



Pacific Accounting Review

What motivates environmental auditing?: A public sector perspective
Nacanieli Rika

Article information:

To cite this document:

Nacanieli Rika, (2009), "What motivates environmental auditing?", Pacific Accounting Review, Vol. 21 Iss 3 pp. 304 - 318

Permanent link to this document:

<http://dx.doi.org/10.1108/01140580911012520>

Downloaded on: 12 October 2015, At: 00:04 (PT)

References: this document contains references to 29 other documents.

To copy this document: permissions@emeraldinsight.com

The fulltext of this document has been downloaded 1644 times since 2009*

Users who downloaded this article also downloaded:

Josephine Maltby, (1995), "Environmental audit: theory and practices", Managerial Auditing Journal, Vol. 10 Iss 8 pp. 15-26 <http://dx.doi.org/10.1108/02686909510147372>

Christina Chiang, (2010), "Insights into current practices in auditing environmental matters", Managerial Auditing Journal, Vol. 25 Iss 9 pp. 912-933 <http://dx.doi.org/10.1108/02686901011080062>

Christina Chiang, Margaret Lightbody, (2004), "Financial auditors and environmental auditing in New Zealand", Managerial Auditing Journal, Vol. 19 Iss 2 pp. 224-234 <http://dx.doi.org/10.1108/02686900410517830>

Access to this document was granted through an Emerald subscription provided by emerald-srm:225371 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.



What motivates environmental auditing?

A public sector perspective

Nacanieli Rika

*School of Accounting and Business Information Systems,
Australian National University, Canberra, Australia*

Abstract

Purpose – This paper seeks to discuss the motivation for commencement of environmental auditing within the Fiji Office of the Auditor-General (OAG). It also aims to analyse the actual topics audited between 2005 and 2007 and the standards employed in those audits.

Design/methodology/approach – A case study approach is employed, involving document analysis and semi-structured interviews.

Findings – Environmental auditing in Fiji's public sector can be explained in terms of institutional isomorphism: coercive, through pressure from the International Organisation of Supreme Audit Institutions (INTOSAI) and United Nations (UN); mimetic, in relation to adoption of best practice within INTOSAI; and normative, through communication and professional training provided by INTOSAI. There is also evidence of decoupling; although government has ratified Millennium Development Goal 7 on environmental sustainability, it has failed to allocate adequate resources to the relevant departments.

Research limitations/implications – Since audit reports were not publicly available, it was not possible to review audit opinions and the main audit findings. Nor was it possible to conduct follow-up interviews with audit clients.

Practical implications – Sufficient financial and human resources must be devoted to environmental management and auditing. Accountants must be involved in the initial development of Environmental Management Systems (EMS). This recognises the particular skills which they possess and facilitates the subsequent audit of systems.

Originality/value – The current research examines the adoption of environmental auditing in the public sector and finds that it can be explained using institutional theory. Accounting practices in a small developing country are strongly influenced by global networks.

Keywords Costs, Auditing, Communication, Training

Paper type Research paper

Introduction

Organisations are increasingly recognising their social responsibility and the importance of sustainable development. To highlight responsible behaviour, firms may publicly disclose environmental information through corporate annual reports, websites and stand-alone reports (Darnall *et al.*, 2009; Parker, 2005; Bae and Seol, 2006). An increasing number of stand-alone reports are now audited (Simnett *et al.*, 2009).

Previous studies on environmental auditing have focused on companies (Simnett *et al.*, 2009; Darnall *et al.*, 2009; Bae and Seol, 2006) or the accounting profession

The author wishes to acknowledge comments on an earlier version from participants at the 7th A-CSEAR Conference in Adelaide in December 2008.



(Chiang and Lightbody, 2004). Results indicate that companies conduct environmental audits to: identify problems; improve compliance; train and educate employees; and improve corporate image. However, it is unclear whether the same factors motivate environmental auditing in the public sector. The present study addresses this gap by positioning the state in a global context and examining the adoption of environmental auditing within the Fiji Office of the Auditor-General (OAG). Several previous studies are based on firms voluntarily obtaining external environmental audits. However, the present study addresses the situation where government imposes audits on certain departments and examines how audit topics are selected in this context. In addition, it considers how OAG determines the standards and procedures employed in environmental audits. This is particularly relevant given the absence of generally accepted standards for environmental auditing.

While several studies have focused on environmental audits in more developed countries (Bae and Seol, 2006; Chiang and Lightbody, 2004; Darnall *et al.*, 2009; Tilt, 2001; Simnett *et al.*, 2009), little is known about environmental auditing in developing nations. Environmental issues affect all countries. However, small developing countries (SDCs) face financial constraints that may hinder their ability to manage environmental issues and conduct environmental audits. In addition, international accounting practices are strongly influenced by more developed nations (see for example Mir and Rahaman, 2005). Consequently, the experience of a SDC may be quite different from that of a more developed nation or a larger developing country. Towards this end, the present study focuses on Fiji, as an example of a SDC.

Although a single and universally accepted definition of environmental auditing does not exist (Hillary, 1998), several studies (see for example, Darnall *et al.*, 2009) refer to the one provided by the International Chamber of Commerce (ICC). In summary, audits must be independent, objective, strategic and systematic. They may also engage the neighbouring community. If they fail to address the important issues of conservation and sustainability, they can degenerate into self-serving exercises in public relations (International Chamber of Commerce, 1991; International Organization for Standardization, 2002).

The remainder of this paper is organised as follows. The main global issues and trends in environmental auditing are discussed next. This is followed by a review of institutional theory, which provides the theoretical framework for the present study. The fourth section outlines the research methods adopted in the study and introduces the relevant institutions and legislation. The findings are then presented and discussed before the paper concludes.

Global issues and trends in environmental auditing

Environmental auditing differs from financial auditing in several ways. In particular, the former is voluntary while the latter is mandatory for public companies and government departments. Since environmental audits are costly to implement (Bae and Seol, 2006), it may be inferred that they are conducted when their benefits exceed their costs (Simnett *et al.*, 2009). Environmental audits also differ from financial audits in several other ways as discussed in the following.

The scope of environmental auditing

Prior to 1990, environmental audits focused heavily on legal compliance. Consequently, audit objectives and processes were based on government requirements (Chiang and Lightbody, 2004; Özbirecikli, 2007).

Since 1990, significant changes have been observed in Australia (Tilt, 2001), Europe (e.g. in the UK, and the USA). First, a growing number of firms conduct environmental audits. Second, most audits include a review of environmental management systems (EMS). Third, an increasing number of audits focus on sustainability (Özbirecikli, 2007; Simnett *et al.*, 2009). However, in many developing countries, audits have hardly evolved beyond the level of legal compliance.

The role of legislation

Özbirecikli (2007) identifies the enactment of relevant legislation as a major contributing factor to the global growth of environmental auditing. Many countries are passing laws that require entities to make social and environmental disclosures. For instance, the US National Environmental Policy Act of 1970 and subsidiary legislation require businesses to take responsibility for the impact of their activities on air, water and land.

In New Zealand, environmental management and accountability has become a significant focus of government and corporate policy over the last 20 years. This initially led to, and subsequently has been influenced by, the enactment of the Resource Management Act in 1991. The Act is perceived to have increased both the demand for environmental audits and the breadth of their scope (Chiang and Lightbody, 2004).

While environmental legislation is necessary, it may fail to enhance accountability, particularly if organisations focus on avoiding penalties rather than improving processes. There is a danger that legal requirements will be regarded as an acceptable standard rather than a minimum standard.

The role of accountants

Prior to 1990, environmental audits were generally conducted by external auditors from outside the accounting profession. Today, audits are conducted by accountants as well as non-accounting professionals (Simnett *et al.*, 2009). The role that accountants should play in environmental auditing remains contested.

Accountants possess auditing skills, which can be useful in conducting environmental audits. Adams (2004) contends that audits must be conducted by appropriately qualified people who understand the audit process and accept the ethical, social and environmental responsibilities of companies. This will enhance the credibility of environmental reports.

In New Zealand, Chiang and Lightbody (2004) found that an increasing number of financial auditors are involved in environmental audits, particularly in a management role. Nevertheless, the majority of financial auditors did not provide environmental audit services. There were two reasons for this: insufficient demand from clients, and inadequate expertise on the part of the auditors themselves (Chiang and Lightbody, 2004). The issue of expertise may be solved through ISAE 3000, which provides professional guidance relating to reliance on the work of experts. When conducting environmental audits, accountants could reasonably rely on scientific and technical experts, just as financial auditors rely on advice from actuaries.

It has been suggested that environmental audits should involve a multi-disciplinary approach. However, there is no consensus regarding which discipline should lead such multi-disciplinary teams. According to Power (1997) the accounting profession is attempting to establish professional legitimacy and supremacy over environmental audits. The use of non-accounting specialists as experts would enable accountants to capture the more powerful and esteemed role of audit manager, simultaneously relegating applied scientists and others to lower levels in the professional hierarchy (Power, 1997).

The need for generally accepted standards

Accounting standard setters have not developed standards for environmental reporting and auditing. Empirical evidence shows that the New Zealand Institute of Chartered Accountants (NZICA) has failed to develop guidelines for conducting environmental audits (Chiang and Lightbody, 2004). In New Zealand, the more comprehensive audits are generally conducted by international accounting firms, which employ their own resources to develop in-house standards for environmental audit work. Similarly, the Fiji Institute of Accountants (FIA) has failed to provide guidance on environmental auditing (Lodhia, 2003).

Standardisation of audit practices will improve the completeness of reporting and reduce the audit expectations gap (Adams and Evans, 2004). Deegan *et al.* (2006) reviewed assurance statements for 170 firms, which prepare triple bottom line reports. The study covered Australia, Europe and the USA. Significant variations were observed both across countries and within them. Most statements failed to indicate whether the reports had been assessed against any reporting criteria or if the assurance provider had embraced any particular standards when conducting the audit. There was also great variability in the wording used within the conclusions and many terms used had no clear meaning.

These results support calls for comprehensive mandatory requirements. Adams (2004) argues that environmental audits should be conducted in accordance with generally accepted auditing guidelines, such as those developed by AccountAbility and GRI. However, these same guidelines have been criticised for allowing audits to focus on process and form rather than substance (Moerman and Van Der Laan, 2005).

Institutional theory

In employing institutional theory, the current study recognises that social and environmental accounting research has benefited from the use of multiple approaches and lenses (Bebbington *et al.*, 2008; Parker, 2005). One of the most pervasive theories used in environmental accounting research is legitimacy theory. However, Neu *et al.* (1998) assert that organisational legitimacy is increasingly problematic to achieve in light of fractionalized social values, effective lobbying by interest groups and the need to operate in a competitive global economy. Parker (2005) summarises several other weaknesses of legitimacy theory, which are not discussed here.

There are conceptual overlaps between legitimacy theory and institutional theory (Parker, 2005). In the context of social and environmental accounting, institutional theory offers a more powerful explanation because it explicitly considers process and internal factors and enables the researcher to draw from richer theoretical developments (Adams and Larrinaga-González, 2007). Institutional theory asserts that competition for political

power and institutional legitimacy motivates organisations to adopt similar policies and practices. This generates institutional isomorphism, which may be coercive, mimetic or normative in nature (Dimaggio and Powell, 1983).

Coercive isomorphism occurs when more powerful organisations force or persuade less powerful ones to adopt generally accepted norms. This may involve the former inviting the latter to collude. The ability to coerce may be positively associated with the financial dependency of the adopter (Dimaggio and Powell, 1983). In this regard, Mir and Rahaman (2005) attribute the adoption of International Accounting Standards (IAS) in Bangladesh to coercive pressures that the World Bank exerted on the government and professional accounting bodies.

Mimetic isomorphism applies in the context of uncertainty. Organisations attempt to copy or emulate one another, especially when tackling new issues for which they lack clear guidance. They are inclined to adopt what they perceive as successful technologies or best practices within their industry (Dimaggio and Powell, 1983). For example, many developing nations have adopted IAS irrespective of whether the standards meet their specific accounting needs (Mir and Rahaman, 2005).

Normative isomorphism relies on professionalisation. Members of the same profession tend to adopt similar practices through training programmes and professional networks. Interaction among members generally establishes and re-enforces those practices, which are regarded as acceptable or legitimate by the profession. This results in homogenous attitudes and behaviour (Dimaggio and Powell, 1983; Mir and Rahaman, 2005).

Decoupling is a situation where external signals contradict internal reality. In this regard, an organisation may adopt elaborate rituals to signal acceptance of change while actual operations continue as they did before. This may be due to internal resistance or attempts to maintain stability (Carruthers, 1995).

Research methods and organisations

As the first documented research on environmental auditing in Fiji, a case study approach was employed. It focused on the adoption of environmental auditing by the Fiji Office of the Auditor-General (OAG). The Environmental Auditing Unit (EAU) was established in 2004, has two full-time employees and conducted eleven audits between 2005 and 2007.

Office of the Auditor-General

OAG is a member of the International Organisation of Supreme Audit Institutions (INTOSAI), which consists of supreme audit institutions (SAIs) in countries belonging to the UN or its specialised agencies. INTOSAI develops audit practice through several working groups, including the Working Group on Environmental Auditing (WGEA). WGEA was initiated in October 1992, following the Earth Summit held in June of that year. INTOSAI and the UN are linked explicitly since they consist of the same member countries. As such, they are likely to share similar agendas and group dynamics. The two umbrella bodies are also linked implicitly since WGEA resulted from a UN initiative.

Fiji's Auditor-General is appointed by the Constitutional Offices Commission and reports to Parliament. OAG is responsible for the annual audit of 138 public sector entities including ministries, government commercial companies, and municipal and

provincial councils. Apart from financial audits, OAG also conducts compliance audits, performance audits and special investigations.

What motivates
environmental
auditing?

Environmental Management Act (EMA)

EMA was passed by parliament in 2005 and came into effect in January 2008. Its origins can be traced back to 1992 when the first world summit on sustainable development was held in Rio de Janeiro, Brazil. In preparation for the summit, all member states of the UN developed a national report on the state of the environment. National environment strategies were then developed to address problems identified in the report. Strategies identified for Fiji included: establishing a Department of the Environment (DOE), and developing a supporting legal framework. The legislation was originally drafted as the Sustainable Development Bill, but proved too extensive for DOE to enforce. Consequently, the main areas in the bill were identified and a streamlined version emerged as EMA. The historical account of EMA demonstrates that it has evolved through UN initiatives. It is also noted that OAG conducted its first environmental audits in 2005, which is the same year that EMA was passed.

Section 15 of the Act requires environmental management units (EMUs) to be established in every government department. The primary responsibilities of these bodies are inter alia: processing environmental impact assessments; formulating and implementing environmental and resource management policies; surveys, collating information for the Natural Resource Inventory; and education and awareness. Section 16 requires an equivalent body known as an environmental management committee (EMC) to be established in privately owned industrial and commercial facilities.

Research methods

The study was conducted using document analysis and semi-structured interviews. Documents analysed included organisation charts, relevant legislation (principally EMA and the Audit Act), web sites (for INTOSAI and OAG) and publications (INTOSAI). These were useful in establishing the legal mandate for, and scope of, environmental auditing. They also reflect contemporary views, priority areas and best practice within the global community of public sector audit bodies.

Interviews were conducted with staff and senior management of OAG and DOE. Interviewees were selected on the basis of seniority, experience and knowledge. Given the recent adoption of environmental auditing and environmental legislation, it was decided to interview senior management from each organisation since they are involved in strategic decision-making, and regularly participate in dialogue with other senior government officials, including cabinet ministers. As such, they were regarded as better informed to explain the rationale for government environmental policies. They also provided valuable insight to the complexities of budgets, recruitment and training within their respective organisations. Experience was useful in establishing historical perspectives and chronological developments. In this regard, several interviewees had over ten years of work experience within each organisation. Knowledge of actual audits was essential in identifying procedures, standards and challenges. Only one of the two environmental auditors was interviewed since the other was on leave.

The views of the Fiji Institute of Accountants (FIA) were sought in relation to standards for environmental auditing. These were obtained by interviewing the

chairperson of the standard setting committee who possesses a suitable mix of seniority, experience and knowledge. He is also a council member and a past president of the institute.

Findings

Human resource capacity

EAU is part of the Performance Auditing Unit. Table I shows that only two environmental auditors were employed in 2008. They both held accounting degrees, while the deputy auditor-general (who previously headed the Performance Auditing Unit) held a Certificate in Environmental Auditing.

The Performance Auditing Unit has a total of 32 positions, consisting of 20 posts for performance auditing and 12 for environmental auditing. In total, only 11 positions were filled at the time of the study. During interviews, OAG indicated that government had previously agreed to fund the additional positions. However, it has consistently failed to allocate the required funds in successive budgets.

In comparison with other SAIs, OAG is heavily under-staffed. The most recent survey of SAIs reported that the average number of full-time staff working on environmental auditing was 8.2 (INTOSAI-WGEA, 2007b). Understaffing constrains the number of substantive and follow-up audits. Given that the first audits were completed in 2005, it would appear that some follow-up audits should already have been conducted. In reality, none have been carried out.

Other difficulties identified by OAG include: difficulty in attracting staff to the environmental auditing unit; and the lack of specialized courses and degree programmes in the area. It has compensated for this by sending staff to attend workshops within the SAI network. This has raised the levels of knowledge and comprehension among staff of EAU. During interviews, a senior auditor explained that she had not comprehended the seriousness of environmental issues until she visited Asian countries and witnessed first-hand the consequences of unsustainable development practices.

Enabling legislation

OAG derives its powers from the Audit Amendment Act of 2006. Section 6 conveys the power to conduct performance audits to determine whether the activities of state entities are being performed in compliance with relevant legislation, namely the Audit (Amendment) Act 2006. Under this Act OAG is implicitly responsible for monitoring compliance with EMA. However, government permitted a one-year grace period in relation to implementation of the Act, so penalties for non-compliance would not be imposed until 2009.

EMA conveys specific powers to conduct environmental audits. Section 22(7) empowers the auditor-general to conduct sustainable development assurance audits

	Performance auditing	Environmental auditing	Total
Positions	20	12	32
Filled	9	2	11
Vacant	11	10	21

Table I.
Established positions
versus current staff
numbers

Source: Fiji Office of the Auditor-General

for government departments and ministries, although interviews revealed that OAG is yet to exercise these powers. When asked how such audits would be conducted, interviewees provided the following responses:

... we would like to know that too ... (DOE interviewee A).

... give us the standards and we'll conduct the audit ... (OAG interviewee C).

These responses highlight two important issues. First, both DOE and OAG are uncertain of how such audits would be conducted. Second, substantial effort will be required to make these audits operational.

Where OAG does not have the authority to conduct an audit or enter premises, it may collaborate with other government bodies. For example, OAG is not empowered to enter privately owned facilities but municipal authorities may do so under the provisions of the Public Health Act. Consequently, OAG collaborated with health inspectors from respective municipal councils when conducting some of the audits shown in Table II.

Audit topics and scope

Table II summarises the 11 audits conducted by EAU between 2005 and 2007. During that period, similar audits were undertaken globally. In 2007, for example, Indonesia conducted an audit on medical-waste, Kuwait examined management of solid waste, while Norway and Russia conducted a joint audit of fish resources (INTOSAI-WGEA, 2007a). The main topics which SAIs planned to audit between 2006 and 2008 relate to protected areas, water, forestry and waste (INTOSAI-WGEA, 2007a).

Earlier in the paper, it was identified that INTOSAI shares a similar membership base and policy agenda as the UN. The Millennium Development Goals (MDGs) promulgated by the United Nations Development Programme (UNDP) represent policy priorities for member states (United Nations Development Programme, 2009). MDG7 addresses environmental sustainability and stipulates three targets to be achieved by 2015. Each target is divided into two or more sub-targets. WGEA prepares three-yearly work plans, each with a specific theme. In chronological order these have been water, waste, biodiversity and climate change. Table III illustrates the congruence among

Major area	Audit	Ministry or body	Year
<i>Waste management</i>	Management of medical waste	Health	2005
	Asbestos	Labour	2005
	Solid waste	Municipal councils	2006
	Land fills	Municipal councils	2007
	Industrial pollution	Municipal councils	2007
<i>Sustainable development</i>	Tuna fisheries	Fisheries	2006
	Land degradation	Lands	2006
	Forest management	Forestry	2007
<i>Environmental agreements</i>	Environmental agreements and accords	Environment	2006
<i>Others</i>	Squatter sanitation	Local government	2005
	Ozone depletion	Environment	2005

Source: Fiji Office of the Auditor-General

Table II.
Environmental compliance audits between 2005 and 2007

MDG7 targets	MDG7 sub-targets	WGEA themes	Number of audits by OAG
<i>Target 1</i> Reverse loss of environmental resources	Greenhouse gas emissions	Climate change (08-10)	1
<i>Target 2</i> Reduce biodiversity loss	Ozone depletion		1
	Deforestation	Biodiversity (05-07)	1
	Fish stocks		1
	Marine and land conservation		2
<i>Target 3</i> Improve access to safe drinking water and basic sanitation	Threatened species		Nil
	Sanitation	Waste (02-04)	3
	Water	Water (95-01)	Nil

Table III.
Congruence among MDG7, WGEA themes and OAG audits

Source: Fiji Office of the Auditor-General, INTOSAI-WGEA (2009b), United Nations Development Programme (2009)

MDG7, WGEA themes and OAG audits. Immediately apparent from this table is the similarity between WGEA themes and MDG7 targets.

According to interviews with OAG, the selection of audit topics is driven by various factors of which the principal one is direction provided by INTOSAI through the WGEA Steering Committee. Fiji is one of the 18 members on the Steering Committee, where it is represented by the deputy auditor-general. EAU was established towards the end of the second WGEA planning cycle. That may explain why the first EAU audits focused on waste. Table III shows that subsequent audits continue to demonstrate a strong alignment with WGEA themes.

Audit documentation provided by other SAIs has helped OAG to plan and prioritise audits. For example, the 2005 audit of medical waste was modelled on a similar audit conducted by the South African audit office in 2004.

During interviews the environmental auditor explained how the audit scope is determined. Once an audit topic has been identified, DOE assists OAG by identifying all legislation that may be relevant in the audit. An initial meeting is then scheduled with the client to identify possible lines of inquiry or sub-topics and establish whether sufficient data are available to complete the audit.

Environmental audits conducted by OAG remain at the level of compliance. This is consistent with early environmental auditing in Australia and New Zealand. Since the audits are conducted against a minimum standard, they may not encourage clients to proactively improve their EMS and pursue sustainable development.

Standards

As FIA has neither developed nor recommended standards for environmental auditing, OAG has relied on INTOSAI standards for public sector auditing. They are generally applicable to various types of audits including performance and regularity audits. In addition, WGEA has published several guidelines on environmental auditing which are listed in Table IV.

Similarities are apparent with the experience of New Zealand accountants, who were forced to rely on standards developed by multinational auditing firms, due to inaction on the part of NZICA. OAG has also had to look off shore due to insufficient resources and knowledge within Fiji.

External constraints

Several external constraints were identified through interviews:

- (1) Audits are hindered by the lack of documentation maintained by clients. In relation to climate change for instance, it was impossible to assess how sea levels have changed over time, because, such data have not been recorded by government departments. Globally, insufficient data on the state of the environment was the second most common barrier identified by SAIs, while insufficient monitoring and reporting systems ranked third (INTOSAI-WGEA, 2007a).
- (2) Parliament has not sat since the coup in 2006 so completed audit reports cannot be tabled and discussed. Consequently, the required parliamentary directives and budgetary mandates to improve environmental management are not forthcoming. Since the findings are not in the public domain, there is also an extended delay in publicizing and discussing the issues.
- (3) The effectiveness of EMA is restricted by the absence of regulations to make it operational. For instance, the Act refers to a system of National Resource Accounting, which has not even been designed. Interviewees were uncertain of how it will be made operational and there is little global guidance on the issue. Interviews with DOE also indicate that under-staffing has prevented it from establishing mechanisms to monitor the work of EMCs and EMUs. According to DOE, few government departments have committed the necessary human resources to establish EMUs. This is problematic because effective EMUs are essential for the formulation and implementation of environmental policies; without them, the process breaks down.
- (4) The relatively low public awareness about environmental issues engenders an attitude of apathy towards environmental management and auditing. This is aggravated by the non-establishment of EMCs, and EMUs, which are responsible for education and awareness. In addition, environmental lobbyists in Fiji are not as active as their counterparts elsewhere. Lobbying re-enforces legislation and creates greater societal awareness of environmental issues. Globally, it is common for lobbyists such as Greenpeace and Friends of the

Document	Published
How SAIs may cooperate on the audit of international environmental accords	1998
Guidance on conducting audits of activities with an environmental perspective	2001
Environmental audit and regularity auditing	2004
Sustainable development: the role of supreme audit institutions	2004
Auditing biodiversity: guidance for supreme audit institutions	2007

Source: INTOSAI-WGEA (2009a)

Table IV.
WGEA guidelines on environmental auditing

Earth to draw attention to issues by: raising them at annual general meetings; disrupting these meetings when their issues are ignored; and staging marches, protests and vigils. Such action is rare in Fiji.

Discussion

Motivations

Three observations can be made here:

- (1) The development of environmental auditing within Fiji's public sector has resulted from global agendas and pressure. OAG has experienced this directly (through INTOSAI and WGEA) and indirectly (since EMA is a product of UN initiatives and closely linked to MDG7). This typifies coercive isomorphism, where organisations are forced to comply with generally accepted norms in order to maintain legitimacy. The norms have been established by the UN through MDG7 and imposed directly on OAG through WGEA work plans. The UN has imposed the same goals on the Fiji government, which passed EMA and obliges OAG to monitor its compliance. Therefore, it can be argued that adoption of environmental auditing enables government to maintain legitimacy within the UN, while OAG maintains legitimacy within INTOSAI.
- (2) OAG must utilize its global networks and partnerships for direction and standards since it cannot rely on FIA for guidance in relation to environmental auditing. This exemplifies mimetic isomorphism, where organisations copy or emulate one another. For example, WGEA guidelines have been used to conduct environmental audits. Another example is reference to the South African audit on medical waste, which was regarded as best practice.
- (3) INTOSAI has established several mechanisms, which perpetuate best practices. These include meetings, training workshops and knowledge sharing through case studies and detailed audit reports. These media have exposed OAG staff to the importance of environmental auditing and equipped them with the necessary skills to conduct such assignments. Therefore, they are likely to espouse the same values and display similar behaviour to their colleagues in other SAIs. This illustrates normative isomorphism.

Capacity building

There is an urgent need to strengthen the capacity of EAU by recruiting additional staff. This is critical for several reasons. First, it will enable more audits to be conducted each year. Second, without conducting follow-up audits, it is difficult to assess the impact and effectiveness of previous audits. Third, previous studies suggest that enforcement of EMA will necessitate an increase in the number of annual audits. This demand cannot be met through existing human resources.

Resource constraints highlight two types of decoupling. First, external rituals such as press statements may be used to create positive external beliefs or perceptions, which are quite different from the underlying reality. As a result, there is little change at operational level within government departments. For example, there is a disparity between external commitments made by government when ratifying MDG7 and the resources, which it allocates through budgets. In September 2005, government acknowledged its inability to meet two of the eight MDGs by 2015. It publicly stated that:

... apart from poverty and HIV/AIDS, Fiji has done well in other six MDGs and was set to achieve the global targets set for 2015 (Biumaiono, 2005, p. 4).

This implies that Fiji was on target to achieve MDG7. However, both OAG and DOE state that they are under-resourced. Consequently they are unable to fully implement strategies relating to MDG7.

Second, government's espoused commitment through environmental legislation is disconnected from resource allocation and deployment. A case in point is the delay in establishing EMUs although EMA is already effective.

The role of accountants

OAG has reported a lack of documentation among certain audit clients, indicating the need to develop EMS, which will record, analyse and evaluate such data. This is an area where accountants can make important contributions through their skills in measurement, processing and verification.

The many loose ends identified in EMA suggest that it was poorly drafted and involved inadequate input from several important stakeholders. This has contributed to the lack of effective mechanisms for monitoring EMCs and EMUs. Since accountants possess the skills to develop internal control systems, it may be reasonably expected that they could devise suitable mechanisms to monitor EMCs and EMUs. Questions have also been raised regarding the system of Natural Resource Accounting mentioned in EMA. Since neither OAG nor FIA was directly involved in developing the Act, it is unclear how this system of accounting came to be included in the legislation.

The chairperson of the FIA standard setting committee explained that the institute's decision to participate or abstain from discussion on proposed legislation is influenced by the potential impact on its members and business in general. It may be inferred that FIA did not anticipate that EMA would have much effect on the private sector. Such a view is supported, by a reading of EMA; the Act does not require companies to prepare any reports in relation to their environmental management and performance.

Conclusions

The current research sought to identify the motivation for establishment of EAU within OAG. The research has some limitations. Reports of the environmental audits are not publicly available, since parliament has not sat since the military coup in 2006. Consequently, it was difficult to verify the scope of the audits, comprehensively review audit findings and evaluate audit opinions. Nor was there any basis to conduct follow-up interviews with audit clients.

Notwithstanding these limitations, indeed perhaps reflecting them, it is clear that audits are not motivated from within OAG or the organisations being audited. Instead, the adoption of environmental auditing is strongly motivated by membership of INTOSAI. This indicates that the factors, which inspire environmental auditing in the public sector may be very different to those which apply in the private sector. Nevertheless, there is some common ground insofar as audits enable organisations to manage their public image.

In relation to selection of audit topics, it is concluded that the OAG agenda is captured, by the UN, through WGEA. The current research also examined the standards and procedures employed in environmental audits. In this regard, OAG has relied on standards developed by INTOSAI while FIA has failed to provide any

guidance. This demonstrates how accounting technology is transmitted to small developing countries through mimetic and normative means.

EMA appears to be a case of placing the cart before the horse. While the legislation is timely and necessary, it does not appear to have been clearly thought through. In response to global initiatives – particularly MDGs – the Fiji government had committed to environmental legislation when it was unable to provide the resources required to effectively implement and enforce it. If government is seriously committed to meeting MDG7 targets, it must urgently commit more financial and human resources to EAU and DOE. This will require political will, fiscal dexterity and inter-departmental negotiation.

It is also vital to move beyond compliance and begin auditing EMS. However, this may be frustrated by capacity constraints within EAU. Moreover, such audits cannot be conducted until the EMS have been established. There are strong arguments for involving accountants in the development of these systems since they possess skills, which can be especially relevant. These include: ensuring that procedures are well documented; establishing clear lines of authority; and setting up systems for capturing, recording and reporting information. The foregoing is necessary for effective audits.

At face value it may seem that the public sector has taken the lead in environmental auditing in Fiji. However, there are serious questions about how effective this will prove, given the significant barriers highlighted in the current study. Further research may be conducted once environmental audit reports become publicly available. It will then be possible to examine the findings of the audits, conduct follow-up interviews and examine the effectiveness of audits in facilitating organisational change.

References

- Adams, C.A. (2004), "The ethical, social and environmental reporting-performance portrayal gap", *Accounting, Auditing & Accountability Journal*, Vol. 17 No. 5, pp. 731-57.
- Adams, C.A. and Evans, R. (2004), "Accountability, completeness, credibility and the audit expectations gap", *Journal of Corporate Citizenship*, Vol. 14, Summer, pp. 97-115.
- Adams, C.A. and Larrinaga-González, C. (2007), "Engaging with organisations in pursuit of improved sustainability accounting and performance", *Accounting, Auditing & Accountability Journal*, Vol. 20 No. 3, pp. 333-55.
- Audit (Amendment) Act No. 7 (2006), *Audit (Amendment) Act No. 7*, available at: www.pacalii.org/fj/legis/num_act/aa2006151/ (accessed 10 October 2009).
- Bae, S. and Seol, I. (2006), "An exploratory empirical investigation of environmental audit programs in S&P 500 companies", *Management Research News*, Vol. 29 No. 9, pp. 573-9.
- Bebbington, J., Larrinaga-González, C. and Moneva-Abadia, J.M. (2008), "Legitimizing reputation/the reputation of legitimacy theory", *Accounting, Auditing & Accountability Journal*, Vol. 21 No. 3, pp. 371-4.
- Biumaiono, S. (2005), "State fails two MDGs", *Fiji Times*.
- Carruthers, B.G. (1995), "Accounting, ambiguity, and the new institutionalism", *Accounting, Organizations and Society*, Vol. 20 No. 4, pp. 313-28.
- Chiang, C. and Lightbody, M. (2004), "Financial auditors and environmental auditing in New Zealand", *Managerial Auditing Journal*, Vol. 19 No. 2, pp. 224-34.
- Darnall, N., Seol, I. and Sarkis, J. (2009), "Perceived stakeholder influences and organisations' use of environmental audits", *Accounting, Organizations and Society*, Vol. 34 No. 2, pp. 170-87.

- Deegan, C., Cooper, B.J. and Shelly, M. (2006), "An investigation of TBL report assurance statements: UK and European evidence", *Managerial Auditing Journal*, Vol. 21 No. 4, pp. 329-71.
- Dimaggio, P.J. and Powell, W.W. (1983), "The Iron Cage revisited: institutional isomorphism and collective rationality in organisational fields", *American Sociological Review*, Vol. 48 No. 2, pp. 147-60.
- Hillary, R. (1998), "Environmental auditing: concepts, methods and developments", *International Journal of Auditing*, Vol. 2 No. 1, pp. 71-85.
- International Chamber of Commerce (1991), *An ICC Guide to Effective Environmental Auditing*, ICC Publishing, Paris.
- International Organisation of Supreme Audit Institutions – Working Group on Environmental Auditing (2007a), "OAG completes parallel audit with the Accounts Chamber of the Russian Federation on the management and control of the fish resources of the Barents Sea", *Greenlines*, Vol. 10 No. 2, available at: www.environmental-auditing.org/Home/WGEAPublications/GreenlinesNewsletter/tabid/100/GreenlineId/8/Default.aspx (accessed 10 October 2009).
- International Organisation of Supreme Audit Institutions – Working Group on Environmental Auditing (2007b), *5th Survey on Environmental Auditing (2006): Detailed Results*, available at: www.environmental-auditing.org/LinkClick.aspx?fileticket=6fEVZA6HV%2fg%3d&tabid=129&mid=569 (accessed 10 October 2009).
- International Organisation of Supreme Audit Institutions – Working Group on Environmental Auditing (2009a), *Studies and Guidelines*, available at: www.environmental-auditing.org/Default.aspx?tabid=128 (accessed 10 October 2009).
- International Organisation of Supreme Audit Institutions – Working Group on Environmental Auditing (2009b), *Work Plans*, available at: www.environmental-auditing.org/Default.aspx?tabid=112 (accessed 10 October 2009).
- International Organization for Standardization (2002), *ISO 19011: Guidelines for Quality and/or Environmental Management Systems Auditing*, International Organization for Standardization, Geneva.
- Lodhia, S.K. (2003), "Accountants' responses to the environmental agenda in a developing nation: an initial and exploratory study on Fiji", *Critical Perspectives on Accounting*, Vol. 14 No. 7, pp. 715-37.
- Mir, M.Z. and Rahaman, A.S. (2005), "The adoption of international accounting standards in Bangladesh: an exploration of rationale and process", *Accounting, Auditing & Accountability Journal*, Vol. 18 No. 6, pp. 816-41.
- Moerman, L. and Van Der Laan, S. (2005), "Social reporting in the tobacco industry: all smoke and mirrors?", *Accounting, Auditing & Accountability Journal*, Vol. 18 No. 3, pp. 374-89.
- Neu, D., Warsame, H. and Pedwell, K. (1998), "Managing public impressions: environmental disclosures in annual reports", *Accounting, Organizations and Society*, Vol. 23 No. 3, pp. 265-82.
- Özbirecikli, M. (2007), "A review on how CPAs should be involved in environmental auditing and reporting for the core aim of IT", *Problems and Perspectives in Management*, Vol. 5 No. 2, pp. 113-26.
- Parker, L.D. (2005), "Social and environmental accountability research: a view from the commentary box", *Accounting, Auditing & Accountability Journal*, Vol. 18 No. 6, pp. 842-60.
- Power, M. (1997), "Expertise and the construction of relevance: accountants and environmental audit", *Accounting, Organizations and Society*, Vol. 22 No. 2, pp. 123-46.

Simnett, R., Vanstraelen, A. and Chua, W. (2009), "Assurance on sustainability reports: an international comparison", *Accounting Review*, Vol. 84 No. 3, pp. 937-67.

Tilt, C.A. (2001), "The content and disclosure of Australian corporate environmental policies", *Accounting, Auditing & Accountability Journal*, Vol. 14 No. 2, pp. 190-212.

United Nations Development Programme (2009), *Millennium Development Goals*, available at: www.undp.org/mdg/goal7.shtml (accessed 10 October 2009).

Corresponding author

Nacanieli Rika is a lecturer at the University of the South Pacific where he teaches accounting theory, financial accounting and accounting education. Apart from social and environmental accounting, his other research interests include: financial reporting, accounting education and accounting in the context of indigenous people. Currently, he is completing a PhD programme at the Australian National University. He can be contacted at: nacanieli.rika@anu.edu.au

This article has been cited by:

1. Cláudia V. Viegas, Alan Bond, José Luis Duarte Ribeiro, Paulo Maurício Selig. 2013. A review of environmental monitoring and auditing in the context of risk: unveiling the extent of a confused relationship. *Journal of Cleaner Production* **47**, 165-173. [[CrossRef](#)]
2. Christina Chiang. 2010. Insights into current practices in auditing environmental matters. *Managerial Auditing Journal* **25**:9, 912-933. [[Abstract](#)] [[Full Text](#)] [[PDF](#)]