

Migrating islanders and related community aspects: Effects on community-based marine resource management

Annette Breckwoldt¹

Abstract

International and national interisland migration has always had a major influence on Pacific Island societies, cultures and economies. Although always necessary for survival, migration has also destroyed community functions. In many cases, however, migration is not uni-directional (e.g. young people leaving the village to seek an education and/or to work elsewhere), but circular, as when young islanders return to their home village after some time away. This article draws on information from a case study in rural Fiji to examine the effects of national migration on community-based marine resource management as embedded in the social, cultural and economic realities of the village. The negative effects often seem obvious: villages become depleted of their young members, leaving the elderly to perform everyday tasks, thereby destabilising the community. But the positive trend of circular migration for financial or family and/or social reasons, also becomes obvious as these often educated “agents of change” return and contribute to the re-stabilisation of communities.

Introduction

The migration of young people — both among islands of the same country and regionally — has always had a major influence on Pacific Island societies, cultures and economies. The three most prominent directions — to New Zealand, Australia and the USA — are not the focus of this article however. Rather, the focus here is on national migration that was initially indispensable for survival, then later for labour and financial reasons, and for education. However, such migration also disrupts the functioning of communities and islands. Effects can include changes in land and resource use, decreased agricultural output, loss of capital, and worsened skill composition within communities (Faust 1996). Migration formed part of traditional life, as when people left their villages for marriage (Faust 1996; Ram-Bidesi and Mitchell 2005), but has now become a general and common phenomenon throughout Fiji. Rural-urban migration increased after WWII as people sought a better education than was available in rural areas, or improved access to labour, or simply “for a perspective” or “a more exciting life”, and even to escape from social obligations (Faust 1996).

But what does a small island community do when its young, working-age people are leaving? This question is more relevant today than ever. Now it is complicated by the fact that, on the one hand, each

family is trying to ensure the best possible education and employment for its children away from the home island, whereas on the other hand, there exists the silent conviction that island and village settings are the best (not only morally) places for living and raising a family. This ambivalence is ubiquitous and unresolved for Fijian rural families in places such as Gau Island.

A reverse trend, however, has also been observed. In the 1990s, 25% of urban-rural migrations were accounted for by “circular migration” or re-migration to native villages, mainly for social and family reasons (Bedford 1985; Faust 1996). National (internal) circular migration from village to town and back to the village is the predominant form of movement in Melanesian countries (Minerbi 1990). Thus, home islands and communities remain the principal centres of life, even if people experienced and were influenced by urban environments (Bedford 1985). Emigration and re-immigration have consequences for social interaction, community action, stability and identity (Faust 1996).

At the same time, these factors are the core ingredients for successful, community-based marine resource management (CBMRM), which is more prominent in Oceania than in any other tropical region (e.g. Johannes 2002). For decentralised multi-island states such as Fiji, CBMRM seems an

¹ Independent Researcher, Bremen, Germany. Email: annette@breckwoldt.org

outright necessity, one that brings both benefits and obstacles (e.g. Hviding and Ruddle 1991). By paying attention to the more traditional notion of local communities as “webs of social interaction tied to place, history and identity” (Jentoft et al. 1998:429), an increasing number of managers and researchers have recognised these core ingredients for CBMRM.

The realities of an island’s complex and changing environment and people’s perception of this environment are embedded in social, cultural and economic community factors that influence CBMRM regimes, often in ways that have not hitherto been fully acknowledged. These aspects are highly inter-linked with CBMRM, partly because they determine everyday community activities, people’s attention to and participation in them, and community structure and social capital. They are challenges to their thinking and behaviour, and are directly important to the management of their environment and marine resources and, hence, way of living. The role of migration must be acknowledged in these terms because young “change agents” play a vital role in CBMRM, sometimes disruptively, but also often constructively, by assisting with community efforts and specific concerns. This paper attempts to define the status of communities as they balance between development and tradition, new and old. Is it still realistic for rural Fijian communities to aspire to be “traditional”?

Study site and methods

This article reports on an aspect of research conducted in 2007 for a PhD dissertation. Fieldwork was conducted in four coastal communities in Fiji (Malawai, Vanuaso, Naovuka and Lamiti), which share the same fishing ground (*qoliqoli*) in Vanuaso District (*tikina*), eastern Gau Island (Figs. 1 and 2). Gau belongs to the Lomaiviti group of islands that forms the eastern centre of the Fijian islands. Spread over an area of more than 12,000 km², the islands in the Koro Sea are an important part of the Fijian reef system (WWF 2005), even though they have received little attention in the scientific literature (Lovell et al. 2004; Spalding et al. 2001). Over the past decade, community workshops on conservation issues and the development of management plans for the *qoliqoli* and coast in general (e.g. protected marine areas, gear restrictions, mangrove rehabilitation, waste management) offered close contact with and access to the communities.

During fieldwork, eight life history interviews were conducted to provide information on village life and demographics, village environment, development and livelihood issues, and traditions. Selected interviewees were all over 60 years of age and had lived on Gau for most of their lives. Towards the end of the interviews, the older people were asked how they saw the future of their respective village

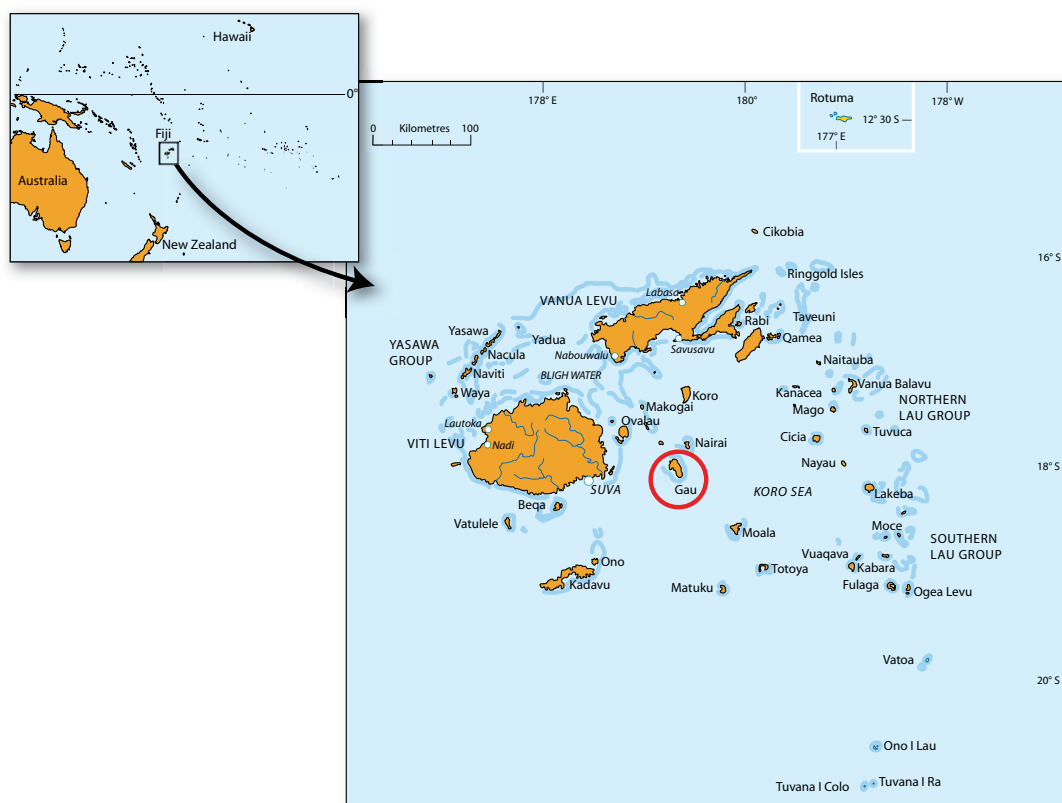


Figure 1. Fiji and the Gau Island (red circle).

and its people, and what the future holds. This was complemented by information derived from four focus group meetings. In each community, a focus group meeting was conducted with four working-age women, using guiding questions on subjects concerning family life and perspectives on the future of the villages. Participant and non-participant observation was conducted for eight weeks, during nine visits to the villages. In this way, information complementary to that generated through the interviews could be obtained on village life, family issues, habits and responsibilities. This involved the author participating in and observing the daily activities in the communities.

Interviews and focus group meetings were held with people from at least 10 different *mataqali* (clans) in order to prevent interviews from taking place with members of the same family, thereby potentially restricting the breadth of information. Individual interviews took place in the houses of the respective interviewee, while focus group meetings in each village were held in the house of one of the interviewed women. The information gained during focus group meetings was recorded in a notebook; when asked, women often said they preferred this method to using a tape recorder. Life history interviews were taped because the elders had no objections and the interviews were of a more narrative and extensive nature. Quotes used in this article were extracted unchanged from interviews. Interviews were conducted with both men and women, and with people of different ages, in order to gain a variety of perspectives on the individual villages and their respective situations.

Migration and CBMRM

Resource management involves restrictions on the ways in which people exploit resources, behave or move (Jentoft 1998). These decisions need to be made, approved and shared by young villagers, who are simultaneously searching for their way as adults in a rapidly changing world.

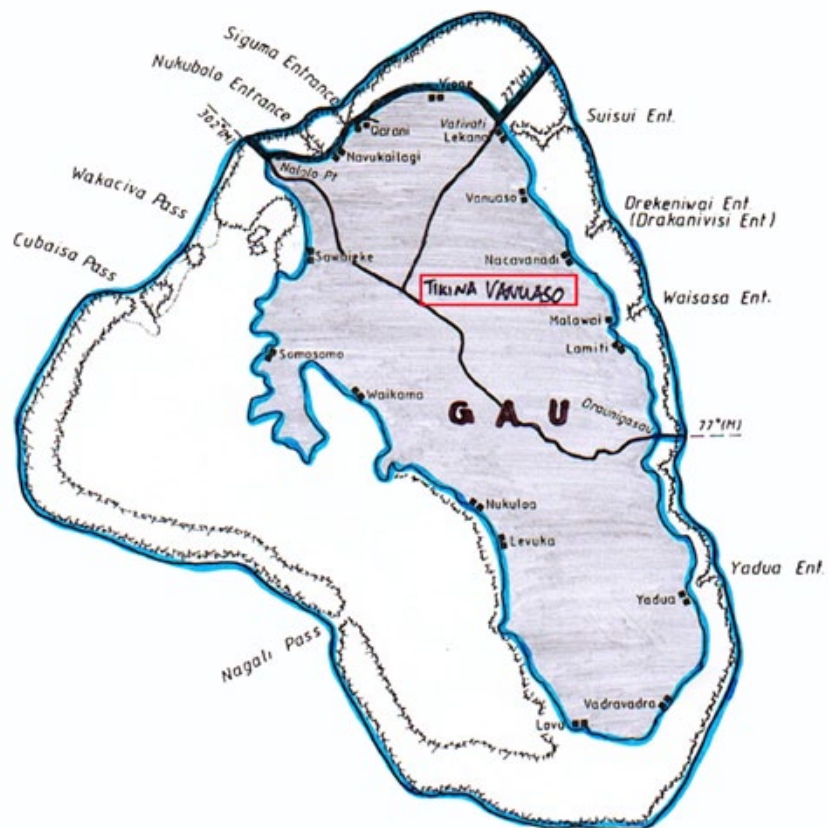


Figure 2. Gau Island, with *tikina* Vanuaso outlined in red.

The migration of young islanders could facilitate CBMRM, because deliberately (successful) returning villagers can take on responsible social tasks within the community after their education and experience with labour and life in urban areas. These circular migrants may want to invest their savings into agricultural production and assume economic tasks to maintain their urban living standards (Faust 1996). Returning villagers can also mediate and impart information and innovation between the community and the “outer world”.

Based on interviews for this research, it is possible to generalise about the reasons for migrants returning to their home village.

- A person likes being in the community; wants to contribute to the well-being of one’s village’s and assume responsibility; has a strong identification with one’s village and island and feels out of place when away from it; has very positive childhood memories.
- Economic conditions are seen as preferable and income possibilities as better in the village; a person can own land in a village, unlike in town, and can plant and harvest their own food; because it is necessary to pay taxes in the home

village, even when living abroad, one might as well live there and take advantage of what the islands offer.

- A person may not return to the community by choice, but rather must come back because they could not keep a job or got into some sort of trouble, or did not want to integrate into a regular job-structure (i.e. getting up at eight every morning); a person may find village life hard and would prefer to be in town with all of the amenities, such as food stores and cinema; a person may also be jealous of others living in urban areas.
- A person may have to return (often temporarily) to take care of an old or sick family member, and will only feel free to move again once that person passes away.

Obviously, involuntary “returner” may have a very different and potentially less helpful contribution to make to local management regimes, depending on which of the above reasons made them return home (e.g. whether they were successful during their time away). Rural-urban migration can also be an obstacle to CBMRM, as in the case of conflicts. Contentious relations between family or clan members, decreased social security and productivity can be a consequence of a community losing important individuals and innovative potential (e.g. a chief or skilled young adults; Kreisel 1991). In most cases, this loss cannot be compensated for by money transfers back into the communities. People remaining in the communities will be the present and future CBMRM managers, and changes within will require adaptations in the management scheme, and thus require attention in the management planning process.

The above mentioned bias in people’s perceptions of village and city life, of “future” and “home”, could be found in each of the island communities. People in town laughed somewhat about “bush life”, saying that life is easier in town: “There are so many social obligations in the community”, “You are never alone”, “All the responsibilities you have to fulfil”, and “Work all day long”. However, when thinking about raising a family, most interviewees (independent of age and gender), considered the village environment to be the preferable place, often hoping and knowing that life could indeed be better in the villages than it often is (see below the discussion regarding community factors). Often, the village is still seen as the one place where values, responsibilities and roles are best transferred from one generation to the next, and where young people grow up without the temptations and distractions (or even negative impacts) of urban areas.

This bias shows that Fiji would do well to accept that the future must start and be based in rural communities, not just in urban areas. Circular and even

multiple migrations are becoming more prominent, with young islanders returning to their home village after a period away.

In the same way, CBMRM and customary marine tenure cannot be considered as unchanging, rather as heterogeneous and dynamic social inventions, shaped by historical processes and local experience, influenced by external forces, and quite variable even on a small geographical scale (Aswani 2005; Bailey and Zerner 1992). Attempts to create or strengthen CBMRM systems should be based on a realistic assessment of the motives, ethics, interests and cultural conceptions that drive local actors (Bailey and Zerner 1992:11). The more research that is done on CBMRM, the clearer Jentoff’s notion becomes that resource management is more about resource users (the community) than about resources (1998). Human management and conservation activities are driven by various mutually linked forces such as support by networks (e.g. contact with government officials), knowledge and education, religion, community dynamics and hierarchy, or perceptions. Changes to these aspects of the complex social and natural community environment take place within each generation, and may affect the everyday life of the fishing communities, including those involved in CBMRM.

Over the last two decades, the development and management of Fiji’s inshore fisheries have slowly moved up on the government’s priority list because of their importance to the local economy and their vulnerability to overexploitation (Lambeth et al. 2002; Novaczek et al. 2005; Veitayaki 2000). But many development projects have failed because they were not commercially viable and the expectation of improving villagers’ living conditions were not met (Veitayaki 2000), and did not underpin the potential strengths of CBMRM. After decades, strategies still focussed on development rather than conservation, and resulted in the overexploitation of (mostly traditionally owned) resources and the collapse of fisheries development activities (Veitayaki 2000). The Pacific Emerging Environmental Leader’s Initiative, a regional project, is tightly linked to already existing efforts by the University of the South Pacific, government departments and non-governmental organisations. Young islanders participating in this initiative will be important for local CBMRM efforts, but they will have to deal with diverse and constantly intensifying factors such as resource exploitation, waste, water pollution, island deforestation and soil erosion. Young islanders, including those migrating, deserve special attention in such CBMRM situations because they can either provide crucial support or pose challenges to an already fragile management system; young people must understand, be informed and be involved in developing CBMRM measures.

Relating local community aspects to migration and CBMRM

In this section the principal changes in Gau communities are examined and related to migration and CBMRM, and include changes in 1) community leadership, 2) church settings, 3) school responsibilities and other financial obligations, and 4) development such as electricity, communication, transport, food and government contact. This analysis is required in order to understand CBMRM failures and successes.

Community leadership

Eroding traditional community leadership has changed communities (Muehlig-Hofmann 2007). In many cases this loss has been reflected in losing the one voice responsible and needed for decision-making. In the worst case, the result has been a sense of being without identity and power where, for example, there are long periods between chiefly installations, or the chief lives away from the community. The overall atmosphere in communities has thus changed, with villagers focussing less on community and more on the individual. In some cases there seems to be no reason for young islanders to remain in the village, and no visible incentive for them to do so. The rules and guidelines that people traditionally adhered to have also been influenced and changed, and this has affected community consensus, the basis for CBMRM efforts. As a result, new ways of (potentially non-traditional) community leadership may become necessary (Muehlig-Hofmann 2007). For CBMRM in *tikina* Vanuaso, the feeling of powerlessness was reflected mostly in decision-making, distribution of management responsibilities, evaluation of management plans and measures, enforcement of regulations against outside fishers, as well as in terms of possibilities for income generation.

Some communities feel increasingly powerless, and this is likely to have an impact on any CBMRM regime. The basis for good CBMRM — consensus on issues concerning the entire community and traditional respect accorded to chiefs — is declining everywhere in Fiji (Cooke 1994; Faust 1996; Ruddle 1995; Tomlinson 2004; Toren 2004). This lack of respect, in addition to pressures arising from increasingly different economic statuses and religious beliefs among families, is dividing villages (Tomlinson 2004). Those who live a more modern, individualistic and self-determined life independent of *kerekere* (the Fijian social kinship system; Nayacakalou 1978) have tended to separate themselves from those that still respect the traditional social structure, and deem it to be a precondition for community functioning, leadership and security (Faust 1996). The notion of having “too many people who talk”, meaning the lack of and inability to find a

consensus at the village level, was emphasised in the villages of this study. Faust (1996) also highlighted the role of migration in the ongoing loss of chiefly and *mataqali* authority through the weakening of sanctions for breaking traditional *tabus* and codes of conduct. Increasing urbanisation increases governmental responsibilities because problems can no longer be solved traditionally, having moved beyond the influence of the weakened traditional system (Faust 1996).

How can an indigenous community recover its social strength and function, which is needed for implementing CBMRM, and for conserving the local (not only marine) environment? How can it move away from being fragmented and unstable? In relation to community stability and its necessity for successful CBMRM, there is increasing research interest in aspects of social capital within fishing communities, and on its importance for the resilience and management of local coastal environments (Adger et al. 2005; Hughes et al. 2005; Yae 2008). The reasons for the decline in traditional authority, respect and traditional community function are widely speculated on, and could be many. One is the adoption of westernised standards, enhanced through rural-urban migration. Every family in rural Fiji has a relative residing in an urban area; in towns, chiefs increasingly share the same problems and rights as any person of non-chiefly origin, and this is also occurring in the outer islands. At the same time, circular migration can also show a way towards community power, depending on individual people, their education and character, together with finding an educated and respected leadership.

The church

The second important feature of village life and structure on Gau is, besides chiefly authority, the church. To officially attain the status of “village”, and thus the respective financial support from the government, settlements need a church. This aspect becomes more important — both for migration and CBMRM — through the formation of youth groups, linked environmental projects, choir contests, and other groups. In *tikina* Vanuaso, however, there were (at the time of this study) three Christian denominations: the Methodist church, of which most indigenous Fijians were members, the Seventh-Day Adventist Church, and the Christ for all Nations (CfaN, an American and South African originated evangelistic church group), of which an increasing number of indigenous Fijians were becoming members. These church groups have separate church locations, service times, songs and guidelines in *tikina* Vanuaso, and one can frequently observe discussions among members of the Methodist and CfaN churches, for example, about different church fees and regulations. Generally, church obligations

and duties are quite time-consuming for the people, including visits to other villages (possibly a walk of one to two hours). There could be, for example, choir study on Monday in Vanuaso for the men of the entire *tikina*, bible study on Tuesday, verse and psalm study on Thursday, Friday evening service for CfaN members, Sunday morning and afternoon service for both Methodists and CfaN members (independently); and occasionally there are events such as choir competitions for the entire island, or the visit of a minister or church member from Suva or one of the other islands. Apart from time, these church obligations also include financial donations (monthly, sometimes weekly), which every family must pay and which over the past decades are said to have increased significantly. Although these activities may tie more youth to the villages and also be the basis for community projects, they may also cause distraction and diversion from common community tasks and consensus, sometimes even leading to conflict and communities splitting up internally (which could again be a reason for emigration).

Village schools

In addition to time-consuming activities and increasing fees associated with the church, there may be the same with village schools. Although school fees in Fiji have generally increased, at least in rural villages, people still pay less for sending their children to school and supplying them with books, pens and other supplies, than in Suva and other smaller towns such as Nadi, Levuka or Sigatoka. Nevertheless, apart from the financial question, education is said to be better in Suva and in schools on the main islands of Viti Levu, Vanua Levu and Ovalau.

The time-consuming duties of parents, mainly mothers, attached to village schools and observed during this research need to be considered. These duties are assigned by village (alternating every week) and include preparing food for the children in the school kitchen. If it is a boarding school, such as the one in Lamiti/Malawai (starting from age 11), this duty includes preparing breakfast, lunch and dinner. The roster for cooking in the school within a certain week is assigned by the women themselves during meetings. In these school and/or community meetings, it is also announced which group must clean the school and school ground, when this must be done, and how much every mother must pay (e.g. for school exercise books, school uniforms, such special events as sports competitions or other activities, including international children's day; Fig. 3). Other duties (apart from contributing financially) are done by men; for example, regular weeding and mowing of the school grounds. Apart from school and community meetings there are also teacher-parent meetings at the schools. Considerable effort is, therefore, invested in children's education, a challenging task also for schools as, for example, in Lamiti/Malawai, with 100–110 children, aged 6 to 14 years. Therefore, the school depends on parents, especially mothers, whose personal ambition, enthusiasm, engagement and financial support determine whether the school is good or not. The reputation of a family and the effort they put into their children and their education is also reflected in a child's appearance; although there is little money and little time, almost without exception the children have clean clothes every day.

Financial and other obligations for each family are increasing, posing unprecedented burdens on



Figure 3. School children in a sport tournament in Lekanai, Gau Island.

villagers. People's perspective, focus, interests and self-understanding change with these increased burdens, as well as their relation to and dependence on Suva and its institutions. This results in the perception that people lack free time because of obligations such as church gatherings, school gatherings, and the need to earn money. The costs for these obligations may increase further, and if they do, money will become even more important, a fact that most villagers in *tikina* Vanuaso seem to have accepted already.

The main source of income in the villages is from the sales of coconut (*niu*, copra; *Cocos nucifera*) and *yaqona* (*kava*, grog; *Piper methysticum*) from the plantations. Many younger men also have their own *yaqona* garden. The planting and selling of *dalo* (*taro*; *Colocasia esculenta*), and the occasional selling of a pig, bring income to the village. The main income source for women is from the sales of *talitali* (mat weaving), either in Suva through an agent, or directly to relatives. The larger mats on which three women might sit for five to eight hours a day for two or three days, brings between FJD 100 and 180 each, depending on the quality of the *voivoi* (dried leaves of *Pandanus* sp.), the weaving style, patterns and colours. Money is also sent to villages from relatives in the towns or abroad, the amounts varying with the wealth of the relatives and the closeness of the relationship. This means of supporting villages has taken place for generations in the older village, and remains important. The changing presence and composition of family members in villages also affects their functioning. Whether boarding is a first step out of the village or not, young men nowadays are trying to find jobs outside the villages, and young women and young couples (in search for labour) are also moving out. Therefore, education and employment are still the major drivers for rural-urban migration, while medical reasons are also a reason in some instances. These reasons need to be considered when developing CBMRM measures and actions.

Finally, in terms of future interests of the interviewee's children with regards to their livelihood, most interviewees (83%) stated that their children "like the way of life, plant grog, go out to sea fishing, etc.". For all children, however, it is planned that they will go to boarding school in Suva or Levuka, and despite the observed joy of the children playing with small nets and spears and seeming very happy generally in the village, most older children seem to want to leave ("they want to go to town later"). Whether or not the children then come back to the villages or islands as adults, often depends on their success in town (see above). One interviewed mother said that the "kids should go to school and work, open their minds, don't stay in the village; and if they then come back, then at least they have

something in their mind to improve the situation in the village. It's hard to live in the village, they should learn to preserve, not only the sea, but also the land."

Contact with government

Another factor of importance to both migrants and CBMRM is the feeling of isolation from the rest of Fiji. This is linked to certain development shortcomings. Apart from the government station in Qarani, a village in the neighbouring *tikina* on the northern tip of Gau, the people in *tikina* Vanuaso have little contact with government representatives such as ministers or fisheries officers. Doctors, nurses and health inspectors from the medical department responsible for this district, are the ones who visit the villages the most regularly, every one to three months. Other representatives (e.g. from the Ministry for Information Communications and Media Relations) come only one to three times a year, and then stay for one to three days at most, for all three *tikina* on Gau. The Lomaiviti islands provincial meetings are the main way for villagers to make contact with the government. These meetings usually take place two to three times per year, for a duration of three days each, and not on one of the small islands but on the larger island Ovalau or in Suva; hence, away from the village context. Several hundred people attend each meeting, with delegations from each village of two to eight people, depending on who is available and can afford travel costs. When asked what they generally thought about Suva and the government, the eight interviewed elders initially responded positively, but later said: "We don't know whether it's good or bad; we don't even know the government"; "The people working in the government, they do know, that's a good government, but we here in the village we don't know"; "[If] the government they tell lies to us, we don't know"; "In the election for the government, we tick them, but we don't know"; "There are so many politics around today"; "The politics seem to neglect the village people and rural areas"; "Most of the good things seem to focus on the urban people."

Government departments seemingly have little interest in the outer islands (Koroiwaqa 2004; UNESCAP 2003), possibly because of their low level of infrastructure, and *tikina* Vanuaso has not yet attracted any private investors. Nevertheless, Gau's people are able to survive through their own labour and skills, which constitutes an involuntary independence of communities on which the government seems to depend.

Developmental shortcomings include power supply, communication (especially telephone) and transport (especially ferries). Every village in *tikina* Vanuaso has one large village-owned generator that supposedly supplies the entire village with

power between 6:00 pm and 10:00 pm, and with every house paying around FJD 1.50 (USD 0.84) per week for its usage. The power is intended to be used mainly for light (including lights along a main village path), but also for radio, television and video, and freezers (in the village shops). However, because of a lack of fuel or breakdowns, the main generators work at most for two months a year. Some families have bought additional smaller generators for private use that have the capacity to supply one or two households with power. Repairs of the generator (as with TVs, video recorders and radios) must be made by the villagers themselves; and what cannot be repaired locally has to be sent to Suva. This is both costly (e.g. FJD 400 or about USD 220 for the village for the main generator) and time-consuming. Thus, for most of the time, kerosene lamps are still the main source of light, and batteries are the only source of power for radios. Telephone connections in the villages are equally unreliable.

In the 1970s, a coastal road was built on Gau, leading from Lamiti, on the east of the island, to Qarani, in the north. At the same time, trucks were introduced to transport people and goods among the government station in Qarani, the ferry landing, schools and villages, including shops. However, the trucks have not been maintained since the 1980s and have been sold back to Suva. There are plans to reintroduce a truck shared by the villages. In the absence of trucks, fibreglass boats are used for transport among communities and islands. Additionally, a ferry operates irregularly (every two to four weeks, depending on the weather; Fig. 4) between the Lomaiviti islands and the villages, but the service has changed over the past 30 years. "The cargo vessels, they used to stop around the villages [of Gau]"; "Now we have to go to Qarani [northern tip of Gau] and Navuikama [western side of Gau] to arrange your own transport there, or even to the airport, in the south. Before they used to board in our own harbour [Vanuasolo]"; "Today this [the regular transport of goods and people] is time consuming and a financial burden, because you always first have to go there (Qarani or Navuikama)." The exact date of arrival and passage is not known in advance, and everything must be brought by fibreglass boat to the ferry that waits outside the fringing reef. Villagers who have their own boats and have good seamanship skills, go to the mainland by themselves, and sometimes accept paying passengers with their goods (depending



Figure 4. Transport ferry from Suva with local boat waiting, Qarani, Gau Island.



Figure 5. Gau airport with luggage carrier, southern Gau Island.

on the weather and relationships with the passengers). Gau also has its own small airport, with a grass airstrip and small terminal (Fig. 5), which at the time of the study received one weekly flight from Suva (compared with the planned

introduction of two to three flights per week). The ferries, however, are the standard method of travelling between islands, and flights are only used by wealthier community members or by visitors. Transport off the island and contact with other islands, let alone Suva, is rare and unreliable. Regular transport options may be a key factor for decreasing the serious consequences of migration, for supporting CBMRM measures, and for mitigating the effects of these above development shortcomings and the associated isolation.

Diets

People's diet has also changed. Almost every village has at least one small village store selling everyday commodities such as soap, canned meat and fish, coffee, and chocolate powder. Prior to the 1980s, villagers used to eat mainly Fijian food (*kakana vakaviti*). Afterwards, they began buying additional food from the store (*kakana voli*), (literally "processed foodstuffs" "from the foreign people"). As one respondent reported: "Cassava [*Manihot esculenta*] was introduced for the pigs, not for us, not for the family, only for the pig; now, all the human beings eat it." It was also mentioned that people are less healthy today because of these changes, healthy being perceived as strong, fit and active. "There was no sickness like now; before, the men were big and healthy." Despite this complaint, many people still buy food at the store when there is not enough time to garden and fish, or when storms make fishing impossible. For special occasions, however, people continue to prepare more traditional food. Some food, such as prawns or larger fish, are reserved for official guests or for special purposes or events such as Sundays, church meetings, weddings, funerals and Christmas.

It is perceived that traditional foodstuffs — such as local fresh fish and vegetables — were the basis for former strength and healthiness, and that processed food does not deliver these benefits. For CBMRM and the future use of marine resources, this underlines the value these resources have for the islanders' way of life. Nevertheless, if they chose to do so, conditions still allow people to live traditionally from their plantations, eating less sugar and noodles.

Water, the main asset for independent life on small islands, is abundant on Gau, although it varies in quality among the villages. In Malawai, tap water runs 24 hours a day and is of high quality (as confirmed by University of the South Pacific laboratories). In Lamiti, water quality can sometimes be bad, owing to sanitation problems with a recently introduced flush toilet system and land clearing. People from Lamiti sometimes go to neighbouring Malawai to buy or obtain water, especially for newborn babies. Hence, some villages are more attractive to young islanders than others.

Discussion

The considerations described above contribute to the framework of each community's everyday reality in *tikina* Vanuaso into which CBMRM is to be integrated. The fact that these aspects are important for the communities should motivate CBMRM managers to know and understand them because they affect the possible range of their actions. These mainly logistical factors could influence the acceptance and ultimate success or failure of CBMRM regimes in the communities.

Income generation, transport needs and communication technology (e.g. telephone) should be interlinked with CBMRM. When income is generated from the selling of marine products, the link to CBMRM is quite obvious: selling activities should be monitored and registered to record what is being taken and by whom, and where it is sold and to whom. This has yet to been done in *tikina* Vanuaso. There needs to be a mutual adaptation and integration of introduced management activities and income generation from marine resources.

Improved air and sea transport facilities may have multiple effects (Dickhardt 2001), most of which may be relevant for CBMRM. On the one hand, improved transport could increase income generated by non-marine (re-)resources such as crops, which could reduce pressure on marine habitats, an important aspect of CBMRM. On the other hand, better transport could increase the income from marine products owing to more regular access to markets (including tourism), which could easily create conflicts with CBMRM measures. Marine resources could be exploited increasingly and potentially beyond sustainable levels, if sold to newly accessible off-island markets. Only if regulated and monitored carefully, would the selling of marine products accompanied by CBMRM measures be beneficial to communities in the long term, and would potentially enhance interest in and acceptance towards CBMRM and conservation measures.

Increased possibilities of travelling to and from the island might also stimulate information exchange among the islands, enhance the mutual understanding of local and national governance levels through such exchanges, and decrease migration to urban areas, which would have an impact on local management regimes.

Improved communication and a reliable year-round, local power supply could promote income generation, by attracting projects such as a planned fisheries centre with cooling and storage facilities (Alefaio 2003). Such projects would have consequences for employment and for CBMRM plans, for example by restrictions on catch sizes or enforcement of *tabu* area boundaries.

Differences between life on the islands and life in town are constantly increasing, and are perceived differently by the people interviewed. One interviewee commented: "One has to adapt to this [village] life again, it is hard." Observations confirm that some "returnees" seemed unhappy and restless, or without clear direction. Some people seem to be "just hanging around", listening to the radio, or have no skills or now lack the will to do hard plantation work. Some people are viewed as having no specific function within the community or argue with family members about responsibilities. Nevertheless, some of those coming back perceive a better quality of life in the village than in town. For example, they find support (e.g. help with the children) from family members and relatives, there is always something to do, there is no job to lose (and no boss), they can survive on much less money than in town, and there is a closer social life (which, however, could also become a burden in the case of conflicts). For many people, it makes additional sense to return to the village because they maintain general residual rights in their home village (and thus a safe alternative with possible access to land and self-sufficiency), and a village tax must be paid to the native village, no matter whether one still lives there or not.

One useful observation from Gau's recent history is a kind of backward development in the form of an economic and social stagnation of the island during the past 25–30 years. This is also the case for the Lomaiviti and Lau islands (Bedford 1985). Gau had an annual turnover of FJD 900,000 (≈ € 500,000), whereas the more developed neighbouring island of Ovalau had an annual turnover of FJD 92 million (≈ USD 51.5 million) (Alefaio 2003). Gau Island was once economically vibrant but is now economically stagnant (Koroiwaqa 2004). Between 1970 and the 1990s, Gau had a road that was used by small trucks, but that road is now overgrown by vegetation most of the year. Up to 2003, there were a few regular flights to and from Gau, now however flights are only once a week. In comparison, neighbouring Ovalau has retained flights several times daily from Suva. Also, there used to be a regular ferry service between Suva and the villages on Gau, but, this service did not exist in 2003. Alefaio (2003) reported that, "The sustenance of socioeconomic livelihoods in Fiji's maritime provinces depends on shipping, which remains the backbone of island economies." This backbone has been broken, together with the deterioration of the island's main jetties. The largest village jetty, on the island's west coast, collapsed during cyclone Kani in 1992. This was a starting point for the reversed development. Lacking a place to dock, ferry service ceased, thereby deepening the gap between offshore islands and urban centres. The reduced and then arrested development, therefore, had a negative feedback on progress, offering

insufficient development to attract and secure projects and young islanders. The situation worsened, and little was done to help the islanders break out of this discouraging cycle. In short, villagers reported that they needed more money than ever before for everyday obligations, but had fewer possibilities to make or receive an income. At present, rural communities on Gau are becoming increasingly less traditional and correspondingly more undeveloped compared with urban regions of Fiji.

This study demonstrates how villages can become caught between needing development and wanting adaptation and improvement for future generations (for which migration is necessary), and their former traditions, which they lose but still mourn (and for which migration is also a reason). The introduction and also loss of modern technologies such as transport vehicles and electricity, the influence of the church, a growing desire for consumer goods, and the drive to provide education for children have all influenced how and with what intensity people fish and manage their marine coastal resources (Veitayaki and Novaczek 2005). People value the benefits of migration and development (e.g. improved health and education services, skill transfer, remittance payments), but they also recognise "the costs incurred over time, such as the erosion of traditional values, loss of communal spirit, increased stress associated with the need for cash", and tensions between generations and genders (Veitayaki and Novaczek 2005:7). People on Gau are becoming less dependent on traditional cultures, a situation that, a few decades ago, they never would have imagined. Similarly, many people who have made their way to towns or to another country cannot imagine returning to the village.

Finally, correlated with those social and environmental factors are the basic preconditions for making conservation management work — personal security, health and nutrition — which do not exist at any place and time and often are reasons for migration. An almost no-win situation exists in places where these preconditions are critically dependent on a healthy environment (WRI 2005). This dependence is the case in every country where subsistence lifestyles are still prevalent, including in Fiji. In such cases, social resilience — the ability of groups or communities to cope with external stress and disturbances as a result of social, political and environmental change (including migration) — can be linked to ecological resilience (a characteristic of ecosystems to maintain themselves in the face of disturbance; Adger 2000). Therefore, while resilient ecosystems alone may not result in resilient communities, or vice versa, their mutual relevance must be kept in mind for successful CBMRM, with the community — with all its social and ecological characteristics — forming the basis of CBMRM.

Conclusion

In *tikina* Vanuaso on Gau Island, changes in the social and natural environment over space and time are perceived by villagers. The factors observed here may not accurately represent the situation of communities in Fiji as a whole; nevertheless, they are vital and have led to the present status of rural communities. The changes and specific day-to-day concerns that influence management are different in each community, even on such a small scale as along one coastline on Gau Island. This is because they are so highly dependent on the individuals involved who must reorganise their lives and actions in the middle of this change, integrate these issues in their plans in order to prepare themselves to be conservationists and managers of their own environment, while ensuring that their community retains or retrieves an identity, structure and function, and transfers it to the next generation.

For this task, the term “traditional community” is inaccurate, although this romantic idea persists. The community is a basic element of island life. Villagers need to select and decide which of the old rules are still important to them, and which are adaptable. In other words, it is a balancing act between development and tradition.

An easy conclusion cannot be made. Will increasing migration reduce the pressure on marine resources? Possibly not. In general, they will continue to be used more than conserved. Who will take care of the resources that belong to the community? Very few villagers will. Should villagers stay or should they go? They should go and come back to their fruitful islands as successful returners. Thus, there is a need to promote increased options for multiple circular migrations, to attract young educated families and ensure a more flexible and adaptive exchange and management planning.

Acknowledgments

Funding for this study was provided by grants from The Ocean Conservancy, the International Society for Reef Studies, the German National Academic Foundation and the Leibniz-Institute for Baltic Sea Research Warnemünde. I would like to thank the community members of *tikina* Vanuaso, J. Veitayaki at the University of the South Pacific, and N. Polunin, S. Stead and E. Ritchie at Newcastle University. Finally, I would like to express gratitude to the editors and reviewers for their interest and most valuable input.

References

Adger W.N. 2000. Social and ecological resilience: Are they related? *Progress in Human Geography* 24:347–364.

- Adger W.N., Hughes T.P., Folke C., Carpenter S.R. and Rockström J. 2005. Social-ecological resilience to coastal disasters. *Science* 309:1036–1039.
- Alefaio O. 2003. Improving rural fisheries. Ministry of Information and Media Relations, Government of Fiji. Available: <http://www.fiji.gov.fj/cgi-bin/cms/exec/view.cgi/58/718>.
- Aswani S. 2005. Customary sea tenure in Oceania as a case of rights-based fishery management: Does it work? *Reviews in Fish Biology and Fisheries* 15:285–307.
- Bailey C. and Zerner C. 1992. Community-based fisheries management institutions in Indonesia. *Marine Anthropological Studies (MAST)* 5:1–17.
- Bedford R.D. 1985. Population movement in small island periphery: The case of eastern Fiji. p. 333–359. In: Chapman M. and Prothero R.M. (eds). *Circulation in population movement: Substance and concepts from the Melanesian case*. London: Routledge and Kegan Paul.
- Cooke A. 1994. The qoliqoli of Fiji — Some preliminary research findings in relation to management by customary owners. p. 179–182. In: Church M. (ed.). *Traditional marine tenure and sustainable management of marine resources in Asia and the Pacific: Proceedings of the International Workshop held at USP, Suva, Fiji, 4–8 July 1994*. University of the South Pacific, Suva, Fiji.
- Dickhardt M. 2001. *Das Räumliche des Kulturellen: Entwurf zu einer kulturanthropologischen Raumtheorie am Beispiel Fiji*. Hamburg, Deutschland: LIT Verlag.
- Faust H. 1996. *Verstädterung in Fiji: Besonderheiten in den Stadt-Land-Beziehungen eines insularen pazifischen Entwicklungslandes*. Aachen: Verlag Mainz.
- Hughes T.P., Bellwood D.R., Folke C., Steneck R.S. and Wilson J. 2005. New paradigms for supporting the resilience of marine ecosystems. *Trends in Ecology and Evolution* 20:380–386.
- Hviding E. and Ruddle K. 1991. A regional assessment of the potential role of customary marine tenure systems (CMT) in contemporary fisheries management in the South Pacific. *Forum Fisheries Agency Report 91/71*. Forum Fisheries Agency, Honiara, Solomon Islands.
- Jentoft S. (ed) 1998. *Commons in a cold climate. Coastal fisheries and reindeer pastoralism in north Norway: The co-management approach*. Man and the Biosphere Series. Paris: UNESCO.
- Jentoft S., McCay B.J. and Wilson D.C. 1998. Social theory and fisheries management. *Marine Policy* 22:423–436.

- Johannes R.E. 2002. The renaissance of community-based marine resource management in Oceania. *Annual Review of Ecology, Evolution, and Systematics* 33:317–340.
- Koroivuaqa I. 2004. Gau — Its hopes and jest. Government of Fiji. Available: http://www.fiji.gov.fj/publish/page_2078.shtml.
- Kreisel W. 1991. *Die pazifische Inselwelt*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Lambeth L., Hanchard B., Aslin H., Fay-Sauni L., Tuara P., Des Rochers K. and Vunisea A. 2002. An overview of the involvement of women in fisheries activities in Oceania. Global symposium on women in fisheries: Sixth Asian fisheries forum, Malaysia. ICLARM — The World Fish Center, Malaysia.
- Lovell E.R., Sykes H., Deiye M., Wantiez L., Garrigue C., Virly S., Samuelu J., Solofa A., Poulasi T., Pakoa K., Sabetian A., Afzal D., Hughes A. and Sulu R. 2004. Status of coral reefs in the southwest Pacific: Fiji, Nauru, New Caledonia, Samoa, Solomon Islands, Tuvalu and Vanuatu. In: Status of coral reefs of the world. Wilkinson C. (ed.). GCRMN (Global Coral Reef Monitoring Network).
- Minerbi L. 1990. Population redistribution and policies and development planning in the Pacific basin: Rationale and objectives. *Regional Development Dialogue* 11:80–101.
- Muehlig-Hofmann A. 2007. Traditional authority and community leadership: Key factors in community-based marine resource management and conservation. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* 21:31–44. Available at: www.spc.int/Coastfish/news/Trad/21/Trad21_31_Muehlig.pdf.
- Nayacakalou R.R. 1978. Tradition and change in the Fijian village. *Fiji Times and Herald*: Suva.
- Novaczek I., Mitchell J. and Veitayaki J. 2005. Pacific voices — Equity and sustainability in Pacific Island fisheries. Suva, Fiji: Institute of Pacific Studies, University of the South Pacific.
- Ram-Bidesi V. and Mitchell J. 2005. Gender in Pacific maritime communities: Putting the social into science and connecting the local to the global. p. 221–233. In: Novaczek I., Mitchell J. and Veitayaki J. (eds). *Pacific voices - Equity and sustainability in Pacific Island fisheries*. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji.
- Ruddle K. 1995. A guide to the literature on traditional community-based fishery management in Fiji. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* 5:7–15.
- Spalding M.D., Ravilious C. and Green E.P. 2001. *World atlas of coral reefs*. Berkeley: University of California Press (in association with UNEP-WCMC).
- Tomlinson M. 2004. Perpetual lament: Kava-drinking, Christianity and sensations of historical decline in Fiji. *Journal of the Royal Anthropological Institute* 10:653–673.
- Toren C. 2004. Becoming a Christian in Fiji: An ethnographic study of ontogeny. *Journal of the Royal Anthropological Institute* 10:221–240.
- UNESCAP 2003. Community-based decision-making on coastal fisheries. United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). Available at: www.unescap.org/drpad/vc/conference/ex_fj_147_cdc.htm.
- Veitayaki J. 2000. Inshore fisheries development in Fiji. p. 135–148. In: Lal B.V. (ed). *Fiji before the storm: Elections and the politics of development*. Canberra: Asia Pacific Press (Australian National University).
- Veitayaki J. and Novaczek I. 2005. Voices, lenses and paradigms: Understanding fisheries development in the Pacific. p. 1–9. In: Novaczek I., Mitchell J. and Veitayaki J. (eds). *Pacific voices — Equity and sustainability in Pacific Island fisheries*. Institute of Pacific Studies, University of the South Pacific, Suva, Fiji.
- WRI (World Resources Institute). 2005. *World resources 2005: The wealth of the poor — Managing ecosystems to fight poverty*. Washington, DC, USA: World Resources Institute.
- WWF. 2005. *WWF South Pacific Programme annual report 2005*. WWF, Suva, Fiji.
- Yae S. 2008. The role of social capital in a common property resource system in coastal areas: A case study of community-based coastal resource management in Fiji. *SPC Traditional Marine Resource Management and Knowledge Information Bulletin* 24:19–32.