INFLUENCES ON SUSTAINABILITY ACCOUNTING IN THE PUBLIC SECTOR

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ABSTRACT
Examined here are potential influences on the introduction of sustainability accounting in the public sector. A brief review of the general meaning and context of sustainability accounting is presented, followed by a review of positive and negative incentives for the adoption of sustainability accounting in public sector enterprises. Finally, concluding comments are made about the potential for sustainability accounting in the public sector.

1. INTRODUCTION
Within this paper is an examination of the potential incentives and barriers to the introduction of sustainability accounting in the public sector. Sustainability, social and environmental and triple bottom line accounting and reporting are growing in importance (Lamberton, 2005). Such issues as reduction of carbon emissions, addressing water shortages, employment of child labour and the current global financial crisis are increasing the importance of sustainability issues and the leadership role that governments can play in their resolution. Although the question has been raised as to whether the planet is safe in the hands of private companies (Gray & Bebbington, 2000) little attention has been directed at the role of public sector entities in sustainability accounting (Ball, 2005). Debate over the similarity and differences between public and private sector organizations (see Barton, 1999) leads to an examination of the potential for sustainability accounting in the public sector.

The paper proceeds as follows: a brief review of the meaning and context of sustainability accounting is found in Section 2. Next, positive and negative incentives for the adoption of sustainability accounting in public sector enterprises are explored. Finally, in Section 4, concluding comments are made about the potential for sustainability accounting in the public sector.

2. MEANING AND CONTEXT OF SUSTAINABILITY ACCOUNTING
As a global vision sustainability embodies hopes for a peaceful society with social equity and justice and economic prosperity in a clean, natural environment (Schaltegger & Burritt, 2005). Foran (2005) suggests that six general principles behind sustainability are normally put forward: stabilizing human population numbers and age structure; reducing the use of grand global elements such as carbon, nitrogen, phosphorus and sulphur; basing society and economy on flows rather than stocks so that we do not live on capital; shortening the supply chain; engineering society for durability and resilience; and taxing for innovation in resource saving.

Sustainability is seen here as the goal of the process of sustainable development (Schaltegger, Burritt & Petersen, 2003, p.22; but see Robinson, 2004, p.381). Organizations working towards sustainability
need an accounting system that collects, analyzes and communicates information about sustainability issues based on the integration of environmental, social and economic performance (Elkington 1998; Schaltegger, 2004). Sustainability accounting is the name given to such an accounting system.

Sustainability accounting has been defined as a subset of accounting that deals with activities, methods and systems to record, analyse and report, first, environmentally and socially induced economic impacts and, second, ecological and social impacts of an organization, its subunits or activities (Schaltegger and Wagner, 2005; Schaltegger, Burritt & Petersen, 2003). In contrast the SIGMA Project (2003, p.7) defines Sustainability Financial Accounting as being:

the generation, analysis and use of monetarised environmental and socially related information in order to improve corporate environmental, social and economic performance.

Hence, a distinction is made between monetary and non-monetary information in sustainability accounting.

Gray (1993, p.252) suggests several different methods for sustainability accounting. These include: (i) natural capital inventory accounting, with its focus on the criticality of natural capital (see Burritt & Welch, 1997), its depletion, maintenance, or enhancement; (ii) sustainable cost accounting, which looks at the costs needed to maintain natural capital. This method is considered to be rather impractical; and (iii) input-output analysis, favoured by Gray, and having a focus on resource flows (ie resource use) and the potential for making these flows transparent inside and outside the organization. Takeup has been slow, so much so that Elkington (2000, p.37) observed that sustainability accounting for business had remained largely unexplored by 2000. In conceptual terms, these different methods link sustainability accounting to maintaining the stock of natural capital and living from the flows, a principle of sustainability recognised by Foran (2005) and noted above.

Sustainability accounting for public sector organizations has to come to terms with the issue that the notion of sustainability has been criticised for its vagueness, for example should weak or strong sustainability be adopted; are intergenerational and intragenerational equity of concern; is the idea of sustainability part of a pluralistic world order or a new world order (Schaltegger, Burritt & Petersen, 2003, p.23). The critical test for any accounting system is whether it produces desirable, purpose-orientated behaviour from the people who receive the information provided (Chambers, 1966, p.54). Such a pragmatic approach to sustainability accounting in the public sector needs to address what the overarching goal, or goals, might be. Then relevant accounting information can be provided to help achieve these goals. Reporting of such information to external parties is an important use of sustainability accounting.

The last eight years have seen a growing interest in sustainability accounting. At the academic level the topic has been the focus of conferences and meetings (eg ‘Sustainability Accounting and Reporting’ was the theme of the Environmental Management Accounting Network Conference in 2004 - EMAN 2004 http://www.uni-lueneburg.de/eman/eman2004/ accessed 17.5.09). Through the SIGMA project (a partnership of three organizations the British Standards Institution, AccountAbility and Forum for the Future - SIGMA Project http://www.projectsigma.co.uk accessed 17.5.09) guidelines and practices are now available. The SIGMA Project outlines a sustainability accounting framework that links economic, environmental and social impacts recorded in financial terms as stocks and flows. It recognises that changes in stocks are the results of inflows and outflows, but notes almost no examples of
sustainability accounting that articulates stocks and flows (SIGMA Project, 2003, p.11). Schaltegger (2004) attempts to move the concept beyond becoming an ‘empty’ buzzword. Although some progress has been made (Schaltegger & Burritt 2005, p.192), little research into sustainability accounting in the public sector is evident (Ball, 2006). What, then, are the positive and negative incentives for sustainability accounting in the public sector in comparison with the private sector?

3. POSITIVE AND NEGATIVE INCENTIVES FOR THE ADOPTION OF SUSTAINABILITY ACCOUNTING IN PUBLIC SECTOR ENTERPRISES

A review of contemporary literature reveals a number of positive and negative incentives for the adoption of sustainability accounting in public sector enterprises. Section 3.1 examines the main positive incentives identified, while Section 3.2 considers negative incentives which impede the adoption of sustainability accounting in the public sector. An incremental analysis is adopted, meaning that incentives common to the public and private sectors are not directly considered here, rather the aim is to highlight the differences between the two sectors and, thus, examine whether sustainability accounting is more likely to be developed in the public sector.

3.1 POSITIVE INCENTIVES

Government mandated reporting

Mandatory requirements for the introduction of sustainability reporting in public sector organizations are few in number. Some countries, however, have a specific focus on ecological issues. For example, in Australia there is a requirement that all Commonwealth public sector organizations have public reporting on ecologically sustainable development in line with the requirement of s.516A of the Environmental Protection and Biodiversity Conservation Act 1999. Such reports are likely to provide a partial stimulus for sustainability accounting as a basis for providing information required in the reports.

Public sector involvement in policy making

Bebbington (2001) raises the point that debate about sustainable development and sustainability originated in the public sector, as governments began to consider public policy to address emerging environmental and social concerns. Movement towards a sustainable society is accepted as a policy to be implemented in numerous sovereign nations throughout the world. In this sense, a strong ownership interest in sustainability accounting also originates from the public policy process conducted through public sector organizations.

Table 1: Incremental incentives for sustainability accounting – public sector compared with private sector

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Public goods controlled by public sector

Public goods are managed by government on behalf of its citizens for the benefit of present and future generations and for the protection of the environment (Barton, 1999 p.208). Barton considers natural capital assets in his analysis and argues that they can be managed successfully without financial valuations being placed on them (Barton, 1999, p.208). Furthermore, these goods must be provided by government and not by the private sector because they involve externalities with a public impact, no revenue raising opportunities (ie costs and benefits are not confined to the transaction parties and marginal costs of adding another consumer are zero) and cannot be sold (Musgrave 1988; Stiglitz, 1988). Sustainability accounting is a useful notion because natural capital is held in trust for the community and information is needed because natural capital needs to be physically maintained and managed for future generations to enjoy. Such assets can be reflected in a physical eco-asset sheet (Schaltegger & Burritt, 2000), and a set of ecological and social measures which focus on the physical characteristics of the resources (Barton, 1999, p.220). Hence, sustainability accounting should be driven by the need for public sector organizations to manage public goods.

Risk and uncertainty in technological innovation

Public sector organizations in the natural science and technology fields, acting on behalf of the community, can accept projects that the private sector is loath to do, because the amount of capital involved is too high, the project duration is too long, the risks are too great, and the ecological and social payback uncertain (Schaltegger & Burritt, 2000). New process discoveries and inventions that are profitable can lead to cleaner and safer production processes. These circumstances encourage the development of sustainability accounting in public sector organizations.

Improved measurement techniques

The development by engineers and scientists of improved measurement instruments for public goods enables the introduction of accounting systems that provide information about ecological and social risks previously unknown (Schaltegger & Burritt, 2000, p.36). Such measures may be recorded in physical terms, for example in Australia is estimated that about half of the invertebrates and simple plants have not yet been identified (Commonwealth of Australia 1996). Improved measurement tools, for assessing ecological impacts and risks, promotes the need for public sector sustainability accounting.

New public management and financial sustainability

New public management (NPM) has brought increased attention in many countries to the concept and practice whereby public sector organizations compete for funds with private sector organizations in the commercial market. Hood (1995, p.96) identifies several underlying doctrines of NPM including: unbundling of public sector organizations into corporatized units; stress on private-sector styles of management practice; greater emphasis on discipline and frugality in resource use; explicit formal measurable standards and measures of performance and success; and greater emphasis on output controls. These doctrines require that accounting in financial terms receives greater attention. Through NPM the need for accounting to reflect measures of economy, efficiency and effectiveness has been strengthened at the expense of ecological primacy and social equity (see Figure 1).
Figure 1: The relationship between the administrative management cycle and evaluation. (Source: Azuma, 2003, p. 58)

NPM means that information is needed about expected and actual resources used to deliver inputs (for economy); inputs and outputs (for efficiency), and outputs and outcomes (for effectiveness) (Azuma, 2003). These public sector organizations are likely to be driven by the need for financial sustainability accounting information as they seek to demonstrate to the funding markets that they have programs that can provide a return at an acceptable level of risk. Ball and Grubnic (2007) argue that the NPM focus of Australian Commonwealth public sector management will improve the reporting of environmental impacts of public sector organizations.

Adopting the notion of sufficiency
Sufficiency is a notion that considers whether, because of their deleterious ecological or social impacts, the output of certain goods and services and the associated resources consumed is needed in the first place (Dyllick & Hockerts, 2002; Schaltegger & Burritt, 2005). Sustainability accounting could be used to foster notions of sufficiency. However, sustainability accounting needs to reveal negative ecological or social impacts of public sector activities as a foundation for recognising the concept of enough (use of resources, poverty, etc.), and to overcome the stigma raised by Gorz (1989, p.85) that accountancy knows the concept of more and less, but not the concept of enough (Maunders & Burritt, 1991, p.13). Public sector organizations with their specific mandate to operate in the interests of citizens may, supported by sustainability accounting, have a better chance of successfully adopting the notion of sufficiency than private sector organizations.

A balanced scorecard with a dominant non financial focus
The balanced scorecard draws attention away from an over-concentration on financial measurement of performance. As financial information is only one of the key performance areas of concern to public sector organizations the notion of a balanced scorecard (Kaplan & Norton, 1992) that addresses financial, stakeholder, internal process and learning and growth strategies and associated measures of performance is appealing. The notion of a sustainability balanced scorecard with specific recognition of environmental and social performance has also been introduced (Figge, Hahn, Schaltegger & Wagner, 2002; Schaltegger & Wagner, 2005). The balanced scorecard framework for sustainability in public sector organizations can address attainment of financial standards, or targets, and measures of financial performance (Yamamoto, 2003, p.1; Olson, Humphrey & Guthrie, 2001, p.506). The scorecard provides metrics to help managers know how well their internal processes are running and commensurate accountability for whether results or outcome measures have been attained (Gendron, Cooper & Townley, 2001, p.281). Unlike the balanced scorecard for private sector organizations there is no specific incentive in the public sector to define and measure all performance in monetary terms, or to look towards the financial impacts of all aspects of the scorecard. In short, a public sector balanced scorecard holds the potential to provide equal balance to all components, or even to adopt a rigid ecocentric and social equity approach to the accountings provided.

Stakeholder engagement
Greater involvement of and pressure from professional accounting bodies,
nongovernmental organizations (NGOs) including activist groups, special task forces and interest groups, and local community influence the adoption of sustainability accounting in public sector organizations. For example, growing support from the accounting profession and accounting bodies has been provided for the triple bottom line concept (Barrett, 2004). Barrett (2004, p.4) suggests that the TBL approach will result in possible changes in internal organization and management and ‘the way government might communicate with the community and stakeholders in the provision of its services and operations’. Public sector organizations can, of necessity, be required to consider key social and environmental impacts of their policies and activities as they affect different stakeholders, whereas it remains an optional strategy for private organizations (Bansal, 2005).

Voluntary communication
The voluntary Global Reporting Initiative (GRI) public sector sustainability reporting supplement aims to demonstrate governments’ transparency and accountability in their own operations and to create a global common platform for public sector reporting (GRI, 2005, p.4). The GRI tries to harmonize sustainability reporting by ensuring comparability and consistency in ex post reported information through a voluntary sustainability reporting framework. The objective of the GRI is to develop and promote implementation of a widely accepted general sustainability reporting framework (Hedberg & Malmborg, 2003; Lenzen, Dey & Murray, 2004; Nganwa, 2002; Tschopp, 2003; Wheeler & Elkington, 2001; Willis, 1999; Willis, 2003; Woods, 2003), yet sustainability reporting is still in its infancy (Wallace, 2000) and requires development (Anonymous, 2002). Developed initially for the private sector, the GRI now has a public sector supplement to the 2002 generic reporting guidelines to measure agency performance and impacts and cater for the reporting needs of national, regional and local level public enterprises (GRI, 2005). Already Australia, Canada, Hong Kong, Japan, New Zealand and UK public sector enterprises are engaged in non financial and sustainability reporting at various levels (GRI Project Fact Sheet, 2004). However, the GRI supplement has little to say about sustainability accounting for the public sector per se, although it does champion the need for generally accepted international metrics and the need to address consolidation and segmentation issues (GRI, 2005, p.49).

Governance structure
The public sector is essentially different from the private sector in terms of its governance structure (Board of Audit of Japan, 2001, p.13) and this can affect the need for and form of sustainability accounting. Characteristics of public sector governance which have the potential to affect public sector sustainability accounting include: non-commercial activities where resources are sourced from involuntary payment from citizens; the recipients of benefits are not necessarily the same as the payers (transfers are an important part of the system); resource allocation in democratic countries is determined in advance through collective parliamentary decision making; parliament controls allocation and evaluation of resources while the public sector is responsible for policy development and administration; activities are limited; financial performance based on financial information is often inappropriate and impractical; and government has both the power to interfere with market mechanisms as well as to use them.

Political visibility
As the public sector is publicly visible, subject to political suasion and vulnerable to political interference, measurement and reporting do, as a matter of course, factor in such political oversight in relation to their non-economic activities (Holdsworth, 2002). Lim and McKinnon (1993), found a positive relationship between the political visibility of 50 commercial and semi-commercial
statutory authorities in New South Wales, Australia, and the voluntary disclosure of financial and non-financial information of a non-sensitive nature. The underlying notion is that political visibility will lead to higher takeup of sustainability accounting in the public sector.

**Budget or non budget financing sources**

NPM has highlighted that some public sector organizations can be entirely non-market in their orientation as they are funded by a fixed budget, while others have a totally commercial focus receiving their funding through market mechanisms. Hence, non budget financed public sector organizations are likely to be more receptive to social and environmental accounting to reflect their broader responsibilities (Burritt & Welch, 1997, p.83).

**Top management buy in and leadership role.**

It is somewhat passé to acknowledge that support from senior management in any organization is necessary to drive the sustainability accounting and reporting task (Owen, 2002). As Fowler (2004, p.50) observes ‘Any decision to move to full TBL reporting must have senior management endorsement and commitment as it may have significant resource implications’. Less understood is the need for government bodies to exert a leadership role with sustainability accounting. Government commitment and initiatives such as legislation or policy can play a major role in encouraging sustainability accounting and reporting in private sector enterprises, by way of best practice examples. For example, in certain European Union countries, such as the United Kingdom, the Netherlands, Denmark, Norway and France, social and environmental pressures have led to compulsory corporate environmental reporting (Bebbington, 2002; Evers, Harmon & Ivancevich, 2004) and France has already mandated sustainability reporting by corporations (Cheney, 2004, p.14). However, in order to encourage private sector uptake different governments have implemented their own local leadership agenda, including the introduction of strategies and legislation about accounting and reporting requirements (eg, Australia’s National Strategy for Ecologically Sustainable Development (Commonwealth of Australia, 1992) and the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999’s reporting requirements for sustainable development reporting under section 516A). One goal of the GRI public sector sustainability reporting supplement is to set an example to the corporate sector by way of leadership (GRI Project Fact Sheet, 2004). Perceived leadership and the symbiotic relationship between public and private sector organizations provide a further incentive for sustainability accounting in the public sector.

The set of positive influences outlined above provide a foundation for explaining the takeup of sustainability accounting by public sector organizations. Negative incentives affecting public sector organizations are considered in the next section.

### 3.2 NEGATIVE INCENTIVES

**Overemphasis on private sector**

To date, attention has largely been directed at approaches to sustainability accounting in the private corporate sector where the emphasis is on the business case for corporate sustainability (Salzmann, 2005) and on building information about social and environmental impacts into everyday decision making activities (Schaltegger & Wagner, 2005). This distracts attention from situations where public goods are being managed by public sector organizations on behalf of the community and the need for ‘full’ sustainability accounting.

**Truncated social accounting focus in government regulation**

Considerable attention has been devoted to accounting for environmental impacts in the last fifteen years, however attention to accounting for social issues is not an established practice (Gray, 2002, p.687). As
a result the social accounting pillar in sustainability accounting is underutilised. For example, as social issues are not included in the ecologically sustainable development requirements for Commonwealth entities in Australia there is less impetus for the development of integrated sustainability accounting.

**Domination of accounting metrics by private sector market thinking**

Private sector performance metrics tend to be dominated by financial measurement (eg see the SIGMA Project, 2003). In markets where consumers bid for the products they wish to buy and businesses produce at minimum cost it is to be expected that accounting is captured by the need for monetary measures. The financial worth of environmental and social innovations or the financial cost of environmental and social impacts are the mind map behind private commercial business activity. This domination leads to relevant non-financial information being ignored or at best a dramatic skew in the types of information being proposed as relevant for sustainability accounting in the public sector. See for example the recent United Nations promotion of environmental management accounting with its focus on monetary measures (UNDSD, 2001).

**Lack of a committed ecocentric focus in government**

Ball (2004, p.13) explains how the lack of progress with sustainable development in the public policy domain has meant that public sector bodies have not been a particularly obvious focus for the development of sustainability accounting in practice. She views this lack of focus as being the result of an over concern for economic development in western countries. It is implicit that NPM influences this view. For public sector sustainability accounting to embed itself the existing primary concern for economic growth would need to change and ecological and social issues raised in relative importance.

**New public management detracts from sustainability**

As mentioned in the previous section, NPM reform has emphasised commercial thinking in a range of public sector organizations (Olson, Humphrey & Guthrie, 2001, p.505). Improved economy and efficiency are well recognised as contributing towards relative reductions in resource use (Von Weizeker, 1997), but sustainability of ecological systems and human society are values that differ from the values of economy and efficiency. Improvements in efficiency, through reduction of input-output ratios, are sometimes compatible with moving towards sustainable development (Schaltegger & Burritt, 2005), but sometimes they oppose it (Oka, 2003, p.19). Criticism of the dominance of financial accounting techniques in NPM, for assessing notions such as efficiency, is well documented (Bowerman & Hutchinson, 1998, p.299; Christensen & Yoshimi 2003, p.75). In consequence, the heterogeneity of organizations making up the public sector, ranging from the commercial and quasi-commercial to non-profit (Lapsley, 1988, p.21), means that the degree of commercial autonomy will be an incentive for sustainability accounting. The less commercial organizations, represented by the budget sector, will be the most likely adopters as they need to demonstrate to parliament their commitment to government policy if they are to continue receiving government funding.

**Political influences**

Pollitt (1986) demonstrates that measures of efficiency fail to capture and can distort the intrinsic political dimension of many policy decisions. While NPM recognises a need for improved efficiency in public sector organizations, hierarchical and bureaucratic decision making still seem to dominate the underlying processes, with the ever present scope for political interference in decision making on behalf of lobby groups, even when supported by sustainability accounting. In such circumstances the powerful players,
including large private interests, come to dominate policy and public sector decision making, with sufficiency and ecological equity (Dyllick & Hockerts, 2002) taking second place.

**High cost of sustainability accounting system**
One of the key issues to consider when implementing triple bottom line reporting is the identification of resource and cost implications (Fowler, 2004, p.50). Evidence suggests that larger Canadian municipalities focus more on sustainable development reporting than smaller communities because financial and technical support and reporting are considered too technical and too expensive at community levels (Burch, 1994). Over 70% of Flemish municipalities state that they do not have the time or means to implement sustainability accounting and reporting initiatives (Devuyst & Hens, 2000). Owen (2002) suggests that organizations can cut time, effort and expense by getting advice from others who have already started with sustainability reporting, via a mentoring approach. However, perceived cost of the sustainability accounting system can act to lower uptake of such accounting systems, especially in small local governments.

**Lack of standards**
At present there is no standard for sustainability accounting. For example Burritt (1999, p.57) notes that: ‘There are no environmental accounting standards for the private sector in Australia’. Burritt and Welch (1997) found that, Commonwealth public sector entities are partially motivated by ad hoc single issues and such entities ‘…provide no standards against which to compare actual environmental performance and, hence do not provide information in a form which will readily assist with the assessment of comparative environmental performance over time’ (Burritt & Welch, 1997, p.15). Voluntary GRI guidelines provide some assistance, since there is no generally accepted standard (Kolk, 2003). However, ‘GRI provides guidelines rather than standards’ (Evers, Harmon & Ivancevich, 2004, p.25) and the need for a standard remains (Delfgaauw, 2000). SIGMA Project guidelines act in a similar way. Wallage (2000) concludes that as there are no standards for reporting and assurance it is a challenging task for external auditors to verify sustainability reports (Cheney, 2004; Barrett, 2004). ‘The question of which parties can verify sustainability reports’ (Delfgaauw, 2000, p. 73) and the role of the internal auditors is also challenged when testing and monitoring sustainability reporting (Evers, Harmon & Ivancevich, 2004).

**Lack of specialised skills, knowledge and experience**
It is recognised that a wide range of professional accounting skills is needed for triple bottom line reporting (Barrett, 2004), however the lack of available training means there is an overall shortage of accounting personnel in information gathering and analysis relating to sustainability impacts in the public sector. As part of the sustainability accounting process it is necessary to educate the reporting team about how to derive and analyse the data (Anonymous, 2002, p.45). For example, Devuyst and Hens (2000) find that staff training is essential for introducing and measuring sustainable development initiatives in Flemish municipal councils. Adams and McNicholas (2007) find that the lack of knowledge and experience of managers is a key impediment to the development of a sustainability reporting framework and greater accountability in a government owned statutory authority that seeks to provide high-quality water in the State of Victoria, Australia. Hence, the absence of education, training, knowledge and experience act as an obstacle to the perceived need for sustainability accounting in the public sector.

**Whole of government thinking absent**
Whole of government thinking denotes public service agencies working across portfolio boundaries to achieve a shared goal and an integrated government response to
particular issues. Sustainability thinking requires such a whole of government approach, but is hampered by thinking within the confines of conventional public sector structures, such as departments, agencies, or individual ‘silos’ of thought (Ling, 2002; Commonwealth of Australia, 2004, p.1). Sustainability accounting can only integrate the needs of different decision makers for information if the silo mentality is overcome.

4. CONCLUDING COMMENT AND POTENTIAL FOR SUSTAINABILITY ACCOUNTING IN THE PUBLIC SECTOR

Ecological thinking provides the primary backcloth for organizational movement towards sustainability (see Gray, 1992). The hallmark of such thinking is ecocentricism with its acceptance that relationships with the non-human natural world must change dramatically if a sustainable world for humans and non-humans is to emerge (Maunders & Burritt, 1991). Public sector organizations are traditionally designed to support the ecosphere and social wellbeing ‘responding to demands of whole orders above those we currently place on corporate bodies’ (Ball, 2004, p.1011). Conversion to the primacy of ecological thinking supported by sustainability accounting and sustainability accounts presents a significant challenge to any system of government of the people, by the people, for the people which almost by definition tends towards anthropocentrism.

Given the range of positive and negative incentives for sustainability accounting outlined above the challenge is equally daunting for governments at federal, state and local levels. As a minimum it requires an unfreezing of perspective away from the economic focus of business, and NPM with its economic emphasis. Refreezing with ecocentric thinking is a prerequisite for ‘full’ sustainability accounting (Maunders & Burritt, 1991). Such a process seems to have a greater chance of success for organizations that have an acknowledged concern for collective actions and outcomes, such as public sector organizations, than those with a focus on private actions and private interests, such as corporations. Hence, concern for the ecosphere and social sphere has more opportunity to emerge in public sector organizations, and the need for sustainability accounting broadly supported. Unless public sector organizations are prepared to be guided by ecocentric thinking which accepts the centricity of ecological systems, the secondary importance of the anthropological and the supportive role of economic activity, it seems likely that sustainability accounting is destined to be an inappropriate guide towards securing sustainability.

However, in this second best situation sustainability accounting can provide necessary information to guide public sector organizations towards:

- the efficient and effective management of ‘public goods’, supported by new public management where improvements in efficiency can be seen as a necessary step towards sustainability;
- a governance system with a primary focus on balanced performance for sustainability rather than conformance with the rules of finance;
- transparency and accountability of public sector organizations in relation to critical ecological and social issues, through sustainability reporting to stakeholders in sustainability, using improved, integrated sustainability metrics;
- support for high risk, low financial return investments in projects towards sustainability;
- reconciliation of financial accumulation and accounting with the notion of sufficiency; and
- leadership towards and ownership of potential sustainable futures.
Sustainability accounting for public sector organizations will need to achieve these while not falling into the abyss caused by:
- not pursuing the difference between public sector and private sector responsibilities and accountabilities in relation to sustainability;
- unnecessary acceptance of the economic domination of the ecological and social;
- feinting blindness to market failures and to market domination by groups wielding significant economic and political power;
- following short term political exigencies when long term thinking is needed;
- the absence of standards of performance towards sustainability;
- the lack of data and acceptable means of verification; and
- thinking in departmental silos rather than in whole of government terms.

The range of positive and negative issues associated with public sector in comparison with private sector sustainability accounting is large. However, the public sector does appear to have some advantages as far as the relative benefits from promotion of sustainability accounting is concerned. First, accounting for public goods, which includes social concerns, is a conventional emphasis of public sector activities. Second, in its non-commercial activities the public sector does have the potential to use concepts such as sufficiency, and tools such as the balanced scorecard, to draw attention away from a dominant focus on efficiency and a bias towards financial matters, as pervades the private sector. The public sector does also have the potential to lead towards necessary integration of social, environmental, governance and economic concerns as represented in sustainability accounting.

5. REFERENCES
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