



## Auditors' Perceptions of Environmental Issues and its Implication for the Consideration of Environmental Matters

### Corresponding Author:

Christina Chiang  
Private bag 92006,  
Auckland 1020,  
New Zealand.

Email:  
christina.chiang@aut.ac.nz

Key words: auditors,  
environmental matters,  
financial audits, survey.

CHRISTINA CHIANG  
AUT UNIVERSITY

**Abstract:** This study investigates New Zealand auditors' perceptions on environmental issues and considers their possible implications for the consideration of environmental matters in financial audits. Information used in this study was gathered from a postal survey questionnaire.

Survey responses indicate that auditors seem unable to translate their personal views on environmental issues to the auditing sphere of activity and they seem generally ill-informed about environmental matters. There appears to be a conflict between auditors' awareness of environmental issues and their ability to translate this into their audit practice in considering environmental matters in financial reports.

**Acknowledgements:** The author is particularly grateful to Professor Deryl Northcott, AUT University for her advice and comments on the paper, Dr Kenneth Hyde, AUT University who assisted with the statistical analysis of data, and the New Zealand Institute of Chartered Accountants (formally Institute of Chartered Accountants of New Zealand) membership officer who helped in identifying participants for the survey.

### INTRODUCTION

Environmental concerns are highly topical in New Zealand giving rise to increasing public concern over environmental destruction, as evidenced by the many commentaries and reports in New Zealand newspapers and journals:

Environment Waikato is very conscious of environmental concerns, and realise there is a major issue *"about the massive potential flood impact of pine-to-pasture land conversions between Taupo and Tokoroa"*... *"Run-off and leaching from pasture contaminate nearby rivers and lakes, making them unsafe for swimming and fishing"* (Unknown 2006: 14). If the trends continue, it is predicted that New Zealand's natural capital would become *"seriously degraded"* (Warren 2004: 7)... *"The timber industry's self-regulated code of practice is being severely abused and should be redrawn to avoid health and environment concerns"*, say Auckland Regional Council contamination control officers (Mirams 2002: 14)... The biennial survey of environmental attitudes named *"water pollution and waste disposal as Waikato's top environmental concerns and the region's most important issue"* (Adams 2001: 10)... *"Environmental and conservation issues have become increasingly mainstream in New Zealand political life"* (Howard 1999: 5) ... New Zealand companies are realising that *"where businesses have potential environmental hazards there is a cost associated with making mistakes"* (Hunter 1999: 20)... Politicians have indicated that *"they want New Zealand to have an AAA+ social and environmental rating; there is a need to ensure that development is both economically and ecologically sustainable"* (Stace

1996: 7)... *"New Zealanders have a genuine high concern for the health of the environment..."* (Brocklesby 1994: 52)... The NZ agriculture sector was reminded that *"environmental issues are becoming an important factor in international trade and that concern for the environment is now a significant factor affecting consumer choice in many parts of the world"* (Barber 1993: 16).

Environmental concerns are worldwide and the 1990s witnessed its growth (amongst other things) which led to specific changes in business practices (Dixon, Mousa and Woodhead 2004) and increasing environmental legislative pressures (Collison 1996). Users of financial statements are also becoming more interested in environmental issues (Institute of Chartered Accountants of New Zealand (ICANZ)) 2001, Audit Guidance Statement 1010 (AGS-1010): The consideration of environmental matters in the audit of financial reports, paragraph 1). As a result, auditors conducting financial audits are required to pay due regard to environmental issues and particularly company shortcomings in response to these issues which have ever-increasing financial consequences for business (Owen 1992). It follows that auditors have to consider environmental matters in the audits of financial reports when they are significant to the entity (ICANZ 2001, AGS-1010 paragraph 1 and 2).

Research on auditors and environmental issues are limited, and in particular little is known about how New Zealand auditors' deal with environmental matters. The focus of the current research is to determine whether auditors' perceptions on environmental issues have shaped their consideration of environmental matters in financial audits. Since auditors are essentially accountants with special audit training, are their perceptions of environmental issues similar to those of accountants or does their audit training cause them to perceive these issues differently? Hence, the aim of the current study is to determine New Zealand auditors' perceptions on environmental issues and their possible implications for the consideration of environmental matters in financial audits. This domain has not been explored, and forms the contribution of this paper.

In this study, environmental issues relate to the potential impact some business activities have on the environment. Examples are:

*The contamination of soil and groundwater, the contamination of surface water or air pollution; the use of hazardous substances; the generating or processing of hazardous waste; or business activities that may have an adverse impact on customers, employees, or people that live in the neighbourhood of the entity's sites (ICANZ 2001, AGS-1010 paragraph 21).*

For the purposes of ICANZ 2001, AGS-1010 environmental matters are:

*Initiatives to avoid, remedy or mitigate any adverse effects of activities on the environment, or to deal with conservation of renewable and non-renewable resources (such initiatives may be required by environmental laws and regulations or by contract or they may be undertaken voluntarily); consequences of violating environmental laws and regulations; consequences of environmental damage done to others or to natural resources; and consequences of vicarious liability imposed by law (for example, liability for damages caused by previous owners) (ICANZ 2001, AGS-1010 paragraph 10b).*

The next section reviews the literature covering accountants and the environment since many of the issues highlighted could be expected to apply equally to auditors. Section three details the current study and section four analyses research findings. The final section presents the conclusions.

## ACCOUNTANTS AND THEIR ENVIRONMENT

Keene (1997: 8) argues that :

*Accountants cannot avoid being affected by environmental issues as [accounting] is an environmental practice because it has consequences for the environment. All*

*forms of accounting have environmental implications and to practise accounting is to take a position in relation to the environment.*

Keene (1997) further explains that the involvement of accountants in environmental accounting is dependent on the extent of their personal acceptance or rejection of environmental concerns and the extent of their environmental consciousness. One of the elements of environmental consciousness is beliefs about the perceived seriousness of environmental problems; the assumption being that *"the more seriously [an individual] perceives environmental problems to be, the greater the extent of their concern and the more motivated they are to take action"* (Keene 1997:13). Bebbington, Gray, Thomson and Walters (1994) and Deegan, Geddes and Staunton (1996) suggest that it is the accountant's personal view of and concern for the environment that impacts that position in relation to the environment.

Prior studies showed that accountants do not have strong involvements in environmental issues (Jaggi and Zhao 1996, Guilding and Kirman 1998, Bebbington et al. 1994, Coombes and Davey 1994, Deegan et al 1996); that an accountant's personal view of and concern for the environment impact on that position (Deegan et al 1996, Bebbington et al 1994). Studies have also revealed that accountants in different organisations and countries lack consensus on numerous environmental issues; that there are inconclusive evidence of the personal concerns of accountants towards the environment; and that there is an overall lack of involvement of accountants in environmental accounting. (Jaggi and Zhao 1996, Guilding and Kirman 1998, Bebbington et al 1994, Coombes and Davey, 1994, Deegan et al 1996).

Jaggi and Zhao (1996) indicate that although accountants realise they have an involvement with the environment, they have no strong feelings for environmental issues. However, no explanation was given for their perceptions. Coombes and Davey (1994) and Deegan et al (1996) found that accountants do not see themselves as agents of change because they feel they are not sufficiently trained to facilitate change. Bebbington et al (1994) found that accountants generally tend to have common professional traits even though they are from different organisations and countries. One reason suggested for this phenomenon may be the relatively common training of accountants globally. Deegan et al (1996) concluded that to expect accountants be more concerned with environmental issues, their attitudes need shifting, not just as individuals but as a group, to where their boundaries of consideration extend.

Some authors claim that accountants are not equipped to respond to new challenges; that their training and education may not have prepared them to reflect upon and respond to new challenges that lie outside existing current techniques (Power 1991a, Power 1991b, Bebbington et al 1994). Other commentators observe a conflict between an accountant's awareness of environmental issues and his/her inability to translate this into action within corporate life and also into the *"accounting milieu"* (Coombes and Davey 1994:21) because a large number of *"accountants are not aware of the importance and implications of the environmental agenda for their practice and for the organisations for which they work"* (Bebbington et al 1994:119). It has been suggested that this may be due to insufficient guidelines on environmental matters (Jaggi and Zhao 1996 ; Bebbington et al 1994).

Auditors are accountants who have special training in auditing techniques. They generally complete their initial training in accounting and then work in audit firms where they receive additional training in this field, including assessing risks and in carrying out audit procedures.

ICANZ acknowledge that :

*...environmental matters are becoming significant to an increasing number of entities. These issues are of growing interest to users of financial reports.*

*...When environmental matters are significant to an entity... the auditor needs to give consideration to environmental matters in the audit of the financial report.*

(ICANZ 2001, AGS-1010 paragraph 1 and 2).

AGS-1010 has made the need to consider environmental matters in financial audits more explicit and it is stated that “*environmental matters can be complex and may therefore require additional consideration by auditors*” (ICANZ 2001, AGS-1010 paragraph 3) because it may prove to be a challenge for auditors. Therefore, one might reasonably expect complexities facing the audit of environmental matters to be widely discussed in technical journals and professional seminars. However, this is not the case; the topic is not as widely discussed as expected. Generally, auditors appear to be silent about their responsibility for considering environmental matters in financial audits. A search of New Zealand literature located only one article by Cox (2001) which gave a general summary of AGS-1010. Other than the article by Cox (2001) and the actual promulgation by ICANZ (2001, AGS-1010), little else is made known on the subject. Hence, are auditors equipped to respond to new challenges in their audit consideration of environmental matters which could lie outside existing audit techniques? Are they aware of the implications of the environmental agenda for audit practice? The questions arising from the literature formed the key research questions for the current study, the nature of which is discussed in the next section.

## THE CURRENT STUDY

In New Zealand, only Chiang and Lightbody (2004) have studied the involvement of financial auditors as environmental auditors. Little else is known about auditors and their dealings with environmental matters. The aim of the current study is therefore to take a lead from Bebbington et al (1994), Deegan et al (1996) and Jaggi and Zhao (1996) in seeking New Zealand auditors' perception on environmental issues and determining their possible implications for the consideration of environmental matters in financial audits.

Information used in this study is taken from the same postal survey questionnaire used in Chiang and Lightbody (2004). The first part of the survey questionnaire asked auditors about the extent of their involvement as independent environmental auditors. Information obtained from the first part of the survey questionnaire was reported in Chiang and Lightbody (2004). The second part of the questionnaire asked auditors about their perception of environmental issues, in order to explore the implication of their ‘environmental attitudes’ for the audit function. Information from the second part of the survey questionnaire forms the focus of this paper. To enable comparability with prior studies of accounting practitioners, questions for the second part of the postal survey were substantially based on Bebbington et al (1994); Deegan et al (1996); Jaggi and Zhao (1996); Coombes and Davey (1994); Guilding and Kirman (1998) and Keene (1997), although refinements were made in accordance with the study objectives. Respondents were asked to express their agreement to thirteen short statements categorised on a 5-point Likert scale anchored at ‘strongly agree (5)’, ‘agree (4)’, ‘neutral (3)’, ‘disagree (2)’ and ‘strongly disagree (1)’. The survey responses are presented in Table 1.

As reported in Chiang and Lightbody (2004), a postal survey questionnaire was sent to two hundred auditors throughout New Zealand. The sample was randomly selected by the NZICA membership officer due to restrictions imposed on access to the NZICA membership database. The survey was conducted over the period July to September 2001. Out of the selected 200 New Zealand auditors, 110 (56%) responded. Enclosed with the questionnaires were covering letters that sought participation, explained the research objectives and stressed the confidentiality of individual responses. Freepost envelopes were also included in order to facilitate the return of the questionnaire by respondents at no cost to them. To improve the responses rate, a single follow-up was made to those who did not respond to the first mail-out. The next section discusses findings from the survey responses.

## SURVEY FINDINGS

With reference to Table 1, 110 respondents rated on a 5-point scale, five statements on their

attitudes to environmental issues and eight statements on their professional practice. Statement one and statement eight were worded "in the negative". Therefore the scoring for these items was reversed before further analysis.

Regarding auditors' attitudes to environmental issues, on average (mean rating), respondents agreed with the five statements on environmental issues. Generally, a majority of auditors surveyed do not perceive environmental concern as a passing fad (78.2 % agreed/strongly agreed). Environmental protection for New Zealand is important (76.4 % agreed/strongly agreed). However, much less than a majority of auditors perceive environmental and ecological issues as constituting a challenge for business and auditing in the 21st century (56.4 % agreed/strongly agreed; 23.6% neutral) even though they felt that presently environmental issues are urgent (50% agreed/strongly agreed) and that environmental threats are real and not exaggerated (54.6% agree/strongly agree).

Regarding auditors' professional practice, on average (mean rating), the respondents agreed with statement six and seven, but on average, disagreed with all other professional practice statements. Respondents agreed that auditors should have a role in environmental matters (55.4% agreed/strongly agreed; 20.0% neutral) yet felt that the auditors' role is sufficiently demanding without worrying about environmental issues (49.1% agreed/strongly agreed), hence the wide variation in responses to the question whether environmental awareness is changing the work of the auditor (26.4% agreed/strongly agreed; 24.5% neutral; 39.1% disagreed/strongly disagreed).

Even though ICANZ had acknowledged financial statement users' growing interest for such information (ICANZ 2001, AGS-1010, paragraph 1 and 2) agreement was less widespread on whether shareholders need environmental information (45.5% agreed/strongly agreed; 36.4% neutral) and on whether financial and environmental stewardship attestation should be integrated within the statutory audit (35.5% agreed/strongly agreed; 24.5% neutral). Very few respondents agreed that they are receiving sufficient guidance on environmental matters (12.7% agreed/strongly agreed) and that initiative by NZICA have clarified their concerns with environmental issues (10% agreed/strongly agreed). It is also noteworthy that there are a high percentage of "undecided" responses to many of the questions. This suggests that auditors may not have given much thought to the significance of environmental matters to their audit tasks, or they may have thought about it but remain unsure because they do not feel professionally informed. This suggests a potential need for dissemination of more information on environmental matters. Similar to the accountants (Coombes and Davey 1994), auditors in this study could not see themselves as possible agents to promote social change in environmental issues (22.7% agree/strongly agree). Hence, mechanisms for translating the consideration of environmental issues into audit practice need improvement before auditors can become confident and fully engaged in their consideration of environmental matters in financial audits.

An overall 'environmental attitude' score (as the average of statements 1-5) and an overall 'professional practice' score (as the average of statements 6-13) were calculated for each respondent. A paired samples t-test showed that there was a significant difference between auditors' attitude to environmental issues and professional practice ( $t = 11.73$ ,  $df = 109$ ,  $p = .000$ ). Survey responses indicate that New Zealand auditors are environmentally conscious and they do have some strong beliefs about the seriousness of environmental problems. However, their beliefs about environmental problems do not appear to have influenced their professional practice. Therefore, it seems New Zealand auditors are no different from the accountants surveyed internationally (Bebbington et al 1994; Coombes and Davey 1994; Deegan et al 1996; Guilding and Kirman 1998; and Jaggi and Zhao 1996). Although auditors (like accountants) do have personal concerns for the environment, they too (like the accountants) do not seem able to transfer their personal concerns to their professional roles as auditors.

The sample was examined further. Eighteen individuals were identified who (on average)

*disagreed* with the environmental issues (that is environmentally *unconcerned*). They were compared with the 92 auditors who (on average) *agreed* or were *neutral* with the environmental issues (that is environmentally *concerned*).

The 18 auditors, who are environmentally *unconcerned*, gave significantly different responses to four of the professional practice items. They were more likely to *agree* that the auditor's role is sufficiently demanding without worrying about environmental issues (statement eight) and more likely to *disagree* that auditors should have a role in environmental matters (statement six) and that shareholders need environmental information (statement seven). Following the reasoning in Keene (1997), it would appear that the primary initiator in future moves towards better audit practices in environmental matters will *not* lie with those auditors who are environmentally *unconcerned*. Any expectation for promoting social changes in environmental issues and improving audit practice in environmental matters will therefore be dependent on auditors who are environmentally *concerned*.

The standard deviation for responses to the survey questions (1-13) is greater than 1.68 (i.e. the responses to the questions are highly variable), providing evidence of non-uniformity in the views of the respondents. This reflects a lack of consensus in the views of New Zealand auditors, as was reported for the views of accountants surveyed internationally (Bebbington et al 1994; Coombes and Davey 1994; Deegan et al 1996; Guilding and Kirman 1998; and Jaggi and Zhao 1996).

## CONCLUSIONS

*"Environmental matters are becoming significant to an increasing number of entities and in certain circumstances, may have a material impact on financial reports of those entities"* (ICANZ 2001, AGS-1010 paragraph 1). Following this, auditors need to give consideration to such matters in the audit of financial reports. One might therefore expect factors such as growing worldwide environmental concerns (Dixon et al 2004), increasing legislative pressures (Collison 1996), training in auditing techniques, the existence of AGS-1010 and the increasing interest of financial statement users in environmental matters (ICANZ 2001, AGS 1010 paragraph 1) to highly motivate auditors to take greater interest in environmental issues which could impact their audit practice, exposing them to greater legal liability if they fail to detect material misstatement or inadequate disclosure of environmental matters in the course of their audit. However, little is known about how New Zealand auditors deal with environmental matters and research on financial auditors in New Zealand and environmental matters is limited. This study examines whether auditors' personal views on environmental issues have shaped their contribution to this domain - an issue that has not previously been examined.

The results capture auditors' perceptions on environmental issues. The findings of this study suggest that generally auditors are concerned about the seriousness of environmental problems. Yet, their beliefs do not seem to impact on their professional practice. It appears that despite increasing external pressures, auditors seem unable to translate their personal views on environmental issues to their professional roles. The survey results confirm the findings in Deegan et al (1996), Jaggi and Zhao (1996) and Bebbington et al (1994) in that auditors' views are no different from those of accountants and they generally appear to have professional traits in common with accountants. Auditors also generally seem unwilling to tackle auditing of environmental matters in financial reports, even though they see themselves as having a role in environmental matters, because they feel that their role is sufficiently demanding without worrying about environmental issues. Besides this, some perceived that financial and environmental stewardship attestation should not be integrated within the statutory audit.

Deegan et al (1996) and Bebbington et al (1994) conclude that for auditors to become more concerned with environmental issues, their attitude needs to shift to where their boundaries of consideration extend, not just as individuals but also as a group. This study indicates

that mechanisms for translating the consideration of environmental issues into audit practice also need improvement before auditors can become confident and fully engaged in their consideration of environmental matters in financial audits. However, auditors who are environmentally unconcerned would not be the primary initiator in future moves towards better audit practices in environmental matters. To promote any social changes in environmental issues and improving audit practice in environmental matters will therefore be dependent on auditors who are environmentally concerned.

## REFERENCES

- Adams D 2001. Environmental concerns surveyed. *Waikato Times* 7 March:10.
- Barber D 1993. Environmental issues here to stay. *The National Business Review* 18 June: 16.
- Bebbington J, Gray R, Thomson I, Walters D 1994. Accountants' attitudes and environmentally-sensitive accounting. *Accounting and Business Research* 24(94): 109-120.
- Brocklesby J 1994. The truth about environmental concerns. *Marketing Magazine* February: 52.
- Chiang C, Lightbody M 2004. Financial auditors and environmental auditing in New Zealand. *Managerial Auditing Journal* 19(2): 224-234.
- Collison D 1996. The response of statutory financial auditors in the UK to environmental issues: a descriptive and exploratory case study. *British Accounting Review* 28: 325-349.
- Coombes R, Davey H 1994. The New Zealand accountant's role in environmental accountability. Working paper: University of Waikato, New Zealand.
- Cox R 2001. Audit Guidance Statement 1010: the consideration of environmental matters in the audit of a financial report. *Chartered Accountants Journal* 80(1): 54.
- Deegan C, Geddes S, Staunton J 1996. A survey of Australian accountants' attitudes on environmental reporting. *Accounting Forum* 19(4): 399-412.
- Dixon R, Mousa G, Woodhead A 2004. The necessary characteristics of environmental auditors: a review of the contribution of the financial auditing profession. *Accounting Forum* 28(2): 119-138.
- Guilding C, Kirman C 1998. Environmental accounting in the New Zealand contracting industry. *Pacific Accounting Review* 10(1): 27-50.
- Howard K 1999. The greening of politics. *The Press* 5 November: 5.
- Hunter T 1999. Boardroom greening – do environmental concerns have any value for shareholders? *The Independent* 16 June: 20.
- ICANZ 2001. Audit Guidance Statement (AGS) 1010: the consideration of environmental matters in the audit of a financial report. In: ICANZ (ed) *New Zealand Codified Auditing Standards and Audit Guidance Statements*. Wellington New Zealand: ICANZ.
- Jaggi B, Zhao R 1996. Environmental performance and reporting: perceptions of managers and accounting professionals in Hong Kong. *The International Journal of Accounting* 31(3): 333-346.
- Keene D 1997. The environmental consciousness of accountants: environmental worldviews, beliefs, and pro-environmental behaviours. Working paper: Massey University, Palmerston North New Zealand.
- Mirams C 2002. Code of practice abused, says officers. *The Dominion Post* 12 December: 14.
- Owen D 1992. *Green Reporting: Accountancy and the Challenge of the Nineties*. London: Chapman and Hall.
- Power M 1991a. Auditing and environmental expertise: between protest and professionalisation. *Accounting, Auditing & Accountability Journal* 4(3): 30-42.

Power M 1991b. Educating accountants: towards a critical ethnography. *Accounting, Organizations and Society* 16(4): 333-353.

Stace H 1996. Our reader comments. *The Dominion* 25 September: 7.

Unknown 2006. Councils air flooding concerns. *The Waikato Times* 15 July: 14.

Warren A 2004. Study damns intense farming. *The Press* 4 November: 7.

TABLE 1- The survey responses

|  | PERCENTAGE RESPONSES |       |       |       |       |
|--|----------------------|-------|-------|-------|-------|
| 5=strongly agree, 4=agree; 3=neutral;<br>2=disagree; 1=strongly disagree   | 1                    | 2     | 3     | 4     | 5     |
| <b>Statements 1 to 5 refers to auditors' attitude to environmental issues</b>  |                      |       |       |       |       |
| 1. Environmental concern is a passing fad  | 42.7%                | 35.5% | 7.3%  | 8.2%  | 6.4%  |
| 2. Environmental protection for NZ is important  | 9.1%                 | 10.0% | 4.5%  | 36.4% | 40.0% |
| 3. Environmental and ecological issues will constitute a fundamental challenge for business and auditing in the 21st century | 4.5%                 | 15.5% | 23.6% | 43.6% | 12.7% |
| 4. Environmental issues are really urgent at present   | 0.9%                 | 20.0% | 29.1% | 40.0% | 10.0% |
| 5. Environmental threats in NZ are real, not exaggerated   | 4.5%                 | 20.0% | 20.9% | 46.4% | 8.2%  |
| <b>Statements 6 to 13 refers to auditors' professional practice</b>  |                      |       |       |       |       |
| 6. Auditors should have a role in environmental matters  | 6.4%                 | 18.2% | 20.0% | 34.5% | 20.9% |
| 7. Shareholders need environmental information   | 4.5%                 | 13.6% | 36.4% | 36.4% | 9.1%  |
| 8. The auditor's role is sufficiently demanding without worrying about environmental issues                                  | 9.1%                 | 31.8% | 10.0% | 32.7% | 16.4% |
| 9. Both financial and environmental stewardship attestation should be integrated with statutory audit                        | 18.2%                | 21.8% | 24.5% | 30.0% | 5.5%  |
| 10. Environmental awareness is changing the work of the auditor  | 10.0%                | 29.1% | 34.5% | 25.5% | 0.9%  |
| 11. Audit practitioners could be agents to promote social change in environmental issues                                     | 20.0%                | 25.5% | 31.8% | 18.2% | 4.5%  |
| 12. Initiatives by NZICA (formally ICANZ) have helped to clarify your concerns with environmental issues                     | 21.8%                | 30.9% | 37.3% | 10.0% | 0.0%  |
| 13. Auditors receive sufficient guidance on environmental matters  | 34.5%                | 37.3% | 15.5% | 10.9% | 1.8%  |