Improving Environmental Performance in the Tourism Accommodation Sector

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While environmental legislation in Australia regulates tourism development, it is less effective in operational areas because of the dependency of tourism on environmental resources that are not managed by operators, and the small but incremental nature of operational impacts. The absence of functional environmental standards for tourism means that little guidance exists: a problem compounded by variability in the diversity of operation types and receiving environments, as well as the accessibility of information by a non-technical audience.

While legislation and economic considerations may provide impetus to adopt environmental practices, it is proposed that an environmental philosophy is necessary for tourism businesses to seek out and maintain alternative sustainable modes of operation. Review of the environmental audit process used by a Queensland resort suggests commitment to continual improvement in environmental performance is attributable to individual and corporate ethics. While the case is an ecotourism operation, the literature indicates that these factors have relevance to tourism generally. Although client satisfaction and return on investment objectives are constraints, environmental auditing can provide impetus for practical expression of environmental objectives. Facilitation of ethically-motivated voluntary action may be more effective in achieving tourism's environmental objectives than codifying standards in static legislation.

Keywords: environmental performance, environmental audit, environmental ethics, environmental legislation, ecotourism accommodation

Introduction

Improving the environmental performance of tourism has received increasing attention in recent years (e.g. DITR, 2002; TQ, 1997; UNEP IE, 1995). Concepts imbedded in such terms as 'ecotourism', 'sustainable tourism', 'responsible tourism' and 'ethical tourism' aim to address cultural, social and environmental impacts, largely through non-mandatory initiatives of individual operations. Voluntary approaches are deemed more appropriate than command and control mechanisms (predominantly applied to resource extractive and waste generating activities), due to legislative and policy complications (resulting from the diversity of tourism activities) (Briassoulis, 2000; Craik, 1995; Hall, 2000; Whiley & Carter, 2003; Woodward, 1996), and the small but cumulative nature of tourism impacts (Cater, 1995; Wall, 1997). The rationale for improving the environmental performance of tourism derives, fundamentally, from the symbiotic relationship that exists between the tourism product and the social, cultural, natural and built environments in which the

interaction/transaction takes place. This relationship is not only the concern of sectors such as ecotourism or nature-based tourism, but also for tourism generally. Supporters of a proactive response to improving tourism's environmental credentials, such as the World Tourism Organisation (WTO, 2001), the World Travel and Tourism Council (WTTC, 2002), and government institutions (DITR, 2002; TQ, 1997), recognise it is in tourism's best interest to conserve and protect these critical resources. Various processes have been advocated to elicit reaction from tourism operations/businesses, such as accreditation schemes, codes of conduct and certification. These are promoted as beneficial to business by responding to a perceived consumer demand and providing operational efficiencies. However, it is proposed that a critical factor in eliciting a proactive response to these environmental concerns requires the existence of an appropriate individual or corporate ethic.

To explore this proposition, this paper considers environmental legislative processes and the inappropriateness of these processes for tourism and the subsequent interest in self-regulatory mechanisms. The environmental performance literature is also considered to establish the drivers of environmental practice. Finally, the process adopted in consecutive environmental audits of a Queensland ecotourism resort is reviewed to demonstrate the importance of the ethical dimension as a driver for improved environmental performance within the accommodation sector.

Environmental Protection and Regulation

Worldwide concern for the quality of the environment has been expressed in international agreements and translated into national and local initiatives (Bates, 1995). In Australia, instruments have ranged from legislated regulation (e.g. licensing and performance standards), through industry-driven performance standards (e.g. accreditation schemes), to corporate, self-regulatory initiatives (e.g. corporate plans and voluntary environmental management systems) (see Carter & O'Reilly, 1999, 2000). While considerable overlap exists, the tendency has been for industries with the potential to impact directly on ecosystem services (e.g. air, land and water quality) to be underwritten by environmental protection legislation. At the other extreme, industries that, comparatively, have little or local effect on ecosystem pathways (and impact cumulatively) have been characterised by self-regulatory mechanisms (Gunningham *et al.*, 1998). That is, environmental protection ('brown') legislation tends to target waste generating industries, while the service industries tend to be characterised by self-regulation (Figure 1). Land-demanding
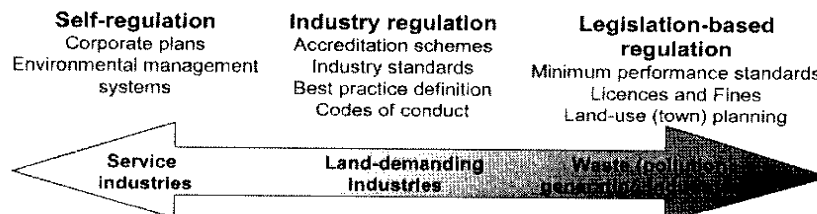

Figure 1 Industry regulatory instruments for environmental protection

industries (e.g. agriculture) tend to lie between these extremes and are captured (with some difficulty) by conservation ('green') legislation, especially at the development stage, and indirectly through the application of town planning and resource management mechanisms.

Tourism, as a land-using industry, is subject to the legislative instruments of town planning, including environmental impact assessment, environmental management plans and the core-regulating instrument of zoning plans (Bosselman *et al.*, 1999). However, as an operational service industry, tourism is not easily captured by this environmental protection legislation (green or brown); but, in the last 10 years, has embarked on a vigorous, industry-based program of self-regulation, largely under the flagship of ecotourism. The prevalence of environmental accreditation schemes, codes of conduct and certification systems suggest that the tourism industry generally recognises a need to improve its environmental performance (Barnett & Cheyne, 2001; Buckley, 2002; Font, 2002; Honey & Rome, 2001; Synergy & WWF-UK, 2000).

The tourism product and environmental regulation

Fundamentally, tourism is part of the fee for service industries. It develops and markets product for sale. In creating a tourist product, many interests are involved which are independent as well as interdependent of each other, and often in competition (Jefferson & Lickorish, 1988). This multidimensional and multi-attribute nature of the tourism product, by itself, makes regulation of growth and impact difficult for the public sector, and difficult to manage for the private sector (Williams & Montanari, 1999). In addition, the tourist product consists of reproducible (e.g. services offered by hotels and shops) and non-reproducible (natural and cultural resource) components. The importance of non-reproducible components differentiates the tourist product from others in that neither producers nor consumers control these components of the product and, if they are damaged or irreversibly altered, the product loses its original quality (Briassoulis, 1995). A consequence is that several of the environmental impacts of tourism are not externalities but internalities, yet private businesses have limited capacity to manage these directly through policy and planning actions. Equally, managers of the non-reproducible components of the tourism product possess limited capacity to influence the reproducible components that may be the cause of impacts. As a result, existing instruments to manage operational impacts are relatively unsuited to addressing incremental and cumulative change, because they were developed largely for land use and 'pollution' control and not for multiple interests and relatively minor perturbations to the supporting ecosystem (see Kirk, 1996).

From a resource economics perspective (see Common, 1995; Hodge, 1995), tourism has a short production phase during which it directly consumes physical environmental resources and produces waste. However, post-production, it continues to consume amenity values of the environment with the by-products of waste being dispersed and individually small, with attrition of environmental resources also being small and dispersed, but cumulative (Figure 2).

Environmental and conservation regulation, designed to regulate environmental impact, is invoked by tourism only at the development stage
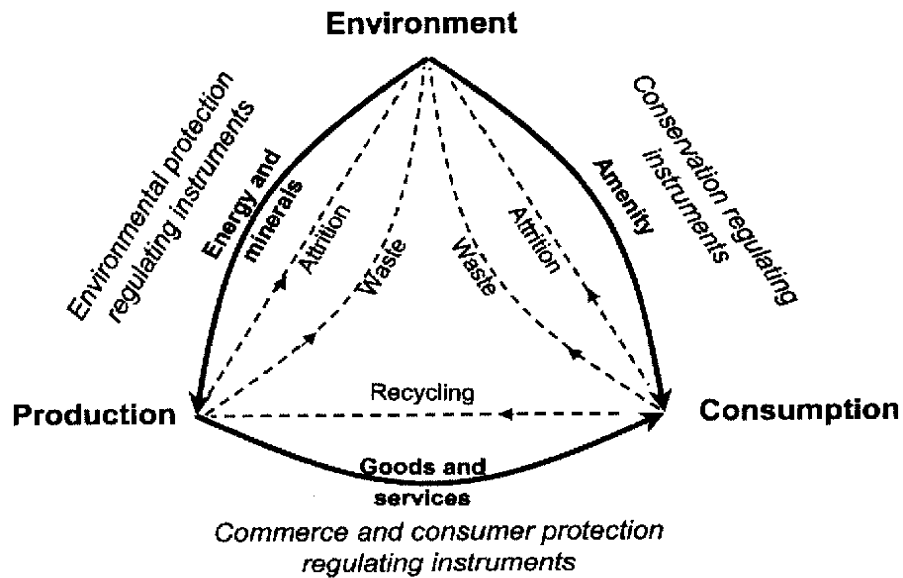
Environment

Environmental protection regulating instruments

Conservation regulating instruments

Energy and minerals

Attrition

Waste

Waste

Attrition

Amenity

Production

Recycling

Consumption

Goods and services

Commerce and consumer protection regulating instruments

Figure 2 Links between environment, production and consumption (Modified from Common, 1995 and Hodge, 1995)

(Bosselman *et al.*, 1999). At the operational stage, where services are the main goods produced by tourism for consumption, environmental regulation rarely applies. Conservation regulation, which is comparatively weak because of enforcement and definitional inadequacies, is not sufficiently sensitive to be triggered by the types of impacts tourism brings (e.g. the Port Hinchinbrook resort development; see Gullett, 1998; Johnson, 1997). Tourism largely operates in the consumption area, the domains of business and consumer protection regulation (see Atherton & Atherton, 1998), not in the environment and production area, the domain of environmental regulation. However, tourism's dependency on environmental quality (amenity) for its sustainability means that it is a key stakeholder in environmental protection, because environmental quality is part of its product and because it is, usually, an attraction for its clients (Goodall & Stabler, 1997).

Despite a lack of legislative control, it is in the interests of tourism (and resource managers) to instigate co-operative management of tourism product components (Carter & Bramley, 2002). However, what has evolved in Australia is an impasse between public sector resource managing agencies (constrained by legislation and capacity) and the private sector that must respond to commercial realities regulated by non-resource-managing public sector institutions (Dovers, 1999). Across all tourism sectors, the general response has been to meet legislative requirements, but generally overlook a tourism business's reliance on resource quality because of an inability to directly influence resource management practice. For large tourism operations, especially those based in major centres of population and industry, experience has shown that adopting environmentally sound practices is good business,

economically and for image purposes (Chan & Li, 2001). Ironically, these business motivations are less pressing in the ecotourism area, where businesses are small, often undercapitalised and where the non-reproducible components of the tourism product are overtly part of the business and perceived to be sensitive to perturbation (Cater, 1995; Wall, 1997). Such businesses are highly exposed to economic downturn and, despite the ideals of ecotourism, usually do not have the financial resources, knowledge, capacity or necessary influence to respond to resource protection ideals. As a result, the tendency is for management to adopt an insular position, seeking to manage operations, as best as possible, to environmental best practice standards, but largely reluctant to becoming involved in resource management.

Tourism Environmental Performance and Standards

For the purposes of this paper, tourism products can be divided into sectors characterised by being fixed (e.g. accommodation) and moveable (e.g. touring services). Both sectors are obliged to meet minimum standards that affect all businesses (e.g. taxation, company, workplace health and safety, and employment regulations). Sectors that provide fixed infrastructure are also influenced, in the development approval stage, by town planning regulations, nature conservation legislation and general impact minimisation measures that relate to land use and development. The sector that offers moveable services is affected additionally, at the approval stage, by transport regulation and access arrangements, normally associated with protected areas and regulated under nature conservation legislation. Usually, complying with such requirements is not difficult at the development stage of a tourism business and, from the private sector perspective, addressed as part of expected business planning and duty of care responsibilities. It is during subsequent phases of a business's life that continuous compliance often becomes difficult or where instruments and minimum standards do not exist to guide operations. For example, once a tourism accommodation development has been approved, because it meets all statutory requirements, there is no reason, other than blatant maintenance neglect or intentional non-compliance, that the development should not continue to comply with environmental protection requirements. In almost all cases, the minimum standards established by environmental regulation are well above that which would trigger a response from the tourism operator. This should not be surprising because, as a service industry, tourism is largely 'clean and green'. As a result, there are few operational standards, such as those applying to other industries, which can be directly applied or are relevant to tourism operations. The issue for tourism is not about meeting minimum standards for environmental protection, but meeting best practice standards because of the nature of the tourism product and its reliance on environmental quality. Tourism has responded by developing a philosophical position expressed through statements of what 'should' be done, accreditation schemes, codes of conduct, environmental certification and benchmarking (Barnett & Cheyne, 2001; Hawkins, 1997; Honey & Rome, 2001; Howes *et al.*, 1997). However, many of these tourism-specific environmental and ethical standards are plagued by problems associated with their idealism and universal nature, lack of specific response to the nature and size of an operation,

and the effect of variability inherent in the receiving environments (see Hunter, 1995; Synergy *et al.*, 2000). Issues such as lack of knowledge and resources, verification and compliance obligations (McKercher & Robbins, 1998; Sirakaya & McLellan, 1998) and consumer recognition also have a significant impact on the extent to which such systems are operationalised (Buckley, 2002; Synergy *et al.*, 2000).

For example, within the Australian ecotourism sector, the Nature and Ecotourism Accreditation Programme (NEAP) (see Newson, 2001) identifies a best-practice standard for guide–guest ratio, strongly influenced by a presumed ideal for effective interpretation. This does not consider circumstances where travel is essential, and therefore transport efficiency is required, along with staff optimisation to ensure profitability. The guide–guest ratio, as an indicator of quality and effective interpretation, does not integrate other dimensions of interpretation such as guide skill or the nature of the program offered. That is, the criteria for accreditation are output rather than outcome based. Hence, they are not necessarily good indicators of achievement of environmental objectives (see Hockings *et al.*, 2000). In addition, while accredited operations generally perceive benefits, lack of awareness of the program by consumers and compliance costs remain issues of concern (Enhance Management, 2000).

Within ecotourism, there is a non- or ill-defined expected standard, not universally acknowledged by operators, that has its origins in tourism idealism and, to a decreasing extent, the expectations of resource managers, the community and clients. This lack of clear definition of standards of environmental performance is at the heart of confusion over the extent of ecotourism's obligation to environmental protection. While there is considerable support by tourism operators of the ecotourism ideal, many find the interpretation and quantification of the ideal has inherent incongruities, is often not commercially realistic and responsive to innovation, or too environment-specific to universally define best management practice (see McMinn, 1997). There has also been the suggestion that 'there are few well-documented cases where ecotourism has provided substantial social or economic benefits' (Brandon, 1996: 2) and that the impact of ecotourism is not necessarily less than that of other tourism activities (Brandon, 1996).

The development of the GreenGlobe 21 certification and benchmarking system encourages a tourism wide approach to environmentally, socially and culturally responsible tourism. This scheme has been adopted by the Tourism Industry Association of New Zealand to encourage and preserve New Zealand's strong environmental image. A study to investigate operator's perceptions towards GreenGlobe 21 identified that time and knowledge were barriers to adoption (Barnett & Cheyne, 2001). In addition, like many of these systems, it is process driven rather than performance based, which, it is argued, allows participation while still 'operating in an environmentally damaging manner' (Synergy *et al.*, 2000: iv).

The lack of precision of accreditation schemes and industry standards, in part, has led some tourism operators to explore other instruments to improve environmental performance. Generally, these reflect a movement towards ISO14000 system standards, although formal compliance under this standard

is not necessarily the objective (Yates & Clarke, 2002). Environmental auditing may also be used as a tool to assess and minimise environmental impacts (Goodall, 1995). Lack of incentives and knowledge again limit management support for the adoption of the system approach (Brown, 1994; Westlake & Diamantis, 1998). Programs such as the Greenhouse Challenge also encourage the participation of various industry sectors, including the accommodation sector, to develop 'sustainable strategies in response to climate change concerns' (AGO, 1999: 15).

In discussing some of the certification, accreditation and management systems aiming to improve environmental performance in tourism, it becomes clear that client recognition, operator knowledge and implementation costs are critical issues for the tourism sector, as well as impediments to sector-wide adoption. Therefore, the question arises, given these issues and impediments, and that an operation is already likely to be meeting its statutory obligations: what motivates a tourism operation/business to voluntarily embark on a program of environmental performance assessment and establish performance standards?

Motivation to seek improvement in environmental performance

The environmental management literature reveals that, in the absence of regulation, the adoption of environmental performance standards are predominantly the result of one or more of the following (Eden, 1996):

- economic benefit,
- competitive advantage,
- market advantage (Burnup, 1993),
- individual environmental ethic, and
- corporate culture (a quality or environmental ethic) (Hawkins, 1997; Welford, 1997).

Private sector organisations are typically dominated by profit-maximisation seeking behaviours (Harvey, 1994). Large-scale accommodation businesses, with high investment values and shareholder expectations of returns, are no different (Lee-Ross & Johns, 1997). Improved practice through the introduction of resource conservation and waste minimisation can produce economic benefits (AGO, 1998; DETR, 1999), inducing operators to adopt in accordance with the economic principle of efficiency seeking firms (McTaggart *et al.*, 1996). In these larger businesses, there is willingness and ability to invest in technologies that reduce costs. However, small and medium sized enterprises are more complex, in that issues such as lifestyle, entrepreneurial status and survival are issues of equal or greater concern (Lee-Ross & Johns, 1997). A lack of knowledge, coupled with the 'hand-to-mouth' nature of business activity, tends to result in limited adoption of practices (Welford, 1997), notably those returning cost reduction benefits (Chan & Li, 2001) and require little or no investment (Mason & Mowforth, 1996).

Tourism's 'free use' relationship with the environment has led economic theorists to debate how this phenomenon can be addressed. There is a perception by operators that measures to reduce impacts will have minimal effect and that many impinge on customer satisfaction (Brown, 1996). Supply side

factors, such as the vast number of small businesses offering a multitude of services, result in a lack of uniformity in price (Briassoulis, 1995), which negates the effectiveness of traditional supply and demand principles (Welford *et al.*, 1999). Demand side factors such as seasonality can also affect usage and hamper sustainability. The multifaceted nature of tourism also leads to a lack of 'spatial concentration' that compounds environmental problems and, with the advances in transport, this problem is exacerbated (Briassoulis, 1995). There is a common concern that traditional economic principles are unable to effectively address environmental concerns within the tourism industry, predominantly due to the industry's complex and heterogenous nature (Briassoulis, 1995; Mieczkowski, 1995; Mowforth & Munt, 1998).

Nevertheless, not all tourism operators have adopted environmental performance measures purely because of an economic motivation (Hawkins, 1997). In response to a social environmental ethic, individuals have responded to the demand for environmental products by adopting recycling behaviours, not only within the home but also in business (Howes *et al.*, 1997). Uptake of changed practices and purchasing behaviours is strongly correlated to personal constructs (Dietz *et al.*, 1998; Jenkins, 1998), peer pressure (Stephan & Stephan, 1990), knowledge (Palmer, 1997; Smith, 1995), effort (Schultz & Oskamp, 1996) and cost (Arcury, 1990; Sirakaya & McLellan, 1998; Wei & Ruys, 1997).

For the introduction of environmental performance measures within tourism, the significance of an individual's environmental ethic can be linked to the individual's influence within the business (Howes *et al.*, 1997). An individual in a position of control will have greater opportunities to ensure the sustained adoption of practice (Whiley & Carter, 2002). In these circumstances, the practice may be incorporated into the operation's strategic framework and become part of the way things are done (Robbins & Barnwell, 1998) or organisational culture of the business (Malloy & Fennell, 1998). Individuals with less influence may be able to sustain the practice within their particular sphere of influence; however, diffusion throughout the business is unlikely without the existence of a core culture to support it (Brown, 1996). While an environmental ethic may lie at the heart of adoption in these circumstances, the decision to implement the practice often remains constrained by economics, and sought more for the promotion of corporate responsibility (Miller, 2001) than profit maximisation. Corporate responsibility is perceived to produce benefits through improved image, response to a perceived demand, product differentiation and marketing advantages (Hankinson, 1992; Miller, 2001). If corporate responsibility based on ethical positions is a motivator for the adoption of environmental practices, then public policy might be better directed at stimulating this motivation rather than using regulatory alternatives. Perhaps more importantly, it has the potential to produce benefits to a business from convergence of ethics and behaviour, corporately and individually. That is, through minimisation of ethical inconsistencies and hence improved staff and investor satisfaction of business operations.

Therefore, the literature suggests that for tourism, the cost-benefit equation will be an important consideration in the adoption of environmental practices, with larger operators seeking profit maximisation and smaller operators seek-

ing cost minimisation. Operators will respond to market demand but, presently, tourists remain unable to discriminate between the 'environmentally friendly' business and the opposite, because of their own lack of knowledge and clear product differentiation (Horneman, 1999). In addition, for both large and small tourist businesses, knowledge may constrain adoption of environmental practices (Hobson & Essex, 2001; Stabler & Goodall, 1997; Williams & Montanari, 1999). However, this paper proposes that the quest for appropriate knowledge and the motivation to explore environmental best practice possibilities, and then implement them, requires a sympathetic ethic, held by either an influential individual within the business or the corporation as a whole.

To voluntarily adopt environmental practice can be reduced to two, not necessarily exclusive, extremes: motives driven by economics and ethics. Since environmental performance is not solely a concern for the ecotourism sector, such motivations equally affect tourist operations that are resource dependent, and independent. That is, those that are clearly linked to the environment as a public good and a non-reproducible part of the tourism product (nature-based tourism), and those that are not (urban-based tourism). The response to motivations (economic or ethic) to adopt environmental practices will likely be different, depending on the tourist operation's level of resource dependence (Figure 3).

Ethically driven and resource-dependent tourist operations will respond to the environmental ethics held by individuals within the organisation or held by the corporation as a whole. Profit *per se* will remain important, but not necessarily profit maximisation. Of more importance is the working towards environmental idealism in areas of resource protection, enhancement and
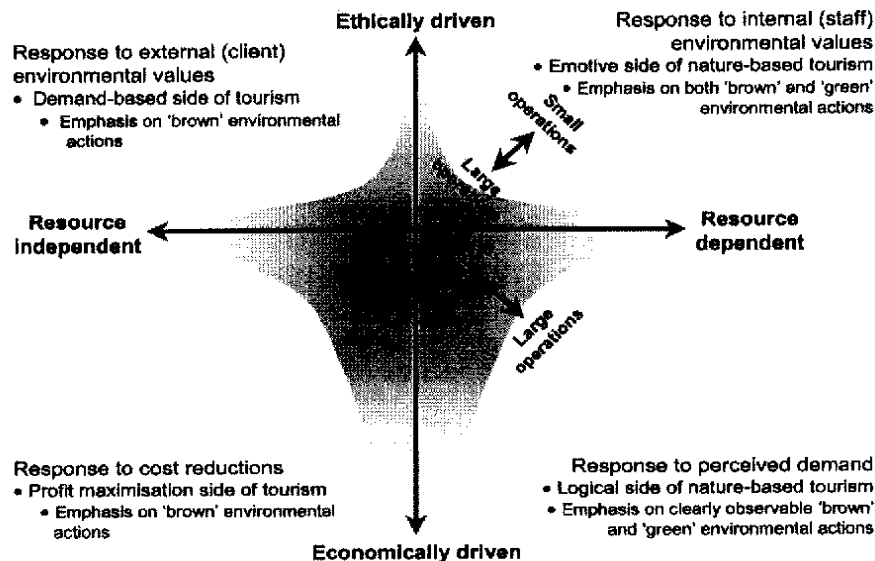

Figure 3 Tourism environmental motivations

presentation as well as impact minimisation. Economically driven and resource-dependent tourist operations are likely to be more pragmatic, responding to perceived demand be it from potential clients, the community or government. At present, such operations see a market niche for eco-products and will give emphasis to environmental actions that can be clearly presented to 'clients'.

Ethically driven and resource-independent tourist operations possibly respond more to community environmental values than those held internally. They react to perceived demand as a result of community values and, given their context of usually being urban-based, will express their adopted environmental ethic through addressing waste, energy and water issues. Efficiency of resource use is an end in itself, rather than for profit maximisation. In contrast, the economically driven, resource-independent organisation will seek to cut costs wherever possible to maximise profit. Adoption of environmental practices is perceived as good business, economically, irrespective of client or staff views.

For lifestyle and personal achievement reasons, small operations may appear as outliers and at the extremes of the four sectors created by this model (Figure 3). In contrast, large organisations, with less economic flexibility and the need to maintain a large client base (non-niche), will tend to concentrate around the axes. The implication of this discussion is that to improve environmental performance within tourism requires incentives of different kinds, depending on the environmental context of the operation and the core motivations of the organisation. In addition, while economic success provides the potential for improving performance, proactive searching for environmental improvement opportunities, holistically, depends on ethics and knowledge held by staff or clients. A change in these factors will not necessarily alter profitability, but may significantly alter the adoption of practices. These implications have important ramifications for public policy and possibly support the industry self-regulation approach to environmental performance in place in Australia.

Practice Leads to Adoption: The Case of Kingfisher Bay Resort and Village

Recent environmentally relevant activity at Kingfisher Bay Resort and Village (KBRV), Fraser Island, Queensland, Australia reflects many of the principles discussed. KBRV is a large tourism facility located on privately owned land within the world heritage listed Great Sandy Region of southeast Queensland. It includes a 152-room hotel, 109 villas, 30-room wilderness lodge and 75-room staff accommodation. The facility was designed and constructed at the time the principles of ecotourism were becoming established and an enquiry was being held on the future of Fraser Island (see Queensland Government, 1990). These events, in no small way, influenced the direction of the development and subsequent active marketing of the facility as an ecotourism operation. Industry awards and international recognition for KBRV's environmental performance (see KBRV, 2002) suggest that the development has been a leader in the sector, irrespective of the relative influence of financial or environmental ethic considerations. Of importance here, is the degree to

which management is seeking to improve its environmental performance credentials, in the absence of legislative direction.

The environmental audit indicator

In 1998, the directors of Kingfisher Bay Resort Operations Pty Ltd commissioned an environmental audit (BC+A, 1998) and, based on the findings of the audit, the development of an environmental management plan (BC+A, 1998). While satisfied with Ecotourism Accreditation under the NEAP scheme (see Newson, 2001), the directors wanted assurance that the environmental performance of the whole operation could withstand scrutiny. The audit adopted the methodology of Carter and O'Reilly (1999, 2000) and assessed 12 issues of environmental interest (e.g. liquid and solid waste), comprising 26 topics (e.g. sewage treatment) and 115 specific items (e.g. floor waste). Current practice was identified and assessed against a 5-point nominal scale, with 5 representing a subjectively determined (but quantified when possible) regional environmental best practice standard and 1 being the minimum regional acceptable standard. Quantification was possible where accepted industry standards existed (e.g. ANZECC potable water quality standards). Others required consideration of the specific environmental circumstances of the site. For example, storm-water drainage treatment required consideration of the sandy substrate of Fraser Island; with the view taken that maximising ground infiltration was desirable for water table protection, in contrast with the alternative of gutter collection, concentration and marine outfall disposal. In this case, an assessment of percentage of storm water drained and concentrated formed the basis of the 5-point performance scale.

Risk of not addressing issues was indicated by subjective assessments of the magnitude of the potential impacts and the likelihood of the impacts occurring, given the existing management and maintenance regime. Issues that had a high potential environmental impact as well as a high likelihood of occurring were, clearly, areas requiring attention. Target standards were presented along with proposed action needed to achieve the standard. The environmental management plan converted the audit assessment to policies, objectives, actions and monitoring and reporting requirements.

The methodology used has the strengths of being largely non-technical, adaptable to specific environments and operations, and presents assessments in terms that are readily understood by managers. It is also capable of being repeated to assess improvement in environmental performance but does not permit comparison between different operations, especially when they are located in different environments. That is, the best practice standard will vary between environments and types of operation. The rationale for acceptance of this limitation of the methodology is that the audit is for continual improvement of environmental performance and not inter-operational comparison. That is, the comparative standard achieved (provided it meets any established legislative standard) is less important than the process devised for achieving the target standard.

In reporting summary results of the audit here, it is important to stress that the methodology identifies environmental performance achievement specific to the location of Fraser Island and the specific operation of KBRV.

Comparison with the ecotourism accommodation sector generally, is not possible. That is, assessments resulting in such descriptors as 'improvement is desirable' and 'unsatisfactory' are relative to the expressed ideal of resort management. In this sense, relative to others in the sector, 'unsatisfactory' may possibly be best practice for the sector. In addition, the focus was on areas for improvement, rather than areas where KBRV was exhibiting best environmental practice. The purpose of this approach is to identify principles that might guide future audits and impediments to successful adoption of a process of continual improvement.

The 1998 audit of Kingfisher Bay Resort and Village

The 1998 audit resulted in KBRV achieving 67% of the desired best practice performance level. Weakest areas were in monitoring, policy definition and staff training. Strongest areas were purchasing, aesthetics and energy use. Given the nature of the reporting framework for the audit, these results *per se* have little meaning. However, they do indicate that the facility was meeting an environmental performance standard desired by senior management (few major issues and all able to be managed), that there was room for improvement, and the facility's environmental performance was possibly in the top 10 percentile for the sector.

Of more importance here is that the audit process gave insight to some important dimensions of voluntary adoption of environmental practices within the tourism accommodation sector.

- The top-down initiation and reporting process indicated a corporate commitment to environmental performance at the highest level that was not appreciated uniformly by all staff. In addition, few staff had an awareness of the environmental audit process and other mechanisms associated with the ISO14000 systems approach.
- The audit and its positive outcomes were not used for promotional purposes, but rather to provide a baseline of performance and inform management how performance could be improved.
- While all staff cooperated fully, some were bemused that the resort had commissioned an independent audit. Design and operational activities (e.g. ecotours), coupled with the success of the resort in attracting environmental awards were seen as indicators of appropriate environmental performance. Further, some proposed that client satisfaction through quality service 'paid the bills', not environmentalism.
- Staff responsible for management areas assessed, while having some initial concern that their performance was being evaluated, quickly identified that having an external auditor, reporting directly to the highest level of management, permitted their operational concerns to be freely expressed.
- The response to identified problem areas was rapid. Some improvement actions, already identified by staff, and being addressed, were brought forward (e.g. replacement of incandescent globes to reduce energy consumption), and more concerning issues were allocated special funds to redress problems within the same financial year or the next.
- Some responses involved approaches not identified in the environmental

management plan, but represented innovative solutions of which only management could be aware. These addressed the environmental problem as well as operational concerns. For example, noise from conflicting uses and groups was solved not by sound insulation of existing structures, but by bringing forward the development of a use-specific facility to separate the conflicting uses.

- From an environmental auditing perspective, the weakest areas in 1998 were documentation of data collected to permit trend analysis and monitoring.

In summary, these observations of the initiation of a voluntary independent audit of environmental performance suggest the following generalisations.

- The audit was ethically driven, at least in part, because it was voluntary and the audit itself, as well as remedial action, involved costs that otherwise may not have been incurred. That is, it was not mandatory, cost savings were not targeted and the results were not used for marketing image purposes.
- The ethics and influence of individual company directors were needed to initiate co-ordinated improvement in environmental performance.
- Staff responded to the leadership with pro-active participation.
- The collective problem solving skills of senior and operational managers were able to address some issues creatively: addressing environmental concerns with benefits to the operation beyond the immediate improvement of environmental performance.

The 2001 audit

A follow-up audit was commissioned in 2001. To permit comparability, a similar audit process was used. However, some of the assessment ratings for the 5-point scale were modified to include more quantifiable measures, although direct comparison between items assessed remained possible. The audit assessed the 13 issues of the 1998 audit, comprising the same 29 topics but an additional 18 specific items (131 items in total) were assessed (Table 1). The 2001 audit resulted in KBRV achieving 82% of the desired target standard; a net improvement in environmental performance of 15% over that achieved in 1998. Weakest areas were again monitoring, policy definition and staff training. Strongest areas were purchasing, aesthetics, waste water treatment and energy use.

While there was considerable improvement in performance, some items exhibited minor improvements, many of which could not be captured in the 5-point scaling system. Few of these related to performance in key indicator areas such as water and waste management, and energy use: areas over which management has direct control and staff dedicated to the task. Rather, the minor or no change areas generally occurred in areas where management staff had a greater responsibility for delivering quality client service. Specific aspects of the improvements give insight to the process of improving environmental performance.

(1) Generally, service areas appeared not to be initiating environmental performance improvement. For example, recycling by guests was encour-

Table 1 Issues assessed in the 2001 Environmental Audit

Issues	Topics	Items	
Surface and storm-water drainage	Surface and storm-water drainage	Roof storm-water	Rain water
		Roads & hard surface flows	Around Resort
			Beyond Resort – Pollution
			Beyond Resort – Erosion
		Roads & hard surface flows in high pollutant-risk areas	Workshop
			Car wash
			Front of house fueling areas
			Back of house fueling areas
		Drainage lines and creeks	KBRV lakes
Potable water	Water supply	Source	Storage
	Water delivery	Toilet system	Bath System
		Shower system	Dishwashers
		Taps	Accommodation
			External and operational areas
		Gardens	Underground pipe maintenance
Water monitoring	Water monitoring	Water usage	Storm water quality & lakes
		Drinking water quality	Ground water
Liquid waste	Sewage treatment	KBRV sewage	Boat sewage
	Sewerage plant performance	Biochemical Oxygen Demand	Suspended solids
		$NH_4 - N$	$NO_3 - N$
		Total N	Total P
		Residual chlorine	pH

Table 1 continued

Issues	Topics	Items	E. coli
		Thermo tolerant coliforms	E. coli
	Cooling tower performance	Dissolved oxygen	Bacterial organisms
		pH	
		Legionella	
	Oils and floor waste	Kitchen oil	Floor waste
		Chemicals, detergents etc	Motor oils
Solid waste	Non putrescible	Glass	Aluminium and steel cans
		Plastics	Poly-styerine
		Metal products	Timber items
	Putrescible	Paper	Cardboard
		Food waste	
Pollution generation	Products	HAZCHEM products	Cleaning products
		Pesticides	
	Point sources	Public refueling station – Village Store	KBRV refueling station – Back-of-house
		Vehicle chassis oiling area	Vehicle servicing area
		Spray painting shed	Vehicle washing areas
Energy use	Appliances	Refrigerators	Accommodation
			Central facility
			Shop
			Staff accommodations
		Ice machines	Dishwashers

Continued

Table 1 continued

Issues	Topics	Items	
	Cooking appliances	Electric salamander	Central facility ovens
		Bakery ovens	
	Water heating	Hot water systems	Pool heating
		Laundry	
	Air-conditioning	Accommodation	Central facility
	Shop	Sand Bar	
	Lighting	Central facility	Child minding facility
		Sand Bar	Shop and bakery
		Staff accommodation and maintenance area	External lighting
	Vehicle efficiency	Vehicles / transport	Fuel type
		Maintenance	Site design
	Building design efficiency	Window glazing	Insulation
Aesthetics	Buildings	General layout	Energy efficiency
		Use of shading/ventilation	External design
		Internal design	Materials used
		Appearance	Positioning of buildings
		Aspect of balconies	
	Landscaping	Landscape design	Walkways
		Non-indigenous plant species	Light reflection
		Building/grounds maintenance	Contingency or emergency plans for environmental management issues

Table 1 continued

Issues	Topics	Items	
Purchasing	Purchasing	Green purchasing	Fresh products
		Other groceries	Torches
Biological impacts	Biological impacts	Wildlife feeding	Planting policy
		Fertilizer use	Biological impacts of bus tours
		Biological impacts of walking tracks	Pollution from motor vehicles
		Fire management	
Transmission of values	Transmission of values	Recycling	Energy use
		Passing on values	Interpretive programs
Training programs	Induction (general staff)	Resource use	Environmental awareness
	Training (kitchen staff)	Resource use	Environmental awareness
	Training (interpretive staff)	Resource use	Environmental awareness
	Training (other staff)	Resource use	Environmental awareness
Management policy and procedures	Management policy and procedures	Corporate environmental plan/code of ethics	Policies

aged, but not readily facilitated. However, recycling by resort staff was high: an improvement on the previous audit.

(2) While the 1999 environmental management plan provided a framework for the development of clear corporate and operational policy regarding environmental management, it was not converted to succinct policy directions, nor was it freely available to all operation managers.

(3) Despite an extensive staff induction program with environmental management elements (an important improvement on the 1998 audit), staff identified areas for additional improvement. This is currently being addressed.

(4) Of concern was the refurbishing of hotel rooms. While some improvements were made in design to reduce water and energy use, lighting, which had been a functional problem, was replaced with energy demanding technology. In addition, improved opportunities for guest contribution to recycling were not included.

Apart from these operational differences identified through the audit, important differences between the two audits lie not in the assessments *per se*, but rather the process involved. The 2001 audit was characterised by the following.

(5) Operational staff initiated it. The purpose was not solely to define performance but to assess improvement and to identify specific areas for future action at the operational level.

(6) Staff were more prepared for the audit process, having available monitoring data ready for analysis. However, these data were rarely analysed to provide trends that would give forewarning to potential risk.

(7) Staff were more openly critical of performance in their areas of responsibility and more questioning of assessments.

(8) Relatively, only minor issues were identified, many of which could not be addressed because of historical design constraints. Improvement in performance often resulted from action undertaken before the 1998 audit. For example, some erosion prone areas identified in 1998 had been successfully revegetated by 2001.

(9) Some concerns identified in the 1998 audit were allayed through the collection of relevant baseline data. For example, water quality measurement of the constructed lake system identified that the system was 'healthy', although it merited continual monitoring.

Again some generalisations can be made that are relevant to the voluntary adoption of environmental practices within the (eco)tourism accommodation sector. While a cause and effect relationship cannot be attributed to the audits, it is likely that the audit process did influence some of the general changes experienced and observed.

(10) Leadership, initially exhibited in the area of environmental performance by directors, gave confidence to operational staff to proceed with continual review of performance. Senior managers and directors supported this action.

(11) Staff concern for proactive environmental management is expressed overtly, critically but constructively: suggesting a broader corporate base

to an environmental ethic that is also expressed in a desire to initiate improvement in performance. This was particularly evident in operational areas directly associated with environmental performance.

(12) Staff of operational areas, where environmental performance is secondary to client 'holiday' satisfaction, appear not to proactively initiate actions that would improve environmental performance. Knowledge or commercial rationalisation may be the limiting factors.

(13) The corporate environmental ethic appears to be adopted by staff in their routine operations where their personal action is required. However, this does not extend to, or be expected of, clients.

(14) Costs, in both staff time and expenditure, are accepted where direct improvement in environmental performance is expected. However, the cost of establishing and maintaining environmental management systems is given a lower priority.

(15) In not formalising and detailing environmental objectives, the danger exists that contractors employed to address non-critical environmental issues, and staff in client service areas, will overlook them.

The audit experience suggests that management of KBRV is economically (points 2, 14) and client-driven (points 1, 4, 12, 13, 15), but its commitment to improved environmental performance has an ethical base, expressed by directors (point 10) and operational staff in positions able to affect improved performance (points 5, 6, 7, 11, 13). Emphasis is given to visible and health and safety aspects of environmental performance that have clear and immediate outcomes (points 3, 12, 13, 14), as well as areas where cost reduction are a consequence of improving environmental performance (points 1, 2, 3, 6, 11, 12, 13, 14, 15).

In contrast, and currently, areas that require direct expenditure or staff resources, and have only a potential for improving performance, are given less emphasis (points 1, 2, 3, 6, 12, 14). These areas tend to relate to establishing and formalising environmental management systems. There is a strong service culture, and in operational areas that directly involve clients, environmental concerns and potential for improvement become secondary to achieving client satisfaction (points 1, 4, 12, 13, 15).   This analysis places KBRV currently in the south-east quadrant of Figure 3. Thus, KBRV is commercially realistic, with a profit imperative seen to be achieved through satisfying clients. Satisfaction includes matching the promotional ecotourism rhetoric with on the ground environmental management, especially in areas visible to clients and which they are likely to have expectations of minimum performance. However, this provides a rationale for movement towards environmental best practice in other areas, driven by staff in immediately relevant operational areas.

Conclusions

While existing environmental legislation adequately addresses the development aspects of tourism, it rarely affects operational aspects. Tourism has responded by developing ethically based principles to guide operations within the sustainability framework, with moves towards codification in the form of industry-based accreditation schemes. However, these tend to be insensitive

to the scale and nature of the tourist operation as well as to the receiving environment. Hence, despite consensus on the ideal that tourism should be achieving environmentally, no clear operational standards exist that address the peculiar nature of tourism products. Since profitability or expectation of profit, based on client satisfaction, drives tourism operations, in the environmental performance context, operators will be responsive to client expectations of performance, and improved profit margins stemming from 'green' initiatives. Environmental auditing, although constrained by the absence of clear standards appropriate to tourism, appears to be an instrument for improving environmental performance, at least in operational areas of direct environmental concern. The audit process appears to offer an outlet for staff to affect voluntary operational change that will lead to the establishment of best practice standards, specific to an operation and its receiving environment.

However, the quest for continual improvement in environmental performance relies on the presence of an environmental ethic, in influential staff within the tourism business. With such individuals, major improvement in environmental performance can be achieved rapidly at minimal cost. Best practice, however, requires the ethic to pervade the whole organisation, with knowledge made available of how to apply the ethic in practical work-related ways across the diverse elements of a tourism business.

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