The environmental accounting debate rose to prominence in the 1990s, culminating in tremendous academic research in this non-traditional phenomenon. Unfortunately, this has not been matched by developments in the mainstream accounting practice. Environmental accounting continues to be regarded as an alternative accounting thought and the involvement of accountants in environmental issues is often subject to scepticism (see for example, Bebbington et al., 1994, Gray et al., 1995a, Lodhia, 1998, 2000).

This paper seeks to identify the characteristics of the contemporary environmental accounting practice that have contributed to its inability to be established into the mainstream accounting agenda. It is suggested that for environmental accounting practices to succeed in providing accountability to the various stakeholders, the issues identified in this paper will need to be seriously looked at. This, in turn, would lead to improvements in contemporary practices and the quality of life for everyone.

**Limitations of Mainstream Accounting in Handling Environmental Issues**

Traditional accounting practices are centered primarily on profitability as the sole indicator of business performance. A business's success is judged by the profits it makes and the market value of its shares. The concentration is on capitalistic modes of production, and social and environmental responsibilities are often sacrificed. This has been enhanced by the academic curriculum emphasis on profits as the primary determinant of business success (Tinker, 1985). The capitalistic focus of conventional accounting is commonly referred to as the marginalist value theory (see Tinker, 1980, 1985, Tinker et al., 1991, Nandan, 1992, 1994).

Tinker (1985) is critical of the focus on profits as the sole criteria of business performance, stating that it neglects significant social issues. He also places the blame on generally accepted accounting principles for not adequately covering a growing number of social concerns, which have led to corporate scandals and environmental mismanagement. It is argued that the conventional accounting practice cannot balance the contrasting objectives of profitability and social responsibility. Tinker et al. (1991, p.39) support this further, stating that:

"a conventional understanding, based on marginalist precepts, is only a surface-level appreciation of the meaning of accounts, and that the marketplace is merely a facade where social protagonists meet to resolve their struggles over the distribution of wealth. Efficiency,
productivity, and other global metrics are merely metaphysical artefacts promulgated by some adversaries to advance their claims.”

A contradiction usually arises while trying to balance the objectives of profit making and social responsibility. Current environmental accounting practices are carried out within the conventional accounting framework. However, environmental accounting practices usually involve outlays by the organization with the intention of preserving environmental resources for future generations. The benefits of carrying out environmental accounting cannot be realized in the current period. This conflicts with the traditional accounting concept of Matching which states that expenses in the current period should be matched with the associated revenue for the period. Thus, environmental sensitivity by organizations seems contradictory to the traditional accounting viewpoints on profitability. Moreover, there is no regulation anywhere in the world to guide or control environmental accounting. This leads to reluctance on the part of the accounting profession to undertake environmental accounting.

Mainstream accounting also has a tendency to rely heavily on quantitative measures. The assumption is that such measures are objective. This is supported by Willis (1994, p.21):

“As far as the consideration of environmental costs and impacts is concerned, the conventional accounting model’s fundamental shortcoming is that, being entity-centered, it deals with an entity’s market-priced transactions within

the conventional market-based economy; it has no means of valuing and recording any transaction for which the marketplace has not assigned a value (or for adjusting when there is a partial value).”

and Gray (1990b, p.382):

“The basis of our accounting is book-keeping which is driven only by price transactions.”

Environmental accounting measures are often subjective and could involve non-quantifiable information. There is subjectivity associated with environmental accounting mechanisms such as identifying environmental costs, estimating environmental benefits, accounting for environmental risk and contingencies, undertaking environmental audits and introducing eco-balance sheets. These subjective measures are problematic within the traditional accounting framework. The problem of ignoring subjective measurement by the conventional accounting practice is clearly highlighted by the McNamara Fallacy (see Gray et al., 1993, Nandan, 1994 for example):

“The first step is to measure whatever can be easily measured. This is ok as far as it goes. The second step is to disregard that which can’t be easily measured or give it an arbitrary quantitative value. This is artificial and misleading. The third step is to presume what can’t be measured easily really isn’t important. This is blindness. The fourth step is to say that what can’t be measured really doesn’t exist. This is suicide.”
The profitability motive and disregard for subjective values have seen accountants not featuring prominently in the environmental management strategies of organizations.

**The Non-involvement of Accountants in Environmental Management**

The literature on environmental accounting suggests that accountants should play a crucial role in environmental management in organizations. However, the contemporary environmental accounting practice suggests otherwise. There is currently very little involvement by accountants in environmental management in organizations (Gray et al. 1993, Bebbington et al., 1994, Deegan et al., 1995, Gray et al. 1995a, Frost and Wilmhurst, 1996, Collison, 1996, Wycherley, 1997, Wang et al. 1997, Shiraz, 1998, Guilding and Kirman, 1998, Lodhia, 2000). Accountants are not bringing about changes in organizational practices (Gray et al., 1995a) through utilization of their skills in the environmental management strategies of companies.

It has been suggested that accountants may not be qualified to handle environmental issues within the conventional accounting practice. The mainstream accounting education has focused on technicality and provided less attention to the consideration of the wider social and environmental factors impacting on the accounting practice (Tinker, 1985). Contemporary accounting educational programs have groomed accountants to focus on profit maximization and to treat environmental factors as another external cost to the organization. Their non-involvement in environmental matters is defended by stating that accountants are not environmentalists. The misconception among accountants is that environmentalists should handle environmental matters and record keeping should be left to the accountants.

Contemporary accountants fail to consider that accounting is more than just a technical phenomenon. Accounting encompasses the wider social, historical, cultural and political structures in society and it makes sense for accountants to be involved in social activities, especially environmental accounting. This could be achieved through the utilization of their traditional accounting skills. These skills could be pooled together with the skills of environmental experts to form a multi-disciplinary team of environmental management within an organization. This would encourage sustainable business practices by corporations.

The lack of involvement of accountants in environmental accounting can only be attributed to the internal operations of environmental management systems. Accountants are however taking the lead in the disclosure of environmental information in annual reports. In spite of this, environmental accounting practices are not perceived as neutral practices.

**The Problematic Nature of Environmental Reporting**

Current environmental accounting practices focus primarily on environmental reporting. Consideration of internal environmental accounting mechanisms is often neglected. An immense literature is devoted towards the reporting of environmental information in annual reports. On the other hand, fewer studies have concentrated on the actual evolution of environmental accounting systems in organizations, from the establishment of environmental policies to the reporting and evaluation of
environmental information. The idea behind this paper is that the desirability of environmental accounting practices cannot be appropriately measured by the number of lines attributed to environmental information in annual reports. This is due to the attempts by organizations to focus only on favorable events and use environmental disclosures as public relations exercises (Owen, 1992, 1993, Gray et al. 1993, Gray, 1994, Gray et al. 1995b, Deegan and Gordon 1996, Gallhofer and Haslam, 1996, Burritt and Welch, 1997a, 1997b, Tilt, 1997, Neu et al., 1998). As Neu et al. (1998, p.273) theorize, “In essence, environmental disclosures seek to manage public impressions of organizational actions but not necessarily through the provision of false information. Rather, the disclosures are selective in that they attempt to shape the way important relevant publics know or feel about the corporation: by highlighting specific organizational actions from within the domain of action that are positive; by re-framing actions made visible by powerful external publics; and by ignoring actions made visible by less powerful external constituents.”

It is argued that organizations use environmental accounting as a political gimmick - only good news disclosures are provided. A very “rosy” picture of the organization may be portrayed in terms of its social responsibility and awareness, when in fact, the organization may be constantly thriving in pursuit of profits. A possible explanation for such activities is that organizations may attempt to convert the positive image gained from undertaking environmental accounting into a favorable position in the stock market. It may be an attempt to influence capital markets (Mathews and Perera, 1996). Further research needs to be carried out to determine the exact relationship between recent environmental accounting disclosures and the stock price of organizations.

The current environmental reporting practice is therefore seen as a contradiction itself. Disclosures in annual reports are manipulated to provide a favorable impact of business operations. Tinker et al. (1991, p.50) assert that:

“annual reports and the financial statements they putatively represent, are inevitably ideological in that they unavoidably re-present reality from a particular point of view”

while Gray et al. (1993, p. 257) state that voluntary disclosure:

“owes more to advertising, public relations and image construction than it does to information, accountability and transparency”.

The reluctance of organizations to provide information on the negative aspects of its operations on the environment is due primarily to the voluntary nature of the practice itself.

Financial reporting practices are regulated through accounting standards but presently, there are no mandatory standards to guide the disclosure of environmental information in annual reports. Thus, these disclosures are often public relations exercises that attempt to improve the company’s image. This is the deficiency inherent in environmental reporting practices - we cannot assume that environmental disclosures provide evidence of sustainable development by organizations.
in the absence of related accounting standards. The problem with the manipulation of environmental reporting practices would continue as long as the practice remains voluntary. This often leads to patchy and inconsistent environmental disclosures.

**Lack of Consistency and Uniformity in Environmental Accounting Practices**

A common approach used in conventional accounting practices to analyze business performances is to carry out inter-company comparisons. Unfortunately, it is impossible to compare environmental related information across firms as there are no standards to bring about uniformity in environmental accounting practices. The subjectivity involved in such practices also contributes to the inconsistency in environmental accounting practices. There is in effect a lack of adequate benchmarks to evaluate the environmental performance of companies.

**Summary and Conclusions**

Figure 1 sums up the similarities and the divergence in the mainstream accounting and environmental accounting schools of thought. It argues that even though both mechanisms employ similar tools of internal management, reporting and auditing, differences in their goals, data and regulation have contributed to the contradictory nature of environmental accounting within the conventional accounting framework. If environmental accounting practices are to improve the quality of life for everyone on this planet, there is an urgent need for modifications to these. An analysis of the limitations of present practices would be the foremost step towards seeking to rectify the problematic nature of contemporary environmental accounting systems.

<table>
<thead>
<tr>
<th></th>
<th><strong>Mainstream Accounting</strong></th>
<th><strong>Environmental Accounting</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
<td>Profit maximization</td>
<td>Improve corporate environmental performance</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>Primarily quantitative</td>
<td>Qualitative Limited quantitative</td>
</tr>
<tr>
<td><strong>Internal mechanism</strong></td>
<td>Management accounting</td>
<td>Environmental management</td>
</tr>
<tr>
<td><strong>External mechanism</strong></td>
<td>Financial Reporting</td>
<td>Environmental reporting</td>
</tr>
<tr>
<td><strong>Regulated</strong></td>
<td>Yes - through accounting standards and corporate legislation</td>
<td>No - but environmental legislation and standards (e.g. ISO 14000, EMS, etc) help</td>
</tr>
<tr>
<td><strong>Auditing tool</strong></td>
<td>Financial Auditing</td>
<td>Environmental Auditing</td>
</tr>
</tbody>
</table>

**Figure 1: Mainstream Accounting and Environmental Accounting compared and contrasted**
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