into the nomination process, can only be speculated upon at this point (Muehlig-Hofmann 2008). Obviously, the latter will be an even greater departure from tradition in some ways; and even with a locally elected leader, having the blessings of the community elders, this way will not be accepted in all communities. However, the fact that some people other than members of the chiefly mataqali perform as village headman in some of the villages show that changes can and are being made.

Nevertheless, if the traditional Fijian system cannot convey the necessary kind of leadership anymore, for example due to a lack of competent people of chiefly descent – electing an educated and charismatic leader of non-chiefly descent will mean a boost for some communities in terms of identification, welfare and development (Muehlig-Hofmann 2008). Respect, social capital and collective action can be rebuilt and are essential for future community existence and environment management - the islander’s “bank, insurance and safety net”.

Community-based resource management efforts in Fiji have to remain case-specific – as acknowledged by the fourth principle of integrated coastal zone management (Cicin-Sain and Knecht 1993) – local specificity. The uniqueness of each and every place is crucial to the success of the approach despite the fact that generalizations are wanted and needed, e.g. for national, regional, island and village management plans. The changes in the villagers’ everyday lives, influencing management regimes are not the same in all villages, island, region or nation, and one cannot generalize community concerns because the actions depend on the individuals involved in each case (Muehlig-Hofmann 2008).

7.3 IMPROVING INDIGENOUS FIJIAN ADMINISTRATION

It is obvious that the Fijian Administration needs to be made more relevant to lead the people towards the challenging times ahead. The long list of challenges facing the Indigenous Fijian Administration, mentioned in Chapter 4, has been reinforced by the discussion in preceding chapters. Indigenous Fijians now need to be involved in initiatives such as the sustainable use of their natural resources that will affect their wellbeing and their active participation in the social, economic, political and ecological activities of their community and nation. This has been one of the aims of the Bainimarama Government since 2006.

Any restructure of Fijian Administration should improve the service to rural communities (Tu’uakitau et al., 2003: 108). There is the need to strengthen leadership at the Tikina and village levels to enhance the implementation of the decisions of the group as well as that of Government. There is a need to address the inherent deficiencies that have dogged Fijian Administration for the last 50 years.

The main role of the Fijian Administration is the implementation of Fijian development activities formulated and agreed to by the people and Government. These development activities should be the basis of the follow-up and monitoring, as well as the facilitating role of the Provincial, Tikina and village councils. These institutions all need to be strengthened, provided with resources and be closely monitored on their performance.

Section 7(2) of the Fijian Affairs Act [Cap 120] lists the duties of the Provincial Council as: “make such by-laws for the health, welfare and good government of, and, subject to the approval of the Minister, impose such rates or charge such fees to be paid by Fijians residing in or being members of the community of the province as may be authorized by regulation” (Tu’uakitau et al., 2003: 29). Regulation 25(1) of the Fijian Affairs [Provincial Councils] Regulations, 1996 states the following additional responsibilities: ‘The function of a Council shall be to formulate and implement policies for promoting the health, peace, order, welfare and good government of Fijian residents in the province, to formulate and implement policies for promoting the economic, cultural and social development of the province, and to carry out such other duties and functions which the Minister or the Board may see fit to delegate to the Council’ (Tu’uakitau et al., 2003: 29).

Regulation 13(1) of the Fijian Affairs [Tikina and Village Councils] lists the following functions of the *Tikina* Council: ‘It shall be the duty of the Council...to consider

such questions and make regulations, orders and by-laws concerning the good government, welfare and prosperity of the *Tikina*, and to implement regulations, orders and by-laws that are enforceable within the *Tikina*; determine local priorities for development and in assisting with the attainment of social, cultural and economic goals; provide a forum for the discussion of *Tikina* problems and act as a vehicle for the enforcement of Provincial Council resolutions relating to the good government, welfare or prosperity of the inhabitants of the *Tikina*, and as a means of airing and resolution of disputes; be a forum of channeling of decisions of the Government and Provincial Councils to the people of the *Tikina*, and the views and resolutions of the people of the *Tikina* to the Government and Provincial Councils; and be a forum for consultation and formulation of action plans on *Tikina* issues and challenges, focusing on key priority sectors namely, economic resource development, social development, cultural constraints and poverty, financial and business management and, political and leadership development' (Tu'uakitaui et al., 2003: 31-32).

Regulation 29 of the Fijian Affairs [*Tikina* and Village Council] 1996 outlines the function of the village council as: "develop and improve the economic base of Fijians; implement policies to improve and develop the health, housing and sanitation needs; implement policies to foster education, formal and informal, for the benefit of the village; safeguard and improve spiritual development based on sound moral principles, teaching and unity of the village community; formulate rules to ensure that respect and due regard is observed in the village, in matters affecting traditional authority, discipline and protocol; and ensure that all subordinate legislation and resolutions made by the Board, the Provincial Council and the *Tikina* Council affecting the people in the village, are explained clearly to them and implemented for the good governance of the village" (Tu'uakitaui et al., 2003: 36-37). Poor understanding and commitment to the above mentioned roles has resulted in the slow performance at the province, *tikina* and village levels, affecting people's contribution to their development, as referred to in preceding chapters.

Nakawaga village, in the interior of Cakaudrove Province, has witnessed social, economic and political changes over the last 40 years that have transformed it from a typical Fijian village to a dynamic and modern one with its own promises and challenges. The village is now accessible by public roads and has electricity. The village children attend the same school with their relatives from Nukubolu, the village upstream. Village land is about 9,600 acres, of which only about 30 per cent is used for farming. The bulk of the village land is undeveloped and has the potential for future use. The villagers continue to

practice communal farming methods to cultivate yaqona, dalo and coconut (Wainikesa 2005).

Village development, under the leadership of the Development Advisor and the Development Committee, has been part of Government's self-help policies. Through good leadership and commitment, the villagers have successfully completed a number of major developments. They have built their church and their catechist residence through an agricultural project; acquired electricity by working with the Fiji Electricity Authority (FEA), collaborated with Government to secure a public bus service for the villagers; put into place a modern water system; financed and built a footpath around the village; built and operated a Village Resource Centre; planted an eight year yaqona plantation; developed their self-helped Fall and Caves ecotourism operation; and built a flood wall project designed to protect and prevent future floods. The villagers have also been recipients of the Government's Housing Relief Assistance that provided twenty-one homes up to 2004 (Wainikesa 2005).

The villagers hold their Annual General Meeting in the first week of January every year, where they review their year's plan and assess its implementation. The villagers' implementation rate is normally around 90%. Planning activities are based on the presentation of concept papers by the Village Advisor. These presentations include the overview of development from 1994 to the present, the Resource Centre, church leadership, traditional leadership, Strategic Plan, family leadership, drug use and abuse, foundation of good leadership, ecotourism development and environment conservation (Wainikesa 2005).

The villagers' Sector Development Plan 2005 - 2010 has as its goal, the enhancement of overall social, economic and development of the people of Nakawaga, using Government and village resources. A Village Education Committee plans, implements and monitors the education of all students in schools as well as the village kindergarten. A scholarship fund has been set up from the proceeds of the ecotourism venture. The Committee also organizes non-formal education on topical issues important to the villagers (Wainikesa 2005).

Agriculture has been the cornerstone of all the village development activities. At the moment, the villagers have Iteni – a yaqona farm to provide a Trust Fund for the church so that the people are not asked to pay for this expense. The villagers are targeting to make \$FJD1,000,000 over 10 years and they are asking Government to provide a proper road to Iteni. The villagers are replanting their copra plantations destroyed by Cyclone Emi. Family units are pledging to increase

productivity, expecting better prices due to better marketing arrangements (Wainikesa 2005).

In 2005, the villagers designated a three-mile long stretch of the Turiwai River as their River Fish Conservation area. The area breeds all river fish species, but only the fish outside the Conservation Area is allowed for harvesting. The plan is to see the completion of all houses with electricity, flush-toilet, bathrooms and kitchen. The Resource Centre also needs a kitchen, washrooms, toilets and ceilings. The villagers have committed \$30,000 for the Village Flood Wall project, which is erected to protect the village from heavy flooding caused by intense logging in the watershed by their relations in neighboring upstream villages (Wainikesa 2005).

Nature tourists from Savusavu are hosted on a weekly basis with the next step to offer homestays in the village, utilizing the modern home facilities that are available. This will provide additional income to the villagers. Logging is not supported by the villagers who are living with the damaging effects of logging authorized by their neighbors. There is allegation that corrupt practices are used to secure the logging concession on mataqali land. In Nakawaga, the villagers want to protect their forests and land because these are important for the agriculture and village development for which they aspire. The villagers planned to plant mahogany, which they have agreed will be organized by family units. This will follow the communal effort to rehabilitate the coconut plantations destroyed by Cyclone Emi (Wainikesa 2005).

The conservation of environment resources has been the target of the development approach adopted by the villagers of Nakawaga. They have protested to the Native Lands Trust Board, seeking the discontinuation of the logging in the watershed of the Turiwai River. The villagers have vowed to continue the campaign against

logging and the pursuit of conservation initiatives to cover fisheries (inland water) and forestry. The villagers plan to collaborate with the Senior Divisional Medical Office (Savusavu) to open a nursing station in Nakawaga. This partnership already operates a dispensary as part of the Resource Centre and plans to expand on this. The villagers have agreed to establish a million dollar trust fund to support the Methodist Church activities and relieve some of the financial obligation of church members. This will enable the villagers to attend to their family responsibilities that include education, nutrition, house improvement and social service (Wainikesa 2005).

Good leadership is required in all levels of governance for all the main activities including church, community and Government. The progress in Nakawaga is significantly the result of the role of the Village Advisor and the Development Committee, which includes the Resource Management Committee, Education Committee, Village Committee, Marijuana Committee, Youth Committee, Women Committee, Church Committee and Traditional Leadership Committee. The women's role in community development is recognized and is the basis of improvements in home facilities such as toilets, bathrooms, kitchens and homes. Women are provided training and supported if they pursue tertiary education. The village youths have a registered and planning group. There are plans to open a Technical Vocational Education Training (TVET) school (Wainikesa 2005).

The developments in Nakawaga are largely due to good enlightened leadership backed by hard work and perseverance. The villagers have witnessed the outcome of their development activities and are not resting as they focus their attention on every aspect of their rural life that needs to be addressed to allow them to live comfortably in modern times. The villagers are fortunate to have a member who has the vision to introduce reform through

discussion, education, social and economic programmes. Although there was resistance at the beginning, unity prevailed when the people saw the positive results of the changes. There is evidence that change in rural villages are possible if the “painstaking issues of reforming and adapting traditional forms of leadership” is blended with good governance and the rule of law (Wainikesa 2005: 25).

The Bainimarama Government is addressing many of the challenges referred to in the Tu’uakitau Report. Its commitment to upgrading the living standards, infrastructure and the involvement of people in rural areas illustrates its commitment to addressing these issues.

The draft village law is a good example of what the current Government is trying to achieve in ensuring that villages, as the basis of Fijian organization, is effectively functional. The village law has been formulated to ensure the execution of village council decisions; the strengthening of village life and daily service and the connection between village administration and leadership with the national goals and plans; support village leadership in the promotion of lawful, peaceful and prosperous life for all; protect the villagers from the unlawful practices that threaten the fabric of peaceful existence in the villages; link the villages to the various Government Departments and agencies that promote lawful practices, healthy living and prosperity; introduce the tradition for which Fijians are renown and preserve the harmonious lifestyle and communal living that recognize the importance of cordial interpersonal relations and existence (Wainikesa 2005).

The village laws emphasize the respect for the village, the chiefs and elders, Government officials, the church and visitors to a village and the preservation of Fijian traditional and customs. Anyone acting contrary to the village law can be charged under the proposed law. The village law, outlines the establishment of village councils

or meetings, which is the most important in any village. All village organization and activities need to report to the village council, which is responsible for the operation of the village to provide for the needs of its people and the preparation of its leaders. The village elders roles and those of the Turaga-ni-Koro are spelt out in the legislation together with the protection of the people and their property, healthy living and of course, the penalty for those that break the law (Wainikesa 2005).

Although traditional respect and social ties are loosening, they occurred in different areas and with different people with varying speed and manner. Hence, the aspects mentioned in this book cannot be considered independently; they form a complex nexus that differs from community to community and place to place. For deeper insights, understanding and generalization of statements, larger-scale follow-up research is needed to unequivocally address the issues raised above.

Furthermore, focused studies on specific aspects of social environment in the communities and the development history of each island are needed. Apart from a reinforcement of the leadership system, this work suggests long-term research and assistance based on and wanted by the communities themselves, in order to detect the specific community concerns and integrate them in the management planning process (Muehlig-Hofmann 2008) that is part of the ongoing changes taking place.

People need to always remember the interests of future generations and must strive to safeguard these. MMA action must be taken based on what is learned and should be consolidated. Similar to what Kevin Rudd, the former Prime Minister of Australia explained in relation to climate change, the cost of inaction is more than the cost of addressing the effectiveness of MMAs.

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GLOSSARY

Balolo	Eunice veridis
Ba ni ika	Fish fence constructed using reeds and stick walls
Bati	Warriors and planters
Bete	Priests
Bose ni Tikina or Bose Vanua	District meeting
Bulubulu or matanigasau	Atonement is the presentation of <i>yaqona</i> or <i>tabua</i> (whales tooth) to seek forgiveness for any serious breach of protocol, norms and customs
Burebasaga	One of the 3 confederacies in Fiji; headed by the Rokotui Dreketi in Rewa
Butu	Set foot on; ground truth
Covicovi ni draudrau	The land given by a woman's relatives as presented on her wedding. The land is to be used by the women and her descendants to gather the leaves they use to cover their pots
Dai ni ika	Woven fish traps
Dau kelevi ga na toba e malumu	Vessels anchor only in calm bays
Dui seva ga na bua ka tea	Picking frangipani from the tree one planted, people reaping whatever they sow
Dreu	Jovial and joking but close relation between people from Vanua Levu and those from some parts of Viti Levu
Duva	Fish poisoning
Ena vulai se na balabala	Month when ferns blossom – an event that will not happen because the fern is a non-flowering plant
Galala	Freedom. To live on once own outside the village and do as one wishes
Gonedau	Fishers and master fishermen
Kanakana	Piece of land or sea where people source their food

Kaci ni vanua	Call of the land. Associated with the wishes and desire of the people of the land
Kaci ni lotu	Call of the church. Associated with the wishes and determination of the church
Kaikoso	Anadara antique
Kana veicurumaki	Sharing subsistence resources with people from other groups; a common practice between groups that share common borders or ties
Kerekere	System of gaining things by asking from someone else, ensures that surpluses are shared by people, preventing the accumulation of wealth
Kubuna	One of the three confederacies in Fiji; headed by the Vunivalu in Bau
Kunekune na yaloka ni dilio	Finding the egg of the Cyatheaaceae; something that is unlikely to happen because the <i>dilio</i> is a migratory bird that flies to far away Siberia to breed
Lutu na niu lutu ki vuna	Coconut fall next to the coconut tree; people's children will do as their parents
Loloma	Attention, compliance, love and kindness
Lomani Gau	Care for and treasure Gau
Lotu	Worship; Christianity
Lovo	Earth oven
Mata ni Vanua	Herald
Mataisau	Carpenter
Matanitu	Bureaucratic government
Mataqali	Clan or land owning groups or a respectful relation between people from the <i>Kubuna</i> Confederacy
Matua ga nikua	Mature today
Moka	Stone weirs
Mositi Vanuaso	Treasure and care deeply for Vanuaso

Naita	Jovial but close relation between people from Kubuna and Burebasaga
Qalova uaua na moka	Wading into the stone weir at ebbing tide; someone has prematurely done something without waiting for the right time; often associated with failure or loss
Qoliqoli	Traditional fishing ground belonging to a particular local group
Qoliqoli cokovata	Combined customary fishing areas for Mali, Sasa and Macuata
Qusi ni buno	Wiping of sweat; a feast provided by a person or group to thank those who contribute to a collective effort that was asked for by the hosts
Qusi ni loaloa	Wiping of darkness; a ceremonial presentation and feast hosted for those who assisted during a difficult time and need - a ceremony to repay one's debt
Rau	Coconut fronds wrapped around vines; used for fish drives
Roko	Provincial administrator
Samu	Disturbance and commotion to chase the fish towards the set nets; people making loud noise as they proceed towards the net
Sa sega na vakarokoroko	There is no respect and politeness
Sevu	Offering of the first crop from the garden to the chiefs, the landowners and to the church as a token of appreciation for the land and the harvest
Sevusevu	Introductory protocol where the visitors present <i>yagona</i> (kava) on their arrival to those they are visiting. Practice ensures that the members of the community are aware of the presence of visitors among them and protect the visitors from the wrath of the spirits who show offence when customary protocol is not followed
Tabu	Restricted or not allowed
Tabua	Whale's tooth or cultural significance
Tadutadu	Where one is received when visiting a different place; close traditional ties
Tako-lavo	Relation between some districts in Viti Levu where people have special ties
Tauvu	Jovial but close relation between people who are closely related because of their traditional gods

Tikina	District that may include a number of closely related villages
Tokatoka	Extended family
Tovata	A respectful relation between from the Tovata Confederacy-one of the three confederacies headed by Cakaudrove
Turaga ni koro	Village headman
Turaga ni vanua	Chief of the village/ area; elders
Vaka vanua	Way of the land and people;traditional way
Vaka Viti	Fijian way
Vakarokoroko	Deference
Vakaturaga	One's action and character like that of a chief
Vanua	Largest grouping of kinsmen who are structured in a number of social units; human manifestation of the physical environment to which members claim to belong to and to which they belong
Vasu	Special rights in the maternal place of origin
Veidokai	Show and command respect
Yalo malua	Humility
Yavusa	Tribe
Yaqona	Grog or kava, <i>Piper methysticum</i>



JOELI VEITAYAKI is Associate Professor at the University of the South Pacific (USP)'s School of Marine Studies. He is also Director of the International Ocean Institute-Pacific Islands, which is based at the USP. He is from Malawai Village in Gau, Fiji. Joeli grew up in his village and as a youngster learned to plant, fish and relate to people from his Uncle and Aunt who raised him.

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ANNETTE BRECKWOLDT (PhD) Annette is a marine biologist by training and for this has complemented studies at the University of Bremen (Germany), the University of Liverpool (UK) and the Hawai'i Institute of Marine Biology (USA). After her studies she worked for UNESCO at its Headquarters in Paris in the joint sections Coastal Regions and Small Islands (CSI) and Local and Indigenous Knowledge Systems (LINKS). In 2007, Annette finished her PhD in collaboration with both Newcastle University (UK) and The University of the South Pacific (Fiji) on interdisciplinary aspects of community-based qoliqoli management. In the following years, Annette helped to organize an international conference on Interdisciplinary Progress in Environmental Science and Management, which was held in Newcastle (UK) in 2011. She is a part-time lecturer at the University of Bremen at the faculties of geography and biology and works as part-time postdoctoral scientist at the Leibniz Center for Tropical Marine Ecology (ZMT) in Bremen. Annette lives with her grandmother, her husband and two children in Bremen.



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ADILAGI BULAI is the Secretary for the School of Marine Studies, in the Faculty of Science, Technology & Environment, USP. She has worked in the University for more than 30 years having started work in the School of Natural Resources which at the time was based in the Old NZ Air Force Hangar at Laucala Bay. Nanise moved to the main campus when the School became the School of Pure & Applied Science. She then moved to the Staffing Office, now the Human Resources Office. In 1990, Nanise returned to the Old Air Force Hangar to the Institute of Marine Resources, which became the School of Marine Studies in 1998. She remains there to this day supporting students, staff members and researchers who seek her assistance and in-depth knowledge of the USP, Fiji and the Pacific Island Countries. Nanise continues to work in the background in organizing class activities, training courses, conferences, meetings and research activities that keep the School operational.

TEXT Text

Living From The Sea: Culture and Marine Conservation in Fiji

Living From the Sea: Culture and Marine Conservation in Fiji explores the intricate web of culture, traditional practices, structure, beliefs and knowledge of local communities in the Fiji Islands and its significance in the management of marine resource as well as island development in general.

This book provides a complex and dynamic synthesis of activities and undertakings observed in local communities to highlight the importance of cultural factors in influencing resource management decisions and their effectiveness. In addition, the book outlines the factors that contribute towards sustainable development in rural communities. Drawing from local examples in rural development and the strengthening of the human capacity, *Living From The Sea* shares ideas, experiences, challenges and outcomes of community-based marine resource management initiatives trialed in Fiji. Consequent changes associated with marine managed areas are highlighted while a way forward that takes advantage of the cultural roles of the islanders and their respective influences is shown.

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