Strategic coastal governance issues in Fiji: The challenges of integration

Marcus B. Lane*

Division of Sustainable Ecosystems, CSIRO, Adelaide 5005, Australia

Abstract

This paper examines the governance of coastal environments in Fiji with a view to identifying the strategic issues that constrain the achievement of *integrated* coastal management. Integration has, in recent years, become a major focus of efforts to improve environmental management in many parts of the world. This issue is pursued by using governance as a framework. The dominant concepts and strategies being used around the world in environmental governance are then considered as a prelude into the identification and discussion of the major governance issues affecting coastal management in Fiji. These are identified as: (i) integration and coordination, (ii) the need for system-wide governance reform, (iii) the degree of centralisation, (iv) coastal planning, (v) information and (vi) the capacity of governance.
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Keywords: Coastal management; Integrated coastal management; Integration; Governance; Integration; Fiji

1. Introduction

This paper examines the governance of coastal environments in Fiji with a view to identifying the strategic issues that constrain the achievement of *integrated* coastal management. Integration has, in recent years, become a major focus of efforts to improve environmental management in many parts of the world. The integration agenda emerges from an analysis that suggests that fragmentation of policy and implementation is a major impediment to improving the way environments are used and managed [1]. Integration is widely seen as essential to coastal management because the coast is a space where multiple environments (marine, terrestrial, estuarine) interact, because coastal areas must be managed for multiple use, and because multiple claimants and actors across government, civil society and the market are involved in coastal governance [2]. The potential for fragmentation, duplication and competing policies and agenda therefore abounds.

Effective coastal management requires, therefore, an effective system of governance capable of collecting and utilising high-quality information in its planning and policy

development, facilitating the cooperation of a multiplicity of actors, and coordinating the activities of government, citizens and private corporations. These are the challenges of integration. This paper considers the system of governance in Fiji in order to identify the principal challenges to achieving integrated coastal management.

2. Fiji—the environmental context

Fiji is an archipelago comprising 320 islands, approximately 100 of which are inhabited and has a total land area of 18,333 km^2. At the time of the last census, 1996, Fiji had a population of over 775,000 [3]. This population, which is growing, dwells overwhelming on or near the coast. While urbanisation in increasing, particularly around Suva on the 'main' island of Viti Levu, over 60% of the population lives in rural areas, and a large proportion is economically dependent on subsistence fishing and horticulture [4]. More than 85% of the Fiji Islands' land remains under traditional ownership. This has important implications for economic development: capital intensive economic development on native land can only occur following negotiations with customary landowners leading to a lease and permission to develop [4]. The local economic market

*Tel.: +61 88 303 5018.
E-mail address: marcus.lane@csiro.au

is small, the number of export-oriented industry is minimal and as a result the economy is vulnerable to fluctuations.

Fiji has a natural resource-dependent economy. The pressures on the coastal environment (terrestrial and in-shore marine) are therefore significant [3,4]. The most influential report on the state of the environment [5] emphasises the importance of a growing population and increasing levels of urbanisation and industrialisation as the major causes of environmental degradation. In the context of this study, it should be remembered that because the majority of the population dwells on and earns a living from the coast, the environmental degradation is greatest in the coastal strip, the estuarine environment and in-shore marine area [3]. Further, Levett et al. [4] report that being small ecosystems, the Fiji Islands exhibit minimal ecological resilience.

Waitling and Chape [5] suggested that the environmental threats to Fiji were manifold. Principal among these is the loss or degradation of important ecosystems, particularly mangroves and forests, due to increasing urbanisation and related infrastructure and the intensification and extensification of agriculture (particularly on steeper slopes). Pollution, too, is a problem. Chemicals and other waste by-products of the sugar industry, inadequate sewage disposal, use of pesticides and poor solid waste disposal are the major sources of pollution. Mosley and Aalbersberg [6] report that elevated nutrient levels at several sites along the Coral Coast has led to ecological change and degradation of some areas of coal reef along this coast. Waitling and Chape [5] also note the potential environmental hazards from gold, sand and coral mining and, with others [3,4] suggest that Fiji is particularly vulnerable to the effects of global climate change.

3. From government to governance—changing concepts and imperatives in environmental management

The focus of efforts to achieve the sustainability of natural resources has shifted, in recent years, from government-driven planning and management to *governance* [7]. This reflects deeper, more fundamental socio-political shifts affecting individual countries and the world as a whole. To understand these changes, it is necessary to recall that the "science" of public policy-making and planning emerged nearly a century ago in a world where the existence of a single truth and a universal good went almost without question. By the 1930s, planning and policy-making had come to be understood as a "rational" discipline whose goal was to identify the common good and organise all of society in its pursuit. This model of planning—one based on scientific expertise and a presumption of objectivity—dominated our understandings of policy-making until well into the postwar years, and its outlook closely paralleled that of the natural resource managers of the era. Known as 'command and control,' this approach assumed that "the state could 'take charge' and 'control' spatial organisation and the location of

development" more effectively and equitably than local actors [8].

This rational model of planning began to fall out of favour in the 1960s as planning theorists advanced a series of critiques of the rational comprehensive paradigm [9,10] that challenged that paradigm's belief in a single, universally applicable "good." Perhaps the most powerful argument in this diverse discourse, was that 'top-down' (or 'modernist') policy-making routinely failed to deliver on its objectives, was undemocratic and was typically accompanied by a range of unanticipated (and unmitigated) social and environmental impacts [11]. Another thread in this shift in planning theory and practice was the need to recognise the importance of locality and particulars [12]. In this new approach to policy-making there was a strong emphasis on citizen participation; consultation and co-ordination with citizens, social movements and voluntary associations came to be seen as providing an effective means of harnessing local knowledge and energy in both plan-making and implementation. To make good public policy, one needed to involve the intended beneficiaries.

The shift away from the top-down, rational model of policy-making can also be understood as a pragmatic response to what Beck [13] calls the new political culture in Western democracies. As Hamel et al. [14] describe it, this new political culture demands a structural democratisation in which a variety of subpolitics "becomes the loci for exchanges and cooperation among social and political agents in their decision-making" (p. 168). In this view, the world has become too complex and our leaders too fallible for anything approaching a universal good even to exist, let alone be reliably located. The new political culture no longer places much faith in solutions imposed from above, increasingly relying instead on a network of decision-making relationships that link government and civil society across many scales.

This process of *structural democratisation* signals a shift away from the institutions and structures that existed when the rational planning model emerged nearly a century ago. In Healey's [8] terms

> [t]he planning systems in place across most western democracies were designed with conceptions of integrated and self-contained local economies and societies … not the open and global-reaching relationships which characterize much of today's local economies and social life (p. 4).

Realisation of these changes has been accompanied by, Rose [15] suggests, advocacy of a host of 'new technologies of governance'. These new technologies include: governance through communities [15,16], 'Third Way' approaches [17], decentralisation of governance to civil society [18] and public–private partnerships [19]. While the lexicon of these new technologies is diverse, they are unified by common concern for the failure of statism and the need to renew democracy by enhancing the policy role of non-government actors (civil society, place-based communities,

citizens and NGOs). These approaches have been used in many aspects of natural resource policy around the world, including: forest management, biodiversity conservation, watershed management, and urban and regional planning [20,21].

To understand these approaches—and their potential utility in a given context—we need to recognise their conceptual underpinnings. We need to focus on governance, rather than government. *Governance* is used here because in the complex, multi-jurisdictional domain of environmental management, government is only one category of actor. Environmental management, as Rhodes [22] has remarked in the context of other policy sectors, involves "a collection of inter-organisational networks made up of governmental and societal actors with no sovereign actor able to steer or regulate" (p. 57). A key challenge for government is therefore to enable these networks and seek out new forms of cooperation so as to achieve particular policy objectives.

How might environmental policy be developed and implemented in polities characterised by a multiplicity of actors and fragmented systems of governance? There are a number of (intersecting) discourses that promote 'new technologies of governance'; we will briefly examine the principal ones: integration and decentralisation.

The discourse on integration seeks to provide a systemic response to the problems of fragmentation, duplication and competition among multiple claimants and actors. These problems are said to impede environmental policy development and implementation thus paralysing efforts to improve the ways in which environments are used and managed. Three kinds of integration are required. First, disciplinary integration which enables environmental policy to reflect the inter-dependence of socio-economic and biophysical factors influencing environmental outcomes. Second, the integration of government policy and action—both vertically and horizontally—so that government acts in a coordinated fashion. Third, the coordination of government and non-government actors (including communities, NGOs and private corporations) enabling improved coherence in policy and action [1]. Integrated coastal management is a sub-field of a much wider project that seeks to improve systemic coherence. Progress however has been slow. While the rhetoric of integration is now widespread (and, unfortunately, largely normative), much of the emphasis has been on the structural dimensions of integration (particularly the structure of government) with insufficient attention paid to the strategic, methodological and procedural dimensions [1].

The *decentralisation* of governance has become influential across the policy sciences in recent years. Decentralisation is commonly used to refer to the transfer of state assets or powers to subordinate (local or regional) decision-making bodies, including non-government organisations [23,24]. The decentralisation of governmental functions has been widely promoted as a mechanism to promote both democratic and developmental objectives [25]. In both

environmental and international development planning, decentralisation of resources and responsibilities to subordinate levels of government and non-government organisations has become a common mode of policy development and implementation. Decentralisation has been pursued widely across the developing world as a response to the failure of existing governance arrangements to achieve environmental sustainability through democratic means [26].

We need to distinguish between *administrative* decentralisation and *democratic* decentralisation. Administrative decentralisation refers to the deliberate transfer of the administrative apparatus of the central state to either regional or local offices of central government (referred to as deconcentration) or to subordinate governments or non-state associations (referred to as devolution). Local- or regional-scale government is widely considered to be more efficient at delivering services and public goods, and is often understood as providing for more accessible, democratic government. Administrative decentralisation has been widely pursued throughout the developing world and widely promoted in the environmental management literature [27]. Evidence for its success, however, is not so widespread. A number of major problems have been identified, including entrenching the dominance of local elites, deepening authoritarianism in governance, and even increasing intolerance toward minorities [28]. Recent experience suggests that unless decentralised government architecture is accompanied by the simultaneous devolution of resources (financial and human) and the deliberate development of the capacity of subordinate (regional or local) government, such efforts can fail [24]. The recent experience of Papua New Guinea with incomplete and therefore suboptimal decentralisation is an apposite example [29].

Democratic decentralisation, by contrast, is probably of greater significance in the domain of environmental management. Democratic decentralisation refers to the transfer of resources and power to non-state associations—including NGOs, social movements and place-based communities—that are independent of central government [25]. This is advocated as a means of locating governance closer to the people so as to enhance democracy, harness the agency of the 'community' and civil society, and thus reduce the need for regulatory intervention by the central government. Central governments are, in this discourse, remote and therefore insensitive to local circumstance, authoritarian in disposition, and likely to incur high transaction costs when seeking to implement policy [11].

Beyond the decentralisation of structures, a number of decentralised processes of environmental management can also be identified. Collaborative environmental planning [21], community-based environmental management [30], institutionalised participation [24], and an enhanced role for civil society [9] are common decentralised approaches to governance. All emphasise reduced state involvement, enhanced popular participation and engagement, a deliberative,

participatory approach to policy formulation, and the utilisation of local or experiential knowledge.

Collaborative environmental management seeks to respond to the competing, sometimes acrimonious, relations among multiple claimants to environmental resources. Among the many ways in which achieving effective environmental management has become difficult is the absence of an agreed approach and the frequency of disagreement of what should be done and who should do it. *Collaboration*, as Gray [31] has defined it, is the "the pooling of appreciations and/or tangible resources, e.g., information, money, labour, etc., by two or more stakeholders to solve a set of problems which neither can solve individually" (p. 911). Collaboration, then, is collective action in pursuit of a shared value or set of values. The emphasis here is on 'political' resolution of competing values rather than the technical dimensions of environmental management. While there have been some noteworthy successes [21], the approach has also been criticised for being *ad hoc* rather than systemic, promoting brittle agreements rather than achieving robust consensus and bypassing the formal institutions of representative democracy [32].

Community-based environmental planning (CBEP) refers, in simple terms, to giving local communities primary responsibility for environmental planning in their locality. While CBEP consists of a diverse set of practices, a common conceptual and operational core can be identified. By (i) decentralising government agencies and institutions concerned with environmental management, (ii) devolving responsibility for the development and implementation of environmental policies to local communities and (iii) enabling localised participation in and control of planning, a more effective, context-sensitive mode of planning is said to result [30,33].

CBEP is a major dimension of environmental planning in a host of developed and developing countries around the world. Among advocates, the benefits of CBEP are manifold and range from improved plan development through to implementation [33]. Underpinning the approach is the assumption that local communities are better able to understand and intervene in environmental problems because they are "closer" to both the problem and the solution. CBEP offers three major benefits. First, the community-based approach is said to enable sensitivity to and deployment of indigenous (or local) knowledge in planning. Second, the community-based model is said to be more responsive to context and local priorities and imperatives. Third, the community-based model, with its emphasis on the 'co-management' of natural resources, is said to provide greater efficiency in plan implementation by recruiting local communities. The empirical record, however, points to a number of problems including: (i) conflict over definitions of 'community' and the sharing of power and resource among divergent local interests; (ii) the capacity—organisational and technical—of communities to undertake environmental planning and (iii) The appro-

priateness of the local scale for responding to those environmental problems, which are supra-local [33].

In summary, managing natural resources has become a breathtakingly difficult challenge not merely because human populations are growing and finding new ways to exploit and degrade the resources and environments on which they depend. The government and institutions we have painstakingly fashioned to pursue our collective interests are undergoing far-reaching changes. Instead of firm government control, unquestioned state legitimacy and highly effective regulatory powers, government now shares policy and regulatory power and must seek to *facilitate* or *enable* integrative behaviour and collaboration among multiple actors. We are literally in the process of completely re-fashioning our approach to the management of natural resources.

4. The key governance issues in Fiji

There are six critical governance issues relevant to the management of coastal environments in Fiji. There is, of course, a host of issues relating to the performance of government and the efficacy of systems of governance across a number of policy areas. In the analysis that follows, the focus is on the crucial strategic governance issues affecting the management of coastal environments. These are discussed in turn.

4.1. Integration and coordination

The departmental configuration of the Fiji national government has been structured around a series of policy issues that have been differentiated as distinct policy domains: forests, agriculture, environment and so on. In this respect, the (departmental) structure of the government reveals its colonial heritage and the thinking of the time that emphasised valuable and distinct natural 'resources' [34]. The emergence of environment as a mainstream policy issues and thinking about the interdependence of ecological systems and humans requires a rather different organisational form for government. As we have seen, in many countries around the world a lack of coordination among multiple agencies of government, and an absence of integration of the policy, plans and implementation efforts of governments at different scales has been identified as a major problem in environmental policy effectiveness [35]. The emerging consensus is that policy and legislative fragmentation needs to be avoided because it displaces traditional venues of control and responsibility, congests and impedes decision-making, increases zones of conflict, and produces unintended consequences [35].

Environmental responsibilities in Fiji are highly fragmented among a number of departments [3]. This policy fragmentation is exacerbated by the fact that the legislation that underpins many of these departments (e.g. the Forest Act, the Fisheries Act) is outdated and concerned (almost)

solely with establishing licensing regime for extraction of a particular resource [34]. There is therefore little ability or capacity in these departments to *manage* these resources in a way that recognises their inter-dependence with the wider human–ecological system, or to manage them in concert with other departments with responsibilities for other natural resources or components of the human–ecological system. There is therefore a distinct *structural* dimension to problems of (environmental) policy fragmentation in Fiji.

There is also a *legislative* dimension to policy fragmentation in Fiji. Government departments tend to define their role only in the terms of their legislation rather than in terms of the substantive policy domain. Therefore, while there is widespread recognition of the inter-linked character of most environmental issues and problems, indeed many personnel interviewed for this study commented on the urgent need for strategic coastal planning, government personnel largely limit their activities to existing legislative parameters. The human resource, financial and other organisational constraints on departmental action (a matter taken up in more detail below) are also relevant here. Many departments are simply consumed by administering basic legislative functions and unable to proactively pursue other policy problems or issues.

Fiji's new Environmental Management Act 2005 and its prospective Fisheries Management Bill will go some way to overcome this problem of narrowly defined departmental responsibility and enable higher degrees of policy integration [34,35]. Both bring new functions to their respective departments and establish new arrangements for cross-sectoral and citizen participation. However, a range of other substantive policy domains requires coordination. An important example is the need for economic development policy and planning to be integrated with the government's desired approach to environmental management. High degrees of policy fragmentation also enable important cross-sectoral policy issues to 'fall between the cracks.' In Fiji, a country largely dependent on coastal resources of different kinds, the best example of this is an absence of comprehensive, strategic policy thinking on the coastal environment.

There are also, of course, cultural or behavioural dimensions to policy fragmentation and insufficient attention to integration. Government personnel interviewed for this study commonly lamented the absence of coordinating activities across government. They report that while some departments consult as a matter of procedure, these consultative efforts are variously under resourced, sometimes paid lip service to by the originating department, poorly organised and not routine. Informants also suggest that some coordinating committees have been rendered dysfunctional by representatives not appreciating the need or importance of cross-sectoral coordination, conflict and/or uncompromising representatives.

What might be done about these problems? Much of the current thinking on this point is to work towards producing 'whole-of-government' policy and strategy.

'Whole-of-government' approaches work towards 'an end-state' in which the policies and programmes of government are characterised by minimal redundancy (agencies performing the same task), minimal incoherence (inconsistent goals and requirements of policy clients) and minimal lacunae (failure to perform all necessary tasks) [36,37]. Whole-of-government strategies can be structural and extra-structural.

A typical structural response would be to develop an agency or taskforce that deliberately seeks to pool expertise and advice from across government to work on cross-sectoral issues currently not accounted for in the departmental structure of government. Such structures can be ephemeral or permanent. A use of such an approach in this case might be, for instance, to develop a taskforce to develop an integrated coastal management strategy for Fiji at either national or sub-national levels. Beyond the need to produce much-needed policy and strategy, such approaches can also work to overcome cultural barriers to integration: sectoral and departmental boundaries become fluid and permeable enabling further cross-governmental cooperation, and undermining rigid and carefully defended fiefdoms capable of only delivering sectoral decision-making.

Extra-structural responses include focusing on the role of governmental processes, culture and capability. Crucial issues here appear to be information management and infrastructure, budget and accountability frameworks, maintenance of connections with non-governmental actors and citizens, and management of crises and their consequences [36]. Personal qualities and inter-personal skills (e.g. consensus building, drive, integrity) are also critical factors in contributing to success in whole-of-government work. A recent Australian study suggests that a 'culture' of regular and personal (and often informal) communication was essential to producing coordinated policy outcomes [38]. In the case of Fiji, an important response would be to provide some intensive training to government personnel in the area of collaboration, consensus building and communication and to develop a protocol for inter-governmental coordination and communication.

4.2. Pilot projects and systemic needs

There is a plethora of interesting projects and 'experiments' of various kinds occurring in the domain of coastal and environmental management in Fiji. NGOs and donor agencies are actively pursuing a wide range of environmental management projects—both in collaboration with government agencies and alone. Many of these projects are doubtless well-designed and some might "produce good environmental outcomes." However, there is often little hard data—produced from a purposive monitoring regime—with which demonstrates the (environmental) effectiveness of these projects. Personnel in government agencies report that their involvement and collaboration with external organisations in these projects occurs because

of a shared concern for the objectives of the project, and because of the information and resources likely to be made available to government because of that collaboration.

However, the preponderance of these projects does point to two deeper issues. First, it demonstrates the extent to which environmental governance (along with other policy sectors) is not contained with formal political institutions. Instead, environmental management involves a complex, a-symmetric network of organisations and groups. This is characteristic of governance in the third millennium and it offers risks as well as opportunities [22]. The risks include increasing levels of policy and institutional fragmentation and an increase in the transaction costs of governance because of the need to work inter-institutionally. The most important opportunity is enable the engagement of a much wider citizenry and benefit from the knowledge and resources of a wider set of organisational actors. Reaping the rewards and minimising the costs, however, does require a sophisticated understanding of how to practice statecraft in these circumstances.

Second, the multitude of pilot projects and other experiments both points to and reflects an absence of a *systemic* response (policy or strategy) to the problems of coastal environmental use and management. Notwithstanding the fundamental economic and cultural importance of coasts and coastal resources to Fiji, and the grave threats to these environments [3,39], Fiji does not have a comprehensive coastal management strategy at either national or sub-national levels. Integrated coastal management requires a cross-sectoral governmental capability (which we have already concluded is weak) *and* a commitment to developing systemic responses to such problems. This is not to suggest that both within and without government there is a lack of awareness or knowledge of the imperative for improved coastal management. Indeed, the opposite is true: government and civil society in Fiji are highly knowledgeable and aware of the need for improved coastal management.

Two practical responses to these problems can be suggested. First, there is need for training in the area of inter-organisational networking and collaboration, and a need for protocols to inform and guide collaborative efforts. Second, there is a need to develop—in a broadly collaborative way—a series of nested national and sub-national coastal management strategies that can be used by government and civil society to guide further project and strategy development by government and civil society and to enable new projects to be designed in such a way as to articulate with national and sub-national management frameworks.

4.3. Centralised government

Government in Fiji is highly centralised—geographically and administratively. Geographically, government is of course overwhelmingly located in Suva. Personnel from most of the departments interviewed commented that departmental budgets allow for very limited travel. Fiji is, of course, a diverse island nation and more than 100 islands are inhabited. This, combined with the limited availability of communications technology, means that the national government has a limited regional presence in a geographically diverse country and, therefore, a limited ability to understand and relate to local circumstances and particulars.

In administrative terms, the centralised character of government is reinforced because mechanisms for effective 'vertical' governance are severely lacking. *Vertical* governance refers to how national government relates to subordinate (in this case municipal) government, customary landowners and the public at large. Vertical governance in Fiji is complicated the system of customary landownership. Approximately 90% of land in Fiji is owned by customary landowners [40]. Customary land is held in communal title; the group owning a particular parcel of land is referred to as the *mataquali*) [41]. Native landowners generally lay claim to resource sovereignty, although Evans [34] notes that the pre-eminent natural resource legislation in fact prevails. Native lands cannot be alienated nor encumbered. Furthermore, *the Native Lands Trust Act* empowers the Native Lands Trust Board to grant leases or licences for the *use* of native lands. A particularly important problem with current arrangements is that the NLTB lacks 'in-house' environmental expertise with which to advise customary landowners.

Customary landownership inhibits the regulatory power of the national government to fashion the way in which land and natural resources are used. Since Evans [34] observes that the key natural resource legislation in fact prevails, and a statutory organisation (the NLTB) determines *use* of land, it would appear that the inhibition of government with respect to directly regulating natural resource use on customary land is 'cultural' rather than legal. This creates a situation in which government is highly centralised, the governance of environmental resources by customary landowners is highly decentralised. The organisation of these two sovereign actors—government and customary landowners—are therefore very different and deliberate efforts to create vertical coherence are required.

Another dimension of government–landowner relations relates to the role of the NLTB. The focus, legislatively [34] and organisationally of the NLTB is to promote the development—understood as forestry, agriculture, tourism and other kinds of intensive commercial activities—of customary-owned lands. In doing so, the NLTB arranges and facilitates meetings between landowners and developers with a view to facilitating agreement for a lease to enable the development to proceed. Little attention is given to conservation issues more generally. Importantly, the NLTB, being an organ of a government with an explicit policy commitment to economic development cannot offer landowners *independent* advice. Additionally, the NLTB has limited environmental expertise and is unable to advise

landowners on the long-term environmental consequences of development decisions.

Subordinate government has very little control, a vague mandate and very few resources with which to achieve its desired ends. The *Town Planning Act*, for instance, places significant control in the hands of central government that approves planning schemes, and minimal control in the hands of municipal government which implements approved schemes. Municipal government lack environmentally trained staff. Evans [34] remarks also that municipal government has "[v]ery limited capacity to plan for and manage the environment … the purpose of the *Local Government Act* is to create units around which communities can be organised" (p. 16). Given the constraints, noted above, on central government, local government would be ideally placed to plan for and manage the use of the natural environment and engage with customary landowners. It is not empowered—legally or financially—to do this.

A final aspect of vertical governance in Fiji relates to mechanisms for the national government to facilitate the participation of citizens in processes of policy development and implementation. Most environmental statutes in Fiji largely ignore this issue. The *Town Planning Act* is a notable example [34]. Moreover, given the geography and decentralised population of Fiji, enabling effective participation would require a substantial commitment of resources.

In sum, these 'vertical' relations do not enable national policy effectiveness, an effective local-central dialogue or, therefore, a particularly functional system of governance. Improving this dimension would require, fundamentally, a review of the role of local government relative to central government, an improved mechanism to provide environmental and other advice to customary landowners and improved mechanisms for public participation in policy development.

4.4. Planning

Planning—in all of its forms, including land use, economic and environmental planning—is the deliberate, coordinated effort to achieve particular objectives. More abstractly, it is the process of translating knowledge into action in the public domain for collective purposes. Planning is a crucial dimension of achieving the goals and objectives set out in policy and legislation—particularly in domains such as land use and environmental management. Here a key part of achieving policy objectives is collecting and processing information about, for example, existing land use, emerging pressures, environmental threats, from which operational responses can be designed. In other words, for some policy domains, planning is a crucial aspect of government's ability to achieve policy objectives.

Land use and environmental planning are under-utilised in Fiji. This is, in some cases, a function of outdated legislation. In fisheries and forestry, for example, the relevant statutes provide an offence and licensing regime but do not provide for development of plans of management (at various scales) [34]. Licensing for extraction is an important dimension of environmental management; but so too is the identification of the multiple values and uses of a particular resource, the collection of information about the resource and existing threats, and the formulation of plans for the active management of the resource–planning.

Another aspect of this limited use of planning relates to the resources and capacity of government. Most departments and agencies can only hope to administer existing functions and requirements; there is little capacity to engage in review, evaluation or to plan for new approaches or activities. The Department of Town and Country Planning is an apposite example. The Department is barely able to keep up with development proposals that it assesses against existing zoning schemes that it has limited ability to engage in forward-looking land use planning or in the review of those schemes. Indeed, the Department has three planners responsible for the entire country. Once a planning scheme has been approved for a given municipal area, the Municipal Council has responsibility for controlling development (and therefore managing land use). However, most Councils lack for suitably qualified staff to undertake this work (only Suva City Council has qualified staff), and there is a distinct absence, in local government, of environmentally trained staff. As Evans [34] notes, local government "is an administrative tool, [it is] not … for actively planning the use of an area" (p. 16). This is significant, of course, because the population of Fiji is growing, urbanising and concentrated on the coast [5]. Inadequate consideration of a range of basic town planning issues, such as appropriate development, protection of important areas, provision of sufficient waste management facilities, etc., might, over time, be an important source of cumulative environmental impact for Fiji's coasts.

In addition to the limited use of planning, the location of planning responsibilities across government is problematic. Two matters stand out. First, in relation to town planning, for example, the town planning function is ostensibly housed in the Department of Town and Country Planning, however only the Native Lands Trust Board is undertaking forward urban planning (the Board has recently completed a draft plan for greater Suva City [42]). In most jurisdictions, local government has local urban planning functions delegated to it from the central or provincial government. In Fiji, by contrast, Municipal Government merely administers a centrally developed zoning scheme and does not engage directly in planning [34]. Second, no mechanism exists through which government can undertake inter-sectoral planning (this relates to issues of intra-governmental coordination discussed earlier).

A more typical environmental planning regime would be for central government policy and legislation to set out the broad objectives and targets (conservation of important

species, continued economic use of resources, etc.) and to require the formulation of more detailed management plans (usually at nested scales—national, regional and local). The management plans are used as a device to collate all available information on environments and environmental pressures at a particular location and to formulate ways of achieving different policy objectives given the exigencies of the local context. Plans therefore provide detailed operational guidance to managers of a resource so that national objectives can be met across diverse locales. Management planning has become a central dimension of environmental policy because the management of a given resource or set of resources in a particular location almost inevitably involves wrestling with competing objectives, values and users.

The lack of management planning in Fiji has a number of consequences. First, it means that detailed operational guidance is not being developed for different sectors (e.g. town planning, forestry, fisheries). This means that environmental pressures and conflicts are not being identified and rectified in an ongoing way. Second, it means that national and institutional knowledge is not being developed through the information collection phase of planning. This means that environmental policy and management cannot hope to be adaptive; adaptiveness demands a constant flow of information. Third, limited planning activity reduces the likelihood that inter-sectoral issues and pressures—such as those implicated in coastal management—will be identified and reconciled.

How might these problems be rectified? Clearly there is a need for the Fijian government to equip itself with a more highly developed planning capability. The proposed new legislation governing fisheries and forestry, which provide for sectoral management planning, is an important step in the right direction. However, there is need for greater work to be undertaken in land use and urban planning, particularly on parts of the urbanising coast and these efforts are only likely to be successful and enduring if there the institutional responsibility for urban planning within the central government is rationalised, and if local government is granted a more substantial mandate (and resources for local area planning). Second, there is a need for greater use of inter-sectoral planning carried out by inter-governmental taskforces. Third, in line with the remarks above about the changing structure of governance, there is a need for improved training of personnel in (environmental) management planning and collaboration.

4.5. Information

Policy development and implementation make very heavy demands for information. This is particularly true for environmental policy. In this domain, the knowledge and up-to-date data are required on a wide range of phenomena: water quality, wildlife, ecological processes, as well as human impact and human–ecological interactions. Beyond the quantum of information required, these data

requirements are transdisciplinary: they require social as well as biophysical expertise. Moreover, since the emergence of the policy and planning as academic disciplines and distinct professional realms, we have held firmly to the view that policy must be rational—indeed scientific—ensuring the burden to collect and process information for policy purposes is even heavier. To complicate matters, in recent years we have learned that the limitations to 'rational planning' can be overcome by incorporating other forms of knowledge, principally the ideas, experience and wisdom of local people [43].

Current ecological thinking emphasises the unpredictable, ever-changing and disequilibrious character of ecosystems and this is in part responsible for the new mantra of environmental managers: *adaptiveness*. We know now that environmental managers must adapt to surprise events and changes, recognise that their interventions are themselves potential sources of (unpredictable) ecological change, and that their efforts are experiments in ecological intervention [44]. Environmental policy and planning therefore must shift from seeking to achieve long-range prescriptions with fixed objectives to a more flexible approach in which greater emphasis is placed on monitoring ecological change, and flexibility in tactics and targets [45].

For all of these reasons, reliable, quality information about resource use, environmental quality and policy efficacy is a crucial aspect of effective environmental governance. A major frustration for environmental managers in Fiji is that the required transdisciplinary, quality data sets are generally unavailable.

This represents a huge constraint on the ability of government (and others) to adapt to emerging problems or concerns and to design and implement new policies (such as ICM). It also increases the dependence of indigenous actors on external NGOs and donor organisations. Government personnel from a range of departments report a frustration with lack of access to quality of data. The absence of an active planning agenda in Fiji exacerbates information shortfalls: one of the ancillary benefits of environmental planning activities (including EIA) is the accumulation of information over time.

An apposite example of information shortages in Fiji is the fisheries sector. The Fisheries department is currently undertaking a survey of fish stocks in each *qoliqoli* so that it can advise communities about the extent of in-shore resources. At this stage, approximately 35 such areas have been surveyed; there is, therefore, little knowledge about the in-shore fishery resource for much of the country. The central issue here relates to the regulatory technique being used in fisheries (and other sectors) in Fiji. Fijian fisheries are currently regulated by a licensing scheme. Fundamental to licensing resource extraction is some knowledge of the extent of the resource so that a sustainable 'take' can be licensed. Another crucial aspect is monitoring. Compliance with licensing requirements must be monitored, as must the resource over time. Licensing extraction therefore, stands

or falls, on (i) knowledge of resource extent and quality at the time of permitting, and (ii) monitoring of resource stocks and permit compliance over time. On both counts, problems are evident in Fiji.

The fisheries sector is used here only for exemplification: deficiencies in the information base for policy-making, and an insufficient commitment to monitoring (of both resource quality and policy effectiveness), appears endemic to environmental governance in Fiji.

There are a number of aspects of the *Environmental Management Act 2005* (EMB) which will go a long way to remedying the shortfall in quality environmental information in Fiji: the National State of the Environment Report (s21), the provision for Environmental Audits (s23), the systematisation of Environmental Impact Assessment (s25 and s29), and the Natural Resource Inventory (s52) [35]. While the EMB will have important implications for all of government, there remains a need for other government departments, such as fisheries, forestry and public works, to increase their efforts in monitoring natural resource stocks and quality within their jurisdiction *and* the effectiveness of existing policy and regulatory settings. Further, these monitoring activities must be used, in part, to establish environmental databases that need to be maintained over time and made available across government. The proposal in the EMB to require each government department to undertake environmental audits (s24) is an excellent one, however, the present proposal does not require the audit to evaluate effectiveness of the policy or regulatory regime provided by that department. This is crucial—not for punitive purposes—but instead to enable institutional learning and adaptation to changing circumstances or under-achieving policy settings.

4.6. Capacity

The capacity of key actors to manage environmental resources, and to network and collaborate with other actors, is a crucial dimension of environmental governance. To become effective managers of the environment, and to intervene effectively in environmental problems, these actors require considerable socio-political, organisational and ecological knowledge and capability [26]. These same actors require the financial resources to implement and prosecute their objectives and to maintain core organisational functions.

Government and non-government personnel interviewed for the purposes of this study report that the capacity of key organisations to undertake environmental management activities is limited by (i) The numbers of personnel available to service key functions, (ii) knowledge and training of these personnel and (iii) the financial resources with which to conduct activities (travel, monitoring, evaluation, etc.). This problem is ubiquitous and underpins all other identified problems.

Intra- and inter-organisational interaction, communication and collaboration also help to develop stores of social

capital that facilitates collaboration and cooperation [46] as well enabling social learning. In other words, levels of inter-organisational interaction enhance governance by facilitating cooperation and improving the knowledge and capability through social learning. In this respect, the problems with coordination described above, and the paucity of mechanisms and forums requiring intra- and inter-organisational interaction act as a further constraint on the capacity of environmental governance in Fiji.

Remedying these problems is therefore about more than the injection of more resources, and more than the technical training of personnel (although these are important), it also requires: (i) the creation of widely accessible data bases and information sets (discussed above) to inform key actors, and (ii) the establishment of mechanisms facilitating routine and ongoing intra- and inter-organisational interaction, communication and collaboration.

5. Conclusion and recommendations

Achieving improved and integrated management of coastal resources and environments is a complex and challenging task. In thinking about how best to respond to this challenge, this paper has argued that the problems of *governance*—rather than government—should be the focus. To focus on the design, structure and operation of government, or alternatively, to focus exclusively on the activities and capabilities of communities, would be to miss a fundamental characteristic of contemporary social and political life in Fiji. This is a polity in which government is highly centralised, has limited capabilities and *shares* sovereignty with customary land and resource owners. A focus on governance allows us to think about the relationship between government and community, between state and citizen, and how these relationships shape policy and mediate the use and management of natural resources.

Government in Fiji was designed to provide 'command and control' policy and regulation. However, the conditions simply do not exist in Fiji for this kind of government to occur: such an approach would be widely resisted; recognition of customary resource sovereignty prevents it, and the national (and sub-national) polities are characterised by a complex array of inter-organisational networks (operating at different scales) which no sovereign actor can steer or regulate. New models of governance need to be considered, such as the decentralisation of governance following review of centre–local relations, and the creation of mechanisms and forums for more systemic inter-organisational collaboration. This is not to suggest that we should not simultaneously be concerned with *government* structure and function. It could certainly be improved in a range of ways, principally—in this context—by examining some of the 'whole-of-government' practices being utilised elsewhere.

The key suggestions for improving environmental governance in Fiji in a strategic way, identified and considered above, are summarised below. What becomes

clear in providing this summary is that, to varying degrees, differing aspects of the problem and the proposed solution are inter-locking and inter-dependent. Overcoming, for instance, problems of insufficient environmental information with which to make policy, might also facilitated enhanced capability and inter-organisational collaboration.

5.1. Suggested strategies

(i) Examine the creation of regional- and sector-specific taskforces concerned with pooling the expertise and advice from across government and civil society to develop environmental policy for implementation within and without government. One use of such an approach in this case might be, for instance, to develop a taskforce to develop an integrated coastal management strategy for Fiji at either national or sub-national levels.

(ii) Improving integration and coordination in Fiji is crucial to developing more systemic responses to environmental policy problems. Two strategies are required. First, intensive training of government personnel in the area of collaboration, consensus building and communication is required. Second, there is a need for government to develop a protocol for inter-governmental coordination and communication.

(iii) Improving the systemic treatment of key issues requires the development of a series of nested national and sub-national coastal management strategies that can be used by government and civil society to:
   (a) inform and guide further project and strategy development by government, donor agencies and civil society;
   (b) enable new projects to be designed in such a way as to articulate with national and sub-national management frameworks;
   (c) focus new projects by providing a national and regional strategy.

(iv) Improving the operation of vertical relations in governance requires a three-pronged approach:
   (a) A thorough review of the role of local government relative to central government, probably leading to a new, comprehensive mandate for local government.
   (b) An improved mechanism to provide environmental and other advice to customary landowners.
   (c) The development of protocols for use by government to engage the public effectively in policy development.

(v) There is a need for the Fijian government to establish a more highly developed planning capability, particularly in land use and urban planning. This can only be achieved if:
   (a) the institutional responsibility for urban planning within the central government is rationalised, and if local government is granted a more substantial mandate (and resources for local area planning);
   (b) greater use is made of inter-sectoral planning carried out by (ephemeral) inter-governmental taskforces; and
   (c) increased training opportunities are provided government personnel in (environmental) management planning and collaboration.

(vi) There is a need to improve the extent and quality of information available for environmental governance. In particular:
   (a) Increased effort in and resourcing of monitoring natural resource stocks and quality is required across government to both understand the state of the environment and to enable government to successively fine tune its policy settings.
   (b) These monitoring activities must be used, in part, to establish environmental databases that must to be maintained over time and made available across government.
   (c) Period evaluations of the effectiveness of the programs and policies of government are essential to enabling institutional learning and adaptation to changing circumstances or under-achieving policy settings.

(vii) Although the capacity of government could certainly be improved by an injection of financial resources and increased technical training of personnel, it also requires:
   (a) the creation of widely accessible databases and information sets (discussed above) to inform key actors, and
   (b) the establishment of mechanisms facilitating routine and ongoing intra- and inter-organisational interaction, communication and collaboration.

This represents a considerable challenge that will require a high degree of political support—both nationally and internationally—and financial and advisory support over a considerable period. The costs of not doing so, however, might well be grave.

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