

ASSURANCE OF AUSTRALIAN NATURAL RESOURCE MANAGEMENT

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ABSTRACT

This paper traces the challenges encountered in the development of an appropriate guidance for an Australian public sector organisation embarking on meeting its legislated responsibility of performing audits of natural resource management practices and performance (i.e., environmental audit). The evidence suggests that the development of such guidance is complex and the current array of existing standards or guidance on sustainability and audit were of limited value.

Keywords: environmental audit, audit standards

INTRODUCTION

The heightened interest in recent years in sustainability reporting has been accompanied by an increase in independent assurance of these reports (Dumay et al, 2009). While the research and literature examining assurance of sustainability reports is not as extensive as that examining the amount and type of sustainability reporting, it has nonetheless considered a variety of issues. Many aspects of assurance reporting and practice, not unlike issues surrounding sustainability reporting, are still widely debated.

Managerialism or managerial capture of sustainability reporting (Dumay et al, 2009; Gray, 2006; O'Dwyer and Owen, 2005; Adams and Evans, 2004; Deegan, 2002; O'Dwyer, 2001; Deegan et al, 2002; Bebbington et al, 1999) is one of the issues subject to debate, with claims that organisations use 'sustainability' reports selectively to boost their reputations in pursuit of economic benefit (Gray, 2006). The use of independent external assurance is considered by some as a mitigating factor in minimising the potential for managerial capture (O'Dwyer and Owen, 2005; Deegan, 2002; Ball et al, 2000).

The question of who should be conducting and providing the assurance on sustainability practices and reports (O'Dwyer and Owen, 2007; Deegan et al, 2006) is another issue in the debate about assurance. Evidence suggests that international accounting firms, particularly the 'Big 4', various specialist consulting firms, and certification bodies are the three primary providers of sustainability assurance for private companies

(CorporateRegister.com, 2008). Studies to date have examined issues of technical competency and expertise, as well as independence of the assurance provider (e.g., Mock et al 2007, Simnett et al 2007, Deegan et al 2006, O'Dwyer and Owen 2005, Park and Brorson 2005).

Although unresolved issues remain, there is general consensus that assurance adds (or has the potential to add) to the (perceived) credibility and quality of sustainability reports (O'Dwyer and Owen, 2007) and improvement in the operations and risk management of an organisation's sustainability practices (CorporateRegister.com, 2008). The assurance debate and research on sustainability reporting and assurance has mainly focused on the private sector, but less so in relation to the public sector (Farneti and Guthrie, 2009). Assurance of environmental audits in the public sector has received little attention to date, although the public sector, by definition, is the custodian of large tracts of public land, the guardian of air and water quality and also the stock of native flora and fauna within defined boundaries.

The aim of this study is to provide insights into the challenges faced when a public sector organisation embarks on performing audits of natural resources management practices and performance ('environmental audit')¹. The organisation responsible for the audits was required to construct specific guidance as to the audit objectives, the scope, evaluation criteria, a common understanding of what constitutes audit evidence, audit processes and methodology as well as reporting context and format to ensure quality and consistency across all audits. The experience of the Australian public sector organisation reported in this case study suggests that development of such guidance for an environmental audit is a complex process. The existing array of international standards and guidelines on sustainability and assurance, together with a lack of consensus as to what constitutes 'best practice' proved problematic and of limited value. More importantly, the current focus of the existing standards and guidelines on the private sector made the context of even more limited relevance. The process of translating the available standards and guidelines into actual practice given this case study organisation's complex responsibility for providing advice on natural resource

¹ It could be argued that the audits of natural resource management and performance, referred to in the paper as environmental audits, have broader scope as they deliver economic, social and environmental outcomes.

management² (NRM) as well as auditing NRM practices and performance was also problematic.

This study is structured as follows. Section 2 provides a brief background to international standards and guidelines on sustainability assurance. In Section 3 the research methods are outlined, including details about the case study organisation. Section 4 provides an analysis and discussion of the challenges associated with the development of the organisation's specific environmental audit standard/guidelines (referred to as an audit framework in the remainder of this paper). The final section provides conclusions, including discussion of limitation and potential further research.

2. BACKGROUND TO INTERNATIONAL STANDARDS AND GUIDELINES ON SUSTAINABILITY ASSURANCE

The growing interest in sustainability reporting in both public and private sector organisations has been accompanied by several initiatives undertaken to develop guidelines for the reporting of sustainability practices and outcomes (Dumay et al, 2009), the most notable to date being the sustainability reporting guidelines of the Global Reporting Initiative (see GRI, 2006). However, other bodies have developed guidelines, including, AccountAbility (2008a; b), OECD (2006), United Nations (UNCG, 2008), and the World Bank (WBG, 2007), but from differing perspectives and using different processes. The aim of these initiatives can be summarised as the need to develop organisational sustainability practices that are cognisant of the needs of the present, without compromising the needs of future generations (GRI, 2006, p.2).

There are numerous national and international standards concerning private sector financial auditing and several international attempts at providing guidance on sustainability and non-financial assurance³. Two of these are now discussed briefly and then an analysis is undertaken on two important issues. The first issue is the levels of

² A healthy landscape under a NRM approach has the ability to adapt to climate change, promotes thriving rural, coastal and metropolitan communities, healthy river supplies for agricultural and urban usage, primary production that is competitive in national and international markets and the promotion of an ecologically sustainable environment.

³ Assurance is an expression of an opinion (conclusion) designed to enhance the degree of confidence of the users about the outcome of the evaluation of measurement of a subject matter against criteria. Assurance is the broadest concept, which includes audit and review, i.e., different levels of assurance.

assurance to be provided. The second is the relevance of these standards and guidelines in a public sector context.

While the key international reporting guidelines outlined in this section have been put forth as complementary to one another, rather than mutually exclusive, they have often been applied in a “pick and mix” manner, without following the full guidance of either but referencing both [e.g., AA1000AS and GRI]. Some may consider this to be a positive development while others claim that this “falls short of the rigour many stakeholders might expect” (CorporateRegister.com, 2008, p. 13). This is not surprising given that some (e.g., Adams, 2004) identify the development of authoritative consistent standards or frameworks to guide the process of assurance of sustainability reports as a critical issue in order to ensure that organisational, stakeholder and public expectations are met, lending credibility to the reports. On the other hand, Coyne (2006, p. 9) suggests that “the proliferation of guidelines and standards, and their inconsistent coverage of the core principles of sustainability, remain a key reason why many organisations have opted to create their own principles”

The first standard to be discussed briefly is the International Standard on Assurance Engagement (ISAE) 3000 of the International Auditing and Assurance Standards Board (IAASB) released in December 2003. ISAE 3000 provides (mandatory) guidance for professional accountants for performing assurance on non-financial engagements. The focus of ISAE 3000 is not specific to sustainability assurance engagements and is consequently broad in order to accommodate the inherent complexities of various subject matters, criteria and evidence in non-financial information assurance engagements. There is growing recognition that such a broad standard may be of limited use to specific types of assurance, such as environmental audits, and it is likely that future standards will specifically target assurance of sustainability reports (IFAC, 2004). The work currently being undertaken by the IAASB’s International Task Force to develop an assurance standard on global carbon emissions is a move in this direction (Simnett et al, 2008).

The second standard to be discussed briefly is AccountAbility’s AA1000AS, which was the first internationally published sustainability assurance standard, in 2003, with a recent update in 2008. The assurance standards are part of the AA1000 Series, which also include the AA1000 AccountAbility Principles Standards (AccountAbility, 2003,

2008a) and the AA1000 Stakeholder Engagement Standard (AccountAbility, 2005). These standards revolve around the principles of materiality, responsiveness and the underlying foundation principle of inclusivity.

A brief analysis of the two important issues concerning assurance is now presented. The first issue concerns the levels of assurance. While traditional audits of financial statements are thought to provide high (i.e., reasonable) level of assurance (Roebuck, 2000), there is arguably less ability to provide such level of assurance on sustainability reports, as demonstrated by the various approaches taken by the different standards discussed above. The IAASB standards identify two levels of assurance (i.e. high or reasonable for audits and moderate or limited for reviews), whilst the AccountAbility standards propose two types of engagements: Type 1 (AccountAbility Principles) with a conclusion as to the nature and extent of adherence to AA1000APS; and Type 2 (AccountAbility Principles and Performance Information),⁴ which also includes a conclusion as to the reliability of the sustainability information disclosed. This lack of consensus and common terminology is compounded by the fact that sustainability reports often contain non-financial qualitative information on which it is inherently more complex to provide higher level of assurance. Further, the information systems used to capture the information in these sustainability reports are not geared towards reliable measurement of the information required.

The second issue relates to the difference between traditional financial audits, which are typically audits of compliance, while the assurance of sustainability reports tends to involve both compliance and performance components. This aligns more with the broader scope of audit engagement in the public sector.

For instance, Australian public sector audits include the mandated responsibility to undertake performance audits (Guthrie and Parker, 1999; Parker and Guthrie, 1991), which have been in recent years extended to the provision of assurance in sustainability reporting (McPhee, 2007). The main issues for the Australian National Audit Office (ANAO) in providing assurance on public sector sustainability reporting, according to the (then) Auditor-General, are the “lack of mandated standards for a systematic process

⁴ These were an addition in the revised AA1000AS 2008 in an effort to bring the standard in line with ISAE 3000 (see AccountAbility (2008) *Changes between the AA1000AS (2003) and the AA1000AS*, London, AccountAbility).

as well as the paucity of evaluation criteria for verification of this information” (ANAO, 2005, p.7).

In conclusion, there are no universal international frameworks or standards used for the preparation of sustainability reports and there is no single authoritative framework or a set of standards for providing assurance on these. This study aims to contribute to contemporary debate by providing insights as to the challenge encountered by one Australian public sector organisation in constructing its environmental audit standard and practices. The research method and the background of the case study organisation are outlined in the next section.

3. RESEARCH METHOD

In order to provide insights into the implementation of environmental auditing in a public sector organisation, this research uses the case study method. This method has been used often in the social sciences (Fontana and Frey 2005), more recently in accounting (Bedard and Gendron 2004) and auditing studies (Humphrey 2008). This study uses a single longitudinal case study method, in order to examine a specific phenomenon within a context, place and time, that is the development of an environmental audit framework from 2006 until early 2009 at the case study organisation, known in this study as the Commission⁵. This particular method was chosen as it incorporates the use of a range of media, in this case, internal documentation, observations, semi-structured interviews, external documentation (see, Yin, 2003).

The researchers had unrestricted access to internal and external documents, planning and audit meetings, the field (i.e. the corridors of the Commission where many informal discussions took place) and organisational participants. Also, the researchers interviewed Commission staff and stakeholders.

⁵ The case study organization referred to throughout the paper as the Commission is the Natural Resources Commission, an Australian public sector organisation, located in the state of New South Wales. It provides advice on NRM to the state government

THE COMMISSION CASE STUDY

The Commission was created by an Act to provide advice on NRM for the social, economic and environmental interests of the people of the state. The primary purpose of the Act was to establish an independent body with broad investigating and reporting functions. In exercising its responsibilities, the Commission's independence from both the government and the 'Catchment Management Authorities', together with its broad investigating and reporting functions, is critical to its mandate to undertake audits of the effectiveness of authorities' 'Catchment Action Plans', in compliance with statewide targets and standards for NRM. Some of the specific Commission functions under the Act include:

- to recommend statewide standards and targets for NRM issues;
- to recommend the approval of action plans of authorities that are consistent with statewide standards and targets adopted by the government for NRM issues;
- to undertake audits of the effectiveness of the implementation of action plans in achieving compliance with those statewide standards and targets; and
- to undertake audits of action plans and other NRM issues as required by the responsible Minister.

The Commission and its audit responsibility are relatively contemporary, which makes the research organisation an ideal site for contributing to the understanding of the dynamics involved in developing an audit framework for providing assurance on NRM to the government and the public. The ambiguity and lack of agreed objectives, standards, processes and 'best practice' in sustainability assurance allows for in-depth exploration by the researchers of motivations, challenges, complexities and tensions faced by the Commission in developing its formal audit framework.

Central to the NRM was the establishment of 13 authorities covering the entire state as the primary means for the strategic delivery of funding from the state and Commonwealth Governments to help land managers improve and restore the natural resources of the state⁶.

⁶ National Action Plan (NAP) and Trust are jointly funded by and Australian Governments.

During 2005, the Commission developed (in collaboration with authorities) statewide standard and targets to guide the work of the authorities in managing their natural resources through a consistent approach to NRM to achieve the government’s overarching goal of “landscapes that are ecologically sustainable, function effectively and support the environmental, economic, social and cultural values of our communities” (NRC, 2007, p.1). The standard and targets also provide performance criteria (i.e. criteria to be included in the audit standard), however, it needs to be recognised that authorities’ performance of delivery and contribution to the statewide targets in terms of measurable outcomes in NRM may not be observable for many years. The statewide Standard and Targets are briefly outlined next.

The *Standard for Quality Natural Resource Management* (the Standard) (NRC, 2007d) recommended by the Commission in 2005 and adopted by the government in 2006 aims to promote “quality practice” in NRM and requires the authorities to comply with the Standard in all areas of their business including the development of its strategic plan for NRM referred to in the Standard as the action plan. The Standard sets out seven auditable outcomes of quality NRM for authorities to meet (see Table 1).

(Insert Table 1 about here)

The state wide targets for NRM (see Table 2) embedded in the state plan⁷ set out agreed long term aspirational goals and activities adopted by the government in 2006. Each of the 13 action plans contain targets that address regional NRM priorities, which subsequently contribute to the achievement of the statewide Targets.

[Insert Table 2 about here]

The Commission is independent from both the government and the authorities with the responsibility of delivering a ‘Standard for Quality NRM’ (the Standard) and the ‘statewide Targets’ (Targets) for NRM which the government has embedded into the state plan. Under the Act the Commission is required to audit the effectiveness of the implementation of action plans as measured by each authority’s compliance with the Standard and contribution towards NRM Targets. To ensure that the Commission can

⁷ The state plan sets out clear Targets for all of government’s responsibilities, and the statewide targets for NRM make up Priority E4 of the state plan.

undertake its responsibilities its organisational structure includes leading experts in sustainable development, agriculture, auditing, environmental science and education, providing solid foundations for independent perspectives, knowledge and advice on natural resource management. The Commission complements its internal knowledge and expertise by engaging with other stakeholders including authorities, various other government agencies, environmental groups, landholders, scientists, academics, practitioners and consultants.

4. ANALYSIS AND DISCUSSION

This section provides an analysis and discussion of the challenges confronted by the Commission in developing its own environmental audit standard, referred to as the audit framework.

As outlined above, the Commission's legislated responsibility includes audits of the effectiveness of the implementation of action plans in achieving compliance with the Standard and the Targets, as well as other NRM issues as required by the Premier of the state.

During its first year of operations, in 2004, the Commission developed its recommendations for the Standard and Targets. Such a Standard and Targets have never been developed before within the NRM context in Australia and required considerable effort in terms of the Commission's available resources. The approval process of the Standard and Targets by the Government involved preliminary consideration of the audit aspect. The Commission engaged an outside consultant, to provide input on the audit function for the purpose of the Commission and government submission.

The resulting draft audit framework (Commission internal document) mapped out a 10 year audit process plan. The consultation paper recognised that the audit process would involve compliance, performance auditing and evaluations of the authorities by the Commission but did not provide specific details. However, given the early stage of the authorities' activities, there was an acknowledgment that the performance component would not be able to be undertaken until a later stage.

As part of its responsibility to recommend the approval of action plans the Commission undertook, during 2005 and 2006, audits, referred to as ‘systems reviews’ which was considered “*a more friendly terminology*” (interview with Commission staff member A) and a more appropriate label given the purpose and nature of the audits. These audits focused on authority compliance against the Standard including corporate governance, adaptive management, risk assessment and systems in place. These system reviews were checklist based and conducted by external systems experts in conjunction with Commission staff (i.e. experts on the Standard).

These initial systems reviews provided the Commission with a detailed risk profile of each authority and progress ranking scale against each component of the Standard. Although these compliance audits were not undertaken as part of its mandate to undertake audits under the Act, they highlighted a realisation within the Commission that the audit construct and the draft audit framework required further development. From the internal documents it can be gauged that issues such as the relatively thin level of audit skills within the Commission, different stages of maturity of authorities, different stakeholder expectations of the ‘systems review’, and authorities’/stakeholders’ feedback in the process all provided challenges.

Subsequent to the 2005/2006 systems reviews, with a highlighted appreciation of the complexity of the audit function under the Act, and the uniqueness of the authority context, the Commission appointed its own specialist audit experts to progress ‘audit’ within the Commission context. It was at this point in time, in September 2006, that the Commission formally recognised the increased need to take ultimate control of its audit framework, audit methodology, overseeing the choice of audit providers and of the audits themselves.

The aim of having a formal audit standard (audit framework) was to operationalise ‘audit’ in the Act with a strategic Commission focus (interview with Commission staff member B) and to provide a statement of concepts and standards applicable across all Commission audits. The audit framework was to be initially informed through various existing international and national assurance standards, including Institute of Internal Auditors Australia Standards (2007), International Standards for the Professional Practice of Internal Auditing and related Practice Advisories effective 2007; Standards Australia (2003) ISO 19011:2003 Guidelines for quality and environmental

management systems auditing; Standards Australia and Standards New Zealand (2006); Delivering assurance based on AS/NZS 4360:2004 Risk Management, Handbook 158-2006; Auditing and Assurance Standards (ASAs, AUSs)⁸ and Guidance statements. However, given the nature of the Commission and its specific responsibilities under the Act none of these standards could be directly adopted for the purpose of auditing the effectiveness of the action plans implementation against the Standard and Targets.

Faced with this dilemma, the Commission began to develop an ‘Audit Framework’ to fit the Commission’s context. The framework was to be based around the key concepts abstracted from the various standards (including ASAs, AUSs, GRI and AA1000AS). The seven key concepts were risk, significance (rather than materiality), auditability, auditor competence, evidence, procedural fairness of reporting, stakeholder involvement and collaboration. These were debated within the Commission and externally with consultants to ensure an appropriate alignment with the Standard.

The tailoring of these concepts also proved to be more involved than initially anticipated as many of these concepts were developed with financial statement audits in focus, rather than the Commission’s legislative responsibilities. The practicalities of operationalising these, for example “*what does stakeholder collaboration mean and at what level?*” (interview with Commission staff member B) were problematic and time consuming. The framework development and finalisation was a very transparent process involving continuous internal consultations as well as several workshops and input from key stakeholders and public sector audit experts including authorities, and Australian Governments and their respective agencies (e.g. ANAO, Department of Environment and Conservation and Department of Natural Resources Auditors).

In addition to the extensive consultation with stakeholders, the draft audit framework was also peer reviewed (in late 2007) by leading practitioners in internal auditing, environmental performance audit reporting (including academics), and exposed to public consultation through the Commission’s website and distribution lists. This extensive external consultation raised several issues with respect to the parameters of stakeholder involvement, the need to integrate the concept of ‘materiality’ into risk assessment/evaluation process, audit timetabling, audit scope and the frequency of the

⁸ Australian Auditing and Assurance Standards and Guidelines (ASAs, AUSs, AGSs) are adapted from the International Federation of Accountants (IFAC’s) Standards (ISAs).

audit framework review (Commission internal documentation). Feedback received from the external consultations was addressed in the final draft of the audit framework (evidenced by the comparison between the draft exposed for peer review, submissions received and the final document).

The final audit framework was finalised and published in December 2007. It outlines the Commission's overall approach to auditing the implementation of the action plans including four key features, the first that audit work will be designed to assess whether the implementation of action plans is leading to on-ground improvements in natural resource condition by assessing compliance with the Standard and using hard data to verify progress towards statewide targets. The second, that a risk-based approach will be used to focus and tailor the nature of audit work, and to inform the frequency of audits. The third, that each action plan will be audited at least once every three years; however, audits may be more frequent where the risks to effective action plan implementation are assessed as high. The fourth feature was that commonly accepted audit methods will be adopted to ensure the rigour of the audit process and effective communication of audit findings and conclusions. The framework also recognises that the audit teams need to include appropriate Commission staff, audit experts, and natural resource experts.

The relevance and appropriateness of the use of the Standard, the Targets and Audit have been tested during the first audits of 7 of the authorities during 2008. They have proved to be relatively resilient, however, the use of the audit framework proved challenging in the context of external providers, who did not always understand its application to field audits in meeting the needs of the Commission.

The external audit providers' main concerns in applying the specific concepts of the audit framework relate to the application of risk, materiality, auditability and audit evidence. The 2008 audits also revealed that the skill set of audit providers, the meaning and availability of evidence and mixed functionality and the use of Commission staff with external audit consultants bring additional complexities, not previously identified, which need to be further considered in either the audit framework or in supporting audit methodology.

The application of the audit framework during the audits in 2008 also highlighted a further need to revisit the concepts of performance versus compliance audits, as well as

the applicability of the word 'audit' under the Act within the Commission context. The use of 'audit' under the Act is problematic and potentially too narrow given the nature of NRM. The Commission can provide only limited assurance or an assessment on some matters and is unable to provide 'audit' (i.e. reasonable/high assurance) across all NRM issues. Whether the language of the Act needs to change from 'audit' to 'assessment' or 'assurance' is debatable and an issue to be considered during the review of the audit framework upon completion of all thirteen individual authority audits in late 2009.

The audit framework has received some criticism after completion of the initial round of audits by some external audit providers and Commission staff. However, it is clear that, as with other current sustainability/non-financial information assurance standards, it was never meant to be a standalone product and needs to be supported by a rigorous audit methodology/manual tailored specifically to NRM and action plan context. Although an audit framework should be broad enough to provide the overall meaning and audit context, meet the changing needs of the Commission audit requirements, provide scope and basic guidelines that will withstand the changing maturity of the authorities, the political processes and the diverse stakeholder needs, it nevertheless needs to resolve some fundamental questions addressed above.

5. CONCLUSIONS

The aim of this study was to provide insights in the area of environmental auditing. The specific issue analysed is the development of a relevant environmental audit standard or 'audit framework' within a specific organisational context. The methodology utilised is a longitudinal (three year) case study of a public sector body responsible for NRM in an Australian state. The case study data suggests that the various international and national standards and guidelines on audit and assurance are of some usefulness in providing broad principles but are of limited assistance in operationalising these principles within a specific environmental audit context. The case study analysis suggests that the current quest by various international bodies to provide universal assurance standards and guidance is perhaps not realistic in relation to complex and organisation specific environmental subject matter.

The experience of the case study organisation studied indicates that the regulators' and standard setters' future efforts need to clarify the key underlying concepts, namely the meaning of assurance in terms of environmental practices and reporting and whether the levels of assurance, concepts of audit evidence, materiality, risk, etc, which are accepted and applied for financial information audits are in fact relevant and transportable to the environmental audit and public sector context.

TABLE 1 THE SEVEN COMPONENTS OF THE STANDARD

<p>Collection and use of knowledge</p> <p><i>Required Outcome: Use of the best available knowledge to inform decisions in a structured and transparent manner.</i></p> <p>Determination of scale</p> <p><i>Required outcome: Management of natural resource issues at the optimal spatial, temporal and institutional scale to maximise effective contribution to broader goals, deliver integrated outcomes and prevent or minimise adverse consequences</i></p> <p>Opportunities for collaboration</p> <p><i>Required outcome: Collaboration with other parties to maximise gains, share or minimise costs or deliver multiple benefits is explored and pursued wherever possible.</i></p> <p>Community engagement</p> <p><i>Required outcome: Implementation of strategies sufficient to meaningfully engage the participation of the community in the planning, implementation and review of natural resource management strategies and the achievement of identified goals and targets.</i></p> <p>Risk management</p> <p><i>Required outcome: Consideration and management of all identifiable risks and impacts to maximise efficiency and effectiveness, ensure success and avoid, minimise and control adverse impacts.</i></p> <p>Monitoring and evaluation</p> <p><i>Required outcome: Quantification and demonstration of progress towards goals and targets by means of regular monitoring, measuring, evaluation and reporting of organisational and project performance and the use of results to guide improved practice.</i></p> <p>Information management</p> <p><i>Required outcome: Management of information in a manner that meets user needs and satisfies formal security, accountability and transparency requirements.</i></p>

Source: www.nrc.nsw.gov.au (Source accessed June 2009)

TABLE 2 STATEWIDE TARGETS FOR NATURAL RESOURCE MANAGEMENT

Biodiversity

1 By 2015 there is an increase in native vegetation extent and an improvement in native vegetation condition.

2 By 2015 there is an increase in the number of sustainable populations of a range of native fauna species.

3 By 2015 there is an increase in the recovery of threatened species, populations and ecological communities.

4 By 2015 there is a reduction in the impact of invasive species.

Water

5 By 2015 there is an improvement in the condition of riverine ecosystems.

6 By 2015 there is an improvement in the ability of groundwater systems to support groundwater-dependent ecosystems and designated beneficial uses.

7 By 2015 there is no decline in the condition of marine waters and ecosystems.

8 By 2015 there is an improvement in the condition of important wetlands, and the extent of those wetlands is maintained.

9 By 2015 there is an improvement in the condition of estuaries and coastal lake ecosystems.

Land

10 By 2015 there is an improvement in soil condition.

11 By 2015 there is an increase in the area of land that is managed within its capability.

Community

12 Natural resource decisions contribute to improving or maintaining economic sustainability and social wellbeing.

13 There is an increase in the capacity of natural resource managers to contribute to regionally relevant natural resource management

Source: www.nrc.nsw.gov.au (Source accessed June 2009)

REFERENCES

- AccountAbility (2003) AA1000 Assurance Standard, London: AccountAbility.
- AccountAbility (2005) AA1000 Stakeholder Engagement Standard: Exposure Draft, London: AccountAbility.
- AccountAbility (2008a) AA1000 AccountAbility Principles Standard 2008, London: AccountAbility.
- AccountAbility (2008b) AA1000 Assurance Standard 2008, London: AccountAbility.
- Adams, C. A. (2004) The Ethical, Social and Environmental Reporting-Performance Portrayal Gap. *Accounting, Auditing & Accountability Journal* 17: 5 pp731-757.
- Adams, C. and Evans, R. (2004) Accountability, Completeness, Credibility and Audit Expectations Gap. *The Journal of Corporate Citizenship*, Summer: 97-115.
- Australian National Audit Office (ANAO) (2005) *Sustainability Reporting –The Role of Auditors*, Commonwealth Auditors-General Conference, Wellington, New Zealand, 1 February 2005.
- Ball, A., Owen, D. L. and Gray, R. H. (2000) External Transparency Or Internal Capture? The Role Of Third Party Statements In Adding Value To Corporate Environmental Report. *Business Strategy and the Environment*, 9:1 pp1-23.
- Bebbington, J., Gray, R. H. and Owen, D. L. (1999). Seeing The Wood For The Trees: Taking The Pulse Of Social And Environmental Accounting. *Accounting, Auditing and Accountability Journal*, 12:1 pp47-52.
- Bedard, J. and Gendron, Y. (2004) Qualitative Research On Accounting: Some Thoughts On What Occurs Behind The Scene. in C. Humphrey and B. Lee (eds), *The Real Life Guide to Accounting Research: A Behind the Scenes View of Using Qualitative Research Methods*, Oxford: Elsevier (pp191-206)
- CorporateRegister.com (2008) *Assure View: The CSR Assurance Statement Report*. London: CorporateRegister.com, accessed December 2008 .
- Coyne, K. L. (2006) Sustainability Auditing. *Environmental Quality Management* 16: 2 25-41.
- Deegan, C. (2002) The Legitimising Effect Of Social And Environmental Disclosures - A Theoretical Foundation. *Accounting, Auditing and Accountability Journal*, 15:3 pp282-311.
- Deegan, C., Cooper, B. and Shelley, M. (2006) An Investigation Of TBL Report Assurance Statements: UK And European Evidence. *Managerial Auditing Journal*. 21:4 pp329-371.

- Deegan, C., Rankin, M. and Tobin, (2002) An Examination Of The Corporate Social And Environmental Disclosures Of BHP From 1983-1997. A Test Of Legitimacy Theory. *Accounting, Auditing and Accountability Journal*. 15:3 pp312-343.
- Dumay, J., Farneti, F. and Guthrie, J. (2009) *The Worth of International Guidelines for Sustainability Reporting in Public and Not for Profit Sector Organisations*. Paper presented at the Sustainable Management of Organisations Conference, Bologna, Italy, July 2009.
- Farneti, F. and Guthrie, J. (2009) Sustainability Reporting by Australian Public Sector Organisations: Why They Report?" *Accounting Forum*, 33:2 pp89-98.
- Fontana A. and Frey, J.H. (2005) The Interview: From Neutral Stance To Political Involvement, in N.K.Denzim and Y.S. Lincoln (eds) *The Sage Handbook of Qualitative Research* (3rd ed) California: Sage Publications.
- Global Reporting Initiative (GRI) (2006) *GRI Sustainability Reporting Guidelines (G3) Sustainability Reporting Framework*, <http://www.globalreporting.org/ReportingFramework/ReportingFrameworkDownloads/>, accessed 19 January 2009.
- Gray, R. (2006) Social, Environmental And Sustainability Reporting And Organisational Value Creation? Whose Value? Whose Creation?" *Accounting Auditing and Accountability Journal*, 19:6 pp793-819.
- Guthrie, J. and Parker, L. (1999) A Quarter Of A Century Of Performance Auditing In The Australian Federal Public Sector: A Malleable Masque. *Abacus*, 35:3 pp302-332.
- Humphrey, C. (2008) Auditing Research: A Review Across the Disciplinary Divide. *Accounting, Auditing & Accountability Journal*. 21:2 pp170-203.
- International Federation of Accountants (IFAC) *International Framework for Assurance Engagements (Framework) and Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* (2003) (ISAE) 3000
- International Federation of Accountants (IFAC) (2004) IAASB Issues a New Framework and Standard for Assurance Engagements. <http://www.ifac.org/mediacenter/?q=node/view/324>, accessed 15 January 2009.
- McPhee, I. (2007) *Panel Discussion: Performance Audit Reports - An Auditor-General's Perspective*. Canberra, Australian National Audit Office.
- Mock, T.J, Strohm, C. and Swartz, K.M. (2007) An Examination of Worldwide Assured Sustainability Reporting. *Australian Accounting Review*, 17:43 pp67-77.
- Natural Resources Commission (2007) *The Standards and Targets Guide*. www.nrc.nsw.gov.au, accessed December 2008.
- O'Dwyer, B. (2001) The Legitimacy Of Accountants' Participation In Social And Ethical Accounting, Auditing And Reporting. *Business Ethics: A European Review*, 10:1 pp27-39.

- O'Dwyer, B. and Owen, D. (2007) Seeking Stakeholder Centric Assurance: An Examination of Recent Sustainability Assurance Practice. *Journal of Corporate Citizenship*, Spring pp77-94.
- O'Dwyer, B. and Owen, D. (2005) Assurance Statement Quality In Environmental, Social And Sustainability Reporting: A Critical Evaluation Of Leading Edge Practice. *British Accounting Review*, 37:2 pp205-229.
- OECD (2006) *Intellectual Assets and Value Creation: Implications for Corporate Reporting*, Paris: Corporate Affairs Division, Directorate for Financial and Enterprise Affairs, Organisation for Economic Co-operation and Development.
- Park, J. and Brorson, T. (2005) Experiences Of and Views On Third-Party Assurance Of Corporate Environmental And Sustainability Reports, *Journal of Cleaner Production*, 13:10-11 pp1095-1106.
- Parker, L. and Guthrie, J. (1991) Performance Auditing: The Jurisdiction Of The Australian Auditor General — De Jure Or De Facto? *Financial Accountability and Management* Summer Issue pp107-116.
- Roebuck, P. (2000) Understanding Assurance Services Reports: A User Perspective. *Accounting and Finance*, 40:3 pp211-232.
- Simnett R., Nugent, M. and Huggins, A. (2008) *Developing an International Assurance Standard on Carbon Emission Disclosures*. Working paper, University of New South Wales.
- Simnett, R., Vanstraelen, A. and Chua, W.F. (2006) *Assurance on General Purpose Non-Financial Reports: An International Comparison*, http://aaahq.org/audit/midyear/07midyear/papers/Simnett_AssuranceOnGeneralPurpose.pdf, accessed
- United Nations Global Compact (UNGC) (2008) *Corporate Citizenship in the Word Economy*, New York: United Nations.
- World Bank Group (WBG) (2007) *Environmental, Health, and Safety (EHS) Guidelines*, Washington, DC: Environment and Social Development Department, International Finance Corporation.
- Yin, R. (2003) Introduction in R. Yin (ed) *Case Study Research*, Thousand Oaks, CA: Sage pp1-18.