

Environmental management and the Fiji tourism industry

Sean Weaver

University of Canterbury

and

Brian King

Victoria University of Technology, Melbourne

Introduction

THE PROCESS of reshaping a nation's economy towards ecological sustainability will, in many cases, require substantial changes in the way natural resources are valued nationally. However, such changes are unlikely to come about overnight, and interim measures will need to be implemented to delay the total loss of many valuable ecosystems: in this context there are already many opportunities within the existing economic planning framework to allow such interim protection of valuable resources. Reversing tropical deforestation in countries that are subordinated in the global economy, including most Pacific Island nations, will require the immediate implementation of expedient strategies designed to reduce the rate of forest loss in the short term. Such strategies do not challenge the current economic context of resource valuation, but do provide an immediate means of protecting diminishing forest ecosystems.

Tourism is the single largest industry in Fiji, accounting for more than 74% of the nation's foreign exchange earnings. This amounted to \$281 million in gross earnings in 1989 compared with \$215 million from sugar in the same year (Watling and Chape 1992). Fiji is looked on as a significant player within this part of the Pacific, having, for instance, attracted 40% (270,000 tourists) out of a total of 660,000 to the fourteen member countries of the Tourism Council of the South Pacific (King and Weaver 1993). The success of tourism in countries like Fiji relies on the marketing of a clean, friendly, relaxing environment, together with a

variety of natural attractions. Because of this there are many implicit (yet substantial) links between a successful tourism industry and a clean, healthy environment in general. In recent years nature based tourism—also widely referred to as ecotourism—has also begun to provide many direct links between nature conservation and what has become a major commercial industry.

Much has been said by conservationists of the benefits for Fiji's tourism that could derive from more emphasis on environmental protection (e.g. Maruia Society and Royal Forest and Bird Protection Society 1989; Weaver 1992). However, to date little in the way of comment from the tourism industry itself has found its way into the debate. The tourism industry survey reported in this paper was broadly aimed at determining whether a mutually beneficial relationship between the tourism industry and environmental management in Fiji is possible.

Environmental management in Fiji

ENVIRONMENTAL management in Fiji has recently been under review in a National Environment Management Project (Watling and Chape 1992). One of the principal tasks of this project was to reorganise environmental management procedures and assign specific responsibilities to specific agencies within the Fiji Government. Such an overhaul was long overdue: environmental management had hitherto been characterised by ad hoc procedures and an absence of clearly defined institutional responsibilities within different government departments. Furthermore, no single government agency was responsible for the coordination of environmental management at a national level, and different existing departments had ill-defined environmental management responsibilities. Situations like this are not uncommon in developing countries where in the face of severe financial constraints environmental protection and sustainability tend to be subordinated to the apparently more urgent government planning ambitions such as foreign debt servicing, foreign exchange earnings and the expansion of economic development infrastructures.

In the past, efforts to improve environmental management in Fiji (when they have occurred) have tended to consist of a modification of resource uses either where existing uses were not ecologically sustainable, or where they threatened identifiable environmental values of intact

natural ecosystems. Because many natural resources in Fiji are held under communal ownership by indigenous Fijians—Watling and Chape (1992) estimate the proportion at approximately 83%—the redirecting of resource use will require the consent of the owners. This ultimately brings environmental management into the realm of private property rights. Freedom of the use of private property is rarely absolute, and governments often place constraints on the use of private property to ensure compatibility with the public interest. This may occur with the protection of environmental resources that are held in private ownership but continue to have significant value in the public domain. Although the powers of government are substantial, the placement of restrictions on the use of private resources is rarely exercised. For this reason the management of privately owned resources in the public interest requires the cooperation and support of the owners. This is particularly true if modifications in resource use are to be maintained in the long term.

Private or communal owners will frequently regard their endowment of natural ecosystems (at least in part) as a resource to be utilised in the satisfaction of their economic development aspirations. Such aspirations are entirely legitimate even if the ecosystems they plan to use are ecologically sensitive. However, should the government or some other agency identify an ecosystem held in private ownership as a significant ecologically sensitive area worthy of specific environmental management, the owners will need to consent to this management before it can take place. Should environmental management requirements preclude the use of the resource as planned by the owners then a conflict is likely to arise. Options available for the resolution of such a conflict of interests will tend to take the form of:

- compensation to the owners if they agree not to use their resource at all; or
- the presentation of an alternative use for their resource that is compatible with both owners' aspirations and environmental management requirements.

The development of alternative uses of private or communally owned natural ecosystems provides the motivation for undertaking the current study. Many natural ecosystems comprise a potential resource for more than one commercial activity. Natural forests and landforms, reef systems, rivers, coastal waters, and lakes, for example, could all be

utilised in a commercial fashion for a number of different activities. However, for the purposes of sustaining environmentally sensitive areas, some activities are more benign than others. A natural forest could be used for timber extraction followed by plantation forestry or agricultural development. A river could be dammed and used for the generation of hydroelectricity, a marine ecosystem could be utilised for the commercial harvesting of fish. Should examples of the ecosystems mentioned above be ecologically sensitive and require protection of some form, and if the owners are determined to use them for commercial production, and if compensation is unavailable or inappropriate, then an alternative use will need to be developed that is compatible with environmental management requirements and satisfies the aspirations of the owners. One activity that is capable of utilising all of the above mentioned ecosystems in a relatively ecologically benign fashion is tourism. The tourism industry can commercially value natural ecosystems in their natural state rather than valuing only goods and/or services produced by extracting resources from ecosystems. Tourism is, therefore, capable of providing the justification for resource allocation of natural ecosystems to the environmental management sector¹ as opposed to some other sector that will damage the ecosystem. Tourism is also capable of helping to generate the impetus required to sustain the 'conservation estate'² by providing owners with an ongoing means of income from an intact resource.

However, the benefits associated with linking environmental management and tourism development (as an alternative to more damaging forms of resource use) accrue to both conservation and tourism sectors. This is particularly true for a tourism industry, such as that in Fiji, that is both in need of diversification and at the same time underutilising a major potential resource—natural ecosystems. Nature tourism (or ecotourism) is proving to be one of the major growth spheres within the international tourism industry. Fiji's assets include a variety of untapped nature tourism attractions that the tourism industry should employ if it is to achieve the diversification it seeks as a means of satisfying the market demand. Thus, the linking of tourism development and environmental management is likely to yield a mutually beneficial relationship between these two sectors.

Linking environmental management with tourism

IN TERMS of national planning the principal advantages in linking environmental management with the commercial activities of the tourism sector relate to the following:

- Environmental management activity provides the tourism sector with a cleaner, healthier backdrop for tourism activity.
- The establishment and management of protected natural areas provides an expanded resource base for the tourism sector in terms of natural tourist attractions.
- Tourism activity that acknowledges the commercial value of environmental management to that sector helps to provide justification for the resource allocations (budget for environmental management activity, and allocations of natural resources) to the environmental management sector in national development planning.

Benefits to the tourism sector arising from environmental management manifest themselves at different scales. One scale relates directly to the retrieval of cash receipts from tourism activity that employs natural ecosystems in the production function. This may involve the collection of accountable receipts from a tourism operation within a protected area such as a national park. Here the natural resource being used for tourism can be assessed according to benefits and costs on a per hectare basis and be compared with other uses within the context of a common currency.

However, environmental management also provides tourism with significant contributions that exist beyond the reach of direct financial analysis. They can be termed external benefits. Like external costs, they are evidence of the price system's inability to signal the true significance of interdependent systems. They also share with external costs the feature of being difficult to urge as legitimate or significant components of an economic analysis. One of the main reasons for this stems from the fact that they are invisible in an analysis using common accounting techniques (based on price) and are external to the direct costs and benefits of an economic or financial analysis (i.e. they do not meet in the market place).

Examples of the external benefits of environmental management to tourism can be seen in many countries and states including New Zealand, Australia, Nepal, Kenya, Costa Rica, British Colombia, Colorado, and Norway. A major reason for tourists to target these places as destinations is that they have, or are acclaimed to have, areas of substantial natural beauty. A large proportion of New Zealand's arriving tourists are drawn to that destination because in its tourism promotion New Zealand projects an image of itself as a clean, green landscape with accessible national parks and wilderness (Shultis 1989). For example, approximately one out of every two international visitors to New Zealand in the 1980s visited a national park. Those who did visit national parks visited on average two parks each (Pearce and Booth 1987). The tourism industry benefits greatly from these natural landscapes, which have been protected and are being managed by the environmental management sector, viz. the Department of Conservation, and regional government under the auspices of the Ministry for the Environment.

Many tourists arriving in Australia's Northern Territory (in fact, 81% of the total in 1988) explain their selection of that state as a destination in terms of a desire to visit national parks (Maruia Society and Royal Forest and Bird Protection Society 1989), and yet paradoxically they may disburse only a small proportion of their total expenditure within a national park. Any economic analysis that were to assess the value of national parks to the tourism industry by using available data based only on receipts from operations within national parks would seriously undervalue the importance of national parks to tourism. This is because many of the receipts (or a proportion of receipts) collected from great distances away from the national parks are attributable to the fact that the Northern Territory maintains an internationally acclaimed national park system.

If Fiji's tourism sector were to employ natural areas as part of its diversified attraction base and market them accordingly, then the entire conservation estate would begin to provide both direct (internal) and indirect (external) benefits. Thus, the importance of environmental management to the success of the tourism industry in Fiji is likely to be significantly greater than can be demonstrated by a direct financial cost-benefit analysis.

Balancing different interests

THE PRIMARY interest groups involved in these resource management circumstances in Fiji include:

- the environmental management sector, which seeks to promote ecologically sustainable coexistence of humans and their natural surroundings;
- the resource owners, with their aspirations for socioeconomic development; and
- the tourism sector, whose development, however much desired, must also be constrained by the necessity for sustainability.

As mentioned, a need to develop alternative forms of resource use by resource owners becomes apparent when the existing uses (e.g. logging) or proposals are incompatible with the environmental management requirements for an ecologically sensitive ecosystem. Concurrently there is a need to diversify the attraction (resource) base of the tourism industry, which has the opportunity in Fiji to move more decisively into the sphere of nature tourism. These circumstances provide an opportunity to espouse the independent interests of the three primary interest groups simultaneously (i.e. the resource owners, environmental management, and the tourism sector). To achieve this, however, requires dialogue and cooperation.

Cooperation will need to involve mutual support in site selection, planning, and management. Should a mutually beneficial relationship develop between the tourism industry and environmental management, resource allocation to the environmental management sector will, in many cases, also represent an allocation to tourism. Similarly, any allocation to the tourism sector of a nature tourism resource will be a *de facto* allocation to the environmental management sector. For this reason it is important that the tourism and conservation sectors support any allocation that may be mutually beneficial in a direct or indirect manner. The tourism sector will also gain from environmental management by supporting and encouraging improvements in environmental management in general, including pollution controls and controls on natural resource depletion. Resource owners involved in nature based tourism operations

that combine with environmental management will see their resource endowment managed in order to satisfy their aspirations of economic development, but it may not take the form they originally planned. This does not deny them rights to the use of private property but does allow public policy and planning priorities of government to influence the way in which resources are used on private or native land. In order to foster cooperation between the resource owners, the tourism sector and the environmental management sector, each interest group will need sympathetic understanding of the interests of the others. This paper reports briefly on a survey conducted in 1991 that can be seen as an initiation of such dialogue between the tourism industry and the environment sector (through the National Environment Management Project) in order to foster a mutual understanding that may lead to increased cooperation in the future. We now describe this survey (undertaken by the authors) of tourism industry attitudes to the environment.

The tourism industry survey

Survey objectives

The objectives of the tourism industry survey were:

- to ascertain attitudes and perceptions of operators in the tourism industry on the relationship between environmental management, their current operation and the tourism industry in general;
- to determine the level of awareness among members of the industry of the potential of nature tourism in Fiji as a means of diversification, and to ascertain the requirements of the tourism industry for investment in nature tourism;
- to gather information that may assist in the planning and establishment of a system of national parks and/or reserves that could be used by the tourism industry as tourist attractions in the future; and
- to assist with national tourism marketing plans (with respect to nature based attractions) by providing an opportunity for members in the industry to contribute their opinions on how this should be done.

Methodology

Instrument

A questionnaire was distributed by mail to a sample of 87 operators. In all, 29 responses were received. The questionnaire consisted of eight sections as follows:

- A. The significance of the environment to your current business operations
- B. The current state of environmental protection in Fiji
- C. The potential for nature tourism development in Fiji
- D. National parks and reserves
- E. Investment in nature tourism
- F. Marketing and the environment
- G. The role of your business in the tourism industry
- H. Additional comments

Sampling

Because a disproportionately high number of operators in the Fiji tourism industry are involved in the accommodation sector, a decision was made not to send questionnaires to all operators in Fiji. Instead a sample of a number of key sectors was undertaken to allow a better comparative insight into the views of different sectors of the industry. The sample was drawn by random selection from the Travel Industry Manual prepared and distributed each year by the Tourism Council of the South Pacific. Numerical information about this small sample is presented in Table 1.

Table 1 Composition and response rate of sample

Industry sector	No. sampled	No. of responses	Response rate (%)
Inbound operators	12	6	50.0
Cruise operators	4	1	25.0
Scuba diving operators	15	3	20.0
Yacht charterers	6	2	33.3
Hotels/Resorts	50	16	33.5
unspecified		1	
Total	87	29	33.3

Limitations

The authors acknowledge a number of limitations in the research methodology. In the first place, the fact that the National Environment Management Project was one of the bodies under whose auspices the study was conducted may have encouraged responses from operators more favourable to environmental issues. Operators with a low interest in environmental issues would, one suspects, have a lower response rate.

Clearly the response rate is a further limitation of the study. Whilst a 33.3% response is acceptable for a mail questionnaire, the fact that the original mailing list was in itself only a sample limits the acceptability of the second round of sampling. Also the relatively small total number of responses makes cross-tabulation difficult. The limited statistical scope of the study means that it cannot be regarded as representative of the industry as a whole. However, it does offer a useful introductory insight into how environment is viewed by some members of the tourism industry in Fiji.

Results

Profile of respondents

On the basis of the number of employees, operations responding to the questionnaire were categorised as large (40 or more staff), medium (20–39 staff) or small (fewer than 20 staff). Most respondents (48.3%) were involved in large businesses thus defined, followed by small (31.0%) and then medium (17.2%). One respondent did not specify. Most of the individuals who responded (65.5%) held senior positions within their organisation and described themselves as either owners, general managers or chief executives. A further 31.0% could be described as department managers or supervisors.³

Resume of responses

A. The significance of the environment to current business operations.

In general respondents acknowledged the significant relationship between the visitor experience provided by their business and the quality of the natural environment in the immediate area. Of the respondents, 55.2% described the relationship as very strong, with a further 34.5% selecting fairly strong, making a collective response of 89.7%. When asked whether the same visitor experience was dependent on the quality and

sound management of the natural environment at the wider Divisional level (i.e. North, Central, East or West), the feeling was still strong (62.1% said very strong, 13.8% strong); but 24% answered neither weak nor strong, fairly weak or very weak. It appears that opinions diverge more when broader, regional environmental issues come into play. A hard core (62.1%) feel very strongly, but others are lukewarm. In contrast, almost all agree about the critical importance of environment at the microlevel (namely, immediately adjacent to the relevant tourism operation).

One interesting feature was that a substantial 41.4% stated that 50% or more of their clients make at least one trip to a reserve or park area during their time with that particular business operation. This high figure suggests that our sample may not be typical of the Fiji tourism industry. A recent study by the Fiji Visitors Bureau (1991) highlighted the relatively low mobility of tourists, particularly in the major resort areas, with 20.7% of the respondents saying that less than 10% of their clients visit parks or reserves.

B. The current state of environmental protection in Fiji. Another insight into the broadly pro-environment attitude of the respondents is evident in the responses to section B, The Current State of Environmental Protection in Fiji. A total of 72.2% described the state of Fiji's environmental protection in negative terms, 44.8% characterising it as unsatisfactory and 27.6% as very unsatisfactory. A much smaller 17.2% responded in positive terms, 13.8% selecting satisfactory and only 3.4% very satisfactory as the appropriate descriptions.

When asked whether poor environmental practice was causing problems for their own business, slightly more (51.7%) answered in the affirmative than the negative (44.8%). A much larger group suggested that poor environmental management was causing problems for the tourism industry in general (69.0%), though 24.1% disagreed. At face value, the responses to these two questions appear to contradict the earlier question about the impact of immediate environmental concerns on the business. In that question, respondents implied that macroenvironment decisions (at Divisional level) were of fairly limited significance to the quality of visitor experience provided by the business, although there was an inextricable link between the quality of the environment and the visitor experience. This may indicate a lack of awareness of the possible

environmental management decisions at the divisional or national level, but a greater awareness of the increasing threat posed to the industry as a whole by inadequate environmental management practice.

Perhaps not surprisingly, most respondents think of environment in layperson's terms and not immediately as a scientific issue. When prompted about environmental deficiencies, a surprisingly high 48.3% identified a lack of cleanliness as a major one. Much smaller numbers identified land mismanagement (17.2%) and lack of knowledge (6.9%) as key problems. Likewise, 82.8% indicated that improvements in environmental management would be of benefit to their business, while 17.2% did not. The largest single improvement in environmental management sought by respondents was 'clean up the foreshore' (34.5%), suggesting that the consciousness about lack of cleanliness is focused on the coastline and is confined to visible forms of pollution. This is not surprising, considering that the coastline is currently regarded as a major asset to the tourism industry. Should other natural areas such as native forests become more important to tourism, concern for the appearance and sound environmental management of these areas is likely to grow as well.

Some 17.2% wanted more local involvement in environmental protection programmes, suggesting a recognition that part of the responsibility for a clean and healthy environment lies with the local people. At the same time, 17.2% supported the development of more environmental attractions.

C. The potential of nature tourism in Fiji. When asked about Fiji's international competitiveness as a destination, 72.4% identified natural beauty as the country's main drawcard. Respondents were relatively undecided about whether Fiji offers a unique selling proposition in terms of wilderness experience, with 58.6% answering yes and 41.4% no. Explaining why this was the case, 48.1% said it was because the country was relatively 'untouched'.

D. National parks and reserves. Respondents were asked to name five parks or reserves in Fiji with which they were familiar. Only 3 were able to name five parks, 8 at least four, 15 at least three, 16 at least two and 20 at least one. Seven were unable or unwilling to name any parks or reserves. The parks and/or reserves most frequently mentioned were Sigatoka Sand Dunes National Park (9 mentions) and the Kula Bird Park

(10 mentions), Colo-i-Suva Forest Park (8 mentions) and the Bouma (Tavoro Falls) Forest Park (5 mentions). The relatively high awareness of Sigatoka and (to a lesser extent) Bouma Falls may be related to the fact that posters have been distributed by the Department of Town and Country Planning. This points towards the need for effective publicity and promotion of key protected areas that have high potential for tourism development. If the tourism industry is not aware of the natural attractions that exist, they are unlikely to utilise them for tourism purposes.

Most respondents (82.7%) agreed that the number of national parks and reserves in Fiji should be increased, with 58.6% responding strongly agree, 6.9% disagreeing and 10.3% neither agreeing nor disagreeing. This response indicates a willingness of at least a segment of the tourism industry to support the establishment of an adequate national parks and reserves system in Fiji. Wider support from the tourism industry as a whole is likely to require further efforts by the environmental management agencies to describe the benefits of a national parks and reserves system to the tourism industry. It is conceivable that support for an increase in the number of national parks and reserves may simply reflect the personal attitudes of respondents. However, in response to a later question (QD4), which asked if an increase in the number of national parks and reserves would benefit their business operation, 72.4% indicated that it would. The main reason given was that such developments would enable the enhancement of visitor enjoyment (44.8%), though a further 27.6% suggested 'because it would help protect the environment'.

The response of this sample of the industry to the concept of user pays for access to national parks and reserves was surprisingly favourable. Overall, 41.4% strongly favoured the user pays approach, with a further 31.0% favouring it, 13.8% neither favouring nor opposing it and 10.3% opposing or strongly opposing the idea.

E. Investment in nature tourism. Respondents were very divided or at least uncertain about the constraints to investment in nature tourism in Fiji. The only constraint that rated highly was the landowners, indicating that respondents regard the current tenure arrangements as a problem (44.8% described it as a very great constraint). This may also reflect a degree of lack of understanding of or sympathy with landowners (their culture, social structure, needs and aspirations) on the part of operators in the tourism industry.

Lack of existing facilities and infrastructure were regarded as two possible constraints to investment, although no strong tendency emerged. A lack of suitable guides was scarcely regarded as significant by any respondents. Inconvenient location and the smallness of the market also showed no strong tendency.

F. Marketing and the environment. Finally, respondents were asked about the marketing of Fiji with particular reference to nature tourism. There was no great confidence in the quality of current marketing activity. Of course, different operators have different marketing requirements, which makes it difficult to satisfy all interests through a nationally coordinated marketing campaign. While it is true that private operators are themselves responsible for the marketing of their own product, it is important that Fiji as a whole should be adequately marketed as a rewarding place to visit or an attractive context for these individual products.

The largest single category of responses (24.1%) identified product quality as the major marketing strength, with cooperative marketing the only other significant category (20.7%). Lack of cohesion (20.7%) was identified as the greatest marketing weakness, though the null response of 37.9% should be acknowledged. Air capacity, namely the lack of direct flights to Fiji by international airlines, was indicated as significant by a further 17.2% of respondents.

Discussion

THE SEGMENT of the tourism industry surveyed showed considerable support for potential cooperation between the tourism sector, environmental management interests, and the aspirations of resource owners. It is conceivable that a mutually beneficial relationship between environmental management and the tourism sector is possible in Fiji and that this should be pursued. Resource allocations to the environmental management sector are clearly seen by some operators as representing an indirect allocation to the tourism sector as a potential resource for much needed diversification and improvements in that sector. In the process of national economic planning, those involved in the allocation of natural resources to different sectors need to recognise the foreign exchange earning capabilities of the tourism sector. If an environmental site selection

agency were to identify natural areas in Fiji as ecologically sensitive, then those responsible for the allocation of natural resources would do well to consider tourism as an appropriate sector should such an area be required for some form of economic production. Such allocations are capable of satisfying both the aspirations of resource owners for economic development of their resource and the aspirations of central government for foreign exchange earnings.

If the economic performance of the tourism sector is to be sustained or increased within a current climate of decline, there will need to be a substantial forward planning effort in order to enable tourism to prosper. Part of this process of forward planning should involve a process of diversification in order to strengthen this sector's ability to sustain its contribution to the Fiji economy. Diversification will require the employment of forms of tourism activity and marketing that are currently underutilised. It will also need to respond more proactively to the changing nature of the market.

Nature based tourism is one way of satisfying this requirement. However, if the tourism sector is to be capable of moving constructively in the direction of nature based tourism it will need to secure an appropriate resource base (i.e. set of nature tourism attractions). Concurrently, Fiji's natural landscapes provide a globally unique resource for nature based tourism activity. They are scenically spectacular, safe and pleasant to visit. Fiji has no malaria, leeches, crocodiles or dangerous forest animals. For this reason Fiji's natural forests represent perhaps the safest tropical rainforests in the world (Weaver 1992). De facto allocations of natural forest to the tourism sector through the establishment of national parks and reserves would help to provide diversity in the attraction base required by the tourism sector in order to sustain and/or boost its contribution to the Fiji economy. In terms of scale, the tourism sector is far more capable of generating foreign exchange and GDP than is forestry, for certain areas. For this reason it is conceivable that allocations of natural forest to the tourism sector via the environmental management sector could benefit the Fiji economy more than an allocation of the same resource to timber extraction.

In addition to the direct economic benefits of resource allocations to tourism (as opposed to forestry in the case of natural forests), there are also the indirect benefits relating to the control and mitigation of external costs.⁴ The environmental external costs involved in timber extraction are often far greater than those generated from the activities of tourism

operations in the same area. Tourism operations are less likely to contribute to the loss of biodiversity, siltation of rivers and the loss of soil resources through erosion, or the gradual loss of forest cover through the piecemeal degradation of a site that results from expanding agricultural activities after logging has ceased. Tourism, of course, is not free of environmental external costs, but these externalities will tend to be lower in scale than those generated through extractive economic activities. Admittedly, the potential social external costs of inappropriately managed tourism activity are very real and must be addressed in any coordinated move into the expansion of tourism activity in natural areas in Fiji. But with sound planning management, adverse social (and environmental) externalities can be avoided.

In terms of supply and demand, an apparent pattern has emerged in which tourism and environmental management seem, for different reasons, to share positions with respect to supply and demand for each other's services. The demand for environmental management services by the tourism industry arises from the desire to satisfy the demands of its clientele for a clean environment and/or natural landscape experiences. The demand for both support and justification for resource allocations for purposes of environmental protection arises from a desire to manage national resources in an ecologically sustainable fashion.

Thus tourism creates a demand for services from environmental management. This demand manifests a service to the environmental management sector as it helps to justify the resource allocations it requires in order to provide those services. Environmental management creates a demand for services from tourism to help justify resource allocations in its favour. This demand in turn represents a service to tourism. This situation of mutually beneficial demand and supply creates a planning environment where the independent interests of two different sectors can be satisfied simultaneously by linking these two sectors.

Conclusion

IDEAL circumstances exist in Fiji to develop a mutually beneficial relationship between tourism and environmental management. The responsibilities for achieving an effective level of cooperation lie with both tourism and environmental management sectors. If this linkage is not pursued, both sectors and the Fiji Government will be forgoing a

substantial opportunity. Cooperation and subsequent mutually beneficial endeavours will require much in the way of liaison and dialogue between these sectors. Effective cooperation may in some cases require small changes to current operating methods in order to solicit the cooperation of the other sector. This may consist of a more active involvement of the tourism sector in the support and promotion of environmental management in Fiji in general, as well as the accommodation of tourism activities in appropriate environmental management areas.

Notes

The study reported here was sponsored by the Fiji National Environment Management Project (NEMP), Suva. When the research was undertaken, one of the co-authors was on secondment to the Tourism Studies Programme in the School of Social and Economic Development, the University of the South Pacific. The processing of survey questionnaires was facilitated by the NEMP. The assistance of Eileen Mohan, Krishna Nand Sharma and Dick Watling of the NEMP, and Reena Sharma of the University of the South Pacific, is greatly appreciated.

1. The 'environmental management sector' here refers to functions of environmental management that may in fact be spread between different government agencies and non-government organisations. It does not necessarily refer to a specific single department or agency.
2. The term 'conservation estate' here refers to a national system of areas managed or protected for environmental reasons. They may include parks and reserves, or areas that are being managed for specific environmental purposes.
3. The absence of analysis in this paper of the relationship between size of operation and responses relates partly to the relatively small overall sample size, which placed many restrictions on the forms any analysis could take. For this reason we decided to label the survey a pilot study, for purposes of publication. This is not to say that the respondent profiles are irrelevant—far from it. But to produce a credible analysis and do justice to the cross-tabulation (as this was a quantitative survey), we would have needed a far better response rate and a bigger sample size.

An alternative approach to this problem could involve in the future some form of qualitative analysis delving more deeply into the respondent profiles and the types of responses given. This could be conducted employing any number of critical/reflexive sociological methodologies. This, however, was beyond the scope of the current survey.

4. As mentioned earlier, external benefits are also significant (yet rarely acknowledged) parts of the planning equation. External benefits relating to allocations of natural forest to tourism are also manifest in, for example, the maintenance of carbon stores, the protection of water catchments, the maintenance of local climate, the protection of the ability of the forest to provide non-wood forest products, the maintenance of soil quality and the mitigation of erosion.

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