Can the process of triple bottom line reporting lead to enhanced sustainability?

A case study with Murrumbidgee Irrigation Pty Ltd

by

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Certificate of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Charles Sturt University or any other educational institution, except where due acknowledgment is made in the thesis. Any contribution made to the research by colleagues with whom I have worked at Charles Sturt University or elsewhere during my candidature is fully acknowledged.

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This research could not have been undertaken without the support of Murrumbidgee Irrigation. The degree of access MI provided for me is remarkable, and enabled remarkable outcomes. I would particularly like to thank Sigrid Tijs and Matt Linnegar for their support and dialogue, and for all those with whom I collaborated, for those I interviewed, and for those who showed me around.

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Publications from this research

Peer reviewed publications


This journal article presents criteria to evaluate processes of TBL reporting developed from a review of published case studies related to TBL reporting. The publication forms the basis for the second half of Chapter 2 in this dissertation and has also been reproduced in a summary form in a magazine directed at practitioners [Mitchell, M., Curtis, A., & Davidson, P. (2007). Evaluating the process for triple bottom line reporting: Increasing potential for change. *The Corporate Citizen, 6*(2-3), 5-8.]


This conference paper focuses on the TBL as a theoretical concept used in organisational reporting, and introduces my focus on the process of reporting and its link with the learning cycle of ‘plan – act – observe – reflect’ as presented in Figure 4 on page 67 of this dissertation.


This conference paper is based on the Technical Report listed below (Christen et al., 2006) and presents the outcomes from the CRC IF Sustainability Challenge project to an international audience. My main contribution to this paper was in formulating some of the practical ideas on how to undertake TBL reporting based on our experiences with the Murrumbidgee Irrigation case study.
Other publications


This technical report presents the outcomes from the CRC IF Sustainability Challenge project case study with Murrumbidgee Irrigation upon the completion of that project in June 2006. As the project was finalised 14 months into my doctoral research project, I was able to continue working with the case study from where the Sustainability Challenge project had finished. Chapters 4 and 5 of this dissertation therefore provide an update on developments since this Technical Report was written.


The above two technical reports provide the overall guidelines for irrigation sector TBL reporting that emanated from the CRC IF Sustainability Challenge project. My contribution to the first report included practical ideas on how to undertake TBL reporting (as noted above for the conference paper by Christen et al., 2007). My contribution to the other report included an explanation of the principle for stakeholder engagement in TBL reporting.
Abstract

This research focuses on the process of reporting at an organisational level and the increased use of the triple bottom line (TBL) concept. Most research on TBL reporting is based on content analysis of TBL reports. My focus is on the process of reporting: the experiences of the organisation producing the report, and how it uses the report. This focus on process helps to identify changes happening within the organisation that might not be apparent from looking at the report alone. These changes include the potential for iterative learning and capacity building to evolve, and whether organisations are able to identify practical ways to contribute to enhanced sustainability. An important outcome of the research has been the development of criteria for the formative evaluation of TBL reporting processes.

Analysis is principally based on qualitative data developed through action research with Murrumbidgee Irrigation (MI). The data set included semi-structured interviews conducted with MI Directors and staff from across all levels of the organisation and participant observation of meetings and workshops to develop MI’s TBL reporting process over a two year period. The case study with MI was part of a broader project to develop guidelines for TBL reporting in the irrigation industry. The research therefore benefited from a high level of access to the organisation because of the collaborative nature of this project and the mutual interest in finding ways to practically improve MI’s TBL reporting process. To take advantage of this access, I focused my investigation on the engagement of internal stakeholders and related outcomes. The analysis draws on organisational learning and stakeholder participation theories and assesses overall impacts in terms of the enhancement of sustainability based on assumptions about the nature of change required to achieve a sustainable future.

The case study demonstrated considerable potential for organisations to learn and change by engaging the capacity of its internal stakeholders in developing the practical components of the corporate TBL vision. The incorporation of TBL objectives and indicators into MI’s internal reporting mechanisms helped to incorporate sustainability issues onto MI’s internal agenda, and the Executive
team acknowledged that it made them face up to some challenging questions. However, MI has not as yet engaged its broader external stakeholders, partly because the annual report is essentially a public relations document. Using TBL reporting to enhance improved learning and sustainability outcomes is therefore undermined by an inevitable emphasis on public impressions management. Also, only a few internal stakeholders saw the relevance for the reporting process to feed back into future strategies related to sustainability, and insufficient opportunities were provided for such reflection. This failure to link past learnings with future strategising undermines the potential for TBL reporting to develop into an iterative learning cycle that can effect change.

Future prospects related to TBL reporting arise from the discussion on the link between TBL reporting and the process of enhancing sustainability. People have different assumptions about the kinds of changes needed to enhance sustainability. Awareness of these assumptions can help change agents to explore opportunities to shift ‘status quo’ assumptions towards recognising the need for reform; and from reformist approaches towards recognising the need for transformational changes in thinking and/or structures. I discuss three possibilities where such opportunities might develop. First, future strategies to respond to most sustainability issues need to go beyond finding ways to be more efficient with the use of resources. It is increasingly necessary to face up to the more challenging question of what is a sufficient use of resources, and how to allocate resources justly given increasing evidence of over use. Second, my focus on the role of internal stakeholders raises the prospect of external change agents working collaboratively with internal change agents on the basis of common aspirations. Finally, the idea of conducting TBL reporting as a collaborative activity at a regional scale is presented as an alternative vision that would enable the active engagement of a number of key stakeholders in enhancing sustainability outcomes.
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Chapter 1
Introduction

1.1 Pursuing sustainability: A potential role for TBL reporting

The pursuit of sustainability has become a core strategic objective for most organisations. Societies are increasingly aware of the fragile environmental limits being transcended by the global pursuit of prosperity and better standards of living. This increased awareness heightens societal expectations on all organisations – corporate, public sector and non-government. Some environmentalists, such as John Elkington, focus on the world’s leading corporations, arguing that they will be “in the driving seat” to direct the world towards a sustainable future, not governments (Elkington, 1998, p. 3). Most leading global corporations would like to be seen as accepting this challenge by incorporating sustainability as a strategic objective. However, the corporate adoption of a sustainability discourse has been criticised as being little more than disingenuous spin (Beder, 2000). Many argue that the corporate spin on sustainability is hijacking the sustainability debate, and is allowing the corporate sector to avoid taking responsibility for their cumulatively unsustainable practices and the unsustainable economic system upon which their practices are based (M. O’Connor, 1994; Welford, 1997).

All organisations are under pressure to account more fully for how their actions will impact on sustainability. This pressure has in turn required organisations to identify what activities they can do to practically enhance sustainability outcomes. The challenge is to define what a sustainability objective might mean at an organisational level, especially given that sustainability is a global-level concept.

It is within this context that Elkington introduced the notion of an economic, social and environmental “triple bottom line” (Elkington, 1998 – originally published in 1997). His vision was to inspire the corporate world to move away from focusing on a single bottom line of financial accountability towards a process of accounting that can incorporate performance measures related to a socially and environmentally sustainable future. This “triple bottom line” (TBL)
concept is meant to be a simple enough heuristic to organise thoughts and actions related to sustainability. By using the TBL concept, organisations might be able to identify practical steps they can take to pursue a more sustainable future.

Any reference to the concept of sustainability is fraught with complexity. My references to “enhanced sustainability” and “a more sustainable future” are exemplary. Some might suggest that I’m fouling the concept: either we have a sustainable future or we don’t. Similarly, if ‘sustainability’ is a goal, it would be inappropriate to describe that goal as ‘enhanced’. One way out of this dilemma has been to draw a distinction between the use of the term ‘sustainability’ as a goal and the term ‘sustainable development’ as the process towards that goal (e.g. Scott & Gough, 2003, p. xiii). However, I do not think we can ever define what the goal of sustainability will be like; we are only equipped to define what is unsustainable\(^1\). By defining what practices are unsustainable, we will be in a better position to start moving away from a state of unsustainability and towards a more sustainable future. Thus, it is helpful to think of the goal of sustainability as a process (Robinson, 2004, p. 381). Sustainability is not a “static paradise” end point but an ongoing process of shifting away from our unsustainable practices and of increasing our capacity to adapt to the environment in which we live “by means of social organisation” (Hamm and Muttagi, 1998, cited by Scott & Gough, 2003, p. viii). By perceiving the goal of sustainability as a process, we can refer to the ideas of enhancing sustainability and of progressively creating a more sustainable future.

This dissertation examines the potential of using the TBL concept in organisational reporting as a means to enhance sustainability. In order to more fully explain the aims of the research, the next sections of this chapter will introduce the TBL concept in more detail, and my particular focus on the process of TBL reporting, as opposed to the content of TBL reports. In so doing, I will also identify the research gaps and areas in which contributions could be made.

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\(^1\) This was the conclusion made by Bebbington and Gray (2001, p. 583) after their failed attempt to create a sustainable cost calculation at an organisational level.
1.1.1 What is the ‘triple bottom line’?

The triple bottom line is a catchphrase that is increasingly being used as a heuristic to help conceptualise sustainability as well as provide a framework for reporting against sustainability parameters. Elkington explains that the three prongs of the TBL fork\(^2\) are “economic prosperity, environmental quality and social justice” (Elkington, 1998, p. ix). He recalls that he came up with the catchphrase around 1994 with the purpose of explicitly incorporating a social dimension to sustainability and thus enabling an expansion on what had been an environmentalist focus among those working towards sustainability (Elkington, 2004, p. 1)\(^3\). For Elkington, it is the “social justice” dimension that completes the triple bottom line, and it is this element of sustainability that the corporate world “has tended to overlook” (Elkington, 1998, p. 2)\(^4\).

That sustainability encompasses three dimensions is, of course, not a new idea. A three-dimensional view of sustainability came to prominence during the 1980s in response to a perceived conflict between environment and development. Concern for the environment was conceptualised as being about inter-generational justice – ensuring that future generations had equitable access to the world’s resources. Development was about intra-generational justice – taking action to relieve global injustices prevailing between those with abundant resources and those fighting for survival. The call for a more “holistic approach” to reconcile the conflict was the “critical insight” (Venning & Higgins, 2001, p. 4) of the Brundtland Report Our Common Future (World Commission on Environment and Development, 1990).

With the TBL becoming such a popular term to capture this holistic approach to sustainable development, its adoption has extended beyond the world of

\(^2\) He uses the fork analogy because he recognises the cannibalistic way in which bigger corporate fish eat up their smaller counterparts “with the methodical determination of a corporate Pacman” (a description given of Microsoft founder Bill Gates) and, like the Polish poet Stanislaw Lec, wonders whether it might be progress for a cannibal to use a fork; i.e. whether corporate cannibalism with a TBL fork might “constitute real progress” towards a sustainable future (Elkington, 1998, p. ix).

\(^3\) The term “double bottom line” was already being used by US-based children’s clothing importer, Hanna Andersson Corp. in 1993 to capture its socially responsible business ideals of combining profits with good works (cited in Kolb, Osland & Rubin, 1995, p. 101).

\(^4\) Later in his book, he suggests that business avoidance of the social dimension is more than just a tendency, but that it was indeed the preference of businesses to overlook the social dimension; i.e. something businesses “had preferred to overlook” (Elkington, 1998, p. 72).
business to a wide range of organised activity across all sectors. The simple message is that organisations – of any size or ilk – should not just be made accountable for how they perform against the bottom line of financial viability, but that their accountability, and their viability, will increasingly be determined by how their activities contribute to the broader economy, society and environment. Elkington’s consultancy agency SustainAbility explains that: “The TBL focuses corporations not just on the economic value they add, but also on the environmental and social value they add – and destroy” (SustainAbility Ltd., n.d.).

1.1.2 What is a TBL report?

A TBL report is usually a stand-alone annual report through which an organisation accounts for its impacts on the broader environment, society and economy, as an advance on a traditional annual report which focuses solely on an organisation’s financial accountability. Continuing its explanation of the TBL, SustainAbility notes that “at its narrowest,” the term is used as “a framework for measuring and reporting corporate performance against economic, social and environmental parameters” (SustainAbility Ltd., n.d.).

At the time that Elkington was launching the TBL catchphrase to a broader audience, he was being hired by Shell to advise the company on how it could use its reporting mechanisms to respond to the substantial criticisms of its activities as ultimately unsustainable, as well as socially and environmentally destructive (Elkington, 1998, p. 143ff.). This led Shell to adopt the idea of the TBL, which they refashioned as “people, planet and profits” (Shell International,

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5 Addleson (2000) presents a critical analysis of the rhetoric of the bottom line noting how its use has spread from business to public service organisations including health care and education providers. He suggests that its rhetorical privileging of economic thinking could be challenged by organisations learning to adopt new ways of thinking less focused on a privileging of economics.

6 There is also a move towards web-based reporting, which opens the possibility for a much more regular and interactive cycle of report updates – see Wheeler and Elkington (2001).

7 Elkington’s involvement followed the environmental controversy over Shell’s plans to sink its Brent Spar oil facility, and the opposition it faced from the Ogoni people in Nigeria over its oil extraction activities culminating in the execution by the military regime of nine Ogoni activists, including the now renown poet Ken Saro-Wiwa. The activism generated against Shell in Nigeria is one of a number that are representative of what Bullard (1994) and others refer to as movements for “environmental justice” (Agbola & Alabi, 2003). Hooghiemstra (2000) provides a useful analysis of Shell’s impression management strategies related to the Brent Spar controversy.
Shell was therefore one of the first organisations to try to produce a report using the TBL format. Their efforts built on existing trends by companies to produce environmental reports and/or social audits, as reviewed later in Chapter 2.

This reporting application of the TBL concept builds on Elkington’s premise that it is possible “to measure progress against the triple bottom line” and that measurement is necessary because “what you can’t measure you are likely to find hard to manage” (Elkington, 1998, p. 72). While many have disputed the use of the TBL as a method for accounting (e.g. Vanclay, 2003), it is this narrower use of the concept as part of an organisation’s reporting procedures with which it is most generally associated. Yet this narrower application of the TBL concept has now spawned an entire industry of consultants and has generated substantial revenue for inter-disciplinary scientific endeavours as organisations strive to take up the challenge of reporting on the TBL dimensions of their sustainability performance. New and sophisticated accounting procedures have been created for use by organisations, such as those that draw on calculations to determine ecological footprints (Wackernagel & Rees, 1996) by, for example, Lenzen, Lundie, Bransgrove, Charet and Sack (2003), whose collaborative work now comes with software tools (Wiedmann & Lenzen, 2006) and websites where they promote their work (e.g. www.bottomline3.com).

With this rapid rise of organisational-based sustainability-related reporting initiatives across the world, the Global Reporting Initiative (GRI) was established in 1997 as a multi-stakeholder collaborative effort involving the United Nations Environment Program and certain NGOs. The GRI was

Shell refused to adopt the TBL terminology (Livesey, 2002, p. 330). Their 1998 report was highly defensive; the title giving this attitude away: “The Shell Report 1998: Profits and principles – does there have to be a choice?” However, through this report, they claimed to be embarking on a new approach to stakeholder dialogue, and were opening the door to greater accountability for their TBL impacts, inviting Elkington to comment on this new challenge they were facing (Shell International, 1998, p. 46ff). Livesey (2002) provides a useful textual analysis of the competing discourses on sustainability in Shell’s report and in Elkington’s contribution to the report at this critical juncture.

Catasús, Ersson, Gröjer and Wallentin (2007) examine the merits of this adage, comparing its focus on mere measurement with the crucial role played by stakeholder mobilisation in deciding what issues are managed. They conclude that perhaps the adage might be better put as “what gets mobilized gets managed, especially if it gets measured” (p. 516).

Examples include the Coalition for Environmentally Responsible Economies (CERES) and Elkington’s SustainAbility. Some corporations were also represented, e.g. General Motors (a detailed history is provided by Waddell, 2002).
intended to provide a central focus for sustainability reporting activity and to set international standards and guidelines for reporters (these guidelines were recently revised – Global Reporting Initiative, 2006).

However, measuring social dimensions of sustainability is an area that continues to need further development (Elkington, 1998, p. 88; Pritchard, Chambers, Curtis, Le Heron & Spriggs, 2003). This is not just a matter of how to measure social attributes. Elkington notes that one of the major challenges of the TBL agenda is that “when we include the social and ethical dimensions of sustainability, the range of sustainability-related issues and impacts grow dramatically” (Elkington, 1998, p. 94). These social and ethical dimensions of sustainability are aspects that fall within the expertise of social researchers, especially in terms of how to analyse aspects of power, justice and dialogue with social entities affected (Brown & Gray, 2003; Cheney, Nheu & Vecellio, 2004). Building on well established experiences of social impact assessment (Vanclay, 2003), social researchers emphasise the link between public participation and improved outcomes (Fitzpatrick, 2006). They can also provide expertise in how to value, measure and integrate the social dimension (Lockie & Jennings, 2003; Webb & Curtis, 2003); develop performance indicators that will be meaningful to those who use them (Eckerberg & Mineur, 2003; Rogers, 2005); improve processes of dialogue, policy making and decision making (Cheney et al., 2004, p. 228); understand and analyse the politics and power dynamics that arise through the process of inclusive public dialogue (Cheney et al., 2004, p. 230), especially in terms of those with conflicting interests (Brown & Gray, 2003, p. 54) and “the extent to which all relevant interests” are included (Brown & Gray, 2003, p. 55).

Another ongoing challenge is to establish a process to analyse the social, economic and environmental dimensions in an integrated way (Elkington, 1998, p. 92). As the pressure grows to find simple but integrated depictions of TBL performance, consultant advisors have come up with techniques to do this, such as Amoeba spider diagrams (e.g. Bell & Morse, 1999; Foran, Lenzeh & Dey, 2005) and sustainability dashboards (e.g. Consultative Group on Sustainable Development Indicators, 2007; Rogers, 2005; Sage Farmer Group, 2007).
While Elkington emphasises that the TBL is a challenge that principally ought to be taken up by major global corporations, the idea of using TBL as a format for reporting has been taken up by a much wider range of organisations. This has included smaller corporate enterprises\(^\text{11}\) and public service organisations\(^\text{12}\), especially local governments, with numerous guides for triple bottom line reporting at various levels and in various countries\(^\text{13}\).

TBL analysis has also formed the basis for a participatory approach to natural resource management planning that can improve management and conflict resolution (see Bell & Morse, 2003; Brown & Gray, 2003) and for community level visioning, planning and monitoring for sustainability (e.g. Rogers, 2005). TBL reporting has also been used to enable a more thorough comparison of the impacts of different industries at a national level (Foran et al., 2005) and to describe trends at a regional level (e.g. O’Connor, McFarlane, MacRae & Lefroy, 2004). Increasingly, environmental and social scientists are being called upon to provide input into the development of TBL reporting processes, particularly in helping address the challenge of how to account for the social and environmental dimensions of an organisation’s sustainability.

**1.1.3 My contribution: A focus on the process of TBL reporting**

From the outset, I designed the research to focus on analysing the process of TBL reporting. A focus on process shifts attention from analysing TBL report content to analysing the outcomes from creating the report, and how the report is subsequently used. It is through this process of reporting over time that we can examine a multitude of experiences and interactions through which an organisation learns and changes. Very little of this would be apparent from an examination of TBL reports alone. Indeed, a preoccupation with the content of TBL reports can undermine the pursuit of sustainability as the preoccupation is

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\(^{11}\) Research to assist small businesses account for sustainability has not received much attention (recent examples include Lawrence, Collins, Pavlovich & Arunachalam, 2006), and serving this need is a current GRI priority according to its website [www.globalreporting.org/CurrentPriorities/SmallerEnterprises/](http://www.globalreporting.org/CurrentPriorities/SmallerEnterprises/)

\(^{12}\) Pioneering agencies in Australia were the federal Department of Family and Community Services (2003) followed by the Department of Environment and Heritage (2004).

\(^{13}\) In Australia, examples include the Environment Australia (2003) guidelines at the federal level, the Victorian Water Industry Association (2001) at a state level and, and the Melbourne City Council TBL reporting tool kit provided in conjunction with the International Council for Local Environmental Initiatives (ICLEI) at the local government level.
on how reports are presented and which performance indicators are made public. Analysing the outcomes of TBL reporting processes allows researchers to focus on aspects related to organisational learning, capacity building and practical changes. These process outcomes are key aspects that can nurture enhanced sustainability.

My decision to focus on process outcomes of TBL reporting is supported by a number of strands in the literature. In the broader literature related to sustainability, the key roles of stakeholder learning and participation are receiving increased prominence (e.g. Meppem & Gill, 1998; Scott & Gough, 2003). For the most part, analysis of the roles of learning and participation in sustainable development has focused on sustainability monitoring that involves communities (e.g. Bell & Morse, 2003; Rogers, 2005) and local governments (e.g. Eckerberg & Mineur, 2003; Kelly & Moles, 2002). However, the role of interactive learning has recently been emphasised as a means for how accountancy academics can theorise their engagement as part of organisational-based TBL accounting initiatives (Bebbington, Brown, Frame & Thomson, 2007). This in turn is linked to a need for accountancy academics to design research questions motivated by a desire to influence change (Adams & Larrinaga-González, 2007; Gray, 2006b, p. 810). Another key and related contribution of my research is its focus on analysing internal change factors at an organisational scale and the role of internal change agents. The analysis of internal change factors is another aspect that is beginning to receive increased attention (e.g. Adams, 2002; Larrinaga-González & Bebbington, 2001), including the potential role of internal change agents (Ball, 2007). These gaps and potential contributions are explained in more depth in Chapter 2, and lead to the development of a set of TBL reporting evaluation criteria that focus on process outcomes of TBL reporting.

The potential for an organisation to learn and change as it develops its process of TBL reporting has therefore become central to my thesis and my research investigation. TBL reporting is seen as a process of learning and change that develops over consecutive cycles. These cycles revolve around the publication of a TBL report, but the key message is that the release of the TBL report does not represent an end-point, but rather the start of the next cycle of
reporting. Thus it is possible to conceptualise a TBL reporting process as involving a cycle of learning, in which iterative learning and continuous improvement are not only key parts of the process, but also crucial outcomes of the process.

1.2 Research aims

The overall aim of this research is to investigate whether the process of TBL reporting can help organisations undertake practical changes that will contribute to enhanced sustainability. The broad aim and how it is to be tackled is presented below as a broad overarching research question followed by a set of key component research questions.

1.2.1 Research question

The broad overarching research question that underpins this investigation is:

Can TBL reporting lead to enhanced sustainability?

In part, this is a question that relates to the concept of the TBL, and whether it is a useful heuristic to facilitate and inspire organisational change and practical action on aspects related to sustainability. However, it is also about the process of reporting on organisational performance more generally, and whether adopting the TBL as a framework for this process will assist organisations reflect on the impacts of their activities on the broader attainment of a more sustainable future for society.

Using a case study to identify whether the case study organisation’s TBL reporting process can lead to enhanced sustainability relies on a degree of speculative interpretation about future outcomes. However, by breaking down this question into a set of key component questions, empirical evidence from the case study can be analysed and compared with the evidence of other case studies documented in the literature.

1.2.2 Component research questions

The component research questions are as follows:

1. Learning? Can the process of TBL reporting help organisations learn about sustainability and what they can do to enhance it?
2. **Capacity building/engagement?** Can the process of TBL reporting enable organisations to engage and build their capacity and those of their stakeholders to respond to the sustainability issues being faced?

3. **Change?** If learning and capacity building evolve, does this lead to changes implemented by the organisation aimed at responding to the sustainability issues they face? If not, what constrains change?

4. **Enhanced sustainability?** If changes are implemented, will those changes make a sufficient contribution towards enhanced sustainability?

Through these component questions, my research will therefore analyse outcomes related to the process of TBL reporting and how these relate to the process of enhancing sustainability through improved learning and participation.

### 1.3 Research strategies and process

In order to address these research questions, the research project has adopted the following three strategies:

1. The first strategy was to review selected case studies related to TBL reporting that have been documented in the literature to identify what aspects of TBL reporting processes ensure better quality outcomes.

2. The second strategy was a case study investigation with Murrumbidgee Irrigation Pty Ltd (MI) as it embarked on the process of TBL reporting.

3. The third strategy was to interpret the empirical results from these two separate research activities to identify whether TBL reporting can be used as an agent for change towards enhanced sustainability.

The research process therefore comprised two distinct but inter-related research activities. The need for a broad and comparative understanding of how TBL reporting processes might – or might not – lead to enhanced sustainability relied on the review of published case studies in a range of contexts. This broader understanding complemented the depth of understanding acquired through an interactive and participatory investigation into how the TBL reporting process evolved at MI. Neither activity will secure a definitive answer on whether TBL reporting processes can lead to enhanced sustainability. Rather, my reliance on these case study investigations builds on an appreciation that
their findings – in each of their specific contexts – can provide opportunities for ‘analytical generalisation’ (Yin, 1994, p. 36 – see section 4.3.1). In other words, case study findings can be ‘transferred’ when researchers use theory to compare case study findings in one context with those in entirely different contexts (Lincoln & Guba, 1985, p. 298). The question of whether TBL reporting processes can lead to enhanced sustainability is an ongoing question, and those concerned about this question might find insights from my analysis of the MI case study, just as I developed my analysis from other case studies in the literature.

1.3.1 Engaging dialogically with the literature: Learning from other case studies

The first research activity evolved as part of my review of the literature related to TBL reporting. To create a research output that would contribute to the literature, I reviewed published case studies to develop a set of criteria for use by other researchers and practitioners to evaluate process outcomes of TBL reporting. My review of each documented case study identified the learning, capacity building and change outcomes the authors had included. The reviews were thus not a critical assessment of these published case studies. Instead, they were an opportunity to identify and categorise process outcomes that may have been mentioned by the author but not central to the author’s purpose. I was also interested in going beyond the traditional approach to a literature review by engaging authors in discussion about the criteria I was creating. Generating such dialogue is a key aspect to my methodological approach.

The timing of this first activity coincided with the early stages of the case study component of my research. The criteria were then further developed throughout my case study engagement, and were used by my case study organisation to evaluate its TBL reporting process towards the end of my engagement. This evaluation took place as part of a workshop, which also provided an opportunity for me to trial the evaluation criteria. Because this literature review research activity developed in parallel with the case study, the learning I acquired through the case study fed into the development of the TBL reporting evaluation criteria, and vice versa. However, the two activities are
presented separately in this dissertation, so that each can be read as clear and distinct accounts of what I have found.

1.3.2 Active engagement with a case study organisation: Learning by doing

The case study with MI incorporated participant observation and semi-structured interviews as part of an action research methodology. The outcomes are a set of empirical findings from the case study that address the component research questions. The two year case study period provided sufficient time to assess whether learning and capacity engagement/building occurred as well as identify some evidence of changes in policy and practice. However, it is likely to take several years before the impact of changes implemented at MI can be assessed against the sustainability performance parameters being monitored by MI. Also, the question of whether sustainability is being enhanced is open to varied interpretations. I therefore drawn on a range of theories introduced in section 1.3.4 below to facilitate my interpretation of the empirical findings in terms of whether sustainability is being enhanced.

The case study component commenced soon after enrolment for my PhD in April 2005 and was associated with a broader research project of my scholarship provider, the Cooperative Research Centre for Irrigation Futures (CRC IF), as explained in the next section below. My engagement in the MI case study continued until the completion of interviews in mid 2007.14 Throughout this period, I regularly visited the organisation, which is a three-hour drive away from the university where I am based. I was an active participant in all the meetings and workshops that were conducted to plan and evaluate MI’s TBL reporting process, as well as being an organiser and co-facilitator for the three main workshops: an initial goal setting workshop conducted in July 2005; a workshop to identify sustainability issues being faced by MI in December 2005; and an evaluation workshop organised in March 2007. During all of the planning meetings and workshops, I kept participant observation notes, as explained further in Chapter 4 (where I provide a full list of these meetings and workshops).

14 I recently had an opportunity to provide some feedback on my research to MI, which became part of another workshop with MI held on 27 August 2008.
In October 2006 and March 2007, I conducted semi-structured interviews with 20 MI staff and two MI Board Directors. My interviewees comprised those who had been actively involved in developing MI’s TBL reporting process, as well as a snapshot of staff across the vertical and horizontal structures of the organisation (explained in more detail in Chapter 4). These interviews not only provided a means to generate data; they also enabled those involved to reflect on what they had learnt and achieved through the process. The case study therefore provided an opportunity for me to learn from the experience of developing a TBL reporting process together with others (learning by doing), and also allowed that learning to develop collaboratively (co-learning).

1.3.3 MI case study: TBL reporting in an irrigation context

The case study organisation used for this research, Murrumbidgee Irrigation (MI), is a privatised former government agency responsible for the supply of irrigation water and maintenance of irrigation infrastructure for the Murrumbidgee Irrigation Area (MIA) in the heart of the Murray-Darling Basin of Australia. The case study represents an opportunity to contribute both theoretically and practically. From a theoretical perspective, concerns about the environmental sustainability associated with irrigation systems in Australia have already substantially shifted social attitudes. There is a widespread perception that “the net benefit from irrigation … is too heavily weighted to production outcomes at too great an expense of the environmental resources” (Christen, Shepheard, Meyer, Jayawardane & Fairweather, 2006, p. 342). Hence there is considerable pressure on irrigators and water suppliers to improve their performance and to account for irrigation use not only in economic terms but also in terms of its social and environmental impacts. This represents a change in the ‘social contract’, and is increasingly compelling organisations to legitimise their irrigation-related activities through their public reporting mechanisms in response to these “changing social norms and values”; i.e. to modify their behaviour to reacquire their “organisational legitimacy” (Dowling & Pfeffer, 1975, p. 125) or ‘social licence’ to operate.

It is because of this theoretical context that the practical initiative behind my research project was developed. The CRC IF is one of over 50 issue-specific CRCs in Australia created to connect researchers with research users. As a
practical response to broader societal concern about the TBL sustainability of irrigation, and in response to the increased interest in TBL reporting from irrigation industry organisations, the CRC IF established the Sustainability Challenge project (Christen et al., 2006). Some irrigation water supply organisations had already embarked on a form of TBL reporting (e.g. Murray Irrigation Limited – see Marshall, Shepheard, Brand, Norwood & Christen, 2006). This interest in TBL reporting within the irrigation industry is principally driven by a perception that irrigators and irrigation organisations can use it to demonstrate the efforts they are undertaking to reduce the negative environmental impacts of irrigation, while also being able to report on the industry’s positive social and economic impacts for rural communities that have become dependent on irrigation. Inclusion of the social dimension in particular might allow the debate to move beyond an acrimonious split between arguments for pursuing economic growth on one side and accusations of irreversible ecological damage on the other (cf. related analysis of the Regional Forestry Agreement negotiations process in Australia during the 1990s provided by Coakes & Fenton, 2001; Fisher, 2001).

The key objective of the CRC IF Sustainability Challenge project was therefore to develop a framework and methodology for TBL reporting that could be applied across a broad range of scales and organisations in the irrigation industry. The research team promoted TBL reporting as a process of continuous improvement that would result in enhanced TBL outcomes (Christen, Shepheard, Jayawardane et al., 2006, p. iv). The team adopted a set of case studies as our primary means of investigation. This was so that the researchers could learn collaboratively with the case study organisations while working together to build their organisational capacity as potential end users of such a TBL reporting framework. MI was one of the organisations which collaborated with the Sustainability Challenge project, and this organisation subsequently became the focus for the case study component of my research, as explained further in Chapter 4.

1.3.4 Theories used to analyse case study results

I have drawn on theory from a range of disciplines to flesh out how to analyse the empirical evidence from my case study in terms of each component
question. To illustrate how this framework of theories used is a sum of its integrated parts, I was reminded of how an onion is composed of layers (see Figure 1 and further explained in Chapter 3). Each of the theories used to analyse the case study is situated within another set of theories that combine to form an integrated theoretical assessment of whether TBL reporting can lead to enhanced sustainability. All theories used are situated within an overarching analysis of different ideas about what kinds of changes are required to achieve sustainability.

**Figure 1: Theoretical perspectives used to analyse my research questions**

The theoretical framework enables analysis to go beyond simply identifying whether learning has occurred, towards identifying the type and depth of learning that has occurred, using organisational learning theory (Argyris & Schön, 1978). To address the question of capacity building, I have principally relied on my adaptation of ideas drawn from research related to public participation and stakeholder engagement, especially the prospect of using interactive, collaborative or dialogic engagement processes (Kelly & Moles, 2002; Race & Buchy, 1999; Thomson & Bebbington, 2005). This is based on a perspective that an organisation and its stakeholders often retain substantial levels of untapped capacity. Organisational efforts to build capacity are usually
a matter of more effectively engaging existing capacity. This is especially the case if those whose capacity is engaged have also gone through a process of learning that challenges tacit assumptions and established ways of doing things.

I then draw on political economic perspectives to identify potential structural constraints that affect the organisation’s ability to implement changes to enhance sustainability. The most noticeable of these is the well documented trend to use reporting for public impressions management (e.g. Neu, Warsame & Pedwell, 1998). However, I also analyse the vertical and horizontal structural impediments that operate within the organisation (cf. O'Dwyer, 2005; Roome & Wijen, 2006).

Finally, to enable an interpretation of the vexed question of whether changes implemented actually make any difference, I draw on typologies developed within the sustainability literature (e.g. Hopwood, Mellor & O'Brien, 2005). These typologies map assumptions about the kinds of changes required to achieve a sustainable future, and can be summarised into three types of assumptions:

1. those based on expectations that current developmental dilemmas will be solved by as yet unknown future technological advances (a status quo or Promethean approach);

2. those based on the view that the best way forward is to allow changes to evolve through a process that progressively reforms existing structures and ways of doing things (a reformist, small steps, incremental or continuous improvements approach); and

3. those based on the view that the world’s current development trajectory will reach a crisis and that our existing structures and ways of doing things are insufficient.

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15 I am indebted to Allan Curtis who sparked my enthusiasm for this idea as part of his keynote address ‘Building regional NRM capacity: How can we do better?’ presented to the 5th Australian Stream Management Conference in Albury on 22 May 2007.

16 I am indebted to Milne, Kearins and Walton (2006) in guiding my articulation of this summary of the sustainability literature.

17 The term ‘Promethean’ is based on a Greek mythological creature who stole fire from the Gods for humans to use. It encapsulates the audacious and creative entrepreneurial spirit of successful companies having extraordinary innovative powers bringing material progress to humankind while also making visible the ambiguities of progress without purpose (de Woot, 2005).
things need to be fundamentally restructured (a critical, radical or transformational approach).

1.3.5 Epistemological and methodological foundations

The key elements of my approach to research are its foundation on a critical realist epistemology, the use of a case study that necessitates the generation\(^{18}\) of qualitative data and the use of action research methods. The logical link between these aspects is my perspective on research and learning which stems from a recognition that most of what we learn in life develops through our interaction with others. This is one of the core emphases of a critical realist epistemology; i.e. that the creation of knowledge is a social activity, and that it builds on existing ways of thinking and analysing, which, like knowledge itself, are also social products (Bhaskar, 1978). The opportunity to create knowledge through social interaction allows those involved to change the outcomes of the phenomenon being studied in the social context. This use of action research is important because my research questions are driven by my desire to facilitate change.

Creating knowledge and change through social interaction explains my preference to develop my research and learning through active collaboration with those engaged in analysing and doing TBL reporting. My active collaboration with MI also led to the generation of two sets of data. The first data set was derived from a structured review of case studies of reporting as documented in the literature which benefited from my interactions with some of the authors. The second set of data came through my active engagement with my case study organisation through which I generated participant observation field notes and interview transcripts where the outcomes of the TBL reporting developments were discussed. These interactive research activities, involving the exchange of thoughts and ideas on the process and outcomes of TBL

\(^{18}\) Like Sayer (1992, p. 52), I recognise that there is something misleading with the idea of data collection or data gathering. It can imply that data related to social phenomena can exist before the process of social interaction implied by the research act that creates the conceptualisations of the phenomena being studied. Nevertheless, there is also a danger in my use of the terminology of data generation and data creation. My usage is not meant to imply that I am producing a new world reality nor that the objects being studied have somehow only come into being through me. My usage is intended to reflect what has actually happened: through this process of my research, a new set of data was created.
reporting, led to data sets that were qualitative in nature. My use of action research and qualitative data as part of my case study with MI is explained in Chapter 4. The following section places these methodological choices into an epistemological context.

### 1.3.5.1 Critical realism and interpretive analysis

My research examines whether a social process (TBL reporting) can lead to a socially-conceived notion (sustainability), about which there are widely divergent interpretations. It analyses whether the ‘triple bottom line’ concept assists social entities (companies, stakeholder groups) and individuals to collectively improve their notion of what a sustainable future for society might be like and therefore find ways to make contributions towards such a goal. It results in my interpretation of the social events, processes and ideas I observe and analyse, which others in society might observe and analyse in different ways to me. However, my interpretation develops through my iterative interactions with others, including those with different perspectives to my own. It recognises that every individual has experiences and perspectives from which we can learn. While much can be learnt when we collaborate with others who have different experiences and perspectives to our own, as academic investigators, we ought to build on and apply our established skills in critical judgment and analytical contemplation to what we learn from others about the phenomena we are analysing. This epistemological approach to conducting research has been described by some as critical realism.

The development of contemporary critical realist philosophy is generally attributed to Bhaskar\(^\text{19}\), even though application of the critical realist term to describe his philosophy was selected by others, combining what he had referred to as transcendental realism with his reference to critical naturalism (see Collier, 1994). The philosophy has been used as a basis for research in a wide array of fields including accountancy (Bisman, 2001) and organisation studies (Fairclough, 2005), as well as to facilitate our understanding of the nexus between society and nature (Carolan, 2005). I have principally relied on

\[^{19}\text{Bhaskar’s key philosophical works commenced in 1975 with A realist theory of science (Bhaskar, 1978 – this is the second edition) where he introduced the notion of transcendental realism. His 1989 title Reclaiming reality (Bhaskar, 1989) implies that a key aspect to the agenda behind his philosophy is to confront the postmodernist critique of realist epistemologies.}\]
the application of his philosophy to the selection of social science methods as explained by Sayer (1992). This has helped me to articulate and justify my use of interpretation to help answer my research question and my adoption of action research methods.

My adoption of a critical realist epistemology is also in part a reaction against arguments that one person’s interpretation of these kinds of “concept dependent phenomena” (Sayer, 1992, p. 6) can create a reality that has equal validity as those created by others. While it is important to learn from other perspectives, and to respect that others can hold different perspectives to our own, this should not mean that we start creating a world of multiple realities, with as many equally valid realities as there are different interpretations. To do so results in what some have called ‘sceptical postmodernism’ which is characterised as offering only pessimism and despair (Kilduff & Mehra, 1997, p. 455). Yes it can be empowering to have many knowledges, providing space for perspectives that may have been ignored or neglected, especially if we move beyond the confines of established ways of thinking. However, I believe these noble pursuits can and should be achieved just as effectively without having to reject or retain suspicion over the established conceptual frameworks through which we view the world. Existing so-called meta-narratives, such as those inspired by the writings of Marx, still provide a useful basis upon which to uncover and challenge false illusions that dominate most worldviews. Social theorists throughout the ages have contributed to the pursuit of “truth” and a developing understanding of the world. Yet these “fallible and theory-laden” understandings of the world and its phenomena need to be distinguished from real world phenomena which exist independently of how we understand them, and are thus “not immune to empirical check” (Sayer, 1992, p. 5).

To put it another way, using Bhaskar’s (1978, p. 21) terminology, one type of knowledge is “intransitive”, in that its reality, like the laws of gravity, exists with or without human inquiry. However, most of our acquired knowledge is “transitive” in that it is “a social product” created through “social activity” and is thus subject to change just like any other social product. The more we interact as part of the social activity of research, the more likely we are to improve upon
this social product of knowledge, especially because the desire to improve knowledge is inevitably linked to a critical appraisal of existing knowledge.

The notion that the development of ‘knowledge’\textsuperscript{20} is a social process means that differences in interpretation about, for example, what kind of change is required to enhance sustainability (Hopwood et al., 2005; Milne, Kearins et al., 2006) are therefore not a hindrance to research, but can actually inform research analysis and application. Similarly, the emphasis that knowledge is best gained through interaction with society justifies my use of an action research method, and my efforts to interact with the authors of the documented case studies I reviewed. This ensures that my understanding of the process and outcomes of TBL reporting develops in an interactive way with those actually doing the reporting, as well as those who are analysing the outcomes. This approach parallels a “dialogic approach” recently promoted as a means to theorise researcher engagement in social and environmental accounting processes (Bebbington et al., 2007).

Because this research has evolved as an interactive social process, it is helpful to add here that the way this process evolved has been an iterative one for me between theoretically driven abstract conceptualisation and experiential learning. Berg (1995) explains that most social research is not linear in progression, as presented in thesis dissertations, but rather follows an iterative learning process that builds, like a spiral, between theoretical formulation and empirical research. He contrasts this model with two alternative extremes. At one extreme is a process that begins with theoretical conjectures (hypotheses) that are then tested empirically (theory before research), as typified by the positivist ideal in much bio-physical scientific research. At the other extreme is where the research we do develops or revises existing theory (research before theory), as indicative of an idealised grounded theory approach (Glaser & Strauss, 1967), for example.

An approach to learning that spirals between theory and research builds on notions of experience-based learning that has been championed by Kolb and his colleagues, initially as part of a guidebook of learning activities for

\textsuperscript{20} or ‘knowing’ as preferred by Sayer to emphasise its constantly evolving nature
management schools and professionals; first published in 1971, and now in its sixth edition (Kolb et al., 1995). The most widely used element from this work is the Kolb learning cycle (concrete experience – observations and reflections – formation of abstract concepts and generalisations – testing implications of concepts in new situations) (Kolb et al., 1995, p. 49)21. This learning cycle has proliferated in a wide array of forms, including in guidebooks for action learning (McGill & Beaty, 1995), where it has been modified as experience – understanding – planning – action (originally modified by Pedler, Burgoyne & Boydell, 1978, p. 224)22. Juch (1983 as cited by Greenway, 2006), simplified this to do – observe – think – plan. It has also been modified for sustainability reporting contexts (Bell & Morse, 2005, pp. 43-44).

The idea that learning develops iteratively with experiences, as suggested by these learning cycle heuristics, is fundamental to the way I approached my research process. It also forms the basis for my theoretical analysis of learning as experienced through the TBL reporting process. A key aspect to my research has therefore been the modification of this learning cycle to the TBL reporting process, which is explained further in the following chapter (see Figure 4 on page 67).

1.3.6 Mapping research process to research questions

To help understand the structure for this dissertation, it is useful to go back to my research question and its component parts and match them with the two research activities described above. The matrix presented in Figure 2 uses ticks of different sizes to show which aspect of the research process was used to address which question. The larger-sized ticks indicate that my answer to that question is predominantly sourced from the activities undertaken as part of that stage of the research process. The matrix also shows that my understanding of issues related to TBL reporting developed from my reading of the literature and from my hands-on experience as an active contributor to the development of a TBL reporting process.

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21 The Kolb learning cycle also has its precursors, including Dewey’s (1938) *Experience and Education*, as cited by Greenway (2006).
22 While Pedler et al.’s original (1978) guidebook does not refer to action learning per se, Pedler has gone on to become a figurehead for the action learning school of thought, and he now edits a journal devoted to action learning, *Action Learning: Research and Practice*. 
Figure 2: Matrix to match key questions with research process stages

<table>
<thead>
<tr>
<th>Question</th>
<th>Literature review</th>
<th>Data generation &amp; analysis</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Review of case studies in the literature</td>
<td>MI case study observation &amp; interviews</td>
</tr>
<tr>
<td>Background questions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBL reporting? Issues?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Evaluation criteria?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Key research questions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning?</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Capacity building?</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Change?</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Enhance sustainability?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

1.4 Thesis structure

The introductory components of the thesis have been presented in this chapter and they continue into Chapter 2 as part of my review of relevant literature. Chapter 2 then continues by presenting the first research activity, being my review of case studies documented in the literature. Like any other research activity, it requires an explanation of the methods I have used and a presentation of the results of my research. Reference to methods and results is unusual in a literature review chapter but is a necessary part of my research story.

Figure 3 depicts the key components of the research process to indicate their place in the thesis structure. Like Figure 2, it is divided into four components, with the two research activities in the centre columns. Even though the two research activities occurred concurrently, the thesis dissertation is structured so that these two activities are presented separately to make it easier for the reader to follow.

The introductory components of the thesis have been presented in this chapter and they continue into Chapter 2 as part of my review of relevant literature. Chapter 2 then continues by presenting the first research activity,
being my review of case studies documented in the literature. Like any other research activity, it requires an explanation of the methods I have used and a presentation of the results of my research. Reference to methods and results is unusual in a literature review chapter but is a necessary part of my research story.

**Figure 3: Mapping the research components to the thesis structure**

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Stage one: Review of case studies documented in the literature</th>
<th>Stage two: MI case study</th>
<th>Discussion &amp; Conclusion Chapters 6 &amp; 7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Research Question:</strong> Can the process of TBL reporting lead to enhanced sustainability?</td>
<td><strong>Research Question:</strong> What processes lead to what outcomes? TBL reporting benefits &amp; limitations</td>
<td><strong>Theoretical framework:</strong> to answer research question in case study context:</td>
<td><strong>Chapters 4 &amp; 5 MI case study:</strong> Interviews and participant observation</td>
</tr>
<tr>
<td><strong>Literature review:</strong> [broad]</td>
<td><strong>Review of case studies documented in the literature:</strong></td>
<td></td>
<td><strong>Evaluation workshop</strong></td>
</tr>
<tr>
<td>Background to TBL reporting and literature on sustainability</td>
<td>What is TBL reporting?</td>
<td></td>
<td><strong>Enhanced sustainability</strong></td>
</tr>
<tr>
<td>What is TBL reporting?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The explanation of the theories I have drawn upon to analyse the research question is held over until Chapter 3. This is because my purpose here is to develop a theoretical framework that I can use to analyse case study data to answer the research question. The methods used in the case study are explained in Chapter 4 before presenting the results in Chapter 5. The focus of the analysis of the results in this chapter relates to the learning, capacity building and change outcomes in the case study context.

Chapter 6 moves the dissertation into the final interpretive stage from which my conclusions in Chapter 7 are drawn. The interpretation begins with a focus on case study learnings and I use my evaluation criteria to analyse the extent that the changes observed at MI might lead to enhanced sustainability. I then use the theoretical literature to interpret the implications of these learnings more
broadly, providing some suggestions on how to improve TBL reporting processes in order to increase their potential to contribute to enhanced sustainability.
Chapter 2
Background to the development of TBL reporting and the creation of criteria to evaluate TBL reporting processes

“…there seems to be an essential need to challenge the utterances of organisations … through … the act of confrontation and the active design of research questions motivated by a desire to facilitate change” (Gray, 2006b, p. 810).

2.1 Introduction

I have constructed this literature review with two aims in mind. The first aim is to present a review of the key issues related to TBL reporting appearing in the literature, and to place the significance of my research question within that context. The second aim is to draw upon published analyses of specific case studies of reporting in order to synthesise ideas on how processes of TBL reporting could be improved to deliver better quality outcomes. The latter exercise evolves out of the former, and, as explained in the previous chapter, this review of documented case studies represents one of the research components through which I have generated data to help me address my research question.

The chapter begins by reviewing some of the most recent literature related to sustainability accounting. Accountancy academics specialising in organisational accountability for sustainability performance provide the bulk of current research analysis into the phenomenon of TBL reporting, and thus provide a key source of commentary on the literature and where future research needs are required. My review of this recent literature begins by building a rationale for my focus on the term TBL reporting rather than other terms used for similar phenomena (2.2). It then shows how the research I have undertaken helps address identified needs for research into this phenomenon (2.3). The main gaps that have been identified in the recent literature are a need for researchers to document analyses of actual field engagements with TBL reporting and a concomitant need for that analysis to build from a theoretical basis. Another
difficult and under studied area of research relates to the organisational change processes within organisations, and the potential for internal stakeholders to become change agents. I then take a step back and review some of the key issues and the theoretical traditions that have brought us to this point (2.4).

Building on this broader review of the literature, I then turn to the second aim of this chapter, which is to create a set of criteria to evaluate TBL reporting from selected case studies. I begin by explaining the focus of this structured review on the evaluation of process and outcomes of TBL reporting in the context of the broader literature (2.5.1). This leads directly into the methods I used to create the criteria (2.5.2). From there I present the results of this research activity which are the evaluation criteria (2.6) and some concluding remarks concerning how to use these criteria in the formative evaluation of TBL reporting processes (2.7).

2.2 Accounting for organisational sustainability and the triple bottom line

The most obvious question that arose as I started to engage with the literature related to the phenomenon of TBL reporting was why I should choose the term TBL reporting when there are other terms I encountered which denoted similar phenomena. Gray and Milne (2004) provided the most useful clarification for me on this, and in so doing, reinforced a rationale to base my research question on the use of the TBL concept within organisational reporting. Their arguments relate to the absurdity behind efforts to account for sustainability at an organisational level when sustainability is primarily a global concept, and where the impacts of one organisation matter far less than the cumulative interactions of multiple organisations on the carrying capacity of the global ecosystem, not just for the current generation but for all future generations. They conclude that while it may be possible “to account for elements of unsustainability and for contributions to/detractions from social justice, a full account of sustainability makes no sense at an organisational level” (Gray & Milne, 2004, p. 78).

To build their argument, they note firstly the substantial efforts being invested to create measures of environmental sustainability at an organisational level.
Secondly, they recognise the importance and the challenge for organisations to incorporate social reporting. This helps define what we might expect from organisations in terms of TBL reporting; i.e. that they give equal status to their environmental and social accountability as to their financial accountability. However, they emphasise that in so doing, nobody should be deluded into believing that they are somehow accounting for how ‘sustainable’ they are as an organisation. I will elaborate on each of these three points.

2.2.1 Accounting for environmental sustainability

First, Gray and Milne acknowledge the substantial efforts that have been undertaken to develop methods to account for environmental sustainability at an organisational level. However, to measure the extent that an organisation has actually become sustainable is impractical at an organisational level. On this, the work of Bebbington with Manaaki Whenua (Landcare New Zealand) is a useful illustration from which key learnings can be drawn (Bebbington & Gray, 2001; Bebbington & Tan, 1996, 1997). Here we have a research organisation committed to investigating land management and sustainability issues in New Zealand embarking on a ‘blue sky’ project to identify how much it would cost the organisation to become ‘sustainable’. They acquired the services of Bebbington as an accountancy academic who worked closely with the organisation’s corporate secretary and environmental manager, who was also a qualified accountant (Bebbington, 2004). The aim was to develop a “sustainable cost calculation”, originally proposed by Gray (1992) as an attempt “to measure the additional costs which would be borne by the organisation if the organisation’s activities were not to leave the planet worse off at the end of an accounting period” (Bebbington & Gray, 2001, p. 557). They expected to find that the costs involved would be substantial.

Ultimately, it was not possible to define the costs involved, but this failure provided much from which we can learn. One lesson is that it is far too difficult to attempt an account of sustainability because there are too many variations to consider in identifying possible ways to move towards the goal of sustainability, even if one focuses on just one aspect, such as transportation. Actions are best
directed at making improvements to problem areas, not on seeking to define how a ‘sustainable’ organisation would function. This highlights the benefit of thinking about the goal of sustainability as a process rather than as an end point. Another lesson is that the organisation’s efforts to make improvements were severely constrained by the lack of more sustainable options available\textsuperscript{23}. By implication, “if governments assume that business can and will pursue more sustainable options of their own accord, and in accordance with options which are available in the market place, then it seems that moves towards sustainability will be very slow” (Bebbington & Gray, 2001, p. 577). This highlights the lack of motivation for businesses to invest in alternative more sustainable options and the challenge of deciding how to provide such an incentive. A third lesson evolved out of the organisation’s “implicit business-as-usual assumption”, an unexpected hindrance from an organisation like Manaaki Whenua which is committed to seeking paths to sustainable development (Bebbington & Gray, 2001, p. 575). As an example, while land travel would clearly be a more ‘sustainable’ option than air travel, the time involved would severely curtail the efficiency with which Manaaki Whenua goes about fulfilling its research objectives\textsuperscript{24}. The authors conclude that embarking on a path towards environmental sustainability will require organisations and society to alter their “business as usual” approach (Bebbington & Gray, 2001, p. 583). This is a consistent theme in the literature, and is a key component to one of the criteria in the TBL reporting evaluation framework I present at the end of this chapter.

\textsuperscript{23} For example, they sought to calculate how much it would cost if they sourced their energy from that generated by wind power, but, at that time, there were no wind farms in New Zealand. Similarly, there were no alternatives at the time for the replacement of fossil fuels, so it was not possible to calculate the costs involved for this.

\textsuperscript{24} This example also introduces the issue that trade-offs are inevitably required when considering how to manage an improvement in TBL performance. For example, video conferences can be a solution to reduce travel and associated greenhouse gas emissions, but they require a trade-off of social advantages from face to face meetings and/or the opportunity to think and converse whilst travelling together by train or car. This issue of trade-offs is a key one, and a key component of one of the evaluation criteria I present later in this chapter.
2.2.2 Accounting for social sustainability

The second key issue that Gray and Milne (2004) raise is that the same points are just as valid and important in terms of social sustainability. Again, organisations can build on efforts to enable an account of broader social responsibilities and impacts, but there should be no delusion that in so doing this will show the extent that the organisation is now achieving social sustainability, whatever that might mean. Gray and Milne note that "social sustainability is altogether more difficult to conceptualise and estimate" as well as being “more obviously political” for which consensus is unlikely “as it rests on nothing less than the interpretation and explanations of the relationship between modern capitalist activity and social justice” (Gray & Milne, 2004, p. 77).

It is relevant here to raise an issue taken up elsewhere concerning the meaning of the economic dimension within the TBL. Gray and Milne’s commentary implies that this dimension can simply be seen as the organisation’s financial accountability. However, Jennings (2004, p. 157) notes that a company’s financial statements are not able to account for “the wider economic impacts of a company’s activities at the local community level through the provision of employment, the income that employees earn and use, and the taxes that they pay, as well as the impact on local suppliers and service providers.” He therefore concludes that:

“While the economic component of the triple bottom line is often assumed to be synonymous with financial performance, in fact, there are significant differences between the two. In its simplest form, finance is about the provision of money when and where required for consumption or for investment in commerce. As such, it concerns the market valuation of transactions that pass through a company’s books. Economics, on the other hand, is the means by which society uses human and natural resources in the pursuit of human welfare. As a result, economics extends beyond the boundaries of a single organization and is inextricably linked to both the environmental and social elements of sustainable development." (Jennings, 2004, p. 157)

Accounting for an organisation’s TBL performance can thus be seen as a means to facilitate reflection on the organisation’s ‘bigger picture’ social,
environmental and economic impacts. Whilst deficiencies are apparent in most social and environmental reporting, it is also the case that those undertaking TBL reporting have failed to deliver an adequate account of their 'bigger picture' economic impacts. This has been the conclusion by the Australia and New Zealand ACCA sustainability reporting awards judges in both 2003 and 2007 (Association of Chartered Certified Accountants, 2003, 2007).

However, some argue that these bigger picture economic impacts fit in with the social bottom line. Such arguments parallel those raised about the degree of categorisation involved in using the TBL concept as a means to think about sustainability. “Many social scientists would argue that the attempt to segment the “social” from economic and environmental considerations is fundamentally questionable. … In some quarters, the idea that economics should be reified as a separate sphere outside the social sphere is a particularly unattractive consequence arising from this way of segmenting the world" (Cheney et al., 2004, p. 228). Even at a practical level, when my case study organisation grappled with the categorisation process, there was considerable frustration in segmenting the bigger picture social issues from the bigger picture economic issues.

A better way of thinking about economics is to perceive it as a social construct, and that the way society organises how the economy functions affects its contribution to social and environmental sustainability. This is the view taken by the UK government when it suggests that the goals of sustainability are essentially twofold: environmental and social. Efforts to achieve a sustainable economy is not so much a goal in and of itself, but should rather be seen as a means that can enable the society to live within its environmental limits and to build a strong, healthy and just society. As the UK government explains: “We want to achieve our goals of living within environmental limits and a just society, and we will do it by means of sustainable economy, good governance, and sound science” (UK Department for Environmental Food and Rural Affairs, 2005, p. 8).

Given these arguments, some modification to the distinction Gray and Milne (2004) have made may be warranted. The point Gray and Milne are making is
that an organisation is not just a financial entity; it is also a social and environmental entity, and must therefore account for its effects on both environmental and social sustainability. One factor that can affect the delivery of social sustainability is the type of economic impacts that an organisation imposes on a community, including its effects on the distribution of economic benefits among the community. Gray and Milne (2004, p. 75) are arguing that a TBL report is one that “must contain a substantial and believable social report and a full and audited environmental report” that has equal status as the organisation’s financial accounts. To this we could add an account of its broader economic impacts, perhaps as a key component to its social report, along with other identifiable key components such as culture and heritage. Based on these arguments, organisations responding to ethical concerns related to sustainability should therefore devote equal attention in their annual reports to their broader environmental, social and, by extension, economic accountability as to their financial accountability.

The idea that TBL reports are essentially a combination of what we have learnt to date from our development of social and environmental reporting explains the relevance of building on the broader literature related to social and environmental reporting and impacts assessment. Gray and Milne (2004, p. 75) stress that it is only through this level of effort to create believable and fully auditable social and environmental reports that the inherent conflicts and trade-offs between an organisation’s social and environmental responsibilities and its financial imperatives can be exposed, so that their causes can be further investigated and potential solutions identified. Yet, the authors emphasise, even if these ideals were to be attained, a TBL report would still remain “the most oblique approximation of a sustainability report” (Gray & Milne, 2004, p. 76).

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25 The question of what comprises social sustainability is the issue here. Some, including my case study organisation, have referred to a quadruple bottom line (QBL), with the fourth bottom line being culture and heritage (also see Hawkes, 2001). Others talk of a multiple bottom line. However, I am interested in the merits of the TBL as a concept, rather than multiple criteria analysis, which is a different approach used in decision making and policy contexts (e.g. Hajkowicz & Collins, 2007; Holz, Kuczera & Jetse Kalma, 2006).
2.2.3 TBL reporting as a practical activity that approximates sustainability

This brings me to Gray and Milne's third point. They argue that a TBL report cannot be considered an isolated account of one organisation’s “overall contribution to/detraction from” the goal of sustainability (Gray & Milne, 2004, p. 78). A full sustainability account would require “a systems level of thinking” that goes well beyond the boundaries of one organisation (Gray & Milne, 2004, p. 76). For example, identifying the footprint of one organisation can provide an indication of that one organisation’s sustainability, but, the authors suggest, this does not really indicate whether the broader societal goal of environmental sustainability is any closer or more distant as a result of this one organisation’s activities over the past year. It would be necessary to take into account the activities of other organisations and their overall interactions and impacts on broader scale sustainability aspirations. Similarly, from a social justice perspective, it would be very difficult to demonstrate how one organisation has contributed to or detracted from broader societal income equality or fair access to natural resources (Gray & Milne, 2004, p. 76), especially if one were to consider these justice implications at a global level. However, the question is whether TBL reporting can become part of a process that contributes towards the overall goal of enhanced sustainability.

This argument therefore substantiates my focus on the TBL concept and the process of TBL reporting. A TBL report is seen as a practical activity that can be attempted at an organisational level based around a concept that simplifies and categorises a holistic view of sustainability. If a TBL report is a mere approximation of a full account of an organisation’s sustainability, to what extent does it help to contribute towards that end goal? As a practical activity, is it able to effectively challenge the unsustainable practices of the organisation, find solutions to overcome them, and ultimately create a more sustainable balance

26 The issue of boundaries of influence is something that came up frequently during my case study interviews. One effort to analyse different extents of boundaries implied by TBL reporting has been provided by Archel, Fernández and Larrinaga (2008). They distinguish between a boundary of accountability under direct organisational control and a broader boundary related to the indirect impacts from the organisation’s operations. I will return to this issue later.
between the economic advancement that drives organisations and society and its social and environmental consequences now and in the future? As Gray and Milne see it from current efforts at TBL reporting, this is yet to be the case. “Unfortunately, the TBL report remains something of a mirage” and this is because the current practice of social and environmental reporting owes “more to rhetoric and ignorance than to practice and transparency” (Gray & Milne, 2004, p. 76). More pertinently, because organisations consistently give preference to financial imperatives, a truer assessment of the state of TBL reporting is that “the triple bottom line is not a triple bottom line at all but a financial bottom line with a little bit of social and environmental added” (Gray & Milne, 2002, p. 3).

In a couple of recent reflections on corporate TBL reporting, Gray has explored this last point in greater depth, building on the growing literature to date. His reflections investigate the extent that so-called (incorrectly termed) ‘sustainability reporting’ can improve corporate behaviour (Gray, 2006a) and whether it creates value for the organisations undertaking the reporting (Gray, 2006b). His response to these questions is that they’re essentially the wrong questions to be asking in the first place, and that recognising this is well-timed. They are both based on a presupposition, reinforced by the rising corporate interest in TBL reporting that the TBL will enable win-win outcomes, i.e. that improvements in environmental and social performances by companies will in turn improve their long-term financial performance. In exploring the inter-relationships between (1) corporate social and environmental disclosure; (2) corporate social and environmental performance; and (3) financial performance,

27 These questions remind me of how I sometimes explained my research question to my case study collaborators. I sometimes found it easier to generalise the question away from referring to the goal of sustainability, because of the contested nature of what such a goal might mean, to one that was more generic. Instead of asking whether TBL reporting can lead to enhanced sustainability, I would instead ask whether TBL reporting can make a difference. Is it worth the effort; the time and money invested into it? Thinking about it now, this reorientation of the question may have also been subconsciously driven by a desire to make the research more appealing and accessible to those with whom I was engaging. However, in so doing, I was also taking on more of a corporate perspective of what the value of research might be; i.e.: can TBL reporting create a win-win situation where it can improve organisational responses to social and environmental issues and provide a return on the time and money invested into it?

28 See, for example, Milne, Kearins et al.’s (2006) analysis of the journey metaphor as used in corporate TBL reporting.
he concludes that such an investigation is really driven by the above misplaced presupposition, and as a result of this, “a number of much more important issues have emerged” (Gray, 2006a, p. 82).

The most important issue is the apparent corporate and social incapacity to fully grasp the current unsustainable trajectory that global society is heading down, one for which evidence has now been mounting for years. Given this, and recognising that the cumulative mass of corporate activity is unsustainable, “then company disclosure needs to recognise this so that we can discount the empty rhetoric and turn pressure on to governments to undertake the radical reconstruction of economic organisation that will be an essential precursor to a redirection towards sustainability” (Gray, 2006a, p. 82). Similarly, given that corporate activity within current economic organisation is fundamentally driven by the need to increase shareholder value, and that if this pursuit is maintained, we are on a path towards planetary destruction, then perhaps we need to “redefine shareholder value to include something other than the making of money for people who already have too much” (Gray, 2006a, p. 82). Or, indeed, redefine the economic system that allows organisational activities to be so defined by the values of those who accumulate profit from such activities.

In response to these comments, Moody-Stuart (2006, p. 89) suggests that perhaps the question that Gray wants to ask is not whether corporate reporting will improve corporate behaviour, but whether it will lead to global sustainability. The answer to such a question, Moody-Stuart suggests, is clearly no. However, if we consider the same question in light of the possibility of relative sustainability29, then the question becomes appropriate:

Does TBL reporting contribute to or detract from the attainment of global sustainability?

This is much the same question as I have set. And in so doing, I am in part driven by the conclusion of Gray’s related piece (Gray, 2006b), that a key issue that needs to be worked on by researchers in the future is their engagement.

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29 i.e. the view that sustainability is a process of moving away from a state of unsustainability; I am not disputing the absoluteness of “the biophysical limits to sustaining life on Earth” (Fischer et al., 2007, p. 622).
Not only should researcher engagement be driven by “an essential need to challenge the utterances of organisations and representative bodies”; but that the “active design of research questions [should be] motivated by a desire to facilitate change” (Gray, 2006b, p. 810). Such theoretically driven analyses of researcher engagements is a call that he has made before (Gray, 2002), and others have also made (e.g. Parker, 2005).

Meeting this motivation requires drawing on theoretical frameworks that enable researchers to move away from mere summative criticisms of the content and outcomes of TBL reports, and towards enabling formative improvement to strengthen the link between TBL reporting and enhanced sustainability. This is also the purpose behind my development of TBL reporting evaluation criteria presented later in this chapter and my active engagement in case study research.

To further explore these identified research needs, I will now extend my review to the broader literature that does not necessarily draw the same distinction as Gray and Milne have done between TBL reporting and sustainability reporting. This broader literature uses a range of different descriptors to describe similar phenomena, such as social accounting, environmental accounting, and so on. I also draw on this broader range of literature when identifying case studies that comprise the data set for the formation of evaluation criteria as discussed later in this chapter.

2.3 A need to analyse researcher engagements; a need for theory

My initial theoretical predilection to the idea of TBL reporting was that the activity would most likely amount to a farce. Such initial scepticism is unsurprising given my background. My prior dalliances with research grew out of a political economy perspective through which I sought to examine and expose constraints on Aboriginal land rights aspirations and the consideration of social and environmental consequences of international river basin development projects (Mitchell, 1989, 1998). I then spent several years supporting the work of international trade union coordination to confront and
withstand the deteriorating working rights standards that are a consequence of the recent global preference for neo-liberal models of globalisation.

My initial position to view TBL reporting as a farce means I started out with a null hypothesis to test: that TBL reporting cannot lead to enhanced sustainability. However, null hypotheses can also be used to prove the converse. To conclude that it is impossible for TBL reporting to have any positive influence on the pursuit of sustainability would clearly be an extreme position. By reframing my research question as one that sought to disprove the null hypothesis, it took an entirely new critical focus; i.e.: Is there any potential to use TBL reporting as an agent for change to help identify practical actions that can contribute towards enhancing sustainability? Framed in this way, the project becomes driven both by a need for critical analysis of the phenomenon, as well as a need to facilitate change away from the constraints that result in such criticisms. The creation of evaluation criteria later in this chapter aims to address these needs by first identifying from the literature some desired outcomes from TBL reporting, as well as synthesising the key critical factors that have undermined delivery on those outcomes.

2.3.1 The concept of legitimacy in a political economy

Given my theoretical background, I have to acknowledge an early delight in discovering a text that evolved from critical perspectives similar to my own (Gray, Owen & Adams, 1996). In it, the authors provide a summary of the key theoretical approaches that have been used to describe and analyse social and environmental accounting (Gray et al., 1996, p. 45ff).\(^{30}\) The most common approaches relate to stakeholder and legitimacy theories. Gray et al. (1996, p. 52) suggest that these are not competing theories but are better viewed as overlapping perspectives “within a framework of assumptions about ‘political economy’.” These assumptions relate to perspectives on the character of the

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\(^{30}\) These theoretical approaches describe and analyse the way things are, not how they could be. The need has been expressed for further theorisation to analyse processes of TBL reporting where researcher engagements are driven by a desire to facilitate change. Recent efforts to deliver on this need (Adams & McNicholas, 2007; Bebbington et al., 2007) will be introduced later.
constraints that impede change in society, and thus what kind of changes are required to overcome these constraints.

The core distinction is between (1) those who assume that the constraints are structurally driven by the underlying economic system of capitalism; and (2) those that take this system for granted, and so focus only on the constraints created by particular interactions at the scale in which the phenomenon is being studied\(^{31}\). With the former, the assumption is that radical change is required and that companies use reporting to enhance their power (Gray et al., 1996, p. 35). The latter builds on an assumption that evolutionary change is preferable, and that corporate reporting could have a more positive role of increasing organisational accountability and transparency (Gray et al., 1996, p. 35). Under such a distinction, therefore, TBL reporting is most likely to be advocated by those who assume change is best achieved through evolutionary means. Those who have more fundamental concerns about the sustainability of the capitalist system are more likely to perceive TBL reporting as a political tool used by companies to further their ‘political bottom line’ interests (Bendell & Kearins, 2005; Gray et al., 1996, p. 64).

The concept of ‘legitimacy’ is similarly distinguished between (1) a radical questioning of the legitimacy of the capitalist system as a whole; and (2) a questioning of the legitimacy of a particular organisation seeking to “exist in society under an expressed or implied social contract” (Campbell, 2000, p. 82). This latter concept of “organisational legitimacy” was originally developed by Dowling and Pfeffer (1975) and further elaborated by Lindblom in a widely cited 1994 conference paper that was never published (Deegan, 2002, p. 304). Organisational legitimacy is often assessed by comparing the information provided by the organisation about its social and environmental impacts with how the media reports on these impacts to identify gaps in portrayal (e.g. Adams, 2004; Adams & Evans, 2004; Campbell, Craven & Shrives, 2003; 31 McGrath and Mathews (2005) have provided a more detailed spectrum of theoretical approaches based on Mathews (2004) earlier reviews of the literature (i.e. critical theorist, social contract, organisational legitimacy and business case), while also including another dimension to link these approaches with the cultural perspectives that prevail in the different places in which research into social and environmental reporting has been undertaken.
Cormier & Gordon, 2001; Deegan, Rankin & Tobin, 2002; Neu et al., 1998; Patten & Crampton, 2003). Results suggest that most corporate reporting is little more than public impressions management, and leads to speculation that corporations use it to exercise greater control over the sustainability debate (Neu et al., 1998; Ogden & Clarke, 2005; Tregidga & Milne, 2006).

2.3.2 The stakeholder concept, researcher engagement and learning

The stakeholder concept has also been widely used when investigating accountability at organisational scales. The depth and quality of stakeholder engagement determines whether TBL reporting becomes counter-productive (Owen, Swift & Hunt, 2001) or has the potential to develop into a process that can contribute to enhanced sustainability (Bendell, 2000b). The seminal definition of a stakeholder is “any identifiable group or individual who can affect the achievement of an organisation’s objectives or is affected by the achievement of an organisation’s objectives” (Freeman, 1984; cited in Milne, Tregidga & Walton, 2004, p. 21). Such a notion appeals to those seeking to create a more participatory approach to the democratic functioning of society. It also appeals to those seeking to change the current focus within capitalist society on financial stakeholders towards a broader accountability. It thus generally fits with those who assume an evolutionary approach to change is preferable. Even so, there are differences in approaches to stakeholder engagement (Bendell, 2000a). Some perceive that the approach is more a case of stakeholder management than engagement. At one extreme, for example, Sternberg (1999, p. 10) warns against the notion that stakeholders have entitlements, suggesting that “individual liberty and the rights of business owners” should be respected. Others see stakeholder engagement as an opportunity “to ‘democratise the democracy’” (Eckerberg & Mineur, 2003, p. 594) and a means to develop “civil regulation” of corporate activity (Bendell, 2000b).

As a means to generate a ‘stakeholder capitalism’ (Wheeler & Sillanpää, 1997) whereby corporations are more accountable to their stakeholders, the theory has developed in terms of classifying stakeholders into primary and
secondary stakeholders, or, as Gray et al. (1996, pp. 66-70) describe it: primary, secondary and, by extension, tertiary levels of interactions. The primary level involves those stakeholders that the company interacts with directly (e.g. shareholders, employees, customers, suppliers etc.); the secondary level being those who have no direct interaction with the company but who influence or are influenced by the company’s activities (e.g. providers of social infrastructure; receivers of waste products, etc.); and the tertiary level at which the specific interactions between the organisation and the society are less important than the interactions of the economic system as a whole (e.g. the environment).

As suggested above, those who use stakeholder theory are driven by two divergent approaches. Originally, it was conceived as a strategic management tool to assist an organisation better manage its interactions with those with whom it relates in society. In this sense, the strength of the framework is its practical instrumentality. The political change agenda, however, has created an approach driven principally by ethics. Its normative extensions are reflected in the way Gray et al. (1996) have sought to include the environment as a stakeholder.

The more normatively driven approach has led to social accounts that, for example, develop evidence for the extent of injustice created by the concentration of wealth among certain stakeholders at the expense of others. Such an account was attempted for the electricity industry in England and Wales in the period from privatisation in 1990-91 until the election of the Blair Labour government (Cooper, 2004). The creation of such social accounts by independent outsiders, also known as ‘shadow accounts’ (Gray, 2006b, p. 810), could even be used as a means for critics to expose what they perceive as unjust and exploitative practices of business activity, and thus strengthen their arguments for radical change away from the capitalist model. It can help provide evidence for the view that corporate reporting is used as a strategic

32 Jones and Wick (1999) have sought to break ground here by converging the former more practical approach into one that is more normatively driven.
management tool to manipulate how stakeholders perceive the organisation, or even control the terms of the debates with their stakeholders (Neu et al., 1998).

The bulk of the research related to reporting uses the theoretical approaches introduced above to describe and evaluate reports and approaches to reporting. However, the new theoretical approaches being called for are those that will enable researchers to theorise their interactive engagement with reporting processes. A recent issue of the *Accounting, Auditing and Accountability Journal* focused specifically on addressing this need (see the introduction to it by Adams & Larrinaga-González, 2007).

Two papers are worth highlighting. The first is by Adams and McNicholas (2007), which applies an action research methodology to a case study involving a statutory water supply authority in rural Victoria. I was able to use an earlier unpublished version of this paper as one of the case studies from which I developed the TBL reporting evaluation criteria I present later in this chapter.

The second paper is based on articulating a theoretical approach to researcher engagement processes that can facilitate emancipatory change, and revolves around the notion of dialogic thinking (Bebbington et al., 2007). The term dialogic originates from a philosophical notion of literary exegesis whereby that exegesis is undertaken interactively between the writer, the reader and back again (Bebbington et al., 2007, p. 357); similar to the current fervid interest in the interactive possibilities of the Internet. The paper brings together some of the author’s prior efforts, notably that of Thomson and Bebbington (2005) used as one of the case studies for my TBL reporting criteria. It responds to the current “learning turn” within critical theory whereby processes of interactive learning are seen as the key to advancing from mere criticism towards practical change. Thus, “researcher engagements that involve interactions with organisations and “others” can be characterised as educative processes and, therefore, valuable insights can be gained from applying this learning turn to these processes” (Bebbington et al., 2007, p. 357). My focus on the role of learning, organisational change and the attainment of sustainability also sits within this “learning turn”. Future sustainability depends on creating spaces for
people to become enlightened and empowered to advance the radical changes that I think are required, as explained in Dillard’s (2007) contribution below.

2.3.3 Action spaces for enlightenment, empowerment and emancipation

With the shift in terminology now towards increased reference to sustainability reporting over social and environmental reporting, the need for a new text that builds on the prior work of, for example, Gray et al. (1996) has recently been met (Unerman, O’Dwyer & Bebbington, 2007). The theoretical contribution for this text was provided by Dillard (2007), who builds on Gray et al.’s (1996) analysis and links it to the inherent pragmatic nature of much of the work to date, which he refers to as “the social accounting project” with deference to Gray (2002). He notes how experiences of accountancy academics with organisations undertaking sustainability reporting have generally been pursued for pragmatic purposes and have therefore been “more intent on action than theorising” (Dillard, 2007, p. 37). However, especially since Gray’s (2002, p. 702) call for accountancy academics to analyse their experiences of practical engagement in sustainability reporting, those who have done so appear to Dillard to have “a growing affinity” with critical theory. In analysing their engagements, there is “a growing awareness that the objectives of a sustainable natural and social world are probably not attainable within the current context of global market capitalism” (Dillard, 2007, p. 37). He then uses Habermasian “communicative action” critical theory (Habermas, 1984) as the basis upon which researchers can create “action spaces” through which change can be exercised by their interactive contributions to processes of enlightenment, empowerment and emancipation.

What I find most satisfying by the focus on “action spaces” as part of Dillard’s theoretical framework is that it shifts the emphasis on how organisational reporting is evaluated from an approach that is summative to one that is formative. Much of my criticism of the literature is that it is focused on summative evaluations of the content of reports or on the way the organisation relates to its stakeholders; a criticism which is supported by the recent calls for
increased theory-driven engagement by researchers with the TBL reporting phenomenon.\footnote{Another way to understand this distinction between summative and formative evaluation builds from criticisms that theories about corporate social responsibility are “too static”, and that there is a need for “dynamic approaches” to theorising how companies learn (Gond & Herrbach, 2006, p. 80).}

Dillard begins his elaboration on the processes of enlightenment, empowerment and emancipation by noting that interaction is the key to building enlightenment. The interactive process between researchers, practitioners and their stakeholders enables “the public interest issues associated with sustainability and accountability” to be identified and considered (Dillard, 2007, p. 46). One of the potential benefits of using TBL reporting to create change towards enhanced sustainability is that it is an activity that stretches beyond one isolated event, and can create “an ongoing conversation between the actor and all affected parties” based on “open and trustworthy discourse” (Dillard, 2007, p. 44). This potential to build ongoing relationships through a focus on regular, continuing reporting activities as opposed to the predominance of short-term forms of evaluation highlights the potential of TBL reporting as a mechanism for fostering continuous improvement and learning.
projects through which stakeholders are engaged is an aspect of TBL reporting well worth highlighting. It also means that the collaborative pursuit of this enlightenment can develop iteratively, which, in turn, can lead to empowerment “as the deeper understanding is conveyed to members of the ongoing community” (Dillard, 2007, p. 46). A key component of this deeper understanding derives from the capacity to reveal and confront the hidden assumptions that govern prevailing discourses within an organisation and among its external stakeholders (Thomson & Bebbington, 2005). The inability to uncover hidden assumptions can be one of the main constraints on change, especially when these assumptions are an inherent part of corporate responses to such a complex and conflict-ridden concept as sustainability (Milne, Kearins et al., 2006).

The empowerment process of building this deeper understanding is another area in which academic scholars can contribute through innovative pedagogical thinking they develop as part of their ongoing interactions. For example, Thomson and Bebbington (2005), recommend a Freirean pedagogical approach where an organisation and its stakeholders work together to reveal the hidden assumptions that constrain efforts to progress towards sustainability. This approach is consistent with organisational learning theory (Argyris & Schöning, 1978) which provides similar innovative means and skills to dig beneath tacit operating assumptions, and provides a useful framework to analyse the link between reporting and learning (Berthoin Antal & Sobczak, 2004; Gond & Herrbach, 2006), as discussed in the next chapter. A critical outcome from these innovative processes of empowerment is an appreciation of the possibilities for action that might genuinely tackle unsustainable activities, which in turn builds on an appreciation of the complexities involved at the interface between organisations and the social and environmental systems within which they operate (Dillard, 2007, p. 46).

Dillard continues by explaining that emancipation evolves through actions undertaken by “enlightened members of the ongoing community” – actions which facilitate further enlightenment and empowerment when the ongoing community openly discusses the extent that these actions are able to advance
the cause of both environmental and social sustainability (Dillard, 2007, p. 46). Nurturing skills and innovative thinking that can facilitate such community interaction is another area where researchers can contribute. The creation and nurturing of “action spaces” in these ways provides a clear theoretical direction for researcher engagement in TBL reporting processes. Dillard’s modification of critical theory to direct this by focusing on enlightenment, empowerment and emancipation closely resembles how I have formulated the approach to my research question, which focuses on much the same processes of learning, capacity building and change. Such approaches are of use for those seeking evolutionary change as well as generate impetus towards more radical approaches to change. In the next chapter, I create a framework for analysis that can be used by researchers as part of their engagements with case studies of TBL reporting.

2.3.4 Changing organisations: Employees as change agents

Research that investigates internal change factors is another under studied area in social and environmental reporting (Adams, 2002) as is the role of internal change agents in organisational change processes more broadly (Hartley, Benington & Binns, 1997). The main studies exploring internal change factors build on perspectives drawn from the organisational change literature. These studies included analyses of the extent that organisations changed after they adopted environmental accounting initiatives (Ball, 2005, 2007; Larrinaga-González & Bebbington, 2001; Larrinaga-González, Carrasco-Fenech, Caro-González, Correa-Ruíz & Páez-Sandubete, 2001).

In these case studies the researchers were looking for evidence of organisational change, based on Laughlin’s (1991) typology from no change (“inertia”); active resistance to change (“rebuttal”); minor changes that respond to new expectations (“reorientation”); attempts to influence those external expectations of change so that they meet with the organisation’s own agenda (“colonization”); and organisational changes in response to external pressures (“evolution”) (Larrinaga-González & Bebbington, 2001, p. 280). For the most part, these researchers found there was no substantive organisational change,
but rather “institutional appropriation”, meaning that “the radical intent behind environmental accounting [was] lost, or swallowed up by corporate hegemony, with the result that the issues environmental accounting [sought] to address [remained] unaddressed” (Larrinaga-González & Bebbington, 2001, p. 270).

Ball (2007) provided a new perspective when she suggested that organisational change may be strengthened when internal stakeholders align their aspirations with those of external social movements committed to environmentalism and/or social justice. Ball’s perspective builds on her experience with public service organisations, and the potential for such organisations to contain what Meyerson and Scully (1995) describe as “tempered radicals”; i.e. employees keen to change the beast from within, but somewhat tempered by their desire to remain employed.

Apart from Ball’s recent work, there has not been much research examining the role of employees as stakeholders in the reporting process. Johansen (2008a, 2008b) explored the role of employees in a Danish financial institution that had undertaken social accounting, focusing on different perceptions of the accountability concept (Johansen, 2008b). Employees, like those who are the ‘tempered radicals’ in the public service, face a dual existence (Johansen, 2008a). They are expected to be accountable to management for what they do on a day-to-day basis, but management is also accountable to them in terms of how they are treated as internal stakeholders. Johansen (2008b, p. 259) found that employees were often reluctant to exercise their voice, even when independently administered surveys were used to solicit their opinions. He therefore concluded that increased devolution of accountability onto employees through professional development programs can affect their willingness to speak out critically.

2.4 Traditions underpinning TBL reporting

Those who have a longer history in the literature related to social and environmental reporting than me have acknowledged the difficulty for novices to identify and organise the literature (Mathews, 1997, 2004; Thomson, 2007). They also note that their categorisations of the literature represent their own
individual views and experiences (Gray, 2002, p. 688; Mathews, 1997, p. 482; Thomson, 2007, p. 20). The following classification of the literature into three categories is similarly individualistic and matches the way I mapped the literature (cf. Thomson, 2007). The classification builds on a distinction between social and environmental reporting traditions made by Elkington (1998), Low and Davenport (2001) and Buhr (2007), to which I have added a third category on participatory approaches to community sustainability and natural resource management programs.

2.4.1 Influences from corporate social reporting

Of these three influences, corporate social reporting has the longest history, dating back to the 1970s (Mathews, 1997). It builds on notions of corporate social responsibility that have been around since the 1950s (Carroll, 1999); an even longer history of reporting on issues related to employees (Buhr, 2007, pp. 59-60); and social justice driven business practices dating back to the nineteenth century (Quarter, 2000). The terms ethical reporting and values reporting have also been used to reflect these notions of social responsibilities (e.g. Hayward, 2002; Sillanpää, 1998). Because of the global nature of the issues that are now at stake, Berthoin Antal and Sobczak (2004) recommend referring to global responsibility rather than corporate social responsibility and prefer this term to the overused and unclear reference of sustainability reporting.

Given its history, corporate social reporting provides most of the theoretical approaches currently used in TBL reporting research, as introduced above. However, experiences with the social reporting project also provide a wealth of practical suggestions on how to undertake social reporting and how to engage

34 Low and Davenport (2001) had the impression that two approaches to reporting were competing for acceptance: (1) “TBL reporting” associated with Elkington’s SustainAbility and the influence of the environmentalist movement on corporations; and (2) “social auditing” associated with Zadek’s Institute of Social and Ethical AccountAbility (ISEA) (see Zadek, 1998; Zadek, 2001), the notion of ‘stakeholder capitalism’ (Wheeler & Sillanpää, 1997), and the experiences of ‘values-driven’ companies such as Traidcraft (Gray, Dey, Owen, Evans & Zadek, 1997) and the Body Shop (Livesey & Kearins, 2002; Sillanpää, 1998). The concept of what the two approaches are has since coalesced, quite likely as a result of the standardising influence of the Global Reporting Initiative, to which ISEA and SustainAbility are both active stakeholders.
stakeholders. For example, O’Dwyer (2005) provides a helpful step by step description of the process of creating a social account which builds on Gray et al.’s (1997) account of the experiences of Traidcraft, a values-based company that worked with the New Economics Foundation under Simon Zadek. Zadek later established the Institute of Social and Ethical AccountAbility, which produced a standard for best practice corporate stakeholder engagement (Institute of Social and Ethical AccountAbility, 1999). Zadek’s (2001) book also provides ideas on how corporations can respond to the social responsibility agenda and engage their stakeholders. More recently, his consultancy organisation has provided a detailed manual on procedures that companies can adopt to engage their stakeholders (Institute of Social and Ethical AccountAbility, 2005a, 2005b).

2.4.2 Influences from environmental reporting

The most immediate influences behind the development of TBL reporting have been through environmental reporting. The interest in TBL reporting corresponds with what Elkington describes as a third wave of interest in environmentalism. The first wave took place in the 1970s and key works produced at that time include the computer future modelling in *Limits to Growth* (Meadows, Meadows, Randers & Behrens III, 1972) and *A Blueprint for Survival* (Goldsmith, Allen, Allaby, Davoll & Lawrence, 1972) produced by *The Ecologist* magazine prior to the UN Stockholm Conference on the Human Environment, the first world summit on the environment. The second wave is associated with the release of the Brundtland Report by the World Commission on Environment and Development (1990) and led to the corporate world being introduced to “environmental audits” (see Elkington, 1988), “life-cycle assessment” and “eco-labelling” (Elkington, 1998, p. 58) through the release of such works as *A Blueprint for a Green Economy* (Pearce, Markandya & Barbier, 1989) and Elkington’s own *Green Consumer Guide* (Elkington & Hailes, 1989). A downwave of corporate resistance to the sustainability agenda followed in the 1990s before there was the start of a swing towards appeasement based on a growing level of evidence of a sustainability crisis, according to Elkington (1998, p. 62). Elkington’s perception of such an “imminent” third wave encapsulates
much of his inspirational tone. Others have provided evidence to support a more sceptical view of this supposed corporate adoption of the sustainability agenda (e.g. Livesey & Kearins, 2002; Milne, Tregidga & Walton, 2006; Tregidga & Milne, 2006).

Despite the impression of a downwave during the 1990s, studies have identified an increase in levels and quality of environmental reporting over the decade, despite generally falling way short of desired standards for transparency, accountability and stakeholder engagement (e.g. Adams & Evans, 2004; Deegan et al., 2002; SustainAbility Ltd. & United Nations Environment Programme, 1997). Some of the impetus behind this reporting focused on meeting health and safety expectations, sometimes through legislation, but also through standards developed by affected industries (Adams, 2004, pp. 737-738 provides examples of these developments for the chemical industry). The interest in developing regulations for environmental disclosures has increased (see Fleischman & Schuele, 2006, p. 46ff. for a historical summary of these developments). Environmental reporting was initially taken up within annual reports (e.g. Niskala & Pretes, 1995), but later also became stand-alone reports (Sinclair & Walton, 2003, p. 327). Recently privatised government departments were often required to produce environmental reports as part of their licensing obligations (e.g. Hopkinson, James & Sammut, 2000).

In Australia, the main impetus behind government action on sustainability has been the 1992 National Strategy for Ecologically Sustainable Development (Bennett, 2001, p. 35) which called for regular national State of the Environment Reporting (Objective 14.2). This process of reporting is also used by state and local levels of government, and is based on a recommended set of indicators (Australia and New Zealand Environment and Conservation Council, 2000).

The experience of environmental reporting has brought emphases on rigour in indicator development, standardisation of reporting expectations, the need for systems analysis and the use of frameworks and models as a means to integrate across TBL dimensions. It also emphasises an important distinction between mandatory reporting and voluntary reporting. The desire to come up
with a standard set of indicators for sustainability reporting drives the work of
the Global Reporting Initiative (Environment Australia, 2003; Suggett & Goodsir,
2002), and the various organisations that evaluate, benchmark and award
sustainability reports (e.g. Association of Chartered Certified Accountants,
2007; SustainAbility Ltd., United Nations Environment Programme & Standard
& Poor’s, 2004).

A key driving factor for rigour and standardisation has been to facilitate a
more integrated report presentation that can account for the relationships
between different and often competing organisational aspirations across the
TBL. For Elkington (1998, p. 70), the challenges lie in the “shear zones”
between the three bottom lines. This challenge has led researchers to develop
models and frameworks to enable comparisons and trade-offs to be more easily
identified, such as the Amoeba spider diagrams and dashboard depictions
mentioned in Chapter 1. Much of this work is built on systems analysis, which is
seen as crucial to incorporating a more holistic understanding of sustainability
into the reporting process (Gray et al., 1996, p. 12ff.; Venning & Higgins, 2001;
Victorian Auditor-General’s Office, 2004, p. 19). However, Gray and Milne
(2004, p. 76) warn that this level of thinking and analysis will not be something
that economically driven organisations will easily accomplish.

Because a lot of environmental reporting has only met the basic requirements
set out in legislation or industry standards, there has been an ethical drive to
ensure that such reporting goes beyond mandatory reporting requirements
towards higher standards of voluntary disclosures (e.g. Larrinaga-González &
the other hand, the case has also been put that the only effective way to ensure
the corporate sector undertakes fully accountable and transparent TBL
reporting is if the requirements for such reporting are made mandatory (Gray &
Milne, 2004)35.

35 In 2004, the Ethical Corporation magazine reported that there was a proposal by the new
elected socialist government in Spain to discuss with various stakeholders the introduction of a
TBL “accountability and transparency regulation” for Spanish listed companies. Unfortunately,
the interest behind this move was later diluted and no action was taken (Larrinaga González,
2008, pers. comm.).
2.4.3 Influences from participatory approaches

Because the literature related to TBL reporting is largely focused on reporting done by large corporations, the contributions of the “sustainable communities movement” to the ideas and process of TBL reporting are easy to overlook. Many of these are focussed on developing sustainability indicators as a means to engage communities and stakeholder groups in both community and natural resource management (NRM) planning and monitoring processes (Bell & Morse, 2004; Gahin, Veleva & Hart, 2003; Potts, 2006)\(^\text{36}\).

As noted in the introduction, for Elkington (1998, p. 72), the key to managing organisational progress towards sustainability is measurement, and the tools for this trade are indicators (Elkington, 1998, p. 76). While he asserts that it will eventually be possible to measure progress against the TBL, he acknowledges that further work is required to develop the necessary metrics, especially in the area of social accounting (Elkington, 1998, p. 88) and in developing an approach to measuring progress in an integrated way (Elkington, 1998, p. 72).

The two main contributions from community and NRM processes are its emphasis on participation and iterative learning to facilitate discussions on how to enhance sustainability and the development of indicators that will be meaningful and accessible to all stakeholders (Bell & Morse, 2004; Eckerberg & Mineur, 2003; Rogers, 2005). The use of sustainability indicators in these contexts is about empowering communities and stakeholders to identify what needs to be done to enhance sustainability rather than simply part of an onerous reporting task.

As noted previously, much of this work has been spearheaded by existing efforts to report on community developments as part of ‘Local Agenda 21’ (Corbiere-Nicollier, Ferrari, Jemelin & Jolliet, 2003; International Council for Local Environmental Initiatives, 2002, p. 30ff.; Kelly & Moles, 2002; Mercer & Jotkowitz, 2000); and in the EU as part of the related PASTILLE project.

\(^{36}\) I have also recently come across literature on community based monitoring of local sustainability programs (e.g. Pollock & Whitelaw, 2005), which, like me, emphasise a need to focus on process – to enable “the integration of experiential learning with scientific and technical knowledge into the planning and management of the environment” (Conrad & Daoust, 2008, p. 360).
(Eckerberg & Mineur, 2003; Rydin, Holman & Wolff, 2003). Frequently, the purpose behind local government action in this area is to increase awareness about sustainability issues in the community – an exercise whereby local officials seek to work with their communities in a collaborative learning exercise to identify meaningful indicators of sustainability. There are also cases where communities have undertaken such an exercise without it being initiated by local government (e.g. Rogers, 2005). Work in this area has frequently benefited from interactive research processes (Astleithner & Hamedinger, 2003; Kelly & Moles, 2002).

Out of these experiences, a sustainability indicator is defined as something that “captures and measures a particular aspect of sustainability policy in an easily communicated form, allowing monitoring and the subsequent ‘steering’ of policy, whether by internal management or external political pressure” (Rydin et al., 2003, p. 581). Eckerberg and Mineur (2003) explain that indicators tend to either be oriented at citizens or experts. Citizen-oriented indicators help the public define what the sustainability issues are and facilitate communication and understanding about how to achieve sustainability in practice. Most sustainability indicators, however, are designed by and for experts, who then advise decision makers on particular aspects of sustainability, and how to improve performance. In both cases, the important point is that an indicator is “only useful ... to a mind prepared to receive it, educated to its terms and actively engaged with the system” it illuminates (Meadows, 1998, cited in Rogers, 2005, p. 114)\(^{37}\). So, for example, Tzilivakis and Lewis (2004) have adapted the UK’s national indicator set for sustainable agriculture so that it is not only accessible to individual farmers, but can help them identify and prioritise the indicators that are most relevant for their particular farm context, and to improve their farm practices.

Another important point made about indicators is that it can be highly counter-productive to be solely focused on indicator selection. There is an easy

\(^{37}\) A similar point has also been made by accountants: “for accounting to claim to be meaningful it must claim to be understandable, to contain true information, to be expressed in the appropriate way, and to be communicated by a party that has valid claims to legitimacy and trustworthiness” (Puxty, 1986, p. 99).
temptation to begin TBL reporting processes with indicator selection, whereas this is the wrong place to start. TBL indicators “should be clearly related to the objectives they are meant to address” which means that the TBL reporting process should be objective-driven not indicator-driven (Chesson, 2002, p. 1). This was the approach recommended by the CRC IF Sustainability Challenge project (Christen, Shepheard, Jayawardane et al., 2006, p. 3). Creating a TBL report requires organisations to first contemplate and discuss the sustainability issues they face, then design clear objectives to address those issues, and finally develop a means to monitor progress towards those objectives in an open and transparent manner. It highlights again the importance of process; or, more specifically in this case, ordering of activities within a process.

Of course, this focus on a structured objective-driven approach has not come solely out of the community and NRM literature. It is similar to the Balanced Scorecard (BSC) approach (Kaplan & Norton, 1996), which is widely used as a management tool to help design and implement corporate strategies. Like the TBL, the BSC is framed within standard categories that corporations can use; i.e. financial aspects; customer relations; internal processes; and organisational learning and growth. However, these standard categories can easily be replaced with or extended to others, such as environmental aspects (Figge, Hahn, Schaltegger & Wagner, 2002). Within each broad category, objectives are defined, then operational targets, and finally measures against those targets; and this is usually undertaken in a top-down fashion (Figge et al., 2002). I provide this detail on the BSC here because, as events unfolded in my case study, the pursuit of a TBL reporting strategy became intertwined with my case study organisation’s development of its corporate plan based on the BSC. Others have also made this connection between a BSC approach and sustainability reporting (e.g. Ball & Milne, 2005; Dias-Sardinha & Reijnders, 2005), including the development of a Sustainability BSC (Figge et al., 2002).

However, a difference that comes through the community and NRM literature is the recommendation to move away from such top-down processes like the BSC. Bell and Morse (2003), for example, emphasise a more participatory process of learning-by-doing to facilitate greater bottom-up identification of
objectives and useful indicators. To do so requires that sustainability objectives and indicators are developed iteratively, and such a cyclical process fits easily with how TBL reporting can develop. A focus on iterative learning formed the foundation of another key recommendation that came out of the CRC IF Sustainability Challenge project. The TBL reporting process is best developed as an iterative learning cycle, and so we modified Kolb et al.’s (1995, p. 49) experiential learning cycle so that it could be applied to the TBL reporting context, as shown in Figure 4. Our emphasis on participation is displayed by placing stakeholder engagement at the heart of the cycle; the engagement of stakeholders is central to ensuring the cyclical process delivers on its outcomes.

**Figure 4: TBL reporting as a learning cycle**

- Evaluate indicator trends
- Identify areas for improvement
- Review objectives
- Evaluate management strategy

- Statement on the organisation’s vision and values for sustainable development
- Identify key sustainability objectives
- Develop management strategy for enhancing sustainability
- Determine key performance indicators across TBL

- Monitor and measure
- Collate data
- Write TBL report

(Source: Shepheard et al., 2006, p. 4)

However, one criticism that has come through the application of TBL reporting in community and NRM contexts is its focus on measurement. Vanclay (2003), for example, argues that the association of TBL reporting with accounting has allowed it to degenerate from a useful heuristic into “a simple set of indicators” that constitute some kind of “decision algorithm” mechanism. More importantly, he argues that the “push to a language of accounting or economics is likely to
ignore many of the truly social issues” (Vanclay, 2003, p. 74). In the corporate world, such a danger may not just be about ignoring key social issues but also manipulating their importance with respect to the primary function of making a profit, as Bendell and Kearins (2005, p. 379) argue:

“Many social and environmental phenomena cannot be easily considered numerically. Therefore, the concept of a bottom line for the social and environmental impacts of companies is conceptually flawed, and its lack of clarity has enabled managers to define social and environmental issues in terms of financial viability for the company. In addition … some would argue that issues of human rights, pollution and so forth should not be compromised, and that decisions regarding such compromises should not be left to organisations that seek profits.”

Some have even gone as far as suggesting that TBL reporting is about “translating environmental and social liabilities into financial terms” (Schilizzi, 2002). While useful, this is an entirely different exercise. Since the 1970s, accountants have been working on ideas like “total impact accounting” whereby the externalised costs of an organisation’s social and environmental impacts are incorporated into the organisation’s accounts, even though the costs end up as somebody else’s financial burden (Mathews, 2003).

However, measuring performance against the TBL is inherently about going beyond the financial; and perhaps even going beyond quantitative measurement. Indeed, Gray and Bebbington (2001) emphasise that accounting for a future – i.e. sustainability – suggests the need for a change in paradigm. This in part results from the danger of relying on market-based measures as it is “the unfettered market” that has “caused many of the environmental problems in the first place” (Mathews, 1997, p. 493). It is also because of the difficulties posed when seeking financial values for non-marketable goods; for example, through identifying how much society would be willing to pay for wilderness areas (Kopp, Pommerehne & Schwarz, 1997, p. 2). In contrast, much effort is being invested in developing sustainability indicators that are not framed in financial terms, and in some cases towards indicators that are qualitative in nature (see discussion by Bell & Morse, 2001).
2.5 Creation of a set of criteria to evaluate TBL reporting processes

The rest of this chapter presents a set of evaluation criteria that were developed with the aim of improving the outcomes of TBL reporting. The substantial components of the rest of this chapter have already been published in the journal *Local Environment* (Mitchell, Curtis & Davidson, 2008). The presentation here is more detailed, although the key section describing the criteria remains very similar to how it appears in the *Local Environment* article. I have also presented this framework at several national and international forums ranging from gatherings of irrigation focused researchers and practitioners\(^{38}\), researchers with an interest in the agri-food industry\(^ {39}\), and social and environmental accountancy researchers\(^ {40}\).

2.5.1 A new approach to the evaluation of TBL reporting

Currently, most evaluation of TBL reporting focuses on report content. In other words, it is only what is in the report that is assessed when reporting awards are decided or when benchmark surveys are undertaken\(^ {41}\). The criteria I have developed focus on the process of reporting, and thus present a new approach to evaluating TBL reporting. By focusing reflection on the link between the way organisations use their reporting and their sustainability outcomes, this evaluation framework will assist those seeking to use TBL reporting as an agent for change.

Because of the focus on report content by those evaluating TBL reports, those seeking to meet benchmarks or win awards are likely to become preoccupied with how reports are presented and which performance indicators to make public. This preoccupation is likely to deflect attention from the

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\(^{38}\) Irrigation Association of Australia 2006 National Conference, Brisbane, 9-11 May 2006; CRC for Irrigation Futures Annual Research Forum, Narrabri, 4-7 December 2006


\(^{40}\) 5th Australasian Conference on Social and Environmental Accounting Research, Wellington, 22-24 November 2006

\(^{41}\) such as the methodology used by SustainAbility in its biannual global surveys of corporate sustainability reporting (see SustainAbility Ltd., United Nations Environment Programme & Standard & Poor’s, 2006)
reflection and learning required to enhance sustainability. It would be better to reflect on how to improve the ongoing and cyclical process of reporting; the capacity and relationship building that can occur; and how this in turn might impact on TBL outcomes.

The closest existing examples of evaluation criteria that relate to the process of reporting are those developed by Zadek (2001, p. 198 ff.) for measuring “quality dialogue” by “conversational corporations”. The four dimensions he identifies for quality dialogue are:

- Procedural quality – i.e. designing and implementing stakeholder dialogue;
- Inclusiveness – i.e. “reflection at all stages of the … process … of the views and needs of all stakeholder groups” (Institute of Social and Ethical AccountAbility, 1999 cited in Zadek, 2001, p. 199 emphasis added);
- Outcome quality – i.e. the actual results and who wears the burdens or reaps the benefits; and
- Responsiveness quality – i.e. the willingness of the company “to respond to stakeholder concerns” (Zadek, 2001, p. 201 emphasis in original).

Zadek’s consultancy organisation has also prepared a process accountability standard, the AA1000 (Institute of Social and Ethical AccountAbility, 1999). This standard “goes some way in setting out the principles of quality as they should apply to the process of dialogue” (Zadek, 2001, p. 199). Organisations undertaking TBL reporting have been urged to make greater use of these standards (e.g. Association of Chartered Certified Accountants, 2005, p. 14).

Another evaluation framework is the Australian Business Excellence Framework (ABEF) (Standards Australia International, 2003), a Total Quality Management framework similar to others used around the world. Because the ABEF refers to principles such as improving processes, continual learning and delivering value to stakeholders, practitioners have identified the theoretical underpinning of my evaluation framework with key components of the ABEF.

Like Zadek’s (2001) criteria for quality dialogue, the TBL reporting evaluation framework presented here is focused on the process of reporting. The
difference is that I encompass a broader range of process factors than stakeholder dialogue alone. For example, I have included aspects related to learning through the process, the capacity building that may evolve as a result, and the kinds of changes that are planned and implemented. My criteria also highlight how to make most use of the TBL concept in reporting, and how to use reporting to improve TBL outcomes. The broad range of factors I have included in the evaluation criteria make it seem similar to the ABEF principles; however, the ABEF principles relate to whole of business management approach, whereas the criteria presented here are specifically focused on the role of reporting.

The argument presented through this thesis is that a more effective evaluation of TBL reporting should go beyond reports as the outputs of a process and focus on what is being learned through the process, the capacity and relationship building that might eventuate, and how this impacts on the development of sustainability. By focusing on how the reporting process affects organisations, and how they make use of their reporting, an assessment is more likely to identify changes happening within an organisation that might not be apparent from looking at the report alone. This is crucial for those concerned about whether TBL reporting can be an effective agent for change. The answer to this question is unlikely to be found in the reports. The answer is more likely to lie in how the organisations and their stakeholders use the report.

I have also sought to employ a methodology consistent with my overarching epistemological emphasis that knowledge is best acquired through social interaction. Rather than merely reading other people’s work, my aim was to engage with the authors to improve and verify the results I was drawing out from their research. In other words, to refer back to the work of Bebbington et al. (2007), this framework has developed through a dialogic learning approach.

### 2.5.2 Methods to create the evaluation criteria

My interaction with authors adds to a methodological process which would otherwise be similar to other analyses of documented case studies (e.g. Fritsch & Newig, 2007). The primary methodological tasks were to collate and
synthesise the conclusions of researchers who had studied and/or engaged in social and/or environmental reporting activities by organisations and to reformulate them into a set of evaluation criteria. Through this process I was able to identify the key attributes of the reporting processes that contributed to successful as well as adverse outcomes, and then reduce the large number of attributes into a manageable set that practitioners could employ. Six steps were involved:

1. Literature search
2. Selection of case studies for detailed review
3. Structured reviews
4. Engagement with authors
5. Synthesis of criteria – desired outcomes and prompts for reflection
6. Trials of the framework

2.5.2.1 Literature search

As a starting point, word searches (e.g. “triple bottom line”, “sustainability” and/or “reporting”) of electronic databases (e.g. ISI Web of Science and ProQuest) were used to identify examples of published research of case studies related to social, environmental and/or sustainability reporting. Clearly, this did not provide all the relevant published research available due to the wide array of terms used to refer to this kind of reporting. Many were subsequently found by searching the literature cited in the initial case studies identified. The total number of studies gradually increased to over 150 through this constant snowballing process.

As this process evolved, a couple of points became apparent. First, there was a much greater emphasis on broad surveys of social, environmental and/or sustainability reports (e.g. Centre for Australian Ethical Research, 2004; Frost, Jones, Loftus & van der Laan, 2005; Gray, Kuohy & Lavers, 1995; Morhardt, Baird & Freeman, 2002) rather than in-depth case studies of individual reporters. While I intended to focus on the latter, I included a few surveys of multiple reports where some in-depth analysis was provided. These included
the survey by Milne et al. (2004) of leading TBL reporters in New Zealand; and the surveys by Ogden and Clarke (2005) and Veleva et al. (2003) of companies in a particular industry (the water industry in England and Wales and leading global pharmaceutical companies respectively). Second, of the published case studies that were focused on individual reports, hardly any examined the process of reporting. Instead, they tended to be detailed examinations of particular reports (e.g. Livesey & Kearins, 2002), or, in some cases, a longitudinal study of a particular reporter (e.g. Deegan et al., 2002; Tregidga & Milne, 2006). Examples of publications that did involve in-depth analysis of a reporting process based on case study field engagement included that by O’Dwyer (2005) and by Adams and McNicholas (2007).

2.5.2.2 Selection of case studies for detailed review

In selecting case studies for in-depth review, I gave priority to those that were: (1) studies of reporting processes in which the researchers were actively involved and used, for example, participant observation and/or action research methods (with just one notable example, being Adams & McNicholas, 2007); (2) analyses of reporting processes, not just descriptions (a good example here is O’Dwyer, 2005); and (3) based on an in-depth analysis of one or two organisations as opposed to general surveys of organisations, as explained above. This selection process was undertaken iteratively with the development of my detailed reviews in that I started to undertake my reviews of some studies before the selection of the set had been finalised. Undertaking detailed reviews of initial case studies I came across helped me to reflect on the questions I was using for the detailed reviews, and thus which of the publications would provide the most useful case studies.

This iterative process reached a point of saturation in early 2006 when few new ideas for potential evaluation criteria were encountered. At this point I closed the selection of publications. Since then, I have come across other case studies which fit the selection criteria. In particular, a number of studies were published that linked phenomena related to TBL reporting with organisational learning theory. I discuss these studies in more detail in the next chapter.
The 21 case studies that formed the final set for in-depth review covered a range of organisational contexts: ten in the private sector and five in the public sector, including four from local government. The six other contexts were a non-governmental organisation, two community-based case studies and three multi-organisational contexts involving natural resource management planning or monitoring. While a desire for such a range of contexts was not an explicit criterion for selection, it helped to validate my inclusion of case studies which were not specifically focused on organisational reporting (e.g. Brown & Gray, 2003; Potts, 2006; Rogers, 2005). My desire was to ensure that the evaluation criteria I developed would be universally applicable TBL reporting contexts; whether it be a corporate entity, a government or non-government organisation, an industry-wide reporting framework, or even the kind of TBL reporting undertaken by a community or organisation representing a range of stakeholder interests.

2.5.2.3 Structured reviews

In-depth reviews were structured around five topics:

1. background details;
2. report content, including any analysis of the TBL indicators used;
3. reporting processes, including any analysis of the processes through which indicators were developed and stakeholders were engaged;
4. outcomes of these processes, with a focus on any evidence of learning, capacity building and change at an individual or organisational level; and
5. conclusions leading to potential evaluation criteria.

Extensive notes were taken against a set list of questions within this structure. My review of O’Dwyer (2005) (see Appendix 1) is one of the few where I was able to create responses to my questions on process and outcomes. More typically, the publications I reviewed were focused only on analysing report content, such as that of Milne et al. (2004) (see Appendix 2). By undertaking a detailed examination of each case study, I was able to identify potential evaluation criteria embedded in each author’s analysis which were not
necessarily highlighted in their conclusions. I also included potential evaluation criteria that resulted from my own reflections on the authors’ accounts. All the case studies reviewed provided ideas upon which to formulate criteria to evaluate the process of reporting.

After completing each review, I e-mailed the reviews to each author and invited them to comment on the reviews and verify the evaluation criteria identified. I also asked each author for advice about additional case studies to include (see next section). After completing all the reviews, I compiled the potential evaluation criteria into a database to facilitate my synthesis of the criteria (as discussed below) and to enable me to identify the source for each criterion in the database.

2.5.2.4 Engagement with authors

My vision of developing a review of the literature that would involve interaction with the authors began cautiously, but ended up with constructive outcomes. I initially contacted authors with whom I had indirect connections (e.g. Maureen Rogers and Andrew Brown), and their feedback helped me to refine the questions I was using for my reviews. By the end I had contacted at least one of the authors for all the case studies I had reviewed (17 in total). Initial contact was by e-mail, with a request for a response by e-mail, and then, should the author agree, a follow up phone call was arranged. Of the 17 authors contacted, ten responded and follow-up discussions were arranged with nine. There was also one invitation for me to present a seminar as part of a wider discussion of the research42.

One of the authors noted that my reviews were essentially factual rather than critical. The exercise was focused on portraying the authors’ analysis as accurately as possible, and then reorganising their analysis to link components of the reporting process with its outcomes. There was thus no disagreement from the authors about the criteria I came up with, only occasional minor refinements.

42 The invitation was made by Prof. Milne and coincided with a trip to New Zealand. My presentation was part of the Univ. of Canterbury Accounting Department’s Seminar Series on 16 Nov. 2006.
My discussions with the authors also provided an opportunity for me to verify that my work to develop this evaluation framework represented a useful contribution that was not being replicated by work elsewhere. Some of the authors also introduced me to additional case studies, three of which were added to the set I reviewed (i.e. Adams & McNicholas, 2007; Ball, 2007; Potts, 2006).

### 2.5.2.5 Synthesis of criteria – desired outcomes and prompts for reflection

I was able to identify almost 200 potential evaluation criteria. The process of synthesising this large set of criteria was undertaken in stages. The first attempt at synthesis was undertaken after nine reviews had been completed. The criteria identified from these reviews were grouped according to common themes, and at that stage 20 themes were identified. By the time I had undertaken all 21 reviews, I had undertaken two further refinements of this synthesis, each time focused on reducing the number of synthesised criteria. Figure 5 summarises the ten synthesised criteria that eventuated from this iterative process, and shows the documented case studies from which each of the synthesised criteria had been sourced.

As noted above, I also created a database to help match each of the ten synthesised criteria with their original sourced criteria. Figure 6 provides an illustration of this database for the fifth criterion on social and equity issues, and the original criteria from each of the eight sources used to develop this criterion are listed. This database was also a useful way to check that the ten synthesised criteria provided maximum coverage of all the original sourced criteria and to minimise overlap between the synthesised criteria.

As the thematic analysis progressed, a logical structure became apparent in that the criteria were grouped around three questions that would facilitate practical reflection of reporting processes:

a. Who should be involved in the reporting process, and how?

b. What should those involved be doing?

c. What process should they be following?
Drawing on the literature reviewed, three desired outcomes of TBL reporting were identified that corresponded to these questions:

a. The process is collectively ‘owned’ by those with responsibility for the organisation, the staff they employ and other external stakeholders.

b. The organisation and stakeholders consider all sustainability issues across the TBL and identify any unsustainable practices that may require action to remedy.

c. The process is one of ongoing dialogue and reflection resulting in actions that make a difference, potentially challenging business-as-usual.

The final step was to restate the ten criteria as questions to be employed by practitioners reviewing a TBL reporting process, and to present it as a one page display, as shown in Figure 7.

2.5.2.6 Trials of the framework

Equipped with a one page TBL reporting evaluation framework, it was then possible for me to test the effectiveness of the framework with practitioners. In addition to those practitioners within the audiences of conferences where I presented the framework, I also consulted one of the staff at a local natural resource management agency, the Murray Catchment Management Authority. The language of the framework was modified as a result of these interactions, and then trialled again at a workshop with my case study organisation (as discussed later in this dissertation). Informal feedback was provided by staff of the organisation and the workshop facilitators using the framework. Formal feedback came through a brief questionnaire conducted at the end of the workshop. The results of this questionnaire confirmed that the evaluation criteria were relevant to their context and easy to understand.
Figure 5: Synthesised criteria for evaluating TBL reporting and their sources

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<th>Evaluation criteria for TBL reporting:</th>
<th>1. all stakeholders involved</th>
<th>2. stakeholders have a voice</th>
<th>3. leaders committed</th>
<th>4. impacts across the TBL</th>
<th>5. social and ethical issues included</th>
<th>6. locally relevant indicators</th>
<th>7. solutions to problems</th>
<th>8. time for reflection</th>
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<td>Criteria 5: To what extent does the organisation focus on the social dimension of the TBL to enable those involved to consider what the organisation will do to contribute to improved quality of life of and a more just use of resources to benefit current and future generations both locally and globally?</td>
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<td>Figure 6: Database example of equity issues criterion with source data</td>
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<td>To what extent does TBL reporting enable the reporting organisation to conceive sustainability beyond an environmental focus towards being a social goal that requires a commitment to social responsibility? (Tregidga &amp; Milne 2005, p. 12, 15)</td>
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<td>To what extent are indicators developed and defined in terms of sustainability as a social goal that is clearly connected with and understood by all stakeholders? (reflection based on Livesey &amp; Kearns 2002, p. 250)</td>
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<td>To what extent does the sustainability indicator set consider the welfare of future generations? (Eckerberg &amp; Mineur 2003, p. 593-4)</td>
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<td>To what extent does the sustainability indicator set consider equity issues, including the issue of justice between North and South? (Eckerberg &amp; Mineur 2003, p. 593-4)</td>
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<td>To what extent is TBL reporting able to help the organisation find ways to support initiatives to reduce disparities in levels of economic development within and between nations such as through improving equity of access to resources? (reflection based on Larrinaga-González &amp; Bebbington 2001, p. 272)</td>
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<td>To what extent do efforts to engage stakeholders through a TBL reporting process allow a concern for social justice to become paramount? (reflection based on Ogden &amp; Clarke 2005)</td>
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<td>To what extent does a TBL reporting process invigorate concern for distributive justice, including that of corporate financial returns so that shareholders are not the only ones to benefit from profits generated? (reflection based on Ogden &amp; Clarke 2005)</td>
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<td>To what extent are social issues of equity and social justice dealt with in the TBL reporting process? (Milne, Tregidga &amp; Walton 2004, p. 21)</td>
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<td>To what extent does discussion on sustainability during the reporting process focus on contributions towards a sustainable society as opposed to merely sustaining the business? (reflection based on Milne, Tregidga &amp; Walton 2004) [Links in from criteria 4]</td>
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<td>To what extent are the goals associated with TBL reporting couched in terms of how the organisation can contribute to a sustainable future for society rather than simply in terms of how it might impact on the finances of the organisation? (reflection based on Larrinaga-González &amp; Bebbington 2001, p. 283) [Links in from criteria 4]</td>
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<td>To what extent does the organisation perceive efforts to improve social performance as being a goal that is distinct from its public relations goals? (reflection based on Adams &amp; McNicholas 2007) [Links with criterion 7]</td>
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<td>To what extent is the reporting process able to go beyond short-term delivery expectations towards incorporating those long term and often unquantifiable aspects of sustainability that revolve around human values of sustainability? (Bell &amp; Morse 2004, p. 11) [Links in from criteria 8]</td>
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<td>To what extent does the reporting process increase the organisation’s “ability to solve problems” through an improvement in “intangible outcomes” (which are often “difficult to detect or measure”), such as “new connections and working relationships, better communication between different [and competing] interests and better organisational structures”; outcomes that “provide the foundation for future change”? (Gauth et al. 2003, p. 663, 665) [Links in from criteria 7]</td>
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<tr>
<td>1. To what extent are the staff and external stakeholders involved truly representative of all stakeholders who should be involved?</td>
<td>The process is collectively &quot;owned&quot; by those with responsibility for the organisation, the staff they employ and other external stakeholders.</td>
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<td>2. To what extent are staff and external stakeholders empowered to have a voice throughout the process, including when identifying the goals of the process, what the TBL sustainability issues are, what indicators are used to monitor performance against these issues, and when making decisions on how to respond to the issues raised?</td>
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<td>3. To what extent are those with responsibility over the organisation open to new ways of thinking, to hearing and incorporating input from stakeholders and to changing their governance structures towards more team-based decision making processes?</td>
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<td><strong>What should we be doing?</strong></td>
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<td>4. To what extent does the process enable those involved to reflect on the organisation’s broader impacts on society, the environment and the economy as a whole, not just its own financial performance and issues already covered under government regulations?</td>
<td>The organisation and stakeholders consider all sustainability issues across the TBL and identify any unsustainable practices that may require action to remedy.</td>
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<td>5. To what extent does the organisation focus on the social dimension of the TBL to enable those involved to consider what the organisation will do to contribute to improved quality of life and a more just use of resources to benefit current and future generations both locally and globally?</td>
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<td>6. To what extent is the process of identifying TBL issues and indicators focussed on identifying unsustainable practices in the local context; to what extent are the resulting indicators tested for their completeness with other relevant TBL indicator sets, and presented so that they can be easily understood by all interested parties?</td>
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<td><strong>How should we be doing it?</strong></td>
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<td>7. To what extent is the presentation and discussion of the organisation’s TBL performance used to address criticisms of its performance, to foster collaboration on finding solutions to problems and to generate debate about trade-offs across the TBL?</td>
<td>The process is one of ongoing dialogue and reflection resulting in actions that make a difference, potentially challenging business-as-usual.</td>
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<td>8. To what extent is sufficient time allocated for effective dialogue, reflection and target-setting to maximise well-considered outcomes, including action on issues identified as being the most important rather than the most expedient?</td>
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<td>9. To what extent is the organisation prepared to change the way it functions so that its efforts to enhance sustainability are taken up systematically across the organisation, with sufficient staff-time, skills development and finances allocated to ensure recommended changes are implemented?</td>
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<td>10. To what extent does the process enable those involved to confront any unsustainable ways in which the broader society functions and to collaborate with other organisations on issues that the organisation cannot deal with on its own?</td>
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2.6 Criteria to evaluate the process of TBL reporting

a. Who should be involved in the reporting process, and how?

2.6.1 Desired outcome:
Collective ownership

A term capturing many of the criteria related to stakeholder involvement was “ownership”, a term specifically used by Bell and Morse (2004, p. 13); Gahin et al. (2003, p. 664); and Potts (2004, p. 23). Not only should managers feel committed to the goals of the reporting process, but, more importantly, they need to empower their internal and external stakeholders to have influence so that the process and outcomes are shaped and owned by all (O’Dwyer, 2005; Thomson & Bebbington, 2005).

2.6.1.1 Evaluation criterion 1: All stakeholders involved

To evaluate progress towards the first desired outcome, it is necessary to constantly review whether all stakeholders who should be involved are involved – an issue that came up in many of the case studies (e.g. Adams & McNicholas, 2007; Bell & Morse, 2004). Making decisions about who should be involved is context-specific; these decisions need to be made by the organisation together with its stakeholders (Adams, 2004).

2.6.1.2 Evaluation criterion 2: Stakeholders have a voice

The need for stakeholder input into the reporting process was consistently highlighted. Empowering stakeholders to be heard extends from facilitating their input into decisions about what sustainability indicators are used to track performance (Bell & Morse, 2004; Eckerberg & Mineur, 2003), through to decisions about what the organisation should do to improve its sustainability performance (Adams & McNicholas, 2007; O’Dwyer, 2005). The experience in one case study suggests that some stakeholders may need to become better informed about sustainability issues so that their focus is not solely directed at the financial bottom line (Ogden & Clarke, 2005). However, as Thomson and Bebbington (2005) emphasise, everybody involved in TBL reporting needs to
develop a deeper awareness about sustainability, and this is best achieved through dialogue that reveals and critically examines taken-for-granted assumptions about current societal arrangements.

2.6.1.3 Evaluation criterion 3: Leaders committed

Organisations need to be prepared to have their conventional approaches and assumptions challenged. In particular, a willingness by leaders to relinquish control and accept team-based decision making largely determines the potential for stakeholders to become involved and for their opinions to be heard (Bell & Morse, 2004). Such a commitment might also help avert the reporting process from being undermined by fears of bad publicity (Deegan et al., 2002; Larrinaga-González et al., 2001; O'Dwyer, 2005).

b. What should those involved be doing?

2.6.2 Desired outcome:
All unsustainable practices across the TBL identified

As noted earlier, TBL reporting encourages organisations to go beyond considering their survival in financial terms towards a TBL view of sustainability. Several researchers emphasised that the focus should be on identifying ways to reduce an organisation’s unsustainability (e.g. Larrinaga-González & Bebbington, 2001), based on the arguments raised earlier in this chapter by Gray and Milne (2004).

2.6.2.1 Evaluation criterion 4: Impacts across the TBL

Organisations need to consider the extent that the TBL reporting process enables those involved to discuss and reflect on the organisation’s broader impacts. Some researchers emphasised that this means specifically thinking about socio-economic issues (e.g. Potts, 2006), often requiring organisations to focus on their contributions to a sustainable society, as opposed to merely sustaining their business (Milne et al., 2004). Researchers also emphasised how important it is to move beyond reporting on issues already covered by
government regulations (Larrinaga-González & Bebbington, 2001; Veleva et al., 2003).

2.6.2.2 Evaluation criterion 5: Social and equity issues included
An oft-quoted goal of sustainable development is to seek to improve the quality of life for all people throughout the world today without jeopardising the ability for future generations to do the same given the world’s finite resources (World Commission on Environment and Development, 1990). It follows that an inherent aspect of sustainability is distributive justice, an issue that can be difficult to confront, and thus warrants specific emphasis (Eckerberg & Mineur, 2003; Milne et al., 2004; Ogden & Clarke, 2005).

2.6.2.3 Evaluation criterion 6: Locally relevant indicators
Many of the case studies highlight the benefits of developing sustainability indicators in discussion with stakeholders and by reflecting on what the sustainability issues are for those in the local context (e.g. Eckerberg & Mineur, 2003). Focusing on the local context does not, of course, mean that global issues are ignored. Indeed, global issues are frequently those of greatest concern to those in the local context. The emphasis is on developing and presenting indicators that track progress towards sustainability goals meaningful to all involved so that practical actions can be proposed and undertaken (Bell & Morse, 2004; Brown & Gray, 2003; Potts, 2006; Rogers, 2005). Sustainability indicator sets designed for universal application should only be used as a guide, rather than in a way that makes those who use them become “passive consumers of someone else’s sustainability indicators” (Bell & Morse, 2004, p. 13).

c. What process should they be following?

2.6.3 Desired outcome: Ongoing dialogue and reflection leading to change
Criteria that related to the process to be followed can be drawn together under two themes: (1) that the process evolves into an ongoing and iterative cycle of
learning (Bell & Morse, 2004) with sufficient time for reflection (Ball, 2005); and (2) that it leads to practical actions that will often challenge business-as-usual operations (Milne et al., 2004; Tregidga & Milne, 2006).

2.6.3.1 Evaluation criterion 7: Solutions to problems

Organisations need to avoid the tendency to use reporting for public impressions management, but instead use it as a tool to engage stakeholders in deciding what actions to take to enhance sustainability (Livesey & Kearins, 2002; Milne et al., 2004; Thomson & Bebbington, 2005). To meet the challenge of how to integrate environmental, social and economic aspects into decision making, the focus for discussion and reflection should be on finding solutions to problems (Gahin et al., 2003; Thomson & Bebbington, 2005). As part of the problem-based focus, participants need to explore the trade-offs that might result from actions undertaken or, indeed, what trade-offs are implicit if no action is taken (Livesey & Kearins, 2002; Tregidga & Milne, 2006).

2.6.3.2 Evaluation criterion 8: Time for reflection

Organisations should not think that the publication of a TBL report is the end point, but rather see it as the start of a further process of dialogue and reflection that will lead to future actions (Bell & Morse, 2004; O’Dwyer, 2005). If TBL reporting is to be an ongoing cycle of learning and action, there must be time for reflection and discussion to regularly re-evaluate sustainability-related objectives so that action addresses the most important issues not just those that are the most expedient (Ball, 2005; Gahin et al., 2003).

2.6.3.3 Evaluation criterion 9: Organisational changes

Many researchers suggested that substantial changes in organisational culture would be required to shift priorities away from valuing sustainability in financial terms towards building commitment to social and environmental values and the bigger picture of a sustainable society (Ball, 2005, 2007; Larrinaga-González & Bebbington, 2001; Larrinaga-González et al., 2001; Milne et al., 2004; Thomson & Bebbington, 2005; Tregidga & Milne, 2006). Reflection on this criterion might require organisations to fundamentally re-evaluate their priorities, structures and
activities. To help ensure TBL reporting achieves its goals, organisations also need to provide sufficient financial and logistical support (Gahin et al., 2003; Larrinaga-González & Bebbington, 2001; Potts, 2004); link the reporting process with practical action and every-day activities (Adams & McNicholas, 2007); and integrate TBL reporting into mainstream operations of the organisation (Ball, 2005), including its decision making structures (Larrinaga-González & Bebbington, 2001).

### 2.6.3.4 Evaluation criterion 10: Collaborate with others

The final criterion was identified from my reviews of those case studies that challenged the boundaries drawn around organisational spheres of influence, and those that criticised the way in which organisations are able to pass on their external impacts to others (Ball, 2005). Some aspects of society are clearly unsustainable but are beyond the scope of one organisation to influence, even if these aspects are critical to the organisation’s future or that of its stakeholders. There are clear benefits from organisations working together to find ways to ensure we all operate “within the carrying capacity of supporting ecosystems” (Veleva et al., 2003, p. 112).

### 2.7 Comments on using the evaluation framework

The evaluation framework provides core criteria for evaluating TBL reporting processes. My intention is that these criteria will form the basis for an evaluation process that is both formative and participatory. Promoting and facilitating use of this framework is a research outcome that I could continue taking up after submitting this dissertation. Before embarking on the next chapter, I would like to make a few concluding comments concerning the application of this framework.

First and foremost, the whole purpose for me in promoting use of this framework is that it be used to promote change towards a more sustainable future for society. To move towards sustainability, it is necessary to uncover the unsustainable ways in which society functions and identify ways to address these constraints. By carefully considering the goals behind TBL reporting, and
what processes to use to progress towards those goals, it may be possible for organisations to start questioning their priorities, and that of the social system within which they function. If this reflective re-evaluation of priorities is undertaken in collaboration with others, the potential for it to spark ideas about the need to change systematic over-exploitation of the world’s resources might arise, and might provide space for voices that call for a transformation of the economic systems that drive this unsustainable situation. Indeed, transformation and revolution are words that are central to Elkington’s promotion of the TBL, even though some might see his future world of “sustainable capitalism” as a fraudulent notion that deludes and distracts people from achieving true sustainability (J. O'Connor, 1994).

Second, this framework is available for anybody to use. While it is clearly geared for use by organisations, there is no reason why organisational stakeholders might not use it as part of a campaign to promote organisational change. My intention is that the framework will benefit anybody with an interest in the reporting process. This could be those with responsibility for organisational decisions and strategies, but it could also be the staff they employ and/or the organisation’s external stakeholders. Providing an opportunity for all involved to reflect on the outcomes of TBL reporting processes might increase the potential for change.

Third, the trials of the framework to date suggest that the framework is best used as part of a facilitated workshop where the facilitator has a good understanding of the underlying issues driving each of the ten reflection prompts. While each criterion is intended to be relevant to any context and easy to understand, it is helpful to have somebody guide the reflection process. More effective reflection can result when that facilitator can draw on the background experiences leading to each criterion as part of their engagement with workshop participants.

Fourth, the approach to evaluation being promoted is to encourage change through formative processes. In other words, the evaluation is not meant to be a final judgment of the organisation’s commitment to change. Instead, it
recognises that one way to achieve change is through iterative learning, and that this can be achieved more effectively through open dialogue and reflection.

Fifth, the framework is intended to be used to evaluate reporting processes that use the TBL as the core organising concept. I have purposefully built on experiences from a much broader range of reporting, including social audits, environmental reporting as well as more traditional styles of annual reports. However, the move towards TBL reporting is a trend that warrants specific evaluation, not only because of the number of organisations taking it up, but also because of the view that it is a crucial means to assist the private sector take action on sustainability issues (Elkington, 1998).

Finally, this evaluation framework can be used in a broad range of corporate, public sector and other organisational contexts, as the criteria have been identified as being relevant across all these contexts. I have intentionally made use of case study analyses critical of reporting, believing that it is crucial to incorporate criteria from authors sceptical about the potential for TBL reporting to lead to change.

Ultimately, my hope is that this evaluation framework will provide a way forward for those in organisations and among social movements dedicated to challenging assumptions that inhibit progress towards a sustainable future for society.

2.8 Conclusion

This review of the literature related to TBL reporting has produced two outcomes. The first outcome is to set the stage for my research investigation. The second outcome is to provide a synthesis of prior experiences related to TBL reporting in a form that can be used by practitioners.

To set the stage for my research investigation, I have presented views from the literature to explore the meaning of the TBL concept and the prospects and pitfalls when used as a reporting tool. This has addressed a fundamental preliminary question for the thesis concerning what we mean by TBL reporting,
and is the first of a series of questions that provide a theoretical context to examine cases of TBL reporting (see Figure 8).

**Figure 8: Unpacking the theories used to analyse my research questions: Stage 1.**

TBL reporting has been shown to be a practical activity that organisations can undertake to simplify and categorise their actions related to sustainability. The key benefit of using the TBL concept for such a reporting process is that it incorporates a social dimension alongside environmental and economic dimensions. The main dilemma is that sustainability is a global concept, meaning that the exercise of reporting on sustainability at an organisational level is problematic from the outset. TBL reporting is therefore only an approximation of sustainability. However, it can make use of existing mechanisms that measure environmental impacts resulting from organisational activities, as well as explore ways to show an organisation’s contribution to or detraction from social dimensions of sustainability. By improving these presentations of organisational social and environmental performance, the organisation can develop an ongoing conversation with its stakeholders to formatively evaluate progress to address its social and environmental impacts and thereby incrementally improve its actions to enhance sustainability. This potential to achieve change through formative and iterative learning in
conjunction with stakeholder participation will be explored in greater depth in the next chapter.

I have also introduced how other researchers have investigated the phenomenon of TBL reporting. From this review I found that there is far more focus on analysing report content than on the process of reporting. Of the research that focuses on the process of reporting, there is a need for more investigations into internal dynamics and to theorise researcher engagement in these processes. Also, I noted how my breakdown of the research question into component questions of learning, capacity building and change (formulated at the research proposal stage) mirror the theoretical approach suggested by Dillard (2007) of enlightenment, empowerment and emancipation (which I came across later in the research project).

The evaluation framework presented in this chapter provides a practical means through which practitioners can evaluate their own cases of TBL reporting. The next chapter builds on this initial review of the literature by building a theoretical framework to facilitate an analysis of my case study investigation.
Chapter 3
A theoretical framework for case study research investigating whether TBL reporting can lead to enhanced sustainability

"The philosophers have only interpreted the world ... the point, however, is to change it." Karl Marx.

The purpose of this chapter is to draw on relevant theories that can facilitate my case study investigation. The components of my research question provide a structure for the range of theories that I draw on. I will firstly introduce the link between sustainability and learning before drawing on organisational learning theory in Section 3.1. The case studies reviewed here build on those reviewed in the previous chapter. In section 3.2, I will focus on capacity building. Because I interpret capacity building as the means to engage existing capacity, for this section, I draw on the theory of stakeholder engagement and public participation. Section 3.3 focuses on the question of change and constraints on change drawing on theories related to political economy. Finally, I will explain ways in which the question of attaining sustainability can be analysed in section 3.4. It is helpful to re-emphasise that in developing the following theoretical framework, I am not only interested in analysing what has happened in the case study. As previously noted, the design of my research question is motivated by a desire to facilitate change towards enhanced sustainability. Therefore my use of theory is also prescriptively directed at identifying what should be happening.

3.1 Organisational learning for sustainable development

3.1.1 A nexus between learning and sustainable development

The links between learning, change and sustainable development are widely recognised. Scott and Gough (2003, p. xiv), for example, suggest that “learning (or more precisely, lifelong learning) has been consistently seen by the United Nations and its agencies, national governments, the European Union and NGOs ... as a prime vector of social change” in relation to sustainable development. They argue that sustainable development is “inherently a learning
process” and that “we need to be taught how to learn and how to be critical in order to build our collective capacity to live both sustainably and well” (Scott & Gough, 2003, p. xiv). Learning is also seen as an essential part of inductive planning processes required to fully grasp the complex and transdisciplinary character of sustainability (Meppem & Gill, 1998). Interest in adaptive management (or learning-by-doing) has increased because action on sustainability needs to develop in a flexible and reflexive manner as stakeholders collectively learn from and adapt the management plans being implemented (e.g. Folke, Hahn, Olsson & Norberg, 2005; Voß, Bauknecht & Kemp, 2006). Those critically analysing corporate adoption of the sustainability agenda also assert that corporations and society need to develop greater “ecological literacy” (e.g. Milne, Ball & Gray, 2005). This is because modern society has effectively created a separation between most of our daily consumption and actions and their ecological consequences, and this connection needs to be better understood and recognised. Given that the market economy exacerbates this ongoing dysfunctional disconnection, many are calling for a radical change in the way the market economy functions (e.g. Senge & Carstedt, 2001).

The nexus between learning and sustainability enhancement also needs to be treated with caution. As Scott and Gough (2003, pp. 2-4) explain, both are used as slogans, often viewed as bandwagons that can create confusion about whether they are means to an end or ends in themselves. Both have developed into policy objectives struggling to overcome the disconnection between what we do and understanding the impact of what we do. The unfortunate result is that there is vast scope for delusion surrounding how the policy slogans become implemented, which is linked to different views on the type of change required: more of the same, or something radically different. For example, at both national and corporate levels, the justification for action on sustainability has been tied to competitive advantage, as has been the promotion of becoming a ‘learning organisation’. This rhetoric of national and corporate competitiveness defies the type of change we may need if we are to deliver on
the justice components of sustainable development, which requires balancing competition with cooperation (Scott & Gough, 2003, p. 111).

Scott and Gough also note how the emphasis on participation in sustainability is driven by idealistic notions of nurturing a radical revision of everyday living and doing. The problem is that to base such a visioning process on participation means that the visions so developed will vary between participants and the language they use to conceptualise the goals for sustainability. Because each vision is based on different perceptions of reality, they build on what Scott and Gough refer to as separate “rationalities” or even “knowledges”, and this inevitably also implies “multiple ignorances and blindspots” (Scott & Gough, 2003, p. 28). To enable a radical revision to develop requires that such ignorances and blindspots first be exposed then rejected or rectified.

For example, Pedler, Burgoyne and Boydell (1991), inspired by Kolb, Osland and Rubin’s (1971) work on experiential learning, decided to apply their notion of action learning (Pedler et al., 1978)\(^{43}\) to the creation of a ‘learning company’. Their self-help guidebook is enticingly titled: ‘The learning company: A strategy for sustainable development’. One of the revealing changes in the way they defined ‘a learning company’ for the guidebook’s second edition was from:

"A learning company is an organisation that facilitates the learning of all its members and continuously transforms itself";

To:

"A learning company is an organisation that facilitates the learning of all its members and \textbf{consciously} transforms itself and \textbf{its context}" (Pedler et al., 1991, p. 3 bold in original).

The reason for this change in definition was to better account for “the full implication” of the sub-title that a learning company could be part of a strategy for sustainable development (Pedler et al., 1991, p. 3). Emphasis on continuous change is less relevant than conscious (aware and intentional) change; and

\(^{43}\) As noted in the introduction, action learning is a cyclical process of learning that passes through stages of experience leading to understanding, then to planning, and then to action, which creates future experiences, and so the action learning cycle continues.
organisational change in and of itself will never be enough to advance the creation of sustainability. Part of the agenda for change has to be the social and economic system within which the organisation functions. In spite of the radical implications of this change in definition, the guidebook merely provides the management tools for experiential learning that might, or might not, lead organisational participants to such radical levels of awareness. This dilemma has led to calls for the adoption of a more critical approach to the practice of action learning in recent issues of the *Action Learning* journal that Pedler established and for which he is the editor (Pedler, 2005, 2006).

### 3.1.2 Enter the theory on organisational learning

Given the organisational focus of my research topic and case study, the application of organisational learning theory made logical sense from the outset. At that time, my review of the literature found hardly any connection between organisational learning theory and contexts related to TBL reporting, with just one notable piece (Berthoin Antal & Sobczak, 2004). In the two years since then, I have encountered at least seven other articles reporting on research that makes such a connection (Albrecht, Burandt & Schaltegger, 2007; Cramer, 2005; Fitzpatrick, 2006; Gond & Herrbach, 2006; Müller & Siebenhüner, 2007; Roome & Wijen, 2006; Siebenhüner & Arnold, 2007) as well as two earlier articles which make important contributions (Addleson, 2000; Senge & Carstedt, 2001). Senge, who co-authored the latter piece, also authored the widely used practical guide to becoming a learning organisation (Senge, 1990). He has gone on to develop his own consultancy (Society for Organizational Learning – SoL) which has recently developed a specific focus on sustainability (SoL Sustainability Consortium, also see Senge, Laur, Schley & Smith, 2006).

Before I review these articles and their contribution in detail, it will help to explain more about organisational learning theory and why it is a useful analytical tool for my research. The first point is that the organisational learning

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44 I had considered including this as one of the case studies used to develop the TBL evaluation criteria but – at the time – considered its focus on internal discussion about organisational global responsibilities less relevant to the process of public TBL reporting.

45 It is interesting to note that all but one of these studies are based in non-English speaking European contexts.
literature has been divided (by for example Argyris, 1999, p. 1&7; and Tsang, 1997) into a more prescriptive practitioner-oriented focus on the ‘learning organisation’ (e.g. Senge, 1990) and a more academic-oriented focus on facilitating descriptive and critical analysis of organisational learning experiences (e.g. Argyris & Schön, 1978). In developing my theoretical framework, I am primarily interested in the analytical perspectives of the academic-oriented literature. However, my aim of identifying a means for formative evaluation of TBL reporting processes as part of an action research agenda also directs me to the practitioner-oriented literature. In other words, I will use key elements of organisational learning theory to analyse what has happened as well as to suggest what should be happening.

In developing their ‘theory of action perspective’, Argyris and Schön (1978) clarify two main types of learning which they call ‘single loop’ and ‘double loop’ learning. This distinction builds on Bateson’s (1972) earlier four level categorisation, resulting in several variations in how people present the distinction (including references to ‘triple loop’ learning, e.g. Yuthas, Dillard & Rogers, 2004)\(^{46}\). The notion and descriptor of ‘single loop’ learning evolves from Argyris and Schön’s (1978) use of systems theory. They borrow the term from electrical engineering where it is used to describe a thermostat, for example. Thermostats ‘learn’ to detect errors in temperature and rectify the situation by adjusting the cooling or heating mechanism on or off. In the organisational context, this ‘single loop’ learning translates to a situation where an organisation has acquired an operating, often tacit assumption which Argyris and Schön (1978) call a ‘theory in use’. However, sometimes, organisations are presented with a critical situation or new vision which challenges such ‘theories in use’. This can evolve as a ‘double loop’ organisational learning experience where error detection cannot be sufficiently corrected without first examining and

\(^{46}\) To add to potential confusions here is Bateson’s (1972) reference to deutero (or second) learning, which is explained as being the process of learning how to learn. In the ensuing discussion I have focused only on ‘single loop’ and ‘double loop’ learning in the interests of keeping it simple. The process of learning how to learn is a key practical means to enable organisations to identify the depth of learning that is occurring. I thus consider learning how to learn as being the link between an analysis of these two types of learning and the more prescriptive process of deciding which is appropriate and how they can be achieved in practice.
perhaps revising the underlying assumptions of these ‘theories in use’. For the purposes of analysis, this distinction between ‘single loop’ and ‘double loop’ learning can be helpful in identifying the type of learning that happens when an organisation passes through a critical period or is considering complex issues. It is not necessarily meant to preference ‘double loop’ learning over ‘single loop’ learning; both types of learning are helpful as the organisation sets out to achieve its objectives (Argyris, 1999, p. 69).

A point in common for both ‘single loop’ and ‘double loop’ learning is that organisational knowledge often remains tacit. Error detection relies on the ability to articulate a collective understanding of organisational processes, yet the rationale for such processes can build on tacit knowledge and values held by an individual or group of individuals. Failure to uncover what is tacit can create a block to both ‘single loop’ and ‘double loop’ learning. The key to ‘learning how to learn’ is therefore focused on overcoming these blocks by uncovering tacit knowledge and processes. ‘Double loop’ learning takes this further by building skills and opportunities to question organisational knowledge and procedures – both explicit and tacit (Davidson, 2003, p. 22). The need to uncover tacit knowledge and procedures explains the focus among organisational learning practitioners on participatory and open processes, and ensuring that there is support from those in authority. By making the process as open and participatory as possible, it is more likely that tacit knowledge spread throughout an organisation can be accessed and that this in turn can lead to better decision making outcomes.

Given my curiosity with the meanings of reformist versus transformational change, I was interested in how these meanings were reflected when reviewing the various ways in which this distinction between ‘single loop’ and ‘double loop’ learning has been articulated. For example, Roome and Wijen (2006, p. 238) identify from the literature the following contrasting labels used for ‘single loop’ and ‘double loop’ learning: The former is ‘adaptive’ while the latter is ‘generative’ (citing Senge, 1990); one is ‘operational’, the other ‘strategic’ (citing Coopey, 1996). However, these contrasting labels are also used: ‘evolutionary’, ‘frame-taking’, ‘reactive’ versus ‘revolutionary’, ‘frame-breaking’, ‘proactive’
(citing Weick & Westley, 1996); and ‘incremental’ versus ‘radical’ (citing Miner & Mezias, 1996). From this it seems that some link these two types of learning with the kind of change that results.

More detailed investigation reveals that the application of the terms radical and transformation to organisational learning theory usually relate to the thought processes involved. For example, ‘double loop’ learning implies “a more radical logic” that questions the organisation’s “value system” and “its main objectives and missions” (Gond & Herrbach, 2006, p. 361); involves a “transformation of givens” through “paradigm shifts” (Levitt & March, 1988, p. 324); or is where the “dominating values, strategies and corporate culture are transformed” (Siebenhüner & Arnold, 2007, p. 342). However, the implication also goes beyond new ways of thinking to new ways of doing things: it is also where an organisation “explores and restructures approaches” (Fitzpatrick, 2006, p. 159) and “is associated with radical changes” (Cramer, 2005, p. 258).

From a social constructionist perspective, Addleson (2000, p. 242) emphasises that this potential for different ways of thinking and doing arising out of ‘double loop’ learning has a specifically reflexive and reciprocal aspect, and thus “interaction and conversations occupy centre stage in the theory and practices of learning organisations.” It “shifts attention from the world (“out there”)” to people’s views, beliefs and relationships. This inward depth of radical interaction might well lead to profoundly different assumptions about the purpose of an organisation and each person’s daily activities within it. However, it also raises the question of the extent that this might contribute to radical change at a broader scale. Weick, who championed the notion of small wins (Weick, 1984), writing on organisational learning with Westley, provides an explanation of how radical change might be generated. Arguing that a series of small wins goes beyond mere reformist or incremental change, they assert that:

“First, small wins in large systems can occur in parallel as well as serially, which means that several small changes in the aggregate can approximate those of a radical transformation. Second, a series of small wins often precedes and paves the way for revolution. Small wins provide the momentum and basic learnings that make revolution possible. And third, many so-called revolutions
consist in part of a retrospective packaging of a series of prior small wins, all of which are interpreted as moving in a similar new direction" (Weick & Westley, 1996, p. 445).

This presents an interesting blurring between what constitutes incremental reformist change and radical transformational change. The idea of small wins has been promoted as more effective than revolutionary change because “if small steps fail, they don’t do much damage, and you can have another go. If they succeed you can move on quickly” (Cox, 1995, p. 12). On the other hand, there are also dangers to be wary of: “Small wins may distract people from a more fundamental issue, provide a premature sense of completion, or steer a change effort off course” (Meyerson & Scully, 1995, p. 596).

The argument by Weick and Westley (1996) moves away from a focus on the individual outcomes of each small win. They identify the potential for ‘double loop’ learning experiences to go beyond a series of sporadic incremental evolutions towards something more radical and transformational as the combined learning experiences of different people in different places head in a similar direction. One way to analyse this is to assess whether these small wins only occur at an organisational level, or whether they can be seen as part of a broader societal level momentum for change. Also, Cox (1995) raises the potential that a series of successful small steps may aid the speed of change. The need for rapid change is a key aspect to the view that a more radical response is needed in the face of the world’s impending sustainability crisis.

3.1.3 Organisational learning and TBL reporting: A review of the literature

The rationale for applying organisational learning theory to the TBL reporting context has been well put by Berthoin Antal and Sobczak (2004). They suggest that the TBL concept might provide a new heuristic and thus serve as an impetus for ‘double loop’ learning especially for companies whose reporting has primarily focused on financial performance. Alternatively, some organisations may have already developed a commitment to corporate social reporting, in which case broader global responsibilities implied by the TBL concept merely provide an expansion on such experiences. Such situations would likely involve
improving on existing reporting processes towards the generation and communication of verifiable TBL performance data (i.e. ‘single loop’ learning).

As an example, Berthoin Antal and Sobczak (2004) apply these ideas to the experiences of a French-based transnational food and beverage company, Danone, which used its global intranet to connect with its subsidiary companies around the world. The head office’s commitment to corporate social responsibility\(^{47}\) required a transformation towards a global responsibility. The head office sought to effect this change through interactive exchanges over the company’s global intranet. Such interactions focused on clarifying this global social responsibility as part of its corporate culture as experienced in diverse cultural contexts. The result included some ‘double loop’ learning by the head office related to its assumption that their method of human relations was more advanced than that of any of its subsidiaries (Berthoin Antal & Sobczak, 2004, p. 88). Likewise, the authors recount how one of Danone’s subsidiaries in China was challenged into re-evaluating how it accounted for its environmental impacts (Berthoin Antal & Sobczak, 2004, p. 89).

Gond and Herrbach (2006) propose that the process of corporate reporting on the social dimension provide opportunities for organisational learning. Referring to the example above, they suggest that what is important is how the organisation uses the reporting processes to drive change internally, and recommend interactive learning exchanges in place of top-down instruction.

Cramer (2005), a part-time academic whose main experiences build on her work as a consultant, used organisational learning theory to show that the more challenging ‘double loop’ learning experiences were more difficult to effect than the ‘single loop’ experimentation with the TBL concept. In other words, it was easier for the Dutch companies involved in her project to intuitively adopt the idea that a TBL notion of corporate performance was important, and to interpret what this might mean in their organisational contexts. However, it was much

\(^{47}\) indicated, for example, by being one of the first transnational companies to sign an agreement on trade union rights to be applied in all its subsidiaries with its corresponding international trade union federation, the IUF, my former employer
more difficult to integrate and institutionalise the TBL notion of corporate social responsibility as part of every day organisational activity.

The challenge of institutionalising sustainability reporting as an ongoing process for change was also raised by Albrecht et al. (2007, p. 407). These authors studied their university (the University of Lüneberg near Hamburg in Germany) which had embarked on two sustainability projects. One project tracked the university’s energy consumption and displayed these for direct visual feedback on collective energy relevant behaviour. The other project was to develop a comprehensive sustainability report for the university.

The key ‘double loop’ learning experience in this case was the need to become committed to “the guiding principle of sustainable development” as well as to “values like increased transparency, accountability and participation” (Albrecht et al., 2007, p. 412). These values are still a challenge for universities, and the two projects were seen as ground breaking because they encouraged a culture of transparency. In particular, the establishment of a participatory process to engage the university populace and regional stakeholders was the key to the ‘internalisation’ and ‘socialisation’ of thoughts and behaviour to define and meet the university’s sustainability-related targets. Engaging the university and its stakeholders was also the key to resolving the ambiguities that can arise when interpreting sustainability-related data, and in deciding what action responses are required. It was also vital that the sustainability reporting project was integrated into the management structure of the university and linked to its strategic future development (Albrecht et al., 2007, p. 409).

At another level, there were practical challenges of how “to collect information in different parts of the organisation and to adapt it to the new context” and to articulate “implicit knowledge held by individual actors” so that it can be transformed into explicit knowledge (Albrecht et al., 2007, p. 407). These

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48 They note with heavy irony “the low number of universities that [have] strived to transform themselves in order to contribute to a sustainable development of society” especially given that universities are seen as the premier generators of knowledge yet can “frustrate learning and social change in most of their internal processes and in their interaction with surrounding society” (Albrecht et al., 2007, p. 404; citing Levin & Greenwood, 2001, p. 103).
challenges were a key part of the process of developing sustainability-related issues and indicators relevant to the university context, especially given that there were few other experiences that they could draw upon.

Siebenhüner and Arnold (2007) analysed the experiences of six European-based companies in terms of the changes that resulted from learning about and incorporating sustainability management processes into their organisations. These companies were divided into those that they defined as having undergone incremental change processes and those that went through radical changes, such as the creation of new structures and procedures. ‘Double loop’ learning was associated with both types of changes; only one company effected change through ‘single loop’ learning experiences. They therefore concluded that ‘double loop’ learning does not necessarily lead to radical change. They also noted that the size of the company and external factors such as market and policy drivers influences the extent of change that results (with the effect of policy instruments analysed in more detail by Müller & Siebenhüner, 2007). They also highlighted the key positive role played by change agents in effecting change, noting that in medium-sized companies, change agents were often in managerial positions, whereas in larger companies they were located in the sustainability or research departments.

Fitzpatrick (2006) showed that ‘double loop’ learning occurred in government and non-government organisations engaged in environmental impact assessment, but that the type of learning was driven by different desired outcomes. In most cases, the need to question an organisation’s assumptions arose from a desire to expand participation in impact assessment processes. However, some non-government actors were also driven by a desire to change the way decisions were made.

This issue of the link between stakeholder interests and its effect on organisational learning is also explored by Roome and Wijen (2006). In particular, they explored the under-studied effect of stakeholder power on the process and content of organisational learning using experiences from two Dutch companies. The two companies functioned in contrasting ways. The first, a chemical company, was larger and had a more formal structure. This
company’s interactions with its stakeholders were carried out in a more routine and controlled manner. The authors characterised its organisational learning as ‘single loop’. In contrast, the smaller food company engaged in a more ‘exploratory’ style of ‘double loop’ learning. The food company’s stakeholder interactions were less formal and were driven by a proactive pursuit of innovative ideas, and were thus not necessarily inclusive of all stakeholders. Because the drive came from the food company’s CEO, and “with a lack of a routinized system”, the implementation of proposed solutions down the internal organisational hierarchy, across its divisions and among its contractors met some resistance “arising from lack of commitment and conflicting priorities” (Roome & Wijen, 2006, p. 257).

Analysing these two case studies in terms of stakeholder power, the authors note how “stakeholders with the power to determine an organization’s ambition and to establish routines have a remarkably strong impact on the power of other stakeholders and significantly affect the type of learning that ensues” (Roome & Wijen, 2006, p. 257). This power distribution is analysed in terms of power possessed by different stakeholders and the degree of power vested to other stakeholders. The authors conclude that effective channelling of stakeholder power can have a strong bearing on the type of organisational learning that evolves.

In my case study with MI, the notion of TBL reporting was promoted by the Sustainability Challenge project as one that might herald a process of continuous improvements through a set of incremental well-considered steps (Shepheard et al., 2006, p. 5). The notion of continuous improvement also came up regularly in my discussions and interviews with MI staff. Drawing on the idea of a feedback loop for the learning associated with this process of continuous, incremental improvement, I was interested in the extent that adopting such a process was able to challenge the organisation’s ‘theories in use’, or its assumptions, values or even its mission. In other words, was I able to observe evidence of ‘double loop’ learning, or did the organisation’s prior familiarity with the TBL concept and TBL reporting mean that further changes only required ‘single loop’ learning processes? More importantly, I am interested in the extent
that the type of learning that occurred in my case study organisation might be able to lead to the kind of changes needed to help create a more sustainable future for society.

This link between learning and the kinds of change needed for a more sustainable future also implies a prescriptive element to my interest in organisational learning. The question is not just whether TBL can be a useful heuristic that might spark ‘double loop’ learning. The question is also how to use the heuristic to direct what is learned; i.e. to emphasise the normative elements being promoted through the TBL concept. I saw this as an opportunity to explore ‘bigger picture’ sustainability issues and raise some of the more challenging aspects of sustainability such as its social justice and global dimensions.

As a comparison, proponents of a similarly prescriptive approach in the context of manufactured goods are promoting the possibility for a radical rethink of how the economy functions. Senge and Carstedt (2001) have proposed that instead of placing value in the product being sold as is the current paradigm, a radical shift could occur if the value is placed in the service that each product provides: "providing services rather than just selling products creates a potential new alignment between what is sound economically and what is sound environmentally ... producers have an incentive to design for longevity, efficient servicing, improved functioning, and product take-back ... [such a change in the concept of ownership] would represent a powerful step toward changing companies’ attitudes about product discard" (Senge & Carstedt, 2001, p. 32).

In the irrigation context, such prescriptive ‘double loop’ possibilities currently being put forward include rethinking what types of crops are grown from irrigation and where49, and the viability of small farms in the pursuit of water efficiency50. It is worth exploring whether the ‘bigger picture’ inspired by the TBL

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49 There is much interest and debate, for example, about the potential to further develop irrigation in water plentiful parts of northern Australia.
50 The late Prof. Peter Cullen, who founded the influential Wentworth Group of Concerned Scientists and was one of the Commissioners on the National Water Commission, implied this view in one of his last media interviews, aired on the Australian Broadcasting Corporation’s 7:30 Report on 19 February 2008. Responding to a question on the future of farming with a 50% reduction in water allocations, Peter Cullen replied: “I think we are going to see a lot of changes
heuristic might inspire those leading the rethinking to go beyond reformist approaches towards more radical options, such as options that might arise from questioning the degree of corporate control over the agri-food industry. These more radical options might require ‘double loop’ learning that liberates participants from constrained ways of thinking. In quite different contexts, Freire (1972) promotes a similar approach to liberate peasants from ingrained oppressive cognitive processes as a means to criticise and transform the world about them (cf. Thomson & Bebbington, 2005).

To conclude this section (3.1), I will reintroduce the diagram presented in my Introduction chapter (see Figure 9). What I have presented so far focuses on the descriptive and prescriptive analytical approaches of organisational learning theory. The key point of analysis here is the whether there has been a move beyond reactive learning towards an approach that can question the underlying assumptions that form the basis for organisational actions and inaction. Such an analysis could also provide a means to suggest improvements that might help facilitate empowerment and emancipation, as propounded by Dillard (2007).

**Figure 9: Unpacking the theoretical framework: Stage 2**

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... I think farms might be bigger ... have a portfolio of crops ... a mixture of permanent plantings and annual and when they know how much water they’ve got available they’ll make decisions to plant annual crops like rice, cotton or pastures of various sorts. For their permanent water they will use it where they can on permanent plantings like grapes and olives and so on.” (O’Brien, 2008)
3.2 Building organisational capacity for sustainable development

Building the capacity of an organisation includes the capacities of its individual members. To build capacity for action on sustainability, one can assess organisational and individual levels of knowledge, skills, resources and knowing how to access them, confidence, trust and willingness to change, and the ability to set clear targets that ‘stretch’ the efforts at organisational levels and beyond. One can also look for evidence of capacity in the extent of staff time allocated, the skills development and finances provided, and the extent that this occurs systematically and routinely across the organisation as well as in collaborative efforts with external stakeholders. Such capacity has been described in terms of levels of (individual) human capital and/or intellectual capital and (broader) social capital within an organisation and/or its social networks (e.g. Selman, 2001; Yongvanich & Guthrie, 2006). The use of such terms ensures the integration of social dimensions into policy discussions on natural resource management alongside existing notions of economic and natural capital (Webb & Curtis, 2003). However, the term social capital has also been criticised for widespread misuse, probably resulting from the way in which it incorporates the social into the language of economics, rather than facilitating an assault upon the language of economics (Fine, 2002).

From my perspective, such investigations into the existence of capacity is less important than analysing how to make the most of existing capacity. This is because of my predisposition to perceive individual and organisational capacity as something inherently present within organisational structures but often not fully tapped. In other words capacity should not be understood as though it is a building process like that of a house being built: new brick upon new brick; new idea or skill upon new idea or skill. Rather, it involves tapping into existing under-utilised capacities through collective use of new ideas and new skills that enable effective interaction. It is part of the process of uncovering tacitly held knowledge and procedures. Such a predisposition is similar to Freire’s (1972) pedagogy in that those seeking to build capacity treat those whose capacity is to be built as having experiences from which ideas and skills can be collectively
developed, rather than simply seeing them as empty vessels to be filled. It also fits in with Dillard’s (2007) concept of empowerment as explained in the previous chapter.

In line with these interactive and participatory approaches to capacity building (or capacity engagement), and drawing on the arguments presented in the previous chapter by Thomson and Bebbington (2005), such a view of organisational capacity building can and should extend beyond the confines of the organisation’s workforce to include the organisation’s other external stakeholders (a view which also accords with the literature that underpins the first two criteria in the evaluation framework). In this sense capacity building is akin to relationship building. For these reasons, I draw on the extensive literature on public participation and collaborative management for the theoretical means to both analyse how existing capacities are engaged, as well as prescribe what should be happening to facilitate the changes needed for sustainability enhancement (see Figure 10). Not surprisingly, elements of the TBL reporting evaluation framework presented in the previous chapter parallel these prescriptive elements.

**Figure 10: Unpacking the theoretical framework: Stage 3**
The view that capacity building is more akin to capacity engagement also results in a questioning of which comes first: the engagement of capacity or the learning that ensues. Of course, the answer is that the two go hand-in-hand. It is clear that learning evolves as organisational capacity is developed, but learning can also spearhead broad appreciation of the value of engaging and developing existing capacities. The possibility to generate innovative ideas from learning how to question assumptions, as suggested at the end of the section above, has led some proactive organisations to seek inspiration from external stakeholders they perceive as being able to spark such innovative thinking. This was the case for the Dutch food company, as described by Roome and Wijen (2006).

The desire for external inspiration helps explain MI’s interest in collaborating with the CRC IF Sustainability Challenge project. From the other side of the coin, the Sustainability Challenge project also saw its role as working with its case study partners to start applying TBL reporting in irrigation industry contexts to develop the capacity of the industry for continuous improvement and enhanced sustainability. The Sustainability Challenge researchers involved can be considered as external stakeholders with ideas to propagate. This is especially the case for scientists researching how irrigation interacts with the environment and investigating solutions to the more unsustainable elements of irrigation. MI – as a ‘community’ participating in research – could be considered as collaborators or partners in this research agenda (see typology the Sustainability Challenge team used to analyse its research relationship with MI shown in Figure 1151).

I found this typology of participation useful when thinking about how organisations might engage capacity to enhance sustainability. The application of the typology to the MI case study context required a slight modification of the terminology used so that it was the organisation doing the research and seeking the collaboration of its stakeholders in its project on TBL reporting (see Figure 12).

51 The idea behind this typology can be traced back to Arnstein’s (1969) ‘participation ladder’.
Figure 11: A typology of participation: A continuum of approaches (Adaptation of Cornwell’s typology)

<table>
<thead>
<tr>
<th>Input into decision making of project – what to study, how, collecting data, analysing, conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode of participation</strong></td>
</tr>
<tr>
<td>Cooption</td>
</tr>
<tr>
<td><strong>Role of community</strong></td>
</tr>
<tr>
<td>Subjects</td>
</tr>
<tr>
<td><strong>Type of participation</strong></td>
</tr>
<tr>
<td>Tokenism: representatives are chosen but have no real input or power</td>
</tr>
</tbody>
</table>

(Source: Race & Buchy, 1999, p. 407)

Presenting approaches to stakeholder engagement as a continuum is not necessarily meant to preference one approach over another. Rather, this continuum can be used as an analytical and decision making tool to facilitate reflection on which approach is best suited to the desired outcome of engagement. At one extreme is where organisations select a representative who can voice the concerns of a stakeholder group but without giving that representative any real input into decision making. While this might be appropriate in some circumstances, other options are available for organisations seeking to build/engage the capacity of their internal/external stakeholders. These options range from cooperative through to co-learning approaches. An example of a ‘collective action’ approach might be where external stakeholders independently create a ‘shadow’ account of an organisation’s TBL performance and the organisation responds.
Figure 12: Typology of stakeholder engagement in TBL reporting

| Input into decision making of TBL reporting project – what to do and how |
|---|---|---|---|---|---|---|
| | Mode of participation | Cooption | Cooperation | Consultation | Collaboration | Co-learning | Collective action |
| | Role of stakeholders | Subjects | Subordinates | Clients | Collaborators | Partners | Directors |
| | Type of participation | Tokenism: Stakeholder representatives are chosen but have no real input or power | Tasks are assigned: Organisational executives decide agenda and direct the process | Options asked: Organisational executives obtain and analyse information from stakeholders and decide on a course of action | Stakeholders work together with the organisation to determine priorities: Organisational executives have responsibility for directing the process | Organisation & stakeholders share knowledge to create new understanding and work together to form new action plans: Organisation facilitates this process | The organisation’s stakeholders set and implement the agenda: Organisation responds |

(Source: Christen, Shepheard, Jayawardane et al., 2006, p. 22; adapted from Race & Buchy, 1999)

Analysing the character of stakeholder relationships in this way also aids a consideration of power possessed by certain stakeholders and power vested to certain stakeholders, a key issue for concern raised above by Roome and Wijen (2006). By characterising the position of ‘organisational executive’ as the ultimate decision making stakeholder, and the positions of other stakeholders who could become engaged in TBL reporting, one can indicate the power possessed by each, and the process and character through which power could be vested to others. Some practical prompts to empower stakeholder groups with less possessed powers are provided by Adams and McNicholas (2007, p. 396) such as: “How do the various external stakeholder committees fit into the governance structure of the organisation? How are the committee members selected? Do they represent all key stakeholder groups? Who convenes these committees and how are their deliberations fed into Board level decision making?”
From a Freirean dialogic approach to stakeholder engagement, Thomson and Bebbington (2005, p. 526) identify disempowering processes to avoid. All of the processes they’d been involved in "fell short of a dialogic process, mainly due to the control over the participants on all aspects of the engagement by the organisation ... Rocking the boat may be a fine activity to undertake but if one is immediately excluded then it is impossible to see how dialogue can be ongoing." Stakeholders had debated how challenging they thought they could be, the consequences of being too challenging, on what basis the organisation had sought their involvement in the first place, and whether or not they would be invited again. These are all practical issues that can support or undermine relationship building; it is the quality of such relationships that will determine the potential for dialogical and transformative learning processes to develop (Thomson & Bebbington, 2005).

So it is important to investigate levels of individual and organisational capacity and changes in capacity in terms of attitudes and resources as described at the start of the section. It is also important to look for evidence of such capacity building beyond the organisation in its collaborative efforts. More importantly, given the potential for organisations to benefit from untapped capacities among its stakeholders, one could extend the analysis to more radical ideas about capacity building. Such analysis would investigate the extent that stakeholders are invited into the organisation’s decision making structures, and thus the extent of development towards team-based decision making processes. Empowering stakeholders with decision making powers could become part of a radical rethink on how decisions are made and solutions sought on aspects of unsustainability. By vesting these decision making powers to stakeholders so that they in reality become powers possessed, opportunities for some fundamental ‘double loop’ learning could evolve creating the capacity for a broader movement for change.

3.3 Change agents and constraints on change

To analyse what facilitates and constrains change, various theoretical approaches under the broad umbrella of political economic analysis could be
used. I have sought to identify the structural and interactive constraints that take place at the organisational level, while also seeking to keep in mind the broader societal context within which the organisation is situated.

The dual influences of structures and agents on social change have received increased attention since Gidden’s (1984) work on structuration theory. It is empowering to individuals to believe that they can influence change for sustainable development, and I have mentioned a number of cases where the role of individual champions or internal organisational change agents has had a positive impact on the outcomes of TBL-related reporting processes (Ball, 2007; O’Dwyer, 2005; Siebenhüner & Arnold, 2007). However, it is also necessary to consider the social structures that can constrain change and how to restructure them in a way that can overcome their restraining effects. A number of these structural impediments have their effect at the organisational level. It is also necessary to consider the external societal level constraints on change, and to find ways to initiate appropriate restructuring of these constraints on sustainable development.

In a case study context, this requires research skills in listening for comments that suggest what those on the ground conceive are the constraints on change; it requires an ability to ask the right question to probe beyond these day-to-day perceptions; and it requires an ability to reflect on how broader societal structures relate to the practical activity of TBL performance reporting. Many of the practical suggestions about what facilitates change and what constrains it have already been raised in the theoretical approaches presented above. For example, a constraint on organisational change is the tendency for the executive arm to impose directives from above rather than develop whole-of-organisation interactive processes of learning and strategising (Gond & Herrbach, 2006). This is an issue that relates to how to manage the hierarchical structures and agents influence on social change.
structures that run vertically through organisations, and to improve the interaction, the flow of communication and the level of commitment to participation in sustainable development decision making and action across these structures. Also, an increase in employee participation in decision making processes creates new challenges in balancing accountability with responsibility across the vertical structure (Johansen, 2008a).

Much of the on-the-ground case study analysis has also pointed to horizontal structural constraints. A commitment to sustainable development action and related processes may be strong in one organisational section but fail to inspire others (evidenced by a better understanding of the relevance of stakeholder engagement to sustainability reporting by the Environmental Manager than the Public Relations Manager as described by Adams & McNicholas, 2007, p. 393). Or, to put it in a more positive light, one of the positive influences on change is where an organisation uses TBL reporting or similar process to inculcate a commitment to sustainable development across all departments (evidenced by the promotion of environmental accounting by the environmental unit and taken up by the financial unit as described by Larrinaga-González & Bebbington, 2001) and even with its contractors and related supply chain (which was not well achieved in the case study analysed by Roome & Wijen, 2006). As with vertical inculcation, this is best achieved through interactive processes where potential conflicts between operating procedures of particular departments and broader sustainability aspirations can be openly discussed and trade-offs identified. At a multi-organisational level, such an open and frank discussion may help to lay bare the externalisation of environmental and social costs onto others (such as local government authorities, as noted by Ball, 2005), and to collaboratively identify means to ameliorate such environmental and social injustices.

The greatest constraint on change arising out of TBL reporting specifically is the well-documented inclination for public impressions management (Criado-Jiménez, Fernández-Chulián, Larrinage-González & Husillos-Carqués, 2008; Neu et al., 1998; Ogden & Clarke, 2005). As Neu et al. (1998, p. 267) note, “it is often easier to manage one’s image through *communication* than through
changing one’s output, goals and methods of operations” (italics in original).
Such an attitude implies organisational avoidance to face the challenge of thinking about what changes may be required. It is also contrary to the ideal of stakeholder engagement and implies an assumption that stakeholders are to be managed rather than engaged (Belal, 2002; Bendell, 2000b, p. 15; cf. Savage, Nix, Whitehead & Blair, 1991).

It is on this basis that many critics argue that TBL reporting is nothing more than ‘greenwash’ and is indeed dangerous in its manipulation of the terms of the debate surrounding sustainability and how sustainability is conceptualised (Milne et al., 2005). The constraint here is the underlying tendency for public relations spin and corporate sales pitch which underlies the way organisational reporting has been undertaken to date. In such instances, the thought of using TBL reporting as a learning or strategising tool might seem somewhat far-fetched. It is likely that this is also often true for a lot of internal reporting processes. Much internal reporting against performance targets can carry similar notions of public relations spin – selling the apparent success of the organisation to recalcitrant staff whose daily productivity levels are not being driven to the heights implied by a full personal commitment to the organisation’s mission.

Indeed, the question of who is the reports’ audience is a key part of this issue. Even if an organisation has internal reporting processes, it is still the case that internal stakeholders are a key audience for the organisation’s public report. In general, the other audiences are likely to be the organisation’s shareholders and perhaps, especially for service industries like water suppliers, its customers as well. Stakeholders seeking to represent the environment or communities affected by the organisation’s activities might require a completely different approach to report text creation. Unless the organisation is in a defensive position as Shell was in the late 1990s, it is likely that its reports will not even mention their existence or the issues they wish to raise (such as was the case in the unnamed company’s reports analysed in 1993 which failed to mention the company’s problematic relationship with Greenpeace and Friends of the Earth.
and the associated controversy over its products and processes as noted by Adams, 2004, p. 744).

In their study of the privatised UK water industry, Ogden and Clarke (2005) note that the use of corporate public relations to justify rising water charges following privatisation actually undermined a promotion of values beyond the bottom line. The implication is that reporting may not be the best vehicle to raise awareness about sustainability issues, because the main intended audience (i.e. customers and shareholders) were primarily seeking appeasement for their hip-pocket concerns. This was even found to be the case for an award winning water company TBL reporter, Watercare NZ. Through its report, it saw itself as the knowledgeable leader and educator amongst its stakeholders, who aspired to keep a balance between stakeholders’ economic concerns – “stakeholders’ willingness and ability to pay” – and their social/environmental concerns – “stakeholders’ desire for minimising the effect of the environment” (Tregidga & Milne, 2006, p. 228). The unfortunate result was that the increased portrayal of sustainability issues dressed within the discourse of an economic position oriented that balance towards a business-as-usual position (Tregidga & Milne, 2006, p. 237).

Shifting organisational assumptions about reporting away from an emphasis on public impressions management can be facilitated and/or constrained by the horizontal and vertical organisational structures introduced above. An organisation’s decision makers are often seen as a major constraint because they are usually preoccupied with the organisation’s financial bottom line and image. O’Dwyer (2005) provides a good example of this in his study of an Irish non-governmental aid agency embarking on its first social accounting process. Despite this process being participatory, and one that involved considerable organisational learning, a major constraint was that the agency’s Board showed “no genuine desire to learn” (O’Dwyer, 2005, p. 283 citing an internal stakeholder). In the final stages of the process, many of the negative comments about the agency made by external stakeholders at the receiving end of the agency’s aid assistance were “cleansed” from the social account because of dissatisfaction from the Board. The Board was concerned that their inclusion
might jeopardise their ongoing funding, the bulk of which was provided through government assistance. As a result, O’Dwyer concludes that the dialogue process was flawed, and blames the “cursory consultation” on the power relations involved; i.e. the agency’s “unremitting power over its stakeholders in developing countries rendered the pursuit of an open, critically focused dialogue impossible” (O’Dwyer, 2005, p. 285).

On the other hand, it is also possible that organisations are constrained from implementing changes envisioned at the higher executive levels because implementation is seen by those below as impractical or in conflict with other organisational aspirations (as noted above in the case of the Dutch food company described by Roome & Wijen, 2006). As Siebenhüner and Arnold (2007) note, change agents are sometimes in lower levels of the organisation, such as in environmental departments, but they can also be in managerial positions, and this can depend on the size of the organisation. Overcoming constraints to change, whether from above or below in an organisation, requires a commitment to participatory dialogue and inclusive decision making processes that can engender ownership of the process at all levels of the organisation.

Along the horizontal dimension, those staff facilitating change for sustainability are often found within environmental departments (e.g. Adams & McNicholas, 2007, p. 393; Larrinaga-González & Bebbington, 2001, p. 277), but it is also possible that public relations officers or even accountants (Ball & Seal, 2005, p. 468) could become change agents. The point is not where the change agents are located, but to facilitate their presence and ensure they are not constrained from shifting entrenched values of those in other parts of the organisation; which in turn requires the organisation to engage in learning that traverses divisional structures.

More generally, there is also a need to overcome constrained ways of thinking that may emanate from broader societal discourses (Milne, Kearins et al., 2006; Thomson & Bebbington, 2005). The momentum that goes with the status quo requires concerted effort to redirect, and it is this momentum for the status quo that is spearheading society on an unsustainable trajectory. A reluctance to
radically alter dominant discourses and their underlying social and economic processes can nurture false solutions that seem to address elements of unsustainability within business-as-usual ways of thinking. To denote such solutions as false is open to contention, as evidenced in the debate concerning whether privatisation, increased corporatisation and market trading mechanisms can be used to solve unsustainable aspects of irrigation (e.g. Haigh, 2008; Wilder & Lankao, 2006). However, deflecting such debates by seeing how the journey to sustainability evolves is most likely to allow a business-as-usual practice to predominate (Milne, Kearins et al., 2006; Tregidga & Milne, 2006).

The character of TBL reporting processes that critical social theory might inspire is one that can “identify and enable others to question the ‘hidden curriculum’ of oppressive systems of governance (including, if relevant, Western capitalism)” (Thomson & Bebbington, 2005, p. 527). As Sayer (1992, p. 39) notes, the task of research is to not only report ideas as understood by those on the ground. It also requires the reduction of any illusions; it requires evaluating and criticising views held in society so as to expose and remove false ideas. A failure to do so means that actions “informed by false ideas” will lead to results that are not what were expected or desired (Sayer, 1992, p. 39). Widespread contemplation of the meaning of the TBL heuristic could inspire a paradigm shift resulting in a profound re-evaluation of business-as-usual assumptions. If radical changes were to ensue, one could claim that they evolved through an unconstrained momentum towards broader enlightenment and empowerment. However, another idea is that restructuring is brought on by a crisis, notably in Marxist analyses of crises in capitalism leading to restructuring. The idea that sustainability presents an imminent crisis for capitalism is implied by both Gray (2006a) and Elkington (1998). However, this time it is a crisis of unsustainability that they argue will lead to radical change, even though they differ in what they think these radical changes will need to be. The potential for TBL reporting might therefore be to provide a process to more smoothly enter into this new, more sustainable world of the future.

This section (3.3) concludes those elements within the theoretical framework which can rely to some extent on an empirical investigation of the case study.
context (see Figure 13). The interpretation of empirical findings in terms of different ideas about sustainability is discussed in the next section.

**Figure 13: Unpacking the theoretical framework: Stage 4**

3.4 Sustainability: What is it and how do we get there?

My depiction of this theoretical framework as a set of onion-like layers is intended to emphasise the strong bearing that the final component question has on the analysis of all the other component research questions (see Figure 14).

In Chapter 1, I explained that this question can be analysed from three beliefs about what change processes are most appropriate: a status quo or Promethean approach; a reformist, incremental or evolutionary approach; and a transformational, radical or revolutionary approach. Those who advocate TBL reporting are generally seen as fitting in with a reformist change agenda (e.g. Gray, 2006b, p. 804)\(^{53}\). However, I am also interested in exploring the extent that TBL reporting can become a catalyst for a more radical change agenda. In particular, I am interested in the transformative potential of adopting learning

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\(^{53}\) The relevance of social and environmental accounting to the kind of changes that will bring about a more just and sustainable future is a theme that Gray has considered deeply as he engages in constructive critical discussion with his more radical/critical colleagues – see for example Gray (2002) and Tinker & Gray (2003).
and participatory approaches to the process of sustainability enhancement, and what this might mean. When considering use of organisational learning theory and ideas about public participation and structural constraints, a key issue has been the nature of reformist versus transformational change, and how to use the blurred distinction between the two to help develop the transformational potential of TBL reporting.

**Figure 14: Unpacking the theoretical framework: Stage 5**

Sustainability theorists recognise the diversity in the way sustainability is conceptualised, and that this is linked to assumptions about how to respond to its challenges for us as a society. There have been numerous attempts to categorise these discourses on sustainability (e.g. Dryzek, 1997; McManus, 1996), to lay them out as a typology (Dobson, 1996) and to map them against existing typologies related to socio-economic and environmentalist discourses (Hopwood et al., 2005).

I was introduced to these discourses by Milne et al.'s (2004) analysis of TBL reporting experiences in New Zealand. Their analysis builds on an existing discourse that compares “weak sustainability” with “strong sustainability” and then incorporates a status quo “growth forever” discourse. “Weak sustainability” approaches are those that recognise that society needs to change its path of
development, and that the most effective way to achieve this is through incremental or reformist change. Approaches that may be called “strong sustainability” are those that suggest fundamental or radical changes are required to achieve sustainability. These three approaches compare well with the terms “status quo, reform and transformation” used by Hopwood et al. (2005). Figure 15 shows how I displayed these ideas as part of a poster of my research proposal.

Since then, I have further divided these positions as centring around two loci of debate (see Figure 16). There is a mainstream debate that centres on whether the sustainability crisis could eventually be resolved through technological innovation or whether we need to introduce market reforms such as carbon trading to guarantee a sustainable future. The second locus of debate is taken up from a more critical perspective and is focused on the degree of change required: whether reforms are enough or whether the sustainability crisis also represents a crisis for capitalism, thus requiring a restructuring of the economy.

Critical theorists are unlikely to spend much time debating whether to adopt status quo or reformist approaches as ways to achieve sustainability. This is the realm of prevailing dominant discourses that critical theorists are critiquing. However, critical theorists possibly spend too much time debating whether to use reformist or transformational approaches to achieve sustainability. My argument is that the lines between these three approaches are indistinct. Those committed to enhancing sustainability are therefore pushing the change agenda from status quo towards reformist (within the prevailing dominant discourses) and from reformist towards becoming transformational (within the alternative critical discourses). The latter critical view holds the potential to respect the benefit of having internal change agents seeking change within their organisations, and that the best outcome from this is having ‘small win’ changes on the inside aligning as part of a broader momentum for change that is likely to be transformational in overall character. To put it another way, the different approaches within society towards the question of how to achieve sustainability is best considered as an analytical tool.
Sustainability
is the key concept driving the research.
But the part of my research question Will the changes
implemented contribute to a more sustainable future for society?
clearly cannot be answered from empirical evidence. This is a predictiv
interpretative issue based on analysing a wide range of perspectives in the

Acknowledgement: The idea of the quote and the following analysis come from a paper by Milne et al (2005) analysing corporate use of the journey metaphor in TBL reports.

INCREMENTAL CHANGE
the ‘business case’
Based on a belief that any change is better than no change, but criticised for its propensity to allow a company to portray itself as being on the sustainability journey while forestalling any action detrimental to the pursuit of profits; sustainability is just an add-on.

“Would you tell me, please, which way I ought to go from here?”
“That depends a good deal on where you want to get to,” said the Cat.
“I don’t much care where—”, said Alice.
“Then it doesn’t matter which way you go,” said the Cat.
“—so long as I get somewhere,” Alice added as an explanation.
(Lewis Carroll, Alice’s Adventures in Wonderland)

RADICAL CHANGE
the critical theo
Based on a belief that increment is not enough. If we are to truly journey’s end we need to fundamentally change our modes of production so as to ful

NO CHANGE
‘growth forever’
Based on a belief that we humans always find new ways and new technologies so as to continue developing. These ‘exploitationist’ assumptions “from the basis upon which so many humans continue to live” (Milne et al, 2004, p. 4)

Reference: Milne, M, Kearins, K & Walton, S 2005, ‘Creating adventures in Wonderland: The journey metaphor and...
I place myself within the critical theory camp that believes in an overall need for transformational change. To present this argument, I will do two things. First, I will come back to the vexed question of what we mean by sustainability and the key issues that contribute to the differences in opinion about the kinds of change required. Second, I will elaborate on the implications of each of three discourses illustrated above. In so doing, I will argue for a shift in the mainstream sustainability debate away from a faith in the status quo approach alone, and for the critical debate to build on the momentum of reformist processes, like TBL reporting, to inspire change that is more transformational in overall character.

3.4.1 Sustaining what?

My starting point is a question aptly put by Dobson (1999, p. 5): “The most important question in sustainability theory is ‘what is to be sustained?’” The impression by most that this question is “blindingly obvious” can hide a realisation that it is the lack of a “determinate answer” to the question that drives so much of the contestation surrounding use of the term. For example, if we were to present an argument to business on the need to take on the sustainability agenda, we could present it as a move from financial profit to “sustainable profit” (Cramer, 2002), thereby leaving the impression that profit is
the thing that is to be sustained. While such an argument may appeal to business and be reasonably put, I believe it misses the point. Similarly, if we were to listen to the arguments surrounding sustainability from those dependent for their livelihoods on irrigation, we might hear that it is the irrigation industry that needs to be sustained, and its associated way of life. But, again, hearing the arguments in this way misses the point, and probably mistranslates the actual meaning of some of the arguments presented by those representing the irrigation industry.

Referring to the 1987 Report of the World Resources Institute (WRI), Sachs (1999, p. 67) notes that the point is that we humans depend on the environment for our development (past, present and future), and so our use of the environment must be managed wisely. This is the argument for irrigation to become sustainable; it is the failure to wisely manage the impact of irrigation on the environment that threatens the sustainability of the industry and those whose livelihoods depend on it. Likewise, for companies to maintain their profits into the future, they need to manage their impacts on the environment.

Yet Sachs (1999) uses the WRI reference to emphasise a crucial link: if it were not for the burden on the environment from society’s dependence on the “competitive dynamic” of industrial society, there would be no need to talk of sustaining the environment. The environment could be left without human management. He therefore concludes that “calls for securing the survival of the planet are often, upon closer inspection, nothing more than calls for the survival of the industrial system” (Sachs, 1999, p. 67). Similarly, it is incomplete to think that sustainability is about ensuring we can maintain our current way of life into the future (the ‘we’ and ‘our’ often unconsciously being the people of a local area or nation). The difficult reality is that it may be more about ensuring basic certainty for future life and livelihoods of a lot of other people on this planet.

As Dobson (1999, p. 5) concludes: “Sustainability theorists argue interminably over this ‘what?’ ... and conceptions of sustainability can be analytically organised around the different answers that have been given to this question.” In my earlier presentation of the benefits and limitations of the TBL concept, two key issues are relevant. First, a TBL conception of sustainability has merit in
emphasising the inclusion of a social justice dimension. However, the limitation is that its use at an organisational level is problematic in the extent to which it can be used to respond to sustainability as a global concept. Sustainability is not just about sustaining some people’s lives and development aspirations; it is about sustaining all people’s lives and development aspirations. Sustainability has both a social justice dimension and a global dimension and these two are clearly intertwined.

3.4.2 Sustaining growth forever?

Since the fall of the Soviet Union, a prevailing view is that capitalist-led growth has become the all-conquering model for the globe, a view that has been articulated by the likes of Fukuyama in his provocative “end of history” analysis (Fukuyama, 1989). It is out of this discourse that Elkington grapples with how to pursue an environmentalist agenda for sustainability. He agrees with the view that socialism is dead as an economic theory (although not as a moral crusade). The entire premise of his argument is therefore built on deciding the kind of capitalism we should strive for (Elkington, 1998, p. xi), because, for him, the “free enterprise model provides the best hope” for future efforts to move towards sustainability (Elkington, 1998, p. 35).

This view can be traced back to a lead article in a 1997 edition of the Harvard Business Review (Hart, 1997), which both Elkington (1998, p. 71) and Adams, Frost and Webber (2004, p. 17) refer to as part of their explanations of the TBL agenda. Pitching his argument to the corporate world, Hart (1997) acknowledges that “the roots of the problem – explosive population growth and rapid economic development in the emerging economies – are political and social issues that exceed the mandate and the capabilities of any corporation.” However, he makes his appeal to business by arguing that “corporations are the only organisations with the resources, the technology, the global reach, and, ultimately, the motivation to achieve sustainability” (Hart, 1997, p. 67).

In the face of these root problems of population growth and the expansion of development and its demands on the environment, Hart articulates the challenges the world faces by referring to the terminology “market economy” cf.
“survival economy” developed by Shiva (1991). As Hart explains it, the problem is that the development of the market economy is exploiting and polluting the resources of the increasing numbers of people who function within the survival economy. Both those in the market economy and those in the survival economy depend on a depleting supply of natural resources – both renewable and non-renewable. The same argument is used by Dobson to emphasise that there is a social justice dimension to sustainability, noting how it has become “an article of faith” within the movement for sustainable development that “a precondition for global sustainability is a global redistribution of wealth, given the weight of evidence suggesting that poor people are forced into degrading their environment by eking out a living on marginal lands” (Dobson, 1999, p. 3).

Hart, on the other hand, with a broad-brush, suggests that there are three solutions to this challenge. We could lower the global human population, we could lower overall global levels of affluence, or we could improve technologies so that production of goods and services enables a much more efficient use of resources. Of these, Hart argues that the only feasible option is the last one and uses this as a basis to argue for business to take a lead role in advancing sustainability. He asserts that technological innovations are “the business of business” and could indeed “constitute one of the biggest opportunities in the history of commerce” (Hart, 1997, p. 71), a clear appeal to corporations looking for new ways to make a profit.

What this demonstrates to me is a prevailing world view that sustainability will be resolved through a faith in science to provide future technological innovations. Sustainability theorists associate such a view with a character from Greek mythology, as Dryzek explains:

“In Greek mythology, Prometheus stole fire from Zeus, and so vastly increased the human capacity to manipulate the world. Prometheans have unlimited confidence in the ability of humans and their technologies to overcome any problems – including what can now be styled environmental problems” (Dryzek, 1997, p. 45).

For much of modern human history, this has been the prevailing discourse. It can also be an unspoken assumption for a society, organisation or individual
because it can be too difficult to face up to the alternative options we may need to take up to achieve sustainability. Resource exploitation builds on the assumption that society progresses through wealth generation that comes by applying human labour to otherwise apparently ‘valueless’ resource materials. This may have been fine while the resources were in abundance and human labour was in short supply, but that assumption is being challenged now that resources are in short supply and human demands are overabundant (Milne et al., 2004, p. 4). To add to the concerns of critics is that this Promethean discourse is increasingly being taken up as part of neo-liberal ideology, whereby corporate entrepreneurialism and creativity should not be constrained, but should be tapped as a key component of the move towards sustainability (for an excellent appraisal of this argument see de Woot, 2005).

The TBL agenda put forward by Elkington, on the other hand, is that a different kind of capitalism needs to be created; one that will ensure sustainability. He accepts the crucial role that business could play in technological innovation, but seeks to have their potential for innovation applied to the development of a new means to measure progress towards improved sustainability performance. Within this perspective, the process of TBL reporting is a means through which corporations can gradually develop awareness about cultural changes required to achieve progress towards sustainability. Thus, while he talks of revolutions (indeed, seven of them), it is essentially a process of incremental change. It is part of the “business case” approach to sustainability, as Milne et al. (2004) describe the promotion of TBL reporting by the New Zealand Business Council for Sustainable Development. In addition, sceptics are unlikely to agree with the fundamental assumption that capitalism can be sustainable. His is not a radical agenda. In terms of a typology of approaches to sustainability, I would place Elkigton’s view of the TBL agenda as a reformist agenda.

3.4.3 Enhancing sustainability by enhancing equity?

Coming back to Dobson’s question ‘what is to be sustained?’ , some ‘deep green’ environmentalists are likely to be alarmed by how I answered that
question above in terms of human life and livelihood. Surely it is the planet that needs to be sustained? Surely we must all live within the ecological carrying capacity of the planet? Precisely. As Dobson (1999, p. 5), points out, this is where the language generated by environmentalist discourses and social justice discourse can begin to coalesce. The tension between the two divergent goals of environmental sustainability and social justice has long been recognised, as is their interconnectivity. “The crisis of nature and the crisis of international justice are interlinked” write Sachs, Loske & Linz (1998, p. ix) and the relationship is an inverse one:

“Those who demand more agricultural land, energy, housing, or purchasing power for the poor find themselves in contradiction to those who would like to protect the soils, animals, forests, human health or the atmosphere. And those who call for less energy or less transport and oppose clear-cutting or input-intensive agriculture for the sake of nature find themselves in contradiction with those who insist on their equal right to the fruits of progress” (Sachs, 1997, p. 71).

How can one equitably distribute the benefits provided by our environment as well as the burdens we impose on it for all, now and into the future, while also maintaining the environment as a life support system for all, now and into the future?

Sachs et al. (1998) provide a frank response: those in ‘the North’ need to ‘green’ their economies so that those in ‘the South’ can have a fair share. While they recognise that technological innovations developed by powerful economic interests is a promising way forward in the current political climate based on a “restricted concept of economics” (Sachs et al., 1998, p. 2), the danger – and the tendency – has been to overlook the overarching issue of justice: “without justice between industrial and developing countries it will not be possible to restrain the global environmental crisis and enter upon sustainable global development” (Sachs et al., 1998, p. 3). It is not just an issue of using resources more efficiently; it has become an issue of what – in all fairness – can be considered a sufficient use of resources (Sachs et al., 1998, p. xi). This is where there is a fundamental flaw in capitalism. In its current form, it principally relies
on sustaining growth\(^{54}\). For those of us who already possess sufficient goods and services, growth can only be sustained by creating the impression that new needs should be met (Monbiot, 2002; Porritt, 2005, p. 53). Indeed, this is the driving force behind the booming advertising industry; and has become a root source for misery in affluent societies: “Advertising creates gaps in our lives in order to fill them. We buy the products, but the gaps remain” (Monbiot, 2002).

According to Sachs, the classic Brundtland definition of sustainable development – “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1990, p. 87) – avoids taking up the crisis of justice; it only effectively responds to the crisis of nature (Sachs, 1999, p. 77). The words of this definition, he suggests, leave two key questions open: what needs and whose needs? However, hidden behind the definition is the next line which goes some way to clarify the concept of ‘needs’ as being “in particular the essential needs of the world’s poor, to which over-riding priority should be given” (World Commission on Environment and Development, 1990, p. 87).

3.4.4 Bringing sustainability back home

Now that I have clarified the way in which sustainability is a concept that has interconnected global and justice dimensions, it is time to face the difficult challenge of making this meaningful at an organisational scale. Another piece by Sachs is helpful here (Sachs, 1997). Much of the prevailing rhetoric on sustainability fits into what Sachs refers to as a ‘contest’ perspective. For those of us fortunate enough to live in affluent pockets of global society, we can too easily focus on securing a sustainable future for us and for our future generations (if procreation is our thing). This means that we will not only need to clean up our act, but that we will also need to ensure that those people in other so-called ‘developing’ situations clean up their act so that it does not affect us from achieving our future. As for the sustainability of their future, that is a matter

\(^{54}\) notwithstanding the increased concentration of capital accumulation to grossly excessive levels
for them. It is not difficult to identify such a perspective in the rhetoric of sustainable options put by national governments wary not to jeopardise their future electoral prospects: we need to protect our national interests and standing. At a smaller scale, such a ‘contest’ perspective can easily arise within the Murray-Darling Basin when promoting the sustainability of a particular irrigation area given the current over-extraction of water from across the Basin as a whole.

Sachs presents two alternative perspectives. The ‘astronaut’ perspective – inspired by the huge impact created by the first picture taken of our planet by astronauts in space – is to see our planet as a little home in the huge uninhabitable universe and that nothing but the whole of global society working together will ensure a sustainable future for the people of this planet. Therefore we need to have global agreements and compacts; everybody must sign up and be committed to working together for the global common good.

Probably the most useful perspective to draw upon is the second ‘home’ perspective. The ‘home’ perspective builds on an awareness of the global nature of the sustainability and justice crisis. As with the other perspectives, it is in response to the challenge of achieving a sustainable future for all (now and in the future) given the finiteness of the world’s ecological carrying capacity and resource base. However, it shrinks the scale down to draw on individual (and potentially organisational) responsibility to reduce our ecological footprint so that it might eventually match the available environmental resources as fairly apportioned to us. While Sachs has in mind those who aspire towards a self-sufficient commune lifestyle, the widespread use of ecological and carbon footprints are also intended to head organisations and individuals towards more ‘sustainable’ behaviours; or at least be aware of how unsustainable their behaviours are. For much the same reasons, Berthoin Antal and Sobczak (2004) prefer the term ‘global responsibility’ to both ‘corporate social responsibility and ‘sustainable development’. The key point they make is that sustainability is an issue for everybody, including global corporations, and is something that we should all be working towards.
3.4.5 Shared awareness and collaborative effort for a sustainable future

To analyse the extent that TBL reporting can contribute to enhanced sustainability, this chapter has drawn on a range of theories that can also go beyond analysis towards a critical and prescriptive perspective. The chapter began with that classic quote from Marx that the point of research is to change the world. Sustainability presents a major challenge for everybody in global society. I would be deeply dissatisfied if, at the end of this doctoral endeavour, I was unable to offer a constructive means through which to effect change.

The journey to sustainability – if I can dare to be prescriptive about what such a journey might entail – begins by increasing awareness about the sustainability challenge. This involves learning about how unsustainable the current global development trajectory will become as well as learning about what can be done about it. I would also argue that it requires us to understand and confront the gross injustices that prior global development paths have created, and to register a commitment to reverse these injustices for humanity’s sake, as well as for the sake of the planet. As organisations reflect on their TBL impacts, there is great scope for ‘double loop’ learning because sustainability inevitably challenges the underlying purpose of organisational activity, as well as that of the broader socio-economic system within which it operates.

An inevitable challenge for organisations in learning what can be done about sustainability comes through contemplating what they can effectively achieve within their individual spheres of influence. From a ‘home’ perspective, there are reporting tools used to measure footprints, but I also argue that sustainability calls on organisations to take on a collaborative approach with other entities in society to effect broader changes towards enhanced sustainability. From an ‘astronaut’ perspective, organisations with global influence should also collaborate towards global cooperation for enhanced sustainability. Both necessarily challenge ‘contest’ perspectives. Taking up sustainability action as a contest with others is unlikely to create a sustainable future for all.

Under a capitalist system, innovation is the inspiration that results from a desire to have competitive advantage, indicative of a ‘contest’ perspective.
However, the kind of innovation that results is arguably Promethean, and perhaps a different approach to innovative change is required. We could seek innovative solutions to create a sustainable system of capitalism. However, I would argue that our innovative solutions might need to rethink the whole way our economy functions to meet the ideals that once made socialism a moral crusade. Organisations working together collaboratively at local, regional, national and international levels may harbour the genesis of a new way to run the economy to meet the needs of society; for all in society; and for all in future societies.
Chapter 4
A case study of TBL reporting at Murrumbidgee Irrigation: Background and methods

The developed landscape around here is irreversibly changed … It’s pretty fragile country we live on out here. It’s very productive given the right mix of management and application of water… (Manager 8)

4.1 Introduction

The following two chapters focus on a case study of an irrigation company, Murrumbidgee Irrigation Pty Ltd (MI) that explored, in collaboration with MI, whether the TBL reporting process it is developing has the potential to lead to enhanced sustainability. The first half of this chapter (4.2) provides a background to the case study, highlighting aspects that make it of academic and societal interest. The second half of the chapter (4.3) explains the methods used, beginning with the methodological basis for my use of qualitative data (4.3.1) and action research (4.3.2). I then provide an overview of events as they unfolded (4.3.3). From there I explain how the qualitative data were generated through participant observation (4.3.4) and semi-structured interviews (4.3.5); and how these data were analysed (4.3.6). Chapter 5 presents the findings from the case study.

Case studies are a useful way to create deeper understandings of complex issues by allowing the researcher to learn from people with active day-to-day experiences that constitute the social and organisational responses to these issues. My research seeks to address a broad question about the extent that TBL reporting can lead to enhanced sustainability. The theoretical framework developed in the previous chapter and the TBL reporting process evaluation criteria developed in Chapter 2 informed my data creation and analysis.

55 A point of grammar: in qualitative research contexts, it makes little sense to me to use the word ‘data’ as the plural form of the countable noun ‘datum’. This is because the concept of a ‘datum’ has no meaningful function in qualitative research. What we are dealing with is an uncountable sea of data, and thus the word ‘data’ is functioning as an uncountable noun. However, on this point of grammar I accede to current conventional use, and will save my battle for another day.
Before starting on the background to the case study, it is helpful to explain the coding system I have used to disguise my interviewees' identities. This is because you will start to hear from the interviewees before I describe this aspect of my case study methods in detail and the associated ethical considerations. My desire is to maximise the space in these chapters for the interviewees themselves, including in the case study background.

I interviewed 22 people from the organisation, two Board Directors, all six Executive staff and 14 other staff. To reduce the likelihood of anybody in the organisation being able to identify quotes by the two Board members, I have simplified the coding system by including the two Board members with the company Executive members to form a group of eight ‘managers’, and, their identities are coded as Manager 1, Manager 2, and so on. The identities of the other 14 staff not on the Executive are coded as Staff 1, Staff 2, etc. All quotes taken from the interviews are presented in italics.

4.2 Case study background

4.2.1 Selection of case study

Before I explain the reasons for choosing MI as my case study, there is a prior methodological issue that should be addressed. How can a single case study deliver an effective answer to such an ambitious research question of whether TBL reporting can lead to enhanced sustainability? I have already noted in section 1.3 that it is not the purpose of this case study to provide a definitive answer to this question. Indeed, I have also developed a critical analysis to support my investigation through my separate research of a range of published case studies reviewed in Chapter 2. The MI case study therefore should not be seen in isolation but as part of a broader societal concern that has driven a number of research investigations to improve the outcomes of reporting processes.

Whether researchers choose to undertake one case study or a multiple set is in part a decision about breadth versus depth. One of my criteria for selecting case studies to review from the literature related to depth of analysis, making
me prioritise in-depth case studies over research that used multiple case studies or wide-ranging surveys. Often single case studies, such as by O’Dwyer (2005) or Tregidga and Milne (2006) provided the most critical insights into the link between the process of reporting and broader social goals such as enhanced sustainability. This is because of the depth of analysis such studies can provide, which was not undermined by the authors’ decision not to undertake other case studies for the purposes of comparison. Choosing to undertake more than one case study can provide that comparison, and can provide greater breadth to the analysis. In my case, I sought to learn from the breadth of case study contexts through my analysis of published case studies. Thus the case study component of my research sought depth over breadth of analysis. In particular, I was seeking the kind of depth of learning that would evolve through interaction and a shared desire for change as an outcome of our collaborative research endeavour. This is part of the reason for my decision to only undertake one case study. The other reasons were practical, and are discussed further below.

The selection of MI as the case study stems from my participation in the CRC for Irrigation Futures Sustainability Challenge project. As this project was driven by irrigation organisations for its potential end user application, it held great potential for collaborative research. This potential had been established prior to my joining the research team. Three case studies had been included in the project which the research team had selected against pre-determined criteria. These were: MI, based at Griffith and Leeton in rural New South Wales (NSW); the lower Burdekin Water Boards near Townsville in northern Queensland; and various councils and other organisations that irrigate in urban and peri-urban areas in western Sydney. When I joined the team, my decision involved how I could use these case studies to help address the bigger picture question that my research sought to address.

It became quickly apparent that I would focus my investigation on the MI case study. This is principally because of the relative proximity of the MI offices to my base in Albury, requiring about three hours drive to reach Leeton and Griffith. By contrast, the other case study that would enable depth of analysis was that
involving the two lower Burdekin Water Boards near Townsville, requiring at least a whole day’s travel of three or more flights. Another factor was my familiarity with the communities of Griffith and Leeton, having spent six adolescent years there. My past association with the area helped break down barriers in my interactions as part of the case study, including when negotiating access for my research. I considered being involved in the other two case studies, but decided against this option. While such an option might provide interesting comparative research, I was not convinced that the additional comparative learnings I would acquire from including the Townsville case study would have sufficiently added to my answer of the research question to justify this level of additional time and financial commitment. The case study in western Sydney would not have provided a useful comparison as it was not focused on a specific organisation. So, for the purposes and scope of my doctoral research project I decided it would be more beneficial to get deeply involved in the MI case study. My involvement in any other case studies would have depleted valuable time and resources away from that exercise.

Of course, the rationale behind using this particular case study is not just a matter of circumstance, nor of pandering to the whims of scholarship providers. An organisation grappling with the management and use of natural resources is invariably at the frontline of the sustainability debate, and its character as a recently privatised organisation also makes it of academic interest. Given that MI is responsible for managing a large and productive irrigation area, it is particularly susceptible to social and political consternation surrounding water use and management issues in Australia. These concerns have been heightened in recent years due to the current severe drought and associated widespread introduction of water use restrictions across Australia. Many would see that irrigation organisations like MI are facing a crisis of legitimacy. Water supplies in the Murray-Darling Basin are insufficient to meet the current demand due to a history that has resulted in over-allocation, requiring politically charged management decisions in recent times to reduce and deny supply among various competing needs. What is more disturbing is that there are predictions that these drier conditions will continue into the future as a result of climate
change (e.g. Beare & Heaney, 2002; Timbal, 2008). This has raised concerns about the underlying sustainability of the current extent of irrigation across the Murray-Darling Basin.

In building his context for a discussion of the politics of water management in the Murray-Darling Basin, Connell (2007, p. 42) notes that while almost no one would defend the current unsustainable reality of a “continued business-as-usual” approach to water use in the Basin, “so many take that approach in practice.” If challenged, the defence against change, he suggests, is usually focused on the social and economic benefits that would be threatened by any efforts to achieve reform. Later, Connell asserts that while economic considerations should not dominate negotiations in planning future water management, it is nevertheless important to more fully account for the long-term costs associated with mismanagement, and in particular to tackle the “strong pressure to under-account for costs such as those created by the maintenance and replacement of the storage and distribution system, servicing the regulatory framework, environmental degradation, forced social change, impacts on future generations and this generation in the future” (Connell, 2007, p. 44).

This debate over effective use of water resources for irrigation provides a useful playground in which to observe the interplay between the economic, social and environmental dimensions of the TBL. Irrigation not only provides the lifeblood that supports the social and economic sustainability of many rural populations, but without irrigation, the productive capability from rain dependent agriculture would be severely constrained from providing the levels to which the Australian population has grown accustomed. However, the use of irrigation has created substantial environmental disruptions to the land, vegetation and supplying river systems, severely testing their resilience (cf. Walker & Salt, 2006, p. 39ff.).

56 Stokes and Howden (2008) provide a detailed analysis of global warming effects on Australian agriculture. An analysis of global warming links to the worst ever drought in Australia was produced in 2002 (Karoly, Risbey & Reynolds, 2003), and apart from a slight reprieve in 2005, this drought has intensified. There is also an established view that an intensification of the southern polar vortex is decreasing winter rainfall in southern parts of Australia (Karoly, 2003). Many other studies on the effects of climate change in Australia are available via government and CSIRO websites (e.g. http://www.greenhouse.gov.au/publications/index.html and http://www.cmar.csiro.au/research/climate.html).
The irrigation industry is therefore a useful and informative context to analyse the extent that TBL reporting can be effective as an agent for change, especially given the irrigation industry’s susceptibility to legitimacy pressures, and the concomitant need to present impressive accounts of its social and economic contributions, and the positive ways the industry is responding to concerns about its environmental sustainability.

4.2.2 Murrumbidgee Irrigation Area and its sustainability

The case study organisation is based in the Murrumbidgee Irrigation Area (MIA) in central NSW (see Figure 17). The MIA is in a semi-arid region, famously described by the first European explorer to reach the area as “a country which for bareness and desolation has no equal … I am the first white man to see it and I think I will undoubtedly be the last” (Oxley, 1817, cited in Lewis, 1994, p. 12).

Figure 17: Location of Murrumbidgee Irrigation Area

(Map created by Simon McDonald, CSU Spatial Data Analysis Network)
The population of the MIA is under 50,000, and half of this population resides within the built-up areas of the two centres of Griffith (16,000) and Leeton (7,000) (Australian Bureau of Statistics, 2006; Meyer, 2005, p. 44). A significant proportion of the local population is of Italian ancestry\textsuperscript{57} and gives the MIA a more multicultural character than most other rural districts. The MIA is a centre for local agricultural processing industries, notably the SunRice mill in Leeton as well as several wineries. A relatively high proportion of the local working population is engaged in agriculture and agricultural processing industries\textsuperscript{58}.

The total area of the MIA is 660,000 ha, but not all of this area is irrigated. For example, in 2005-06, 140,200 ha were under irrigation (Murrumbidgee Irrigation Limited, 2006, p. 3). The western half of the MIA is principally based on dryland wheat production and sheep grazing; the bulk of the area established under irrigation is in the eastern half. Most of the farms in this eastern half are either large area farms devoted to rice and wheat seasonal crops or small area farms based on horticulture and viticulture. Irrigation water to the MIA is supplied via a diversion weir on the Murrumbidgee River from two storage dams upstream, the Burrinjuck on the Murrumbidgee and the Blowering on the Tumut River (see Figure 17). MI manages about 1.5 million megalitres (ML) of water licence allocations, but total diversions can be much lower, especially in drought years. In 2006-07 for example, 0.6 million ML was diverted to the MIA, of which 75% was sold to MI irrigators, the remainder predominantly lost through conveyance evaporation and seepage (Murrumbidgee Irrigation Limited, 2007, p. 4).

The Murrumbidgee River is a major tributary within the Murray-Darling Basin, flowing from its source in the Great Dividing Range to its confluence with the River Murray. Rainfall in the Murray-Darling Basin is best described as sporadic. In the Basin’s southern half, the rainfall pattern tends towards higher averages in winter and a substantial bank of snow at higher altitudes provides a

\textsuperscript{57} For example, 26% of people within the Griffith local government area identified that they had Italian ancestry at the 2006 census (Australian Bureau of Statistics, 2006).

\textsuperscript{58} For example, the second biggest employer in the Leeton local government area after ‘school education’ is ‘grain mill and cereal product manufacturing’ with 6.8%. Of Leeton area’s working population, 13% are engaged in agriculture (of whom 68% are managers) and 24% are engaged in manufacturing (compared with 3% and 11% for agriculture and manufacturing as a proportion of the total Australian working population) (Australian Bureau of Statistics, 2006).
relatively reliable post winter supply. The MIA’s supply has also benefited from inter-basin diversions created by the Snowy Mountains Hydroelectric Scheme. These diversions enable water to be taken from the Snowy River to the east of the Great Dividing Range to supplement water storages that supply the Murrumbidgee River. The depleted flow in the Snowy River has led to intense political lobbying resulting in pressure on MI and others to return water to the Snowy River as environmental flows.

Most of the rainfall in the Murray-Darling Basin is absorbed into the soil and only a tiny fraction ends up as surface flows through the river system. The average flow through the Murray is 16% of that which flows through the Nile, and less than 3.5% of the average flow through the Mississippi River (Meyer, 2005, p. 11). Many Basin tributaries are ephemeral streams with only intermittent flows; the Murrumbidgee is one of a few rivers in the Basin with a year round flow. The low level of flow through the river system is likely to worsen with climate change, as the predicted increases in temperature heighten evaporation losses from the soil (Pittock, 2003, p. 4), through vegetation (already greatly depleted from the landscape), and from water storages. Another predicted impact of climate change affecting water supply is reduced snow falls within catchment areas (Hennessy et al., 2003).

The vision from the outset of Basin planning was to store water during winter and release it for irrigation during summer. This practice has fundamentally changed river flows. Whereas before rivers had much lower flows in summer, they now function as channels for supplying water between dams and irrigation schemes, thus greatly increasing summer flows. It has also reduced river flooding events that help sustain riverine ecosystems and soil fertility. A recent report into the ecological state of Murray-Darling Basin rivers found the Murrumbidgee to be in the lowest ranking for ecosystem health (Davies, Harris, Hillman & Walker, 2008, p. xii).

The MIA was launched in 1912 and parts of the scheme are thus approaching a hundred years old – prompting Manager 8 to assert that: “at age hundred, we have a pretty good idea about what we shouldn’t do if we want to stay here.” It is this perspective that underpins the rationale of giving responsibility for
managing the system to the users and beneficiaries of the system. The beneficiaries take on the responsibility to maintain and upgrade the system for its long term future. However, this is also a challenge. There is a clear conflict of interest between the short-term financial aspirations of MI shareholders for lower water prices to be provided by MI as the manager of the scheme and the financial investment outlay required for long-term maintenance and upgrade of the ageing infrastructure.

As an ageing system, components of the system are viewed as outdated. For example, Dethridge wheels have been a useful low tech system to monitor water deliveries. However, metering inaccuracies generally tend to favour irrigators and the Dethridge wheels can also be manipulated and are thus susceptible to misappropriated water losses from the system\(^59\). In the MIA, new higher tech Doppler meters are being rolled that are more accurate and allow monitoring processes to be automated. Sufficient funds need to be allocated to this task from revenue generated by water sales. As a company owned by irrigators, MI is also expected to be able to implement these changes with less negative reaction than might be the case if it was undertaken by a government agency.

Rice is a comparatively heavy user of water. In terms of revenue generated per megalitre applied, rice is a slightly less productive use of water than dairy and about one-tenth as productive as horticulture or viticulture (Meyer, 2005). This is in spite of the significant profitability of rice and dairy, especially given the current low consumptive costs of water for irrigation. As a seasonal crop, rice growers can decide to forgo production during times of water shortages. However fruit trees and vines are unable to survive a dry summer without irrigation. It is for this reason that all irrigated areas divide their supply into ‘high security’ allocations, which are more expensive, and ‘general security’ allocations that can be made available at lower cost when sufficient water is available.

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\(^{59}\) i.e. water theft; it can be entertaining to see the phrasing in irrigation company reports when explaining such unaccounted-for water losses. To its credit, Murray Irrigation’s (2005) sustainability report explicitly includes “water theft” as one form of “unrecorded usage” (p. 23).
Excessive irrigation results in heightened water tables, bringing saline deposits in the soil up to the root zone. This leads to waterlogging and salinisation, identified as key issues that undermine irrigation sustainability because they result in declining yields, environmental degradation and reduced irrigation benefits (Khan, Rana, Yuanli & Blackwell, 2006, p. 94). Waterlogging and salinisation have necessitated artificial drainage in some areas of the MIA (Khan et al., 2006, p. 94) and calls to radically rethink the way crops are grown and water is distributed (Khan et al., 2006, p. 98).

Because of the risks from waterlogging, rice production is highly regulated: “from a rice point of view – it is monitored like no other crop … and rice is the only one that’s taken upon itself as an industry to monitor and regulate the amount grown to try and manage water table” (Manager 7). Rice is only permitted for production on soils deemed suitable (less porous) and the Murrumbidgee Irrigation’s Environment Unit “are pretty strict and spend a lot of time and energy monitoring rice” (Staff 8). The practice of alternating rice production with wheat crops is also encouraged and generally practised resulting in a reduced overall water consumption, improved soil fertility and less need for pesticides (Humphreys et al., 2005; Khan et al., 2006).

For those who manage the MIA operations and its environmental impacts, once the water has been diverted into the MIA, they perceive their operations as being a closed system: “This system is pretty much a closed system … there is a little bit of river drainage which eventually we have to close off totally … so we don’t really impact on downstream users – other than taking water out of the river I guess” (Staff 8)60. “If you’re looking at it from an outsider’s perspective – the only downstream effect is the taking of water from the river … you can look at it two ways – yes we have a downstream impact because we take water from the river but we also have an improvement downstream because we’re taking

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60 The focus on surface water flows ignores the importance of groundwater for both consumptive and environmental values. Recent research (e.g. papers presented at the 10th Murray-Darling Basin Groundwater Workshop 2006, especially Fullagar & Khan, 2006; also see Watt & Khan, 2006) reinforces the reality of substantial interactions between surface water and groundwater, and that these interactions extend beyond the MIA’s boundaries.
the salt out of the river at the same time,” which Staff 7 explained “ends up in the soil here.”

Of course, reduced flows downstream and to the Snowy River are a major issue. In 1995, a water audit was conducted by government ministers responsible for the Murray-Darling Basin. Median annual flows to the Murray mouth were found to be 28% of what they were under natural conditions, and the rate of drought in the lower reaches had increased from 5 to 60% (Murray-Darling Basin Ministerial Council, 1995, p. 3). The findings of the audit were so dire that the Ministerial Council introduced a cap on further irrigation allocations (Connell, 2007, p. 124).

The situation at the Murray mouth has since reached a crisis point. The recent drought and severely restricted irrigation supply has forced a number of downstream irrigators to uproot orchards and vineyards. Reduced flows have also resulted in a critical environmental threshold being reached. Freshwater lakes near the mouth are at such low levels that acid sulphate soils below the surface will soon become exposed to the air and subsequent oxidisation will poison the water (Department of Water Land and Biodiversity Conservation, 2007). Without an increase in river flows, the only way to prevent this disaster is to flood the area with sea water making the water unusable to local irrigators (Walker & McGarry, 2008).

The 1995 cap on water allocations has thus clearly not resolved the fundamental Murray-Darling Basin sustainability issue of over-extraction (Connell, 2007, p. 17). The debate has subsequently turned to whether irrigation areas need to be ‘retired’61. The recent move towards water trading is seen as a means to decide which irrigation areas are no longer viable: “that’s one of the things they say – you know the trade will shift the water to the most valuable crop” (Manager 2). However, such economic rationalist approaches to

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61 The potential need to retire irrigation areas is raised in the Commonwealth $10 billion National Plan for Water Security proposed by former Prime Minister John Howard, and supported by the current government. Retiring non-viable irrigation areas is also being considered by the National Water Commission (see speech by its Chairman Ken Matthews to the Committee for Economic Development of Australia on 7 April 2008 at [http://www.nwc.gov.au/news/speeches/CEDA-0408.pdf](http://www.nwc.gov.au/news/speeches/CEDA-0408.pdf)).
determining irrigation viability do not take into account the purchasing power of larger players in the agricultural marketplace for water. Also a recent decision by the Federal Government to enter this market in order to purchase water for the environment is also seen as having a major impact on the way in which the market will operate.

4.2.3 Murrumbidgee Irrigation: A privatised irrigation company

Murrumbidgee Irrigation Pty Ltd (MI) is an unlisted company whose primary activity is the supply of irrigation water and associated drainage services to customers predominantly located in the MIA. The company is medium-sized, employing around 200 staff, but has a high profile in the rural communities where it is located. MI was established in 1999 following a privatisation process initiated by special legislation (the Irrigation Corporations Act 1994 NSW) and which included a brief period when it was a state owned corporation. Staff that became employees of the company had been public servants based in the region managing MIA’s water resources and related infrastructure. Murray Irrigation Limited (which acquires its water supply via the River Murray, see Figure 17 on page 136) and Coleambally Irrigation Cooperative Limited (via the Murrumbidgee River, downstream from the MIA) were created in the same way.

What makes these three irrigation companies unusual is that their shareholders are also their customers. The privatisation process was in part a way of transferring infrastructure built and managed by the government to those who use the infrastructure. As a result, MI’s shareholders are the irrigators in the MIA. Until recent changes whereby irrigators could permanently transfer water licences in and out of the MIA, all of MI’s shareholders were its customers and vice versa. With the changes it is now theoretically possible for a customer to buy water and other services from MI without being based in the MIA, and thus not be a shareholder. Even so, the two terms customer and shareholder are still used interchangeably and many of my interviewees had to be careful to use the terms appropriately.

Another aspect which makes these companies different from most is that there is no possibility for shareholders to draw dividends. However, if the
company operates more efficiently, then it can provide water at a cheaper price to its customers. “The success of our business is really in the wealth generation and sustainability of our shareholders … we’re not-for-profit – in other words we’re a for profit company – but typically we try and run on a cost recovery basis to allow our shareholders to maximise their wealth and sustainability” (Manager 7).

For MI, the change from a government department to a company owned by irrigators has entailed efforts to promote this new image amongst MI shareholders rather than the old one: “government agencies do cop a lot of criticism regardless I think of what they do – you know that’s just the nature of people” (Staff 8). This has direct relevance to how MI approaches its reporting. When deciding on what to include in MI’s public reporting, and how it is presented, much emphasis is placed on image building. “At the moment I think in all honesty what we have done is to try and … show a positive picture for the company because we are still doing a lot of work on image building” (Staff 8).

MI also needs to counter a lingering perception that there are unlimited resources at MI’s disposal to fix things: “There are still certain people out there [who] still talk [about] you know – the Department 62 – or … the Commission 63 … well we’re not the Commission, we’re privatised – you’re a shareholder of the company… I think [they]’ve got to get past that – it’s a government organisation type mentality – the government’s not going to fix anything up any more – we’ve got to keep everything in working order and try to rectify it ourselves” (Staff 5).

In both cases, this image building is really about relationship building: “there is a relationship side as well compared to the old days when we were a government department – you will do this, you will do that – just black and white – whereas now it’s more open – and what can we do to help” (Staff 4).

The main avenue through which MI works with irrigators on sustainability issues is through the development and implementation of property-level Land and Water Management Plans (LWMP) – a program funded by the NSW

62 The Department of Water Resources, 1986 until MI’s corporatisation/privatisation
63 The Water Resources Commission, 1976-1986; formerly the Water Conservation and Irrigation Commission (since 1913)
government and administered through regional-based Catchment Management Authorities. The LMWP involves education awareness programs towards improved agricultural practices and the provision of incentives for on-farm works to improve sustainability outcomes. MI has branded their work under this program EnviroWise and associated FarmWise training.

4.2.4 MI’s reporting practices

Privatisation meant new processes for MI’s financial and environmental reporting. NSW legislation requires corporations to provide shareholders with an annual report incorporating its financial accounts and the newly privatised irrigation companies were required to undertake environmental reporting under their licence obligations. Most aspects of natural resource and environmental management comes under state government jurisdiction, and the two NSW departments involved with MI’s licence are those responsible for primary industries and for the environment. The environmental reporting requirements are quite extensive and include monitoring of water quality related to pesticide contamination, nutrient levels and turbidity; of salinity levels in the water supply, water drained, groundwater and soil; of groundwater levels; and of specific controls related to rice cultivation. The licence compliance report is principally written for the government departments, but copies of the report are made available to others upon request.

By 2000, MI had started to expand its use of reporting mechanisms because of the high level of public interest in irrigation, and because MI was keen to promote its new image as a private entity. From 2001-02 onwards, MI was producing a summary report on its environmental performance and had expanded its annual report into a quadruple bottom line (QBL) format with sections related to environmental, economic, social, and cultural and heritage

64 The legislation was changed in 2007 so that annual reports did not have to be mailed as hard copies to all shareholders, but that reports be made available through corporate websites. MI took advantage of this from 2007 by no longer mailing copies of its annual report unless requested to do so, thus saving on paper and postage.

65 The names of these departments have changed over time; currently the two departments are the NSW Department of Primary Industries and NSW Department of Environment and Climate Change.
performance. This format matched the corporate vision that was developed at the time.

The collaboration between the CRC IF and MI came at a time when there was a change in MI leadership. In 2005, the new Corporate Affairs Manager was keen to streamline MI’s reporting requirements from three reports (a licence compliance report – LCR, an environmental performance report summary, and an annual report – AR – in a QBL format) to two reports (LCR & AR). Murray Irrigation Limited had also recently modified its annual report into a sustainability report that followed the GRI guidelines. Because of this, the new Corporate Affairs Manager prepared a brief that canvassed this possibility. However, it was clear from my initial discussions with him that he shared my apprehension about the relevance of the GRI guidelines to MI’s situation.

4.2.5 What makes this case study interesting and significant

This case study therefore provides a delightful nexus of converging interests. Firstly, MI’s character as a recently privatised, medium-sized, rural-based enterprise constitutes three facets of the company that match relatively neglected areas of research. Secondly, irrigation is a matter of increasing public and academic concern, especially in Australia. These contextual elements are significant in themselves. However, it is a third aspect I would like to highlight, which relates to the way the case study evolved. MI provided considerable access to me as an outsider, allowing me to participate as a co-learner in the TBL reporting process it was developing. My research question coincided closely with the questions key people in the organisation were also seeking to address. Thus there has been considerable interest amongst key MI personnel in sharing their learnings with me, and allowing me to share my learnings with them. This deep level of collaboration gives the research credibility, as discussed below.

4.3 Case study methods

The rest of this chapter details the methodological approach to my case study, including how I generated and analysed the data. The aim in undertaking this
case study was to explore with MI participants the extent that TBL reporting can lead to enhanced sustainability. Empirical findings were sought in terms of the extent that MI’s TBL reporting process led to learning, capacity building and change. The extent that these empirically based findings could lead to enhanced sustainability outcomes relies more on interpretation, and is taken up in Chapter 6. My methodological approach is explained firstly in terms of my use of a case study and its reliance on qualitative data, and secondly in terms of the action research approach which evolved in collaboration with MI.

4.3.1 Qualitative case study research

Yin (1994, p. 13) suggests that the reason why a researcher would choose to adopt a case study is that it provides a useful means to investigate a “contemporary phenomenon within its real life context”. In my case, the current growth in interest in TBL reporting is a contemporary phenomenon, and my concern is to assess, in a real life context, its potential as a means to progress towards a more sustainable future for society.

Contemporary case study researchers within the social sciences have grasped the usefulness of incorporating qualitative data. This is often as part of a mixed methods approach so that research conclusions can be based on both qualitative and quantitative data. However, the emphasis in my research is on interpreting data that are by their nature qualitative, in that they provide evidence on social phenomena that are not easily quantifiable, such as the progress and character of learning, capacity building and change. In part, my methodological aim is to “reconstruct reality by revealing the taken-for-granted assumptions of individuals and groups” from their different places in society (Eyles, 1988). My data include participant observations throughout the case study and semi-structured interviews.

Every case study is unique, even if it addresses similar questions, as each researcher involved seeks to take into account the unique “individual, organisational, social and political” aspects of their own case study context (Yin, 1994, p. 2). Choosing to use a case study with this in mind is often made deliberately, as the unique contextual conditions become part of the data and
analysis that inform the researcher's conclusions. For example, one of the many factors that influenced recent change at MI is its new leadership. One of my tasks, therefore, was to analyse the extent that the new leadership was able to use TBL reporting to advance their change agenda, and how their change agenda was delivered. Other researchers can then compare these conclusions and how they were developed as they reflect on the unique aspects of their case study contexts.

Yin (1994) refers to this process as “analytical generalisation”, as opposed to a more positivist approach of “statistical generalisation”. He explains that a case study is not like the kind of positivist approaches to survey research where the emphasis is on ensuring an adequate sample size so that the results might have broader application through “statistical generalisation” (Yin, 1994, p. 36). Case studies provide an opportunity for “analytical generalisation” whereby the broader application comes through the shared use of theory and other means to compare and contrast experiences of the phenomenon being studied. Those interested in TBL reporting who encounter my case study may find the results of this case study helpful in informing their analyses, just as I have found my reading of other case studies helpful. This possibility for the analysis of one case study to be observed in another through the lens of theory is referred to by Yin (1994, p. 36) as “replication logic” and by Lincoln and Guba (1985, p. 298) as the “transferability” of case study findings, noting that “the original investigator ... cannot know the sites to which transferability might be sought, but the appliers can and do.”

To help keep focus on the research question throughout the process of the case study, I created a “case study protocol”, modelled on the approach suggested by Yin (1994, p. 63ff). Central to Yin’s idea of a protocol “is a set of substantive questions reflecting the actual inquiry” (Yin, 1994, p. 69) but the design of the protocol also aims to maximise the possibility that the field procedure follows a systematic and consistent approach. Components of this protocol are shown in Figure 18, Figure 21, Figure 26 and Figure 27. I will refer to this protocol to help explain how I applied the research question to the case study context and the question I used during my interviews. Figure 18 was my
starting point, and depicts the key components of my research question and the kinds of practical questions I could ask related to each component.

**Figure 18: Reformulation of research question for case study protocol**

<table>
<thead>
<tr>
<th>Learning</th>
<th>Relationship building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will the process of TBL reporting lead to learning – both individual and organisational?</td>
<td>Will the process of TBL reporting help the organisation build better relationships with its internal and external stakeholders?</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Will the organisation and its stakeholders learn from each other?</td>
<td></td>
</tr>
<tr>
<td>Does the process of TBL reporting increase understanding of other perspectives?</td>
<td></td>
</tr>
<tr>
<td>Does it increase understanding about sustainability and how we can enhance it?</td>
<td></td>
</tr>
<tr>
<td>Does the process help to uncover hidden assumptions?</td>
<td></td>
</tr>
<tr>
<td>Will the process of dialogue and relationship building be ongoing?</td>
<td></td>
</tr>
<tr>
<td>Will stakeholder concerns be addressed?</td>
<td></td>
</tr>
<tr>
<td>How will differences in perspectives and power be handled?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity building</td>
<td></td>
</tr>
<tr>
<td>Will this learning and relationship building lead to capacity building?</td>
<td></td>
</tr>
<tr>
<td>(includes notions of confidence, trust and willingness to change, knowledge, skills, resources and knowing how to access them, staff time, skills development and finances, taken up systematically across the organisation)</td>
<td></td>
</tr>
<tr>
<td>Have targets been set?</td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td></td>
</tr>
<tr>
<td>Will this capacity building lead to change?</td>
<td></td>
</tr>
<tr>
<td>If not, why not? What constrains change?</td>
<td></td>
</tr>
<tr>
<td>To what extent will changes make a difference in enhancing sustainability?</td>
<td></td>
</tr>
<tr>
<td>Will the process of incremental changes be ongoing?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>How can we increase the potential for TBL reporting to lead to enhanced sustainability?</td>
<td></td>
</tr>
</tbody>
</table>

**4.3.2 Action research**

My project represents one of the first examples of action research related to organisational-based TBL reporting. The only similar published study using action research I am aware of involved a statutory water authority in the state of Victoria by Adams and McNicholas (2007). More often, action research has been used by researchers examining sustainability monitoring by municipalities.
and other communities (e.g. Astleithner & Hamedinger, 2003; Cheney et al., 2004; Kelly & Moles, 2002).

Action research (Greenwood & Levin, 2007), or participatory action research (Kemmis & McTaggart, 2005), comprises a family of traditions, many of which go back to ideas developed by Kurt Lewin in the 1940s. I first used participatory action research for my honours to explain how it was undertaken under the direction of a disempowered Aboriginal community and sought to assist the community confront the socio-political situation that constrained them from attaining their desired futures (Mitchell, 1989). I drew upon Hall’s (1978) notion of research being used to “break the monopoly on knowledge” by studying the locally powerful (Bell, 1978). This is a tradition of research that goes back to “community-based approaches to the creation of knowledge” developed in Tanzania in the 1970s (Hall, 2005, p. 5).66

Clearly, my current research was not developed at the direction of a disempowered community. Instead, it was developed in collaboration with a locally influential company. This required some self-reflection on my part to ensure that my research perspectives were not corrupted or co-opted. As Cheney et al. note:

"An unquestioning use of social science approaches that do not seek to make these power relations explicit is likely to perpetuate existing systems of power … without addressing some of these competing values and power dynamics, the likely outcomes would be to reinforce the exclusion and disadvantage of less powerful groups."

(Cheney et al., 2004, p. 244).

Before I offer my thoughts on the power dynamics, I need to explain how it eventuated that my research adopted an action research methodology and what I mean by this.

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66 This is when the term “participatory action research” was first used by Fals Borda (Hall, 2005, p. 11). Whyte’s (1991) later use of the term delinked the term from these roots. As a result, the term is now sometimes used for research that has “been co-opted and collaborationist with power holders” (Greenwood & Levin, 2007, p. 154). Because of this, Greenwood and Levin (2007, p. 152 ff.) denote this earlier approach as “Southern participatory action research”, and Kemmis and McTaggart (2005) use the term “participatory research” as adopted by some of its founders.
From the outset, my research was conceived as one that would be collaborative in nature. Given the emphasis of the CRC IF for cooperation between researchers and research end-users, it was expected that my research would have practical implications developed in close collaboration with end users. The Sustainability Challenge project had also adopted what had been termed as a “participatory approach” (Christen, Shepheard, Jayawardane et al., 2006) for all three case studies. MI welcomed the plan to adopt a participatory approach. If anything, the organisation adopted a leadership role in developing its TBL reporting process and we almost became research consultants to support them in this development. The appointment of MI’s Corporate Affairs Manager as my industry mentor also meant that I sought his advice on the end user applicability of my research.

Seen from this perspective, the action research process that evolved in the MI case study could be described as “pragmatic action research” (Greenwood & Levin, 2007). Such an approach is characterised as “cogenerative”, involving the creation of spaces “for dialogue and mutual learning” (Greenwood & Levin, 2007, p. 134). However, it is also the case that I saw the research process as one where I supported and engineered change, a form of action research termed “critical participatory action research” (Kemmis & McTaggart, 2005). Certainly there was a pragmatic aspect to the way the project was initiated. However, my focus on investigating the potential for TBL reporting to become an agenda for change, together with my desire to maximise that potential as part of my case study experience resulted in my becoming an active contributor.

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67 This decision took place at a meeting prior to my involvement and had been promoted by my supervisor, Allan Curtis, together with Tony Dunn, who had both been invited to contribute to the Sustainability Challenge project as social researchers. They argued that the proposed TBL reporting framework should be developed out of the experiences of its case study partners working in collaboration with the researchers. This was in stark contrast to the pre-existing view that the TBL reporting framework would be designed by scientists, and then tested through its application in the case study contexts. Each case study therefore provided an opportunity for end user organisations to be co-contributors to the development of the TBL reporting framework.

68 The main occasions when this was discussed were at the outset of the project and at a meeting at the end of my first year in May 2006.

69 Dillard (2007) refers to “action spaces” that involve goals of enlightenment, empowerment and emancipation, which is similar to the way in which my research has been designed to engender change by focusing on learning, capacity building and change.
to the development of MI’s TBL reporting process. Seen in this way, I have also influenced the outcomes of the case study in my role as a change agent.

By engaging with an organisation to engineer a change in its reporting process, I have been in a privileged position to learn from the changes as they evolve, as well as contribute to those changes, all the while creating new understanding and action plans together with the organisation. Interestingly, being a doctoral researcher (with ‘L-plates’ on), it was relatively easy for me to adopt the learner role. Compared with accountancy academics who have reported on their collaborative engagements (e.g. Adams & McNicholas, 2007; O'Dwyer, 2005), I was a relative novice to TBL reporting who did not have an established career or reputation in the area. Upon reading the experiences of Adams and McNicholas (2007), I was struck by how much more difficult it is to implement a collaborative learning approach when the researchers appear to the practitioners as ‘the experts’ (from which the practitioners ought to learn). While Adams and McNicholas remained the experts in how to do sustainability reporting, I came across as more of a co-learner with MI. To this end, I learnt as much from my experience with MI as from my reading of international experiences with TBL reporting.

Whilst my past experience of action research had more to do with empowering the disempowered, in my current research, I found myself aligning my efforts to support the aspirations of a locally powerful organisation. To what extent did this represent a sell-out of my life-long commitment to investigations that challenge the prevailing socio-political power structures?

Working through the research process, two answers became clear to me. The first was to recognise that MI is an entity that has a socio-political hierarchy in itself. Thus, taking on the ‘change agent’ aspect of my role as an action researcher, I freely admit to aligning my efforts with those within the organisation.

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70 Especially given that one of the researchers is on the Australia and New Zealand panel of judges for the Association of Chartered Certified Accountants Sustainability Reporting awards. The organisation had originally approached that author requesting “her assistance as a consultant” (Adams & McNicholas, 2007, p. 390). In place of payment, the organisation accepted her suggestion that she use her experiences to theorise “what drives organisations to provide an account of their sustainability performance” and its outcomes (Adams & McNicholas, 2007, p. 399).
organisation who I saw as having a similar desire for change. This includes using my research to facilitate a change away from hierarchical structures that constrain the engagement of capacities within the organisation. Originally, I perceived my alignment as being with external stakeholders critical of the performance of the irrigation industry (similar to the approach I took in my two previous research theses: Mitchell, 1989; Mitchell, 1994). My change in alignment to those within the organisation was partly circumstantial, in that MI decided not to involve external stakeholders at this stage in the TBL reporting process (as explained in the section below). However, it was also strategic. The approach allowed me to investigate new perceptions about change agents; one that I later identified from Ball (2007) as “workplace activists” who remain committed to a social movement agenda, but choose to engage in the pursuit of this agenda within the constraints of the organisational context. This is no different to the age-old question between whether to seek to initiate change from within (a more reformist agenda) or to be a critic from the outside (providing greater scope to adopt a radical change agenda).

Also, given the degree of access provided to me by MI, I had a rare opportunity to analyse internal organisational dynamics. The influence of internal organisation factors is an under-researched and under-theorised aspect of reporting (Adams, 2002). The few recent examples of research in this area have focussed on the role of employees (e.g. Ball, 2007; Johansen, 2008b). My research therefore provided an opportunity to build on this small body of research.

The second answer evolved from an appreciation that I ought to challenge my own arrogance. One of the developments in action research is an increased appreciation that this should be a process of collaborative learning (Kemmis & McTaggart, 2005). As Sayer (1992, p. 15) notes, there is a tendency for academic researchers to think they have a monopoly of knowledge, thus potentially ignoring valuable practical knowledge of making and doing. Of course the key to such learning is not to accept everything without question. Thus I have adopted a critical realist approach, which, as explained earlier,

71 or, to use Meyerson and Scully’s (1995) terms, “tempered radicals”
recognises that the most appropriate way to develop and articulate the ‘real’ nature of the world is for researchers to do this in constant critical interaction with it.

4.3.3 Research process: How the case study evolved

This section draws out some of the key issues and developments of the case study process, and is partly drawn from the project report which detailed MI case study developments until June 2006 (Mitchell, Christen, Davidson, Jayawardane & Shepheard, 2006). As noted above, the case study with MI was established by the CRC IF project as a collaborative project with MI. Several Sustainability Challenge researchers were based at the CSIRO research centre in Griffith and already knew key MI staff. MI had also recently employed new managers who were open to new ideas and keen to engage with the Sustainability Challenge project as part of MI’s review of its public reporting mechanisms. Thus negotiations for a collaborative project benefited from this shared enthusiasm and appreciation that the project could have mutual benefits.

Initially, my involvement was as a member of the Sustainability Challenge research team. At that time, the task of the Sustainability Challenge team was to develop a workshop with MI. The workshop, which took place on 4 July 2005, brought together 14 key staff from across MI and provided a platform for MI to review its past reporting and set goals for future reporting. A month later, a meeting was organised to negotiate my access to MI processes and staff. MI’s chief representative at the meeting was its Corporate Affairs Manager who appointed one of the coordinators in MI’s Environment Unit as my key contact point within the organisation. The meeting was also used to establish a Joint MI & Sustainability Challenge TBL Reporting Planning Team.

At that stage (August 2005) it was too late in the process to have any major impact on the content of MI’s 2004-05 Annual Report due out in October 2005. Instead, we established a process to develop changes to the 2005-06 Annual Report being prepared from mid-2006 onwards (see Figure 19). During these discussions, two sources of tension became apparent. First, there was tension
about when and how to engage external stakeholders in the planning process. Second, there were different views about how to engage MI as a participant in the Sustainability Challenge research project.

**Figure 19: MI case study process**

The first tension concerned external stakeholder engagement. At the July 2005 workshop with MI, I highlighted the criticism levelled at some TBL reporters for not adequately responding to stakeholder concerns. The slides I used for my presentation (see Figure 20) had a profound impact on the audience, sparking debate about when and how MI should engage external stakeholders in the process. In particular, there was concern about not wanting to raise stakeholders’ expectations. However, there was insufficient time for a thorough discussion of this issue at the workshop. Instead, quick brainstorming and prioritising activities were undertaken to identify stakeholders that MI could engage as part of its TBL reporting process. The question of how this might be done was left to a survey conducted in September 2005 of MI staff who participated in the workshop. Those who completed the survey were split between those who thought it was important to include external stakeholders prior to the drafting of the 2005-06 Annual Report and those who thought that the first draft should be developed internally before inviting any external participation. At a subsequent meeting of the Joint MI & Sustainability Challenge TBL Reporting Planning Team, a compromise was reached. It was agreed that MI would invite two external experts to provide input at the next
Figure 20: Slides from my presentation to MI workshop, 4 July, 2005

Inclusiveness – Transparency
Completeness

- Not a report for shareholders, a report for stakeholders
- Financial reporting = clear expectations
- [Regulatory reporting = clear expectations]
- TBL reporting = stakeholder expectations
- Unclear expectations
  Not meet expectations = “Credibility gap”

Examples

- Shell – a pioneer
- McDonald’s – first report criticised
- An unnamed company – typical problems
- Conclusion

Shell 1998, 2001

- 1998: “Shell approached its task from a defensive position, attempting to reconstitute and repair its corporate image.”
  Livesey and Kearins (2002)
- 2001: “KPMG and PricewaterhouseCoopers Verifier’s Report for Shell’s report could not verify the completeness of the report, or the balance of the information in terms of interests and concerns to Shell’s stakeholders.”

McDonald’s 2001

- “…is a low water mark for the concept of sustainability”
- “That their report is based on the Global Reporting Initiative (GRIs) calls to question whether the GRIs have anything to do with the concept of sustainability or true corporate responsibility.”
- “The report carefully avoids the corporation’s real environmental impacts. It talked about water use at the outlets, but failed to note that every quarter-pounder requires 600 gallons of water.”
  Paul Hawken (2002)

An unnamed company 1999

- “The reports omit to cover some of the company’s negative social and environmental impacts that are widely covered in the press.”
- “There is no indication of the problematic relationship [the company] has with key stakeholders such as Greenpeace or Friends of the Earth of the controversy which surrounds some of its products and processes”

Trust

- Conclusion:
  “The criteria of inclusiveness and completeness are the most important. We cannot be sure a report is complete unless key stakeholders are involved.”
- Cooperative Bank: “The whole objective of [TBL reporting] is to build trust with [stakeholders]”
- KPMG Sustainability Advisory Services: “…stress the importance of building trust and credibility with stakeholders”

workshop which was eventually held in December 2005. The focus of this workshop was to discuss the sustainability issues that MI could consider reporting on. In the end, neither of the two proposed experts was able to attend, so the only external stakeholders involved were the Sustainability Challenge researchers.
The other tension concerned how the researchers would contribute to the discussion on what would comprise the sustainability issues to be taken up by MI. This tension became apparent during our preparation for the workshop in December 2005. Again, there were two distinct views; this time among the researchers. These two views represented a broader difference in methodological approaches to research. Some researchers wanted to make use of a framework of sustainability issues relating to the irrigation industry that they were developing (the Irrigation Sustainability Assessment Framework – see Christen, Shepheard, Jayawardane et al., 2006). They sought to apply this framework with MI as a means to assess its suitability in the real world context. The framework included some ‘high-level’ sustainability objectives established by the researchers. Other researchers (myself included) were committed to developing a participatory approach to the framework’s development including its ‘high-level’ sustainability objectives. As it turned out, the latter approach prevailed because of strongly held views by key MI representatives who wanted their staff to help determine the sustainability issues that MI was seeking to respond to.

So, in the lead up to the drafting of MI’s 2005-06 Annual Report, two workshops were held (the July 2005 workshop, and the second in December 2005 as shown in Figure 19 on page 154). The second workshop began with a brainstorming activity to identify what participants thought were the most important sustainability issues facing the MIA. Once identified and organised into TBL categories, practical objectives that MI could undertake to respond to the issues were defined. The process thus followed the “structured objective-driven approach to TBL reporting” being promoted by the Sustainability Challenge project (Christen, Shepheard, Jayawardane et al., 2006, p. 3). In other words, rather than starting the process by selecting a set of indicators, the Sustainability Challenge project recommended an approach that started “by identifying the main sustainability issues of concern to the organisation and its stakeholders, sets the objectives relating to these issues, and then addresses the objectives using selected indicators and performance measures” (Christen, Shepheard, Jayawardane et al., 2006, p. 3).
The input from the Sustainability Challenge team into determining the indicators MI could use to measure progress against these objectives was constrained by subsequent events at MI. MI was at that time also embarking on an internal business strategic planning process. As part of this strategic planning process, MI had decided to adopt the Balanced Scorecard (BSC) as a means to identify corporate objectives and performance measures against which progress could be monitored\(^{72}\). Clearly for MI, it made sense to incorporate the bigger picture sustainability issues that were identified during the December 2005 workshop into its BSC strategic plan. For the Sustainability Challenge project, this provided an informative scenario to observe how the TBL reporting project could link with the development of MI’s corporate plan. However, it also meant that the Joint MI & Sustainability Challenge TBL Reporting Planning Team had no direct input into the formulation of MI’s sustainability-related objectives and indicators, as these were being formulated by the MI Executive team as part of MI’s internal strategic planning process\(^{73}\). Instead, the Joint Planning Team met five months later to review the list of measures developed by the MI Executive; decide if there were any gaps in this list; identify indicators to fill those gaps; and initiate a discussion on which of these internal BSC measures would be included in MI’s public reports.

At that stage (May 2006), because the Sustainability Challenge project was due for completion, the Joint Planning Team met again to review the extent that goals set at the July 2005 workshop had been met. In preparation for this discussion, I prepared a short report\(^{74}\) which included a set of recommendations for the further development of MI’s TBL reporting process. A significant issue arose soon after with the departure of MI’s Public Relations Coordinator. Her replacement had very little time to become familiar with the TBL reporting

\(^{72}\) Because of this, I briefly introduced this process in Chapter 2, noting some of the similarities and distinctions the BSC process has with how TBL reporting processes can develop.

\(^{73}\) The only member from the MI Executive on the joint planning team was the Corporate Affairs Manager. While he was able to represent the views of the planning team to the Executive, I would describe his role as focused on being a representative of the Executive on the planning team.

\(^{74}\) It is worth noting here that as part of this short report, I included a review of MI’s 2005 Annual Report (Murrumbidgee Irrigation Limited, 2005) in comparison with MI’s 2004 report (Murrumbidgee Irrigation Limited, 2004). However, document analysis is not a specific methodology I incorporated into my case study.
project and ensure the 2005-06 Annual Report was produced on time. In spite of this, MI was able to incorporate a new snapshot page of key performance indicators tracked over the previous three years and laid out in a TBL format (see Appendix 5).

During the two weeks after the release of the 2005-06 report in October 2006, I conducted nine interviews with MI staff directly involved in developing the TBL reporting process. Six months later, in March and May 2007, I conducted interviews with another 11 staff and two Board members. An explanation of how these interviewees were selected is provided later.

I also organised a workshop with MI to help them evaluate the outcomes of their TBL reporting process. This workshop was held on 23 March 2007, and I was able to use the TBL reporting evaluation criteria presented in Chapter 2. I viewed this as an opportunity to share some of my learnings with MI in return for the support they had provided. It was also an opportunity for me to trial the evaluation framework with practitioners, and to observe and record their feedback. Holding the workshop also addressed a desire by MI staff for an opportunity to reflect on progress and to sustain the momentum initiated at the first workshop in July 2005. My observations of the workshop also provided valuable evidence of changes in attitudes since my research observations with MI had commenced almost two years earlier.

Because of the way the case study evolved at MI, I modified the terms used to describe MI’s TBL reporting process to take into account MI’s BSC corporate strategic planning process, and my interest in the relevance of the TBL concept in this process. Figure 21 provides some examples of how I began to rephrase my questions to fit the case study context. Instead of referring to TBL reporting, I chose to talk about “MI’s increased use of TBL indicators in its reporting mechanisms.” In this way, I was able to apply the TBL concept to MI’s public reporting process, as well as to MI’s internal reporting process and the way MI management communicated with its employees as internal stakeholders.
4.3.4 Use of participant observation to explore and supplement

The creation of case study data used two main approaches, participant observation field notes and semi-structured interview transcriptions.

Participant observation involves taking field observation notes but, in so doing, acknowledges and incorporates the influence on and roles being played out by the researcher as a case study participant (Angrosino, 2005). In case study research, participant observation is often used as an exploratory tool to help a researcher clarify the questions for further investigation using other methods such as interviews. Participation observation notes are also evidence that can supplement that derived through other methods. In explaining the rationale for using participant observation, Spradley (1980, p. 32) notes that...
“both questions and answers must be discovered in the social situation being studied.” Observing and participating in events as they unfold helps the researcher clarify what questions to ask, but also provides answers through the interactions between researcher and other case study participants.

The general view is that participant observation involves “the establishment of considerable rapport between the researcher and the host community and requir[es] the long-term immersion of the researcher in the everyday life of that community” (Angrosino, 2005, p. 731). In my case, substantial rapport was established. In the early stages, this rapport was built around shared goals and a shared commitment to allow MI to drive how the case study process evolved. My affinity with the place also helped nurture rapport, in the same way as others have found when they return to their roots, in being able to identify common life experiences, as well as having a father that many knew, or knew about (Bebbington, 2004, p. 6). I was not able to establish rapport with everybody, but the key ‘gate keepers’ within the organisation demonstrated their rapport with me by focusing their eyes on me during key discussions, seeking opportunities to use me to further their agenda within the organisation, and inviting me back to run workshops for the organisation. The level at which I could become immersed in the organisation was constrained by my location three hours drive away. My immersion thus only occurred infrequently during extended visits, when I was able to base my work within the organisation, frequently sharing morning tea and lunches with MI colleagues.

I actively contributed to the workshops and TBL planning team that constituted the TBL reporting phenomenon being studied (as detailed above), and took comprehensive notes of everything I observed. These notes included reflections on the impact of my involvement in the case study. The notes could therefore be described as “focused observations” in that I was only observing procedures that were “pertinent to the issue at hand, often concentrating on well-defined categories of group activity” and reflected my role as an “active member researcher … involved with the central activities of the group” (Angrosino, 2005, pp. 732-733).
The field observation notes were taken by hand at the time, and then typed into word processing software as soon as conveniently possible afterwards. For all meetings and workshops I attended, I ensured that all participants were aware of my note taking, understood the purpose of my observations, and that they could withdraw their consent, following a process approved by the CSU Ethics in Human Research Committee.

An example of the kind of notes I made is provided in Figure 22. The focus of my note-taking was on the discussion that took place during the meetings and workshops. However, I also took notes of developments prior to the meetings, of relevant non-verbal activity and communication during the meetings, and my personal reflections. So, for example, I would make a note of where people sat and reflect on the group dynamics as they evolved, drawing on the extensive range of literature in this area (e.g. Williams, 1996). For the actual record of discussions, I was rarely able to take down discussion in verbatim. My notes are essentially a summary of what participants said, trying as much as possible to catch their key phrasing. Any time that I felt it was important to catch the exact wording, I put these into quotation marks. If thoughts came to me as I was typing up my notes, I would include them in square brackets to delineate them from the discussion. I also used this method to delineate my notes of non-verbal activities and communications. The need to make a clear distinction between my record of what was said from other observations of a non-verbal and reflective nature follows the practical advice provided by Rossman and Rallis (2003).

There are two additional types of field notes taken which fall outside my ‘formal’ notes of meetings and workshops. My reference to these two types of notes as ‘informal’ emphasises that they were created for my own personal record as I had not received ‘formal’ consent to quote from them. While these informal field notes provided me with a wealth of contextual understanding about how the organisation operates, they are not part of the formal data set.

The first type of ‘informal’ notes was of several exploratory ‘interviews’ I conducted with MI Executive and other staff. Five such interviews were conducted in October and December 2005, and six in May 2006. These
Figure 22: Example of participant observation notes

Excerpt from my notes of what happened before the 16 September 2005 meeting

The day prior, Penny [my co-supervisor] and I had a brief discussion about the process for the meeting, especially given the possibility of there being different points of view about when stakeholders should become involved. We prepared a quick agenda which aimed to review our visions and our process before discussing stakeholder involvement. Staff ‘i’ then advised us that the other MI people would join us after lunch, so [on the day of the meeting] during the car drive up we decided to discuss with the joint planning team (before lunch) how we would make decisions and who would chair and take notes for the post-lunch discussion.

However, as it turned out, on our arrival, Manager ‘ii’ was there which prompted Penny to clarify who would be attending the meeting. So we had to change the plan we had discussed in the car – which Penny handled. Staff ‘iii’ and Staff ‘iv’ were not able to come, but Manager ‘i’ was able to come. This changed the dynamic greatly.

Excerpt from my self-reflective notes about meeting

The sudden change in plan certainly threw me, and was something that Penny needed to quickly respond to; it also made our plans for initial discussions more difficult – our idea to work out a plan for how decisions would be made before the two managers got involved seemed much easier than having to do it in front of them. As I think about this now, this is probably because we had already established some rapport with Staff ‘i’ and Staff ‘ii’ and so there was an air of comfortableness in talking about Manager ‘i’ and Manager ‘ii’ without them there than having to raise these issues with them face to face.

Excerpt from my notes about meeting dynamics

The seating arrangement was interesting. Manager ‘i’ seemed way over there, and I recall that he often seated leaning back away from the group. Manager ‘ii’ was in a position where he had to either turn to talk to Manager ‘i’ or turn to talk to everybody else. Early on I noted that during his opening gambit of suggesting we involve stakeholders early in the process, his eyes were mostly on me – and to a lesser degree on Staff ‘i’ to whom he was ostensibly speaking (she having voiced the opposing viewpoint upfront). I found myself nodding to Manager ‘ii’ and giving lots of signals of approval. Despite the outcome, this gave me a sense that Manager ‘ii’ was a bit of a champion for the whole stakeholder engagement idea, as though he was seeking to align himself with other already identified ‘champions’ of this approach.

Excerpt from my notes of meeting discussion

Penny then said she thought it was also important that we begin by talking a little about the process of the meeting in terms of the decisions made.

Manager ‘i’ – depends on what kinds of decisions are being made – whether they’re big or not. Ultimately it’s our [MI’s] decision what we do.

Penny – in other words her understanding is that we’re going to be deciding on recommendations to put to MI Exec – she checked this – so we need to be clear on why we made those recommendations.

Manager ‘i’ – we [MI participants] need to understand why you [Sustainability Challenge participants] think we need to report on this or that [probably not his exact words – but I remember being struck by his use of “you”]

Staff ‘i’, clarifying – are we talking about a decision making process for this working group or this meeting – i.e. just decisions about how we make decisions about stakeholder involvement – whether it is by consensus or majority – I can already see “it’s going to be tricky” [comment – this was interesting that she voiced this – I think Penny may have introduced the terms consensus and majority at the outset – but they’re not in my handwritten notes – but it shows Staff ‘i’ s awareness of aspects about process – awareness that came across to me from her from time to time]

Penny – is this conversation enough? – whether or not we reach consensus depends on whether time is a factor – and these are decisions that will be handed to the Executive anyway

Manager ‘ii’ suggested – let’s launch into it and see how it goes

Penny agreed

Note – the coding system adopted above differs from the coding system used for my interviews to prevent identification of my interview codes elsewhere in this dissertation by those who were present at this meeting.
'interviews' were arranged by MI's Corporate Affairs Manager and were not tape recorded. I obtained informal verbal consent from each individual to take notes of the conversation on the understanding that my notes would not be used as formal data for use in publications. However, I have still been able to make use of them for my research investigation as I explain below.

Prior to conducting my first round of formal tape-recorded interviews, I examined my notes of these informal discussions to help prepare questions to ask particular interviewees with whom I had previously spoken. This approach exemplifies my notes being used as an exploratory tool to help clarify the next steps in a case study investigation. I also used my notes of these discussions to identify comments that I could quote during the formal interview, and thus bring those key comments into the formal data set. The main way in which I used these notes was to identify comments which represented an attitude that I thought had subsequently changed and thus potential evidence of learning or some other change. I was also interested in comments suggesting one person held a different view to another. An example was of different views about external stakeholder engagement.

The second type of ‘informal’ notes resulted from five occasions where I was able to be based in the MI office. The MI’s Corporate Affairs Manager arranged a desk in MI’s Griffith office where I could work. The five occasions were for three days in October 2005, two days following the workshop in December 2005, a week in May 2006, two weeks in October 2006 and two weeks in March 2007. These visits gave me a wonderful insight into the culture and day-to-day operations of the organisation. As informal and sometimes covert note-taking, I have not drawn on these observations for this dissertation, except to illustrate the physical and cultural divisions between Environment Unit and other MI staff, and occasions where these divisions began to break down.

During my week at MI in May 2006, I spent two days with MI field officers. One day was spent with an environmental field officer, who showed me the process to meet water quality monitoring requirements. The other day was spent with an irrigation channel attendant responsible for liaising with customers and ensuring water orders are delivered. In October 2006, the Corporate Affairs
Manager arranged for me to observe a workshop organised by MI for its managers and coordinators related to the development of its internal BSC reporting procedures. For this particular workshop, my participation was under the strict understanding that I would not draw on my observations from that meeting as part of my research publications (as distinct from the access I was provided for other meetings and workshops where my notes were able to be used as part of the formal data set).

My formal participation observation data set, then, comprises the notes I took of three workshops, ten meetings and three teleconference discussions over a period from July 2005 to March 2007 (see list in Figure 23 matched with an overview of the case study process in Figure 24). Most of the meetings were planning meetings, except for one meeting organised as part of the Sustainability Challenge project between the three irrigation companies in NSW (MI, Murray Irrigation Limited and Coleambally Irrigation Cooperative Limited) and the government agencies to which they are required to provide compliance reports. The purpose of this meeting was to discuss possibilities of streamlining the companies’ compliance reporting requirements with their moves towards TBL reporting.

The main occasion when I used this participant observation data was to prepare for the first round of interviews in October 2006. I scan-read the entire data set (over 100 pages) looking for anything to follow up during my interviews. In particular I looked for situations or comments that I could refer to when asking my interviewees if a change had subsequently occurred. For example, very early on in the planning process, MI members of the Planning Team expressed concern that the annual report had been used as a communication tool not as a planning document, and that MI was interested in rethinking this. I used my record of these concerns to prompt my interviewees about the extent they now thought MI was using the annual report for strategic planning. I also looked for examples of potential conflicting attitudes between MI staff so that I could explore these issues during the interviews as a way of understanding MI’s internal dynamics and how they affected the way decisions were made.
### Meetings and workshops organised as part of the CRC IF Sustainability Challenge (SC) case study with MI (all of which I participated in)

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
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<tbody>
<tr>
<td>4 Jul 2005</td>
<td>Workshop organised by SC team for MI to review past reporting and set future goals</td>
</tr>
<tr>
<td>5 Aug 2005</td>
<td>Meeting to negotiate access for my research and to identify members of the Joint MI-SC Planning Team</td>
</tr>
<tr>
<td>19 Aug 2005</td>
<td>First meeting of the Joint MI-SC Planning Team to develop a plan for the TBL reporting process to be developed at MI</td>
</tr>
<tr>
<td>16 Sep 2005</td>
<td>Meeting of the Joint MI-SC Planning Team to discuss stakeholder involvement</td>
</tr>
<tr>
<td>10 Oct 2005</td>
<td>Meeting of the Joint MI-SC Planning Team to plan MI workshop on sustainability issues</td>
</tr>
<tr>
<td>31 Oct 2005</td>
<td>Meeting organised by SC team between NSW irrigation companies and government regulating agencies</td>
</tr>
<tr>
<td>25 Nov 2005</td>
<td>Teleconference of the Joint MI-SC Planning Team to plan forthcoming workshop</td>
</tr>
<tr>
<td>2 Dec 2005</td>
<td>Teleconference of the Joint MI-SC Planning Team to plan forthcoming workshop</td>
</tr>
<tr>
<td>7 Dec 2005</td>
<td>Workshop organised by SC team for MI to identify relevant sustainability issues and targets for MI to address</td>
</tr>
<tr>
<td>3 Mar 2006</td>
<td>Teleconference of the Joint MI-SC Planning Team to follow up on developments since the December 2005 workshop</td>
</tr>
<tr>
<td>7 Apr 2006</td>
<td>Meeting of the Joint MI-SC Planning Team to provide feedback on the TBL objectives and indicators developed by the MI Executive</td>
</tr>
<tr>
<td>4 May 2006</td>
<td>Final meeting of the Joint MI-SC Planning Team to select TBL indicators to be included in MI’s 2005-06 annual report and to evaluate the project against goals originally set</td>
</tr>
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### Subsequent meetings and workshop organised between me and MI

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>18 Aug 2006</td>
<td>Meeting with new Public Relations Coordinator to summarise progress and plans related to the TBL reporting project</td>
</tr>
<tr>
<td>20 Dec 2006</td>
<td>Meeting to discuss my proposal to organise a TBL reporting evaluation workshop for MI</td>
</tr>
<tr>
<td>9 Mar 2007</td>
<td>Meeting to finalise preparations for TBL reporting evaluation workshop</td>
</tr>
<tr>
<td>23 Mar 2007</td>
<td>Workshop I organised with MI using the TBL reporting evaluation criteria to evaluate progress to date and establish future actions</td>
</tr>
</tbody>
</table>
4.3.5 Interview data creation methods

The second main component to data creation involved preparing, conducting and transcribing in-depth, semi-structured interviews with MI staff. As noted earlier in this chapter, the set of 22 interviewees included two members of MI’s Board, all six Executive managers of MI and 14 other staff. In case study research, interviews are an effective means of creating data that focus on the experiential and theoretical aspects of the phenomenon being studied, providing insights that are not easily obtained through other methods (Yin, 1994, p. 80). The interviews I conducted were in-depth in that interviewees were encouraged to talk at length, often prompted by follow up questions for further explanation, clarification, elaboration or exemplification (Rossman & Rallis, 2003, p. 185).

The first round of nine interviews was conducted in October 2006 to coincide with the release of the TBL report for 2006 (see Figure 24). This was MI’s first report with a TBL snapshot page of indicators and other changes inspired by the collaborative project between MI and the CRC IF Sustainability Challenge.
project. The second round of fourteen\textsuperscript{75} interviews was conducted six months later in March and May 2007. This time lapse provided time for the impact of the changes to the report to filter out to the intended audience, as well as ensure adequate time for me to analyse and report the results within the three year time period allocated for this doctoral dissertation. The second round of interviews also coincided with my trip to Griffith for the evaluation workshop on MI’s TBL reporting process which I conducted using my evaluation criteria (see Figure 24).

4.3.5.1 Purpose of interviews and design of questions

The semi-structured interviews enabled me to hear from MI staff involved in the TBL reporting process as well as a cross-section of staff not directly involved about their perceptions of the outcomes of the TBL reporting process. In presenting my research results I have relied on lengthy quotes from my interviewees to maximise the space for their voice to come through. When preparing my questions, I operated on the assumption that the interview data generated would be of most use in addressing questions related to learning, capacity building, and practical change outcomes (see Figure 25). To a lesser degree I thought my interviewees might also provide information that would help me understand the constraints on MI achieving the desired outcomes from TBL reporting and the extent the process would lead to enhanced sustainability outcomes.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure25.png}
\caption{My expectations of the extent that interviews would provide data useful to answer component research questions}
\end{figure}

<table>
<thead>
<tr>
<th>Questions</th>
<th>Can be answered in interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is TBL? What is a TBL reporting process?</td>
<td>2 / 10</td>
</tr>
<tr>
<td>3. Constraints?</td>
<td>5 / 10</td>
</tr>
<tr>
<td>4. Lead to sustainability?</td>
<td>4 / 10</td>
</tr>
</tbody>
</table>

\textsuperscript{75} One interviewee was interviewed twice because the first interview was cut short by an unrelated distraction.
As part of my case study protocol, I created a generic interview guide that was adjusted for use with the first and second round of interviews (Figure 26 and Figure 27). The questions in these guides were mostly written as initial prompt questions to make sure I covered the range of topics I sought to discuss with my interviewees. For this reason, some of them might appear as simple closed or descriptive questions. Of course, should the interviewee’s discussion remain insufficiently detailed or analytical, I would follow up with further prompt questions that would seek further details, including questions concerning why events unfolded in the way they did and to uncover the reasons behind thoughts and views expressed.

The first round of interviews was with nine MI staff who had been involved in the TBL reporting process, including five carrying the Manager code as members of the Executive team. My questions therefore focused on eliciting their first-hand reflections as individuals involved in the process, and thus provided useful data on the extent of both individual and organisational learning, capacity building, and change. The second round comprised a broader cross-section of staff and included two MI Board Directors. This meant that my questions were more often directed to them as internal stakeholders who are the intended recipients of intended changes through the reporting process. My interview guide for the second round (see Figure 27) therefore included a clearer distinction between public reporting outcomes and those from MI’s internal reporting mechanisms. Because MI’s internal reporting process was closely associated with the BSC performance monitoring process, I modified the questions from those I used for public reporting outcomes. This helped to disentangle the BSC strategic planning and monitoring process from key elements of the TBL reporting process. My guide included explanations of terms I used in case they were solicited.

The interviews also provided those I interviewed with an opportunity to have a reflective discussion on what they had achieved as a result of their TBL reporting efforts. In most cases, this made the interview an interesting, timely and useful experience for my interviewees, an intended research outcome in the interests of “reciprocity” or mutual benefit arising out of the research.
Figure 26: Interview guide for first round of interviews

**Aim:** To interview a section of MI staff involved in the process of developing TBL indicators for inclusion in the 05-06 report so that I can find out from them what they have learnt from the process, and what they think have been the outcomes.

**Orientation:**

**Usefulness of TBL concept**
- What do you think it means for an organisation to enhance sustainability?
- (Or put it another way: What do you think are the most pressing sustainability issues facing MI at present?)
- What do you think about the TBL concept?
- Has the TBL concept helped you to learn about sustainability issues?

**Usefulness of TBL report**
- Do you think that producing a TBL report is a useful way to help MI make a difference on sustainability issues?

**Their involvement**
- How were you able to contribute to the ideas used to create the latest TBL report?
- (i.e: What was your involvement in the process?)

**Key questions:**

**Outcomes [open]**
- In your view, what were the outcomes of going through the process to include TBL indicators in the 05-06 report?

**Learning**
- Did you – as an individual – learn anything? Anything useful?
- Do you think that the organisation as a whole learned anything? Gained new knowledge?

**Change**
- Has it helped you – as an individual – understand what you can do to enhance sustainability through your work?
- Do you think it has helped MI find ways to contribute to enhanced sustainability?
- Do you think it has contributed a change in thinking about how MI can make an impact?

**Change – practical examples**
- Can you give me any examples of practical changes that you – as an individual – have made as a result of having to think about TBL indicators?
- Can you give me any examples of practical changes that MI has made as a result of having to think about TBL indicators?

**Constraints**
- Can you think of any reasons why MI has not been able to deliver on the changes it would like to make to improve its sustainability performance?

**Capacity**
- Do you think MI is in a better position now to implement changes to enhance sustainability than it was at the start of the process (prior to July 2005)?
- If so, how, and what contributed to this improved capacity?
- Is it easier now for MI to make decisions about what it can do to enhance sustainability?

**Conclusion:**

**Will changes enhance sustainability? / How to improve TBL reporting outcomes?**
- To what extent do you think ongoing development of TBL reporting at MI will enhance sustainability issues and help it to deal with the sustainability issues it faces?
- Have you any suggestions on how MI might be able to improve the outcomes from TBL reporting?
Figure 27: Interview guide for second round of interviews

**Aim:** To interview a broad cross-section of MI staff and a couple of MI Board members to elicit what they think have been the outcomes of increased use of TBL indicators in the 05-06 report.

**Orientation:** Clarify purpose of interview & meaning of ‘the triple bottom line’ – i.e. I’m interested in how MI is going about trying to improve its triple bottom line performance – its environmental performance, its social performance and its economic performance – to improve its impacts on the broader environment, society and economics – its contribution to a sustainable future for society.

1. What do you think it means for MI to enhance sustainability?
   - [What do you think are the most pressing sustainability issues facing MI?]
   - [Do you think the TBL concept is helpful for you / for MI?]
2. To what extent do you think MI is responding to these sustainability issues [raised before]?
3. In what ways do you think you are able to make the future more sustainable through your work?
4. Have you changed the way you do things in response to MI’s efforts to improve its sustainability performance?

**Public reporting outcomes:** By TBL reporting, I’m interested in how MI reports on its TBL performance – especially through its annual report – the page 3 table showing 3 year progress on certain TBL indicators and the ‘performance reports’ pages documenting MI’s environmental, social and economic performance.

1. Do you think this process of producing a TBL report is a useful way to help MI make a difference on sustainability issues? [Have you had any involvement in this process?]
2. Have you looked at these pages? If so, what do you think of them? Did they tell you anything new? Do they help you to think about how your day-to-day work contributes to improving MI’s TBL performance?
   - [Have there been any other outcomes from this process?]
3. More generally, do you have any comments on the impact the annual report has had on what MI’s customers and the general public think about MI’s sustainability performance?

**Internal reporting outcomes:** MI also has sought to include measures into its balanced scorecard through which they hope to track the organisation’s progress against the TBL.

1. What do you know about this? Have these efforts had any impact on the way you do your work? [If not, will they in the future?] Do you think the inclusion of TBL indicators into the balanced scorecard has changed [will change] the way the organisation goes about its business? [If not, why not – what do you think stops MI from making the changes to improve its sustainability performance?]
2. Have you learnt anything about sustainability through discussions you have had on developing performance measures with others in your unit?
3. Do any of your job performance targets help you to learn about how to contribute to improving sustainability through your work?
4. Do you feel that you have been able to contribute any ideas to help guide how MI measures its sustainability performance? [Are you aware of any opportunities to do this in the future?]
5. Do you have confidence in the way MI handles its responses to sustainability issues?
6. How do you think customers feel about how MI is handling sustainability issues?
7. Do you have any suggestions on how to improve the process through which MI decides how to take action on sustainability issues?
experience (Rossman & Rallis, 2003, pp. 159-160). Because I was an active participant in the whole process, I usually ended up being more than just an attentive listener. In some cases, a two-way discussion evolved as we bounced ideas off each other. This process reflects the view that an interview is a collaborative effort between two people and not simply a neutral exchange of information (Fontana & Frey, 2005, p. 696). Denzin (1978, p. 7) would suggest that such human interaction is the basic principle that underlies data creation in case study contexts. In my case, this interactive process helped generate useful data on some of the more contentious aspects related to the process and its intended outcomes. For example, one interviewee challenged me on the linkages I was seeking to identify between MI’s reporting process and its planning process. The ensuing debate focused on the key issue of the relevance of using corporate reporting to feed back into corporate planning, which I explore further in Chapter 5.

Interaction is the key to understanding my approach to semi-structured interviews. Berg (1995), building on the idea of symbolic interactionism (Denzin, 1978), suggests the interviewer and the interviewee play out a series of roles commensurate with the research activity being undertaken. Some of the interviewer’s roles, such as the role of ‘actor’ and ‘choreographer’, are explained by Berg (1995, pp. 49-52), and gelled exactly with the interviewing game as I was experiencing it. In the role of ‘actor’, for example, the task of the interviewer is not only to deliver scripted questions with aplomb, it is also to listen for the cues of the interviewee to take up matters further or to "avoid stepping on the lines of the interviewee" (Berg, 1995, p. 51). As ‘choreographer’, the interviewer is in the position of controlling the movement of the interview as it proceeds, to the extent of scripting lines in response to the messages being received or to probe further should the opportunity arise (Berg, 1995, p. 51). Directing this interview ‘choreography’ means choosing how to link questions together, modifying the order in which questions are delivered through the course of the interview, while still keeping up with the overall task through the checklist of key questions to be covered.
Playing effectively to the lines and cues from the interviewee can also allow the researcher to go beyond just gathering desired information (Berg, 1995, p. 53). It can give interviewees space to say what they think, allowing new and perhaps unexpected perspectives to be generated through the course of the interview. However, Berg suggests that – as much as possible – the scripted lines should be adhered to: “The use of a consistent and systematic line of questions for even unanticipated areas is particularly important for reliability and possible replication of a study” (Berg, 1995, p. 52).

In general, I found this game play quite exhausting, and sought as much as possible to only conduct one interview a day. This also enabled me to be thoroughly prepared for each interview as well as to take detailed notes after each interview of any aspects that were non-verbal or self-reflective in nature. In some cases, these post-interview reflections enabled me to consider my interviewing skills and how to improve on them. For example, the following is an excerpt from my reflections after the second interview:

I thought I’d try an open question first (What do you think it means for Murrumbidgee Irrigation to enhance sustainability?) – This was an on the spur of the moment decision. I had another question to start off with (Do you think triple bottom line reporting is a useful way to enhance sustainability?) but I’m glad I tried it this way. I hardly ever looked at my notes, and surprised myself by being able to keep a track in my head of what I planned to ask and to change the order of questions without having to take notes of this. It was really good because I was able to keep eye contact most of the time. I only occasionally took down notes – mostly of words [my interviewee] used which I wanted to be able to refer to in a follow up question – and in one case to remind me of a question I wanted to ask.

By the time I was doing my second round of interviews, I was much more relaxed. I was more prepared to sit back and listen, allowing the interviews to flow in different directions, much more at the whim of the interviewee than at my direction. As there were more interviews to be conducted in a tighter timeframe than for the first round of interviews, I frequently ended up conducting more than one interview per day.
As most of my interviews were conducted with MI staff during their work hours, they were undertaken within the MI office compounds in Leeton and Griffith, and always in a private space to avoid interruption or potential eavesdropping. The only interviews not conducted at MI were with a member of the staff who had recently resigned (as explained in the next section) and who lived in a small town near Canberra, and the two Board members, one of whom was interviewed at their home; the other at Sydney University.

4.3.5.2 Ethical considerations

As with my observation notes, I had to ensure free and fully informed consent from those I interviewed (National Health and Medical Research Council, 1999, p. 12). All interviewees were provided with an information statement (see Appendix 3) to explain the purpose of the interviews prior to the interview and then gave their formal consent to be interviewed following a process approved by the CSU Ethics in Human Research Committee. I sought to use the interviews as an opportunity whereby my interviewees and MI could benefit from their interactions with me, not just so that I could benefit from them.

I needed to assure my interviewees that their comments would be treated as confidential (National Health and Medical Research Council, 1999, p. 13). To ensure that quotes I have used could not be attributed to a particular person, I have used codes to prevent identification. This has enabled me to use quotes as part of my analysis without mentioning the interviewees’ names in any publications derived from this analysis. It was also important to be particularly careful to ensure that other people within the organisation would be unable to identify quotes I have used with any particular interviewee. This is particularly relevant given the small size of the organisation. Most people within the organisation know each other well and it is quite possible that the character and manner of speech may be identifiable. I was particularly sensitive to the possibility that an interviewee’s immediate manager may be interested in identifying the sources of quotes or examples used that they consider might reflect badly on the organisation. Interviewees were made aware of this issue, and encouraged to identify comments they would like to be kept off the record.
As it turned out, this was an issue that hardly ever came up. On the two occasions when interviewees made comments ‘off the record’, they were not of relevance to my analysis.

As noted earlier, the coding system I used draws a distinction between ‘Manager’ interviewees; i.e. those staff who are on the MI Executive team as well as two MI Board Directors, and ‘Staff’ interviewees, ranging from those in junior managerial positions and below in the organisational hierarchy. These specific definitions associated with the coding used required capitals to distinguish the code names from my more general use of the terms ‘staff’ and ‘manager’. It is important for me to draw this distinction between ‘Managers’ and ‘Staff’ as influence over organisational decision making processes is a key theme in my data analysis.

All staff are internal stakeholders in the TBL reporting process, as well as in the BSC corporate planning process, but the accountability role and expectations differ depending on whether they are Executive staff or not. Of course, the blurring of accountability and responsibility to lower levels of the workforce (cf. Johansen, 2008a) challenges such a distinction, especially in a relatively small organisation. I was interested in uncovering the extent that non-Executive staff were engaged in deciding what to include in TBL reports and in the direction of the corporate plan.

It has also been necessary for me to be careful in my use of gender specific pronouns. Because there is only one female carrying the Manager code (all six members of the MI Executive are male), I have as much as possible avoided the use of gender specific pronouns when referring to this group of eight Managers to reduce the likelihood of identifying the female Manager. As a result, my analysis has not been able to explore structural dynamics related to gender.

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76 i.e., all those on the MI Executive are also staff of MI. Also, one of my interviewees is the Environment Manager but carries the Staff code as he is not on the Executive.

77 Some of my interviewees made implicit reference to gender as part of their commentary on styles of management and how relationships were built within the organisation. These comments would have been interesting to document. However, my inclusion of such analysis would have made it much easier for those comments to be attributed to both the interviewees who made them and about whom the comments were directed. As the comments were not
4.3.5.3 Selection and breakdown of interviewees

Like most research projects based around qualitative data creation, the sampling procedure was ‘purposeful’ rather than ‘representative’ (Maxwell, 2005, p. 88; cf. Patton, 2002, p. 230). I was able to select MI staff to be interviewed in the first round, only requiring formal approval from the MI Corporate Affairs Manager. My aim was to interview all those at MI who had been directly involved in the TBL reporting process. This group included those who had attended both the July and December workshops; those who had been involved in contributing to indicator selection after the December workshop; and staff in the Public Relations Unit responsible for preparing the 2005-06 TBL report. I sought an interview with the Public Relations Coordinator before she went on extended maternity leave in mid 2006, but this was not possible. This was the only person directly involved in the TBL reporting process that I was unable to interview. The main focus of these interviews was to find out what had been learnt through the process to date.

For the second round of interviews, I wanted to talk to a cross-section of MI staff and Board Directors to identify the outcomes of the TBL reporting process on the organisation more broadly. This time, the selection of interviewees was discussed more closely with my contact at MI, and with the MI Corporate Affairs Manager. My aim in selecting interviews for the second round was to traverse the organisation horizontally and vertically. This enabled both “maximum variation” (Patton, 2002, p. 234) across organisational structures as well as “illuminative cases” (Patton, 2002, p. 232) related to the experiences of potential change agents.

Selection to meet “maximum variation” relates to one of my key points of theoretical interest – the internal organisational structural constraints discussed in the previous chapter. In other words, I was seeking interviewees from the different divisions and hierarchical levels in the organisation to explore the extent that the TBL reporting process was able to overcome impediments to change from the organisational structure.
At the time of the interviews, MI had four major divisions: Corporate Affairs, which includes, amongst others, the Environment and Public Relations (PR) Units; Operations; Business Services; and Financial Services (see Figure 28).

**Figure 28: MI organisational structure**

![MI Organisational Structure Diagram]

The bulk of MI staff are employed in the Operations division, the section that builds and maintains irrigation infrastructure and operates the system to ensure customers receive their water orders. In this division, I was interested in talking with those who operate the system, especially the channel attendants who are a key interface in how customers communicate with MI. So, rather than seeking to interview a sample of staff across the three units in this division, I focused my selection on capturing a vertical snapshot of the Irrigation Services Unit, and interviewed two channel attendants, a supervisor and the Operations Manager (see Figure 29). This provided a set of interviewees from top to bottom of that unit.
A large proportion of my interviewees comprised those in the Corporate Affairs division. There are just two staff in the Public Relations Unit, and I had interviewed both during the first round. I had also already interviewed the (non-Executive) Environment Manager and one of the coordinators in the Environment Unit who was responsible for MI’s environmental compliance reporting. There were several officers in the Environment Unit I was interested in interviewing for various reasons. However, the Corporate Affairs Manager suggested I should be more selective to avoid having too many interviewees from the Environment Unit.
So, as I did when selecting interviewees from the Irrigation and Customer Services Units, I selected interviewees that captured a vertical snapshot through the organisational structure, focused on two aspects of the work of the Environment Unit. MI’s EnviroWise program is the part of the Environment Unit that deals directly with improving sustainability practices of MI’s customers. The coordinator of this program resigned prior to my second round of interviews, but I was able to secure an agreement with her and MI to interview her. I also interviewed one of the officers in this program. The other officer within the Environment Unit I selected worked with the coordinator responsible for environmental compliance reporting.

4.3.6 Methods used to analyse interview data

The major practical activity I undertook to analyse the data involved a process of thematic analysis and categorising the data (Rossman & Rallis, 2003, p. 282). This is a process of compiling extracts from across all the interviews that relate to a particular theme or to sort it into a particular category. From a methodological perspective, what is of concern here is the purpose behind the themes that I developed. Themes can be identified deductively and inductively (Rossman & Rallis, 2003, p. 283). In other words, the themes can be deduced from the questions and propositions that emanate from applying my theoretical framework to the case study context (the approached preferred by Yin, 1994, p. 103). A good example of the use of a deductive approach is my decision to include my ten TBL reporting evaluation criteria as themes. Themes can also be induced from the data as the researcher becomes “immersed” in the stories, perspectives and language of their interviewees (Creswell, 1998, p. 270). An example of such a theme so derived concerns the frequent use of the term ‘silos’ within MI, used to refer to the horizontal divisions and units as described above, and how these ‘silos’ were breaking down. By using both deductive and inductive approaches, the themes capture both my interviewees’ and my own conceptualisations of events and issues (Minichiello, Aroni, Timewell & Alexander, 1995, p. 252). For example, when I sought to test a theoretical proposition that TBL reporting influenced organisational planning, my interviewees responded with ambivalence and/or antagonism. Because of this,
a specific theme (or ‘code’) “reporting looks back, not for change” was created to explore discussion on this linkage. The language of this code combines an inductive approach to capture the language of my interviewees (i.e. “reporting looks back”) with my own deductive reasoning that my interviewees do not interpret reporting as leading to a change in organisational goals and strategies (i.e. “not for change”). Most qualitative research involves an iterative process between coming up with the theories to be tested in the field and learning from the experience of those in the field to help formulate or reformulate theoretical propositions (Berg, 1995; Rossman & Rallis, 2003, p. 11). This best explains my process of thematic analysis, as I explain further below.

Another issue in analysing data is to attribute outcomes to their appropriate causes, a key part of building explanations for what has happened (Yin, 1994, p. 110). Most of my data that had been extracted into themes represent discussion around particular outcomes, which incorporated interviewees’ explanations for their causes. As I proceeded through the analysis, it became clear that much of the data pointed to causes for changes that were not directly related to TBL reporting. Causes were identified through secondary analysis by categorising interviewee perceptions of the causes of significant changes they identified.

To practically undertake this thematic analysis, it was first necessary to have all the interviews transcribed. These transcripts represented the actual language used as well as indications of non-verbal communications such as pauses and laughter [in square brackets]. The transcripts therefore included hesitation words, repetition of words, and ‘hedging’ phrases such as “you know” and “I guess” 78. When including extracts from these interviews in this dissertation, I removed the hesitations and word repetition to make the quotes easier to read, and only kept certain ‘hedging’ phrases and indications of non-verbal communication that were a crucial part of the message being conveyed. For any reference words that required clarification of meaning, or for words

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78 While I am not using critical discourse analysis (Fairclough, 2003) as a method of data analysis, my brief familiarity with this method has enabled me to appreciate the significance of certain aspects in the way speech is delivered, such as the use of ‘hedging’ phrases (e.g. I guess) and modal verbs (e.g. might) and adverbs (e.g. probably) used to soften statements.
inserted to improve readability, I have provided these changes to the original transcribed text within square brackets. As the quotes from my interviewees in this dissertation appear in italicised font, where these clarifications are based on a subsequent insertion that represents my own voice at the time of writing, I have changed the words back to normal non-italicised font to emphasise that these words are my voice, not those of the interviewees.

The only exception to this transcription process was for an interview where the recording tape malfunctioned. For this interview, I typed up notes immediately after the interview and the interviewee agreed to verify that these notes were an accurate record of our interview. She made a few alterations to my record and elaborated on a few points.

Once all the interview transcripts and this one interview summary record were finalised, the process of identifying and collating responses to my key research questions across interviews was undertaken. While this process could have been achieved by copying and pasting in word processing software, the NVivo software package enabled the process to be effected far more efficiently.

The original designer of the software that evolved into NVivo was focused on facilitating a grounded theory approach to qualitative data analysis that would enable theory to be created from the data through the process of coding and review (Richards & Richards, 1991). The software enables users to create ‘open codes’ as they proceed through their data that correspond to interesting and common facets. In grounded theory, the eventual aim would be to identify further codes that categorise and connect these open codes and thus construct new theoretical understandings from the data (Creswell, 1998, p. 150). The flexibility of the software to identify themes iteratively enables researchers to make the most of the richness of the data. It provides practical assistance for inductive reasoning processes, rather than being confined by deductive reasoning and consequential simplification (Richards, 1999). This has made NVivo appealing to a wide range of qualitative research methodologies. In my

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79 The brandname itself comes from the grounded theory term “in vivo codes” which is where headings for themes are best derived from the words of research participants themselves (Creswell, 1998, p. 163).
case, I had already developed a theoretical framework and set of evaluation
criteria to underpin my analysis. So, I created most of the codes I intended to
use before I started reading through the interview transcripts in NVivo, but took
advantage of the flexibility of the program to create additional codes as I
proceeded through the data analysis.

The final set of codes used is shown in Figure 30. My key research questions
are listed in the third column, and all the codes in the two columns to the left
have been organised to align with each of these key questions. The ten codes
in column one correspond with the TBL reporting evaluation criteria developed
in Chapter 2. The numbers in brackets are those used for each criterion as
presented in Chapter 2 (see Figure 7 on page 80). Other thematic codes appear
in the second column, and most of these were apparent from the outset as
subsets of the key research questions. For example, it was apparent when
considering aspects of capacity building or relationship building, that this would
be divided according to different stakeholder classifications (staff, shareholders,
other external stakeholders).

However, towards the end, I developed an additional code ‘ownership’ to
specifically identify instances where this word came up in discussion. Similarly,
there were several case specific sustainability issues which came up during the
interviews, which were in turn a test of the evaluation criterion related to the
extent of bigger picture TBL issues included as part of the reporting process.
One that I have used earlier in this chapter relates to the effect of MI’s water
use on the broader catchment, coded as ‘downstream effects’. Figure 31
presents the content of this code as an illustration. In this case discussion on
downstream effects was almost always prompted by my question, and would
probably not have come up without my questioning. This was far less so for
other codes where discussion related to the range of issues coded would often
come up without my prompting.

One danger of creating new codes in the process of analysis is the possibility
of becoming overwhelmed with too many of them. I averted this danger by
always having a print-out of the codes shown in Figure 30 with me as I coded.
With this check in place, I was sometimes able to consider creating some rather
### Figure 30: Codes used for data analysis

<table>
<thead>
<tr>
<th>Evaluation criteria codes (number of each criterion as presented in Chapter 2)</th>
<th>Codes arising from interviews</th>
<th>Key questions</th>
<th>General codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time for reflection (8)</td>
<td>Learning</td>
<td>Learning</td>
<td>Highlights</td>
</tr>
<tr>
<td>Relevant issues &amp; indicators (6)</td>
<td>Capacity building</td>
<td>Capacity building</td>
<td>Quotes</td>
</tr>
<tr>
<td>Solutions to problems (7)</td>
<td>Staff engagement</td>
<td>Shareholder engagement</td>
<td>Stakeholder engagement</td>
</tr>
<tr>
<td>Who involved (1)</td>
<td>Champions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a voice (2)</td>
<td>Public impressions vs. transparency</td>
<td></td>
<td></td>
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<tr>
<td>Leaders committed (3)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Collaborate with others (10)</td>
<td>Regional reporting</td>
<td></td>
<td></td>
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<tr>
<td>Organisational change (9)</td>
<td>Examples of changes</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Silos break down</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Reporting looks back, not for change</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Constraints on change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bigger picture TBL impacts (4)</td>
<td>Business views &amp; sustainability</td>
<td>Change</td>
<td>Influence of researcher on outcomes</td>
</tr>
<tr>
<td></td>
<td>Type of change for sustainability</td>
<td></td>
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<tr>
<td></td>
<td>Meaning of sustainability</td>
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<td></td>
<td>Climate change</td>
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<td></td>
<td>Soil and groundwater</td>
<td>Downstream effects</td>
<td></td>
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<tr>
<td></td>
<td>Water pricing</td>
<td>Water trading</td>
<td></td>
</tr>
<tr>
<td>Social dimension (5)</td>
<td>Equity &amp; justice</td>
<td>Sustainability</td>
<td>Triangulation</td>
</tr>
<tr>
<td></td>
<td>Customer relations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Other codes

1. Win-win vs. trade-offs - links ‘Solutions to problems (7)’ with key question ‘Sustainability’
2. Reporting links to planning - links key questions ‘Capacity building’ & ‘Change’ with the question ‘What is TBL reporting’
3. Benchmarking performance - links ‘Relevant issues & indicators (6)’ with the question ‘What is TBL reporting’
4. Continuous improvement cycle - links ‘Learning’, ‘Capacity building’ & ‘Organisational change’ with the question ‘What is TBL reporting’
Figure 31: Example code: Downstream effects

Document 'Manager 8', 1 passage:

I: And another environmental issue that came up which was a bit contentious was the effect on the irrigation systems downstream or in fact Murrumbidgee Irrigation’s responsibility for the health of the catchment as a whole – is that something that you can report on?

R: [pause] It’s a difficult area because certainly in terms of the downstream part of the catchment where the fundamental argument is well you take that much water out it doesn’t matter what you do, you’re going to have negative impacts on the assumption that the water left in the river to go to the river is [unclear]. There’s some evidence that that’s better. If you live in Adelaide, that probably isn’t. Um we’ve actually developed a program called River Reach which is aimed at working to best manage our commitment to the river environment without having to fall for the um cures [unclear] that the Federal Government initially came up with – which involves options – products that are options rather than direct purchases – and I – it’s a fabulous product – it will be an example to the Murray-Darling Basin people, I believe – and smart thinking – to me – to help meet environmental needs – we’ve made a corporate decision – it doesn’t matter who else is not interested, we’re still going to go ahead with it because it’s a top product – both for our business and for environment and our shareholders. I’m not sure we actually got a strong allegiance to the rest of the catchment. We worry about what’s happening in the upstream catchment – particularly above the dams

I: Because it impacts on you or…?

R: Yeah, basically because it stuffs up the yield in a lot of cases. But having said all of that, you can spend a lot of time focused on things that you’ve got no control over – well that’s expensive.

Document 'Staff 3', 1 passage:

we’ve moved down the path of putting in storage reuse facilities to try and maximise our opportunities for catching of water and reuse – of course the least water that we bring in to the off-takes and are able to reuse internally means that we’ve got more water available in the dams – which can be spread right across the valley of course

Document 'Staff 7', 2 passages:

I: …downstream effects – how are you able to account for that and report on that?

R: The only – I guess if you’re looking at it from an outsider’s perspective – the only downstream effect is the taking of water from the river – we don’t actually – well we discharge a very minimal amount of water back to the river and in the future that will be zero – under our licence we’re not allowed to discharge after a certain timeframe water back to the river – so we actually – you can look at it two ways – yes we have a downstream impact because we take water from the river but we also have an improvement downstream because we’re taking the salt out of the river at the same time so – if you look at the Murray-Darling Basin Salinity Strategy, they have a target to be met at Balranald – an ECT target – well we take around about a hundred thousand tonne of salt between Narrandera and Balranald out of the system – that doesn’t get into the Murray.

I: And where does that salt go?

R: It ends up in the soil here.

Document 'Staff 8', 1 passage:

I: Improving water quality would have impacts for MIA or were you thinking that that will be something that would benefit downstream or benefit the catchment as a whole?

R: Well see the thing is that this system is pretty much a closed system so there is very little if any water, like there is a little bit of river drainage which eventually we have to close off totally and than only in really, really wet years on the western end we can potentially link in with the Lachlan river system which hasn’t happened for quite a few years so most of the time we are pretty much a closed system so we don’t impact really on down stream users other than taking water out of the river I guess, but I mean that’s – what are we going to do…
specific themes as I could see where these specific themes would fit in with broader themes. It also allowed me to consider where new codes would fit into my broader theoretical agenda, such as links noted in the other codes listed at the bottom of Figure 30. Another challenge was to keep in mind that I was not only coding for when interviewees mentioned that changes had occurred, or examples of where capacity had been built, etc.; it was just as important for me to code when interviewees supposed that changes had not occurred or that capacity had not been built; i.e. to identify exceptions.

At the end of coding each interview transcript, I also kept a list of what codes were used and those not used for each interview. When I discovered a code had not been used, I would then check back through the interview to make sure that the interview had not covered that theme. This record also helped me to check coverage of themes across interviews and the usefulness of the codes I was using. I have reorganised that record in Figure 32 and in so doing grouped each code against my key questions in a simpler layout than that shown in Figure 30.

In addition to these codes related to my key research questions and to the evaluation criteria, I also coded for specific ‘highlights’ and comments that I thought would make representative ‘quotes’ to include in the presentation of my analysis. One of the benefits of the NVivo package is that when looking through the document where all the quotes have been compiled, for example, it is possible to see all the other coding in place. So, to look for a quote related to ownership, for example, is quick and easy to do. Unfortunately, one problem I encountered when using the version of NVivo I was using (NVivo 2.0) is that it did not allow me to create documents where two themes coincide, such as creating a file that selected everything coded ‘quotes’ that was also coded ‘ownership’. To create such a file still required a process of cutting and pasting text.

In addition to finding quotes, I was also interested in collating instances that showed my influence on case study outcomes. For this I used the code ‘influence of researcher on outcomes’. Such a code is relevant to an analysis of my adoption of an action research methodology as discussed earlier. Finally, I
Figure 32: Coverage of codes: Number of interviews coded for each theme

<table>
<thead>
<tr>
<th>Key questions</th>
<th>Codes used</th>
<th>No. of interviews that included this code (out of 22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is TBL reporting?</td>
<td>Benchmarking performance</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Continuous improvement cycle</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Reporting links to planning</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Win-win vs. trade-off</td>
<td>19</td>
</tr>
<tr>
<td>Learning?</td>
<td>Learning</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Criterion 8: Time for reflection</td>
<td>18</td>
</tr>
<tr>
<td>Capacity building?</td>
<td>Capacity building</td>
<td>17</td>
</tr>
<tr>
<td>Capacity engagement?</td>
<td>Criterion 6: Relevant issues &amp; indicators</td>
<td>21</td>
</tr>
<tr>
<td>Relationship building?</td>
<td>Criterion 7: Solutions to problems</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Criterion 1: Who involved</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Staff engagement</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Shareholder engagement ~ learning</td>
<td>21</td>
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<td></td>
<td>Stakeholder engagement</td>
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<td></td>
<td>Ownership</td>
<td>10</td>
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<td></td>
<td>Criterion 2: Have a voice</td>
<td>22</td>
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<td></td>
<td>Who decides</td>
<td>16</td>
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<td></td>
<td>Criterion 3: Leaders committed</td>
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<td>Champions</td>
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<td></td>
<td>Criterion 10: Collaborate with others</td>
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<td>Regional reporting</td>
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<td>Change?</td>
<td>Criterion 9: Organisational change</td>
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<td></td>
<td>Examples of changes</td>
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<td></td>
<td>Silos break down</td>
<td>16</td>
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<tr>
<td>Constraints on change?</td>
<td>Constraints on change</td>
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<tr>
<td></td>
<td>Reporting looks back, not for change</td>
<td>12</td>
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<td></td>
<td>Public impressions vs. transparency</td>
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<td></td>
<td>Boundary issues</td>
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<tr>
<td>Sustainability</td>
<td>Meaning of sustainability</td>
<td>22</td>
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<td></td>
<td>Business views &amp; sustainability</td>
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<tr>
<td></td>
<td>Type of change for sustainability</td>
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</tr>
<tr>
<td>Specific sustainability issues</td>
<td>Criterion 4: Bigger picture TBL impacts</td>
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<td></td>
<td>Climate change</td>
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<td></td>
<td>Soil and groundwater</td>
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<td></td>
<td>Downstream effects</td>
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<td></td>
<td>Water trading</td>
<td>8</td>
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<tr>
<td></td>
<td>Water pricing</td>
<td>5</td>
</tr>
<tr>
<td>Social dimension of sustainability</td>
<td>Criterion 5: Social dimension</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Equity &amp; justice</td>
<td>12</td>
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<tr>
<td></td>
<td>Customer relations</td>
<td>12</td>
</tr>
<tr>
<td>Other codes</td>
<td>Influence of researcher on outcomes</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Useful quotes to use (across all themes)</td>
<td>22</td>
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<td></td>
<td>Highlights (across all themes)</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Triangulation (for potential new themes)</td>
<td>18</td>
</tr>
</tbody>
</table>
included a code ‘triangulation’ as a place to pool any comments that came up which I needed to compare with comments made by others. I maintained a list of issues that fell under this code, and in some cases, this led to the creation of new codes. For example, I found my interviewees using the idea of a ‘continuous improvement cycle’ in different ways. Staff 7 seemed to only be referring to continuous improvement in the content of the TBL report, while Manager 1 was more clearly referring to the reporting process. I was curious to find out if this concept was ever raised during my interviews in the context of improving performance, which did not turn out to be the case. So, in this case, I initially responded to this developing interest by including such comments under the triangulation code. Then, when it became clear that this term was being used by several interviewees, I created a new code for it.

The collation of such themes has been an effective way to pool different interviewee responses to the same issue or question. These collations were then examined to characterise and classify responses, especially to identify common or shared experiences of learning and other patterns of change, as well as to identify exceptions to this. Other coded collations provided a pool of comments or situations that exemplified constraints on change, and the effect of power relations in decision making processes and its effect on outcomes.

To supplement this coding process, I also collated questions I asked relating to some of the key themes. This was partly to check how many interviewees might have missed out on being asked a specific question, but also to check on the different ways I posed the questions. I was particularly interested in examining this for the most open question on my list concerning what they thought had been the key outcomes to date from the TBL reporting process. I collated all the responses to this question and characterised them according to key words and concepts used. The results of this exercise are presented in the next chapter. The process of collating the different ways I had posed this one question also enabled some self-reflection on the quality of the interview process. In some cases, the question was framed so that the respondent was expected to provide examples of practical changes rather than broader outcomes of the process, and this swayed these interviewee responses to
preference change outcomes over other outcomes such as increased awareness or capacity.

Throughout this process of data analysis, I compiled a list of potential results. Each time a new idea came up that I thought was relevant to how I would present my results, I added a set of notes to this document. When reading through these results, I would occasionally need to re-order the list to put similar results together. The benefit of this document is that I was able to use it as the basis for presenting my research results. The coded material could then be used to substantiate and exemplify how I had reached those conclusions through the use of quotes. It was through the development of this document that I gained an overview of my key results which are presented at the start of the next chapter.

Before I move to the next chapter, it is interesting to note that prior to this process of thematic analysis, I had already come up with set of preliminary case study results based on my initial impressions after transcribing the interviews. At that time, I gave a seminar to my university faculty where I presented these preliminary results. What is interesting is that the key results I presented at that seminar have essentially remained unchanged. What has changed is that the contextual factors that are an integral part of case study research became more apparent. This had the effect of adding complications and qualifications to what I had originally presented at that seminar. This complexity is also explored in the next chapter.
Chapter 5
Results: What does the MI case study tell us about TBL reporting?

If you’re questioning it, then you’re actually changing what it is you do (Manager 3)

5.1 Introduction

This chapter presents the results of my case study investigation into whether the TBL reporting process undertaken at Murrumbidgee Irrigation led to any changes that could be interpreted as enhancing sustainability.

One advantage of using a real life context is that one’s theoretical framework is inevitably tested by the unique contextual characteristics of the case study. For example, external stakeholders were not engaged in MI’s TBL reporting process during the period of research. However, as explained, this turned into a positive in that my investigation was able to focus on the role of internal stakeholders. Another challenge was that part of MI's TBL reporting process became intertwined with MI’s corporate plan development based on the Balanced Scorecard (BSC). The integration of the processes made it difficult to discern the impacts of the TBL concept in MI's reporting mechanisms. I have therefore attempted to clarify impacts from the TBL reporting process in the context of other influences.

Through this chapter, I will show that:

1. the interaction between researchers and MI to develop the TBL reporting process contributed to the incorporation of sustainability issues into MI's business plan;

2. the interaction also provided a supportive environment for those at MI seeking greater staff participation in the development of MI’s business plan and key performance indicators;

3. there has been an increase in commitment by staff towards achieving MI’s sustainability-related objectives, but this can be attributed to a number of other factors, not just to the development of TBL reporting;
4. the notion of TBL reporting as a continuous improvement cycle has been readily adopted by those actively involved in the process, but most of my interviewees did not consider that TBL reporting was connected to the process of future business planning;

5. it has been difficult for MI to respond to ‘bigger picture’ sustainability issues as many are seen as being beyond its sphere of influence; and

6. the tendency to use public reporting to manage public impressions has so far undermined the potential for MI to use it to engage external stakeholders; collaboration with external stakeholders on sustainability-related issues is enacted through other means.

The bulk of the evidence presented in this chapter is drawn from the thematic analysis of interview data. Participant observations are used to verify and – where appropriate – provide additional support for the evidence acquired through the interviews. In particular, I draw on observations during the final evaluation workshop and notes from three follow-up conversations with workshop participants to identify key changes that had occurred over the two-year period. The evaluation workshop report is attached as Appendix 4.

The structure of this chapter is based on the component parts of my research question. Case study data were expected to be most useful in addressing those component questions related to learning, capacity building/engagement and practical change outcomes (as shown in Figure 25 on page 167). To a lesser extent, my interviewees were able to provide insights into other aspects, such as the usefulness of the TBL concept; constraints to change; and the extent that sustainability has been enhanced as a result of MI’s TBL reporting process. I will therefore include findings related to these other aspects as well.

I begin the chapter by presenting an overview of how the TBL concept was perceived and used by those at MI as a means to conceptualise sustainability (5.2). This addresses the component question: what is TBL reporting? The next section (5.3) provides an overview of key outcomes related to TBL reporting as perceived by those I interviewed. As learning and capacity building outcomes are analysed in greater depth in later sections, I use section 5.3 to focus on
practical changes resulting from MI’s TBL reporting process. Bringing interviewee responses related to practical outcomes upfront helps to distinguish between those sustainability-related actions considered a direct outcome of MI’s TBL reporting process, and those driven by other factors which might have been enhanced by the TBL reporting process. Section 5.3 ends with a summary of TBL reporting process outcomes derived from interviewee responses to that question in particular.

The next three sections present evidence focused on learning (5.4), capacity building/engagement (5.5) and the main constraints to change (5.6) drawing on the theories introduced in Chapter 3. I end with a brief analysis of comments that reveal interviewees’ assumptions about the kinds of changes required to enhance sustainability (5.7).

5.2 MI perceptions of sustainability and the TBL concept

I began most of my interviews with a broad opening question on what each interviewee thought it means for MI to enhance sustainability. Such a broad opening question enabled the interview subject matter to be influenced by the interviewee’s frames of reference. From thereon, I only needed to use occasional prompts to ensure the interview covered those topics on my interview guide that the interviewee did not raise.

For the most part, the responses to this opening question were remarkably consistent. Most interviewees immediately referred to the idea of irrigation (MI and its customers) being able to continue “in the long-term” and/or “for future generations”. Of these, most focused on the pressing issue of water supply security, emphasising, for example, that “without Murrumbidgee Irrigation water, there is no community” (Manager 5). Four interviewees proceeded from there to a focus on the need for changes in infrastructure to reduce water losses during water delivery; another four on the need to promote increased crop diversity (through new business ventures and/or increased property sizes) to reduce financial reliance on high water consuming crops such as rice.
Another set of responses emphasised that careful management of the environment was crucial for irrigation to be ongoing:

> If you take for granted that the developed landscape around here is irreversibly changed … then there’s not a lot you can do unless you are able to make a decision to fundamentally change again … It’s pretty fragile country we live on out here. It’s very productive given the right mix of management and application of water … I think we’re intelligent enough and wealthy enough to manage it well through a productive cycle. I think that you have to just try and gather data and respond to the way your environment reacts to [the actions of those who continue to live] here … sustainability is living with the risks that you face in all of those areas. (Manager 8)

Of those who highlighted environmental management as a means to enhance sustainability, seven also used the TBL concept. In general, the TBL concept was used to emphasise that MI’s efforts to remain viable in the long-term required that it go beyond a focus on financial aspects of the business. For example:

> I think that Murrumbidgee Irrigation and the MIA can exist forever really but we’ve got to do whatever we can to make sure that happens – and that’s looking after all aspects of the environment and in that I also include the communities as well. (Staff 4)

> What does it mean for us to enhance sustainability? It means being aware of the broader social context that we live in. It means considering the environment; it means considering communities. It means considering our impacts on all of the above. It means contributing so that we have a future as a community – not just working for our own benefit and our own gain. (Staff 14)

Manager 7 was able to make a clear link between a long-term view implied by sustainability and how he saw the TBL concept applied in the MI context:

> I guess there are a number of elements – external related elements and business related elements. First and foremost [MI] Directors have a responsibility on behalf of their shareholders to make sure the business is sustainable in a business sense. So that one element of the triple bottom line is the financials. Typically though – and I think our shareholders would expect this – our
Directors have taken the view that that’s not just about short term sustainability solvency. They take a very long term view. So in all respects – our asset management, our customer management and our financial and environmental management and social management – it’s taking that longer term view. Our asset lines are typically a hundred years. So we don’t just look at are we financially viable for the next 2 or 3 years; it’s putting aside money for a hundred years out, which is unusual in Australian companies. Likewise our investment in social programs is about long term investment rather than short term fixes. And our environmental programs are also similar – we are looking at 30 year regional environmental programs. So I see our company as different in that respect to most public companies in Australia by nature of our structure and by nature of our long term view of each element in the triple bottom line. (Manager 7)

Manager 7’s reference to social programs concerns ‘Doors’ in particular, a project MI established in 2003 to provide financial assistance to local young people pursuing specific educational or vocational goals that would not otherwise be financially possible (Murrumbidgee Irrigation Limited, 2006, p. 27). Many interviewees spoke with great pride about Doors, describing it, for example, as:

… a fabulous program … we work with one of the local community health organisations to help those kids. We provide some of the organisational capacity and some of the money; they provide the avenue for people to independently make approaches to help. We’ve got a few kids out there now who speak very publicly about it … these kids are great advocates for the community health in itself … which is part of my view of sustainability. (Manager 8)

This pride stems from a strongly held view that MI has always played a crucial role in the life of the community, because its prior entities as public service departments helped create the community, and because it provides water which is the lifeblood for the community. Yet, beyond that as an aspiration, MI’s practical ability to make a difference on the social bottom line was seen to be constrained, as I explore later in this chapter.

The preceding discussion and quotes show MI’s familiarity with and use of the TBL concept. The views expressed in the quotes also build from an implied
view that for MI to improve its TBL performance requires careful planning and action and a long-term perspective. So, in this case study context, how was the process of TBL reporting conceptualised and implemented? A particularly interesting aspect of the MI case study is that the Sustainability Challenge project on TBL reporting was underway at the same time as MI was reviewing its corporate plan, including how MI would measure progress on targets in that plan. MI’s decision to use a BSC approach to internally measure progress against key corporate targets meant that the development of TBL indicators was incorporated into that process. It also meant that MI’s TBL targets were included as corporate targets. Unfortunately, given that the BSC internal measures and targets were still in their genesis stage, MI’s preference was that I be denied access to them and to not include any I came across in my published research. I will therefore only refer to BSC indicators that were used for public reporting (some of these are included in MI’s TBL snapshot pages reproduced as Appendices 5, 6 and 7).

Understanding the link between MI’s TBL reporting process and its BSC planning process was crucial to the way discussions developed during my interviews. It was frequently necessary to clarify between outcomes of the internal BSC planning process (which incorporated TBL aspects) and the public reporting process that had been organised into a TBL format. In my first set of interviews with those who had been involved in planning the TBL reporting process, such clarifications were mutually driven, as we both tried to untangle which causes led to which effects. However, for the second set of interviews, I had to place much more effort in how I phrased the questions to distinguish between effects on MI staff from MI’s external reporting (its public TBL report) and those from MI’s internal reporting processes (through its BSC). Given that the latter was tied to individual and team performance reviews more broadly, my

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80 MI’s BSC includes internal performance indicators at corporate, unit, team and individual levels. Interviewees who referred to BSC indicators or objectives usually referred to their team-level plans. For me to have sought clarification during interviews might have become a distraction from the story they were telling. Also, I think that identifying specific details on objectives and indicators is not as important as identifying whether their development and use had any impact.

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interest was to focus on those aspects that related to the TBL concept and sustainability.

As I grappled with how to conceptualise TBL reporting in the case study context, I developed a mind map that helped me sort through the case study results and their contributing factors. Figure 33 shows part of the overall mind map I developed. It focuses on aspects related to the meaning of TBL reporting in this context, and how this was influenced by the development of MI’s corporate plan and ideas of Sustainability Challenge researchers.

**Figure 33: A mind map of case study results: Part one**

The main points to be drawn from this depiction relate to the distinction I have made between what can be conceived as being an internal TBL reporting process at MI and an external one. In my interviews, I articulated that the internal TBL reporting process comprised the development of TBL objectives and indicators as part of the BSC framework, and how this was used internally to drive changes related to TBL performance. This internal reporting process provided a basis for the development of how MI reported externally on its TBL performance. The potential was there for MI to use the TBL indicators from its BSC framework as part of its public report. Indeed, this was one of the key recommendations I made to MI at the final Joint MI-SC Planning Meeting in May 2006. It was also one of the key recommendations from MI staff at the March 2007 evaluation workshop. To base MI’s public report on its BSC objectives and
indicators would help ensure that each section on MI’s TBL performance could be clearly identified with its relevant corporate objective, as well as the measure used to monitor progress towards that objective. As part of the action plan from the workshop, MI proposed to establish a project team that would “integrate BSC & key performance indicators (KPIs) into TBL format for future Annual Reports with the aim of improving connectivity between BSC and TBL” (from Workshop Report included as Appendix 4).

The view that improved TBL performance required careful planning and action became more explicit as a consequence of associating TBL reporting with the BSC. One of the staff responsible for MI’s reports emphasised that the use of TBL indicators in MI’s annual reports placed emphasis on the “results” of MI’s actions (Staff 10). The other staff involved with MI’s reports added that “we need to take those things into account all the time – not just have a flash in the pan... It needs to be consistent” (Staff 9). A further response emphasised the importance of developing an adaptive approach so that MI’s sustainability-related plans could be flexible enough to respond to any unforeseen circumstances that may arise:

> We’ve got a continually evolving and changing environment that we’re in – whether we’re in drought or not in drought – or whether we’ve got different industries entering our area. It’s looking at making sure that we’re equipped to deal with anything that pops up on the horizon as best we can. (Staff 14)

I was particularly interested in two other responses that reflect the limitations implied by organisational level TBL reporting presented in Chapter 2. The first response emphasises that MI’s efforts to enhance sustainability in the region were dependent on successfully promoting action on sustainability among its shareholders; i.e. “I suppose our shareholders are our bosses if you’d like to put it that way – and their activities really determine how successful the company is as far as water and those type of things [is concerned]” (Staff 11). The other comment from one of the environment officers went further. For Staff 6, working towards sustainability meant that MI had to shift its focus beyond the organisation. It meant that a better understanding of MI’s impacts on regional
sustainability was required, because organisational sustainability inevitably depends on regional sustainability. For this reason, Staff 6 was critical of the TBL concept because it didn’t really help organisations come to grips with the many facets of regional sustainability, and in particular the notion of a political bottom line:

\[
\text{Triple bottom line only considers social, financial and environmental issues but there are other aspects that make for a more integrated approach [such as] issues of a political, legal, institutional or policy nature as well as public perception issues – how the organisation is perceived by the community. (Staff 6)}
\]

A similar sentiment was expressed in a statement more favourable to the TBL concept by Manager 3. He felt that one of the areas in which MI could improve its use of TBL reporting is to “better understand the link between the organisation and the health of the community… so it’s creating that linkage and asking some of the broader questions or grappling with some of the broader issues of sustainability” (Manager 3).

Manager 3 is also making the point here that a desire to address the social dimension of sustainability was linked to the challenge to consider ‘bigger picture’ sustainability issues. These ‘bigger picture’ issues were also sought and raised as a result of MI’s involvement with the Sustainability Challenge project (i.e. the first key result listed at the start of this chapter). While MI staff raised some of the ‘bigger picture’ sustainability issues at the workshop in December 2005 (particularly those that were of a global nature, such as climate change), as a participant in the process, I felt compelled to raise social justice issues (such as distribution of wealth within the region) when these did not arise. It is important to acknowledge this influence as the interaction between MI and the Sustainability Challenge researchers shaped how those in the organisation perceived the TBL concept and used it in their reporting mechanisms.
5.3 MI perceptions of outcomes related to TBL reporting

Now that I have started to clarify how TBL reporting was perceived by those at MI, the next question that arises is what they perceived as being the outcomes of the TBL reporting process. In particular, given that much of the discussion above has focused on the development of TBL related indicators within MI’s internal BSC framework, has the implementation of MI’s corporate plan across the organisation led to any practical changes related to TBL outcomes? The type of practical changes I sought to identify included actions to improve a TBL outcome directly, such as actions to reduce water or energy consumption; or a change in policy designed to improve TBL performance. Changes in organisational culture and processes are discussed in the sections on learning and capacity engagement.

5.3.1 Evidence of practical change outcomes?

From my interview data, I was able to identify a few references to changed practices that interviewees linked to TBL aspects of the BSC framework. Most of these related to changes that were relatively easy to implement, such as using less paper, reducing carbon emissions (a TBL indicator that is now included in MI’s public report – see Appendix 7), recycling construction materials, and water efficiency aspects related to operations:

I think we’re all far more conscious – just even around the office – paper wastage – we’re starting to look at carbon trading options, there’s talk of that as well. (Staff 15)

For instance, there is stuff in our energy efficiency and recycling of office waste – and also waste in the yard – there are some pretty good targets set for that. (Staff 8)

Certainly within the balanced scorecard there have been elements and strategies developed to reduce greenhouse gas – net carbon emissions is one, improved recycling is another … concrete for example. With our capital works program we had huge amounts of concrete that we’d pull out … We will be able to use that as a saleable product not only for our own needs but externally if we decide to do so. It just so happens we have a major construction
program … [and] that eighty thousand tons of concrete will go into road base. (Manager 4)

We’re also looking at changing our operating procedures to reduce evaporation – to catch the water that’s running down drainage channels and reuse that. So, from an environmental perspective I’d say that’s the one that’s been raised in the awareness stakes more than any [other] … We’ve also installed three major storage facilities which we use for capture of rejection water … and then we reuse that thereby … using less water from the river. (Staff 3)

It is these changes to MI’s core operational procedures mentioned by Staff 3 that provide the closest examples of a significant change to MI’s business-as-usual practices. However, they also show how difficult it is to specify whether these developments resulted from the development and use of TBL indicators (supporting the third key result listed at the start of the chapter). Staff 3’s reference to improving the monitoring of unused water that is allowed to escape from supply channels to drainage channels relates directly to a key performance indicator within the BSC. Irrigation Services Unit felt pressured to reduce these occurrences so that they could pass their performance reviews as measured by these BSC performance indicators. Therefore, changes in behaviour resulted from how individual performance was measured using the BSC, rather than from the process of public TBL reporting.

Also, the three storage facilities that Staff 3 refers to were under construction before the involvement of the CRC IF Sustainability Challenge project. It is fair to say that these projects would have been implemented regardless of the development of TBL objectives and indicators, or, indeed, the BSC corporate plan. External pressures related to security of water supply, especially given the drought were at work. These storage facilities were intended to allow MI to capture and reuse water within the system. While MI has constructed a number of storages, the most significant is the Barren Box Wetlands and Storage project.

The Barren Box project provided the highlight for MI’s 2005-06 Annual Report where its benefits across the TBL were highlighted (Murrumbidgee Irrigation Limited, 2006, p. 10). In addition to improved management of water storage in
the MIA, the project would save an average annual 20,000 megalitres from reduced evaporation. This was achieved by constructing deeper storage cells, and allowed the remainder of the area to be revived and maintained as an ephemeral wetland. The water saved was returned as environmental flows back to the Snowy River. Indigenous cultural heritage sites and artefacts were also discovered and preserved. The project therefore represented an idealised win-win scenario and was widely acclaimed as a result. It was also implemented as a collaborative project that traversed MI’s divisional structure, bringing together Environment Unit staff and those responsible for developing assets and infrastructure.

Even though the Barren Box project did not result from the TBL reporting project, the project’s potential to provide multiple TBL benefits was used to help justify expenditure. It is in this sense that the TBL concept was seen as having a direct influence on the life of the organisation, according to one of the staff in the Environment Unit:

People who aren’t really sure [about the importance of MI’s sustainability objectives] can see that the motives are having an impact financially as well … There’s a few of the projects that we’ve been involved with – we did a couple with recycling drainage water – pumping it … the cost was – depends on how you equate the value of water – but we were actually spending money … and it’s strange [that] those same projects were put off or knocked back years before because of the cost. As I say Barren Box Swamp – I think it was [first proposed] ten years ago and was knocked back – I suppose the value of water also increased basically … I think [the triple bottom line idea] allowed [the former Chief Executive Officer] to justify why we’re spending the money on the environmental components – and also the social side of things as well – setting up the Doors program. (Staff 4)

Some interviewees highlighted changes to MI’s water ordering process and supply forecasts as a means to reduce water losses. These changes were attributed to the improved monitoring processes established as part of the development of the BSC plan.

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81 Personal communication with the Environment Unit officer involved; this was an unsolicited comment that came up during an initial conversation with each other about our work.
One of the processes we’re changing is the customer water ordering process. Instead of having a very loose ordering process where people directly place their order today and get their water today … they’re going to implement or enforce water ordering policy on the customers – in any way they can … to deal with the volumes of water we’ve got and get them to the right customers at the right time. (Manager 5)

The time it takes for the water to get from the dams to the farm gate is seven or eight days travel time and that means that we have to base a forecast on a number of things. It may be historic data, experience, customer feedback, operator feedback, prevailing weather conditions, forecast weather – all those things factor into the flow rates that we order from the river seven days in advance basically before we get the water to use … [also] by having remote control [on most structures], it gives us twenty four hour monitoring and it also gives us the ability to change our flow rate and react much more quickly if we have a change in weather. (Staff 3)

Again, it can be argued that these changes may have come about anyway as a result of the drought and the shortage of water allocations. As I analysed the data to clarify various influences on these practical outcomes, the picture became complex (see Figure 34). Internal changes such as new leadership and the process of privatisation were some of the contributing factors identified. A further complication arises when one considers that the cause-to-effect relationships (arrows in Figure 34) are all one-way towards the changes observed. As Manager 6 pondered “which comes first, the chicken or the egg”; i.e. to what extent have these organisational changes in fact become the impetus behind the establishment and improvement in TBL reporting?

The problem therefore with the depiction in Figure 34 is its emphasis on the linearity of the cause-effect relationships. A better interpretation is that these cause-effect interactions are cyclical and iterative in character. For example, even if the drought has been a major influence on changes observed at MI, the interactive and iterative nature of this influence also means that the resultant increased concern for the environment has swayed the way that MI and the irrigators discuss and debate their responses to sustainability issues.
Manager 8 identified MI’s River Reach project as another indirect practical outcome from the TBL reporting project:

_I think River Reach might be a derivative of it – at least in some ways – but it’s also a bloody good business concept. This is the water for the environment – for the river – the options market. But I think somebody like [the Corporate Affairs Manager], who’s had a strong influence on that, has probably brought some of his exposure to sustainability reporting … to drive that._ (Manager 8)

Manager 8’s reference to the options market relates to the use of water trading to deliver better environmental outcomes as well as improved security of supply for irrigators in drier seasons. In wetter winter/spring seasons, when irrigators need less water, they will be able to sell water to those representing the environment to ensure that key ephemeral wetlands are flooded at this time.
The ecological benefits of this proposal have meant that River Reach has become a joint initiative with the regional Catchment Management Authority for the Murrumbidgee Basin. Manager 8’s thought that River Reach could be partly attributed to the TBL reporting discourse seems valid. This is the discourse mentioned above of looking for and promoting so-called win-win solutions.

One of the delightful discoveries during my interviews was of the origin of the River Reach concept. According to Staff 12, it came up during a briefing session organised by MI in response to enquiries by local irrigators concerning the introduction of new water trading rules. The suggestion was made by a young irrigator, as explained below:

> Every now and then you’ll get somebody coming in with an idea for the company. We met earlier this year with three different farmers – one of them was a young guy – he was a son – his father [couldn’t] come in … [and] he came up with an idea within the meeting and it was basically River Reach … [The meeting was to discuss] the cuts in allocation in November and the rules the government [had introduced concerning] temporary transfers … [and] we were trying to explain to them how it all worked, what the rules meant and where they stood and was there anything they could do. The meeting then became generalised talking about what had happened overall and we obviously got onto allocation transfers and environmental water and this idea just popped up. (Staff 12)

This quote demonstrates the impact of an increased environmental awareness among MI stakeholders and shows the benefits for MI of including stakeholders in discussions about sustainability issues (taken up later in section 5.5.3).

Most interviewees were unable to provide a specific example of a practical change arising from the TBL reporting project, but instead referred to learning outcomes. A case in point is Manager 1, who first clarified whether I wanted examples of changes in irrigation practice, or changes at the organisational or individual levels. When I asked for examples at the organisational level, Manager 1 responded in terms of the ability to continually improve – “just raising the bar of what we do” – which was then linked to individual changes of “a new awareness.”
Initially, Manager 7 couldn’t come up with a practical example but then, after pausing to try “to think [it] through”, said:

> Possibly one area where I think concurrently [the TBL project] has worked – I wouldn’t say it’s been the driver – is the level of service to customers and customer satisfaction – better definition of policies around level of service … and the balanced scorecard is trying to get good objective measurement as to whether we’re achieving that or not. (Manager 7)

The difficulty that respondents had in defining a change that specifically resulted from the TBL reporting project is exemplified in this response from Staff 8:

> Well again there you know it’s hard to say [whether] it’s just because of that [the TBL project] or whether it’s that as well as other things. For instance, we are looking at re-negotiating our licence in a very different way than we have in the past … [so that] rather than just monitor, let’s spend half the amount on monitoring and [then spend that] amount on improving. And so there is something happening. It’s a slow process but something is happening and I probably think that this [TBL] project is probably partly to thank for it. (Staff 8)

Staff 8’s response here is also a reference to the role that the Sustainability Challenge project played in facilitating a meeting of MI and other irrigation companies with government agencies that require licence compliance reports. The development of a TBL approach to reporting at the three companies sparked the meeting, and, according to Staff 8, encouraged dialogue on a more outcomes-oriented focus to company reporting, rather than merely reporting on compliance.

In terms of practical changes to MI’s public reporting, most of those involved in the TBL reporting process highlighted the new snapshot page of TBL indicators (a copy of this snapshot page is included as Appendix 5). Both Manager 3 and Staff 8 emphasised the potential of this page to enable stakeholders to monitor progress on key indicators over time.

> If you look at this year’s report compared to last, there are more measures this year than last, and we have towards the front of the document a snapshot type page, which
gives you a few more of those measures. And in future years you’ll be able to do a bit more comparison or benchmarking against those. (Manager 3)

Staff 9 and 10 highlighted this achievement as demonstrating a significant change in the Board’s acceptance of greater transparency.

*I think they [the Board] are coming round to the view that you mightn’t always have a good statistic this year [but] you’ve got to have it so that you can compare it to previous years and you can show how you’re going … I think the snapshot was a good page with comparisons to the last few years. We tried to have a few more graphs in there showing some information, which I hope is transparent to other people.* (Staff 9)

MI later sought to revise its first TBL snapshot page so that the indicators used were more clearly aligned with MI’s BSC targets and measures. This revision took place at the workshop in March 2007 to enable collective input into how this page could be improved. The revised version that was produced in MI’s 2006-07 Annual Report is reproduced as Appendix 6. Significant new environmental indicators included in the TBL snapshot page for the 2007-08 report (shown in Appendix 7 – published as this dissertation was being finalised) are energy use and emissions.

To summarise, it has been difficult for my interviewees to attribute outcomes to the process of TBL reporting and after such a short period of TBL reporting. Most interviewees referred to a general improvement in awareness and capacity; aspects which I explore in greater depth in the next two sections.

### 5.3.2 Summary of outcomes of the TBL reporting process

Learning and capacity building outcomes were the most common responses when I asked my interviewees\(^{82}\) to summarise their thoughts on key outcomes from the TBL reporting process. The way I phrased this question varied according to when I asked it. Because I mostly put the question towards the end of my interviews, it was generally phrased as an opportunity for them to sum up

\[^{82}\text{17 of my 22 interviewees were asked this question and one other interviewee (Manager 4) spoke in broad terms of the outcomes without my prompting. Those I didn’t ask the question had no direct involvement in the TBL reporting process.}\]
their thoughts, e.g. “So, what would you see as being the outcomes to date from the triple bottom line reporting project in summary?” For those not directly involved in the TBL reporting process, I often replaced the keyword of the question so that it focused on change, e.g. “Do you think MI’s efforts to improve its sustainability performance using the triple bottom line has had any impact on and changed the way you go about doing your work?”

The range of responses to this question is shown in Figure 35. The column entitled ‘question keywords’ indicates the focus of the prompt question I used to elicit their thoughts. The far right column ‘response keywords’ is drawn from interviewees’ extended verbatim responses. These verbatim responses are summarised in the middle column.

In general the most common response related to aspects of learning. Keywords such as ‘awareness’ (x 7), ‘inform’ (x 1), ‘education’ (x 1) and ‘staff as students’ (x 1) directly express a belief that learning has taken place, or is enabled to take place. Several respondents went further using words such as ‘think’ (x 3), ‘question’ (x 3) and ‘challenge’ (x 1), which implied their active involvement in their learning experiences. An important set of related keywords which I hadn’t expected were ‘focus’ (x 4), ‘attention’ (x 2), ‘opportunity to reflect’ (x 1), ‘take into account’ (x 1), ‘goal’ (x 1) and ‘purpose’ (x 1). These key words emphasise the value many interviewees placed on the idea that the TBL reporting process provided opportunities for MI to focus on bigger picture aspirations which might otherwise be sidelined by the rush of daily activity.

Another set of responses related to aspects of capacity building. Two interviewees expressed the view that the TBL reporting process had laid the foundations that would enable future development, using words and phrases like ‘a start’ (x 1), ‘systems in place’ (x 1), ‘capacity’ (x 1) and ‘can improve’ (x 1). Some interviewees suggested there had been a change in attitudes (e.g. ‘responsible’ x 2, ‘proactive’ x 1, ‘take initiative’ x 1, ‘diligence’ x 1 and ‘consistent’ x 1) with one comment relating to a need for further change – a need for ‘flexibility’. Others focused on the engagement of capacity (e.g. ‘involve people’ x 1, ‘silos break down’ x 1, ‘build rapport’ x 1 and ‘marketing’ x 1), for which there were both positive and negative responses. Manager 8 believed
Figure 35: Summary table of responses concerning TBL reporting outcomes

<table>
<thead>
<tr>
<th>Who</th>
<th>Question keywords</th>
<th>Answer summarised</th>
<th>Answer keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager 1</td>
<td>outcomes</td>
<td>it’s made staff more aware, and in time shareholders too will catch up - they will be brought along as a consequence of MI having a more definite direction</td>
<td>awareness, significant, capacity</td>
</tr>
<tr>
<td>Manager 2</td>
<td>outcomes</td>
<td>the purpose is to fail an obligation to keep people informed in so doing it does focus MI attention and the key people on the environment and what’s happening in the community, both the achievements and the challenges</td>
<td>awareness, key people, challenge, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Manager 3</td>
<td>outcomes</td>
<td>it has helped us ask ourselves a lot of questions - if you question in effect you’re changing what you’re doing</td>
<td>awareness, key people, challenge, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Manager 4</td>
<td>outcomes</td>
<td>it’s forced me to specify what I really care about (a broader goal of total business direction) focused on how to do it</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Manager 5</td>
<td>outcomes</td>
<td>it’s given me a sense of the environment at various dimensions and to fix problems given us an opportunity to see how we can address those needs</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Manager 6</td>
<td>outcomes</td>
<td>it’s given me a sense of the environment at various dimensions and to fix problems given us an opportunity to see how we can address those needs</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Manager 7</td>
<td>outcomes</td>
<td>it’s raised more questions than it has answered by prioritisation of measures and think through the implications of impacts, and in turn the annual report</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 1</td>
<td>change</td>
<td>if we adopted more people’s - it’s encouraging staff to be aligned with the annual report, MI moves towards sustainability so that there is a better understanding of how MI’s efforts fit into the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 2</td>
<td>impact</td>
<td>it gives us a breadth of issue, an awareness of the bigger picture, more responsible, builds better understanding of MI’s efforts</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 3</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 4</td>
<td>change</td>
<td>it made people aware of MI’s impacts and social well-being of the community and our environment</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 5</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 6</td>
<td>outcomes</td>
<td>it made people aware of MI’s impacts and social well-being of the community and our environment</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 7</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 8</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 9</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 10</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 11</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 12</td>
<td>outcomes</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
<tr>
<td>Staff 13</td>
<td>impact</td>
<td>it’s increased awareness about what’s happening and people thinking about the bigger picture</td>
<td>awareness, key people, change, opportunity to reflect, fix</td>
</tr>
</tbody>
</table>
that the outcomes would have been better if they had ‘involved more people’. However, his idea of involvement was not necessarily one of active participation, but rather one that was much more passive (i.e. seeing staff as ‘students’; raising awareness of MI’s efforts among its stakeholders through improved ‘marketing’).

The remaining set of responses focused on aspects of change, although these responses were partly influenced by the prompt question. A few interviewees recounted that they had experienced changes, including changes in staff culture (x 1), workload (x 2) and increased pressure (x 1). Two interviewees (Manager 3 and Staff 8) made a direct connection from learning (as the process of questioning what MI was doing) to changing what MI was doing. Fixing problems (x 1) and finding solutions and alternatives (x 2) suggested that the process provided an opportunity to re-think ideas that led to practical changes. Others spoke more in terms of changes in policy direction (e.g. ‘take a position’ x 1, ‘prioritise’ x 1, and ‘integrate’ x 1). It is also worth noting that of the five lower level ‘officer’ staff\textsuperscript{83} who were asked this question, all indicated that they believed the process was beginning to change the way they worked.

5.4 Evidence of learning?

I have shown above that the key outcomes of MI’s TBL reporting process most commonly mentioned by my interviewees related to learning. All my interviewees could recount experiences of learning, and most could identify a causal link back to aspects of MI’s TBL reporting process. Manager 1 highlighted learning as the most tangible example of change resulting from TBL reporting because it pushed MI to clarify its purposes behind data collection. The benefit of examining why specific data were collected was also expressed by Managers 5 and 8, and Staff 7, 8 and 10.

\smallskip

\textit{We were just measuring for the sake of measuring with no reason for doing it – we were just reporting on these}

\textsuperscript{83} i.e. those staff who were neither managers nor coordinators within the MI hierarchical structure, and thus had minimal or no responsibilities in supervising other staff. They included channel attendants, environmental officers and customer service officers.
measurements – but why? Actually that’s probably the best example of the lot. So focus has now come around to measure what. There’s things we have to measure because we have to – to meet our licence – but the push has come from – and I’m sure it’s just from a greater awareness from doing all this – to actually now go out and target things that we can use and that we can benefit from. So the best example I can give off the top of my head without thinking about it is probably that report [referring to the 2005-06 MI report]. It’s improved so much. And the people that deliver it are actually excited about it – and I’ve never seen that before. (Manager 1)

This quote is one of the few that highlighted the publicly available report. Most interviewees referred to the learning acquired from internal discussions and planning on what to measure and what targets to set as part of incorporating TBL indicators into MI’s internal reporting. The MI Executive hoped to create such opportunities for staff to learn from each other as part of the roll out of the BSC plan from corporate level down to each individual unit level.

Creating spaces for interaction was also a feature of the Sustainability Challenge team’s participatory approach to TBL reporting at MI. In a follow-up conversation to the March 2007 evaluation workshop, one of the staff highlighted this by saying that: “any kind of reflection process like this when you coordinate discussion around what you can do to improve is always useful.” The workshop “had helped to crystallise thoughts” for those present implying that tacit or underdeveloped ideas had become explicit. As noted in Chapter 3, uncovering this kind of tacit knowledge helps to facilitate organisational learning. For this person in particular, it had also helped “crystallise a change in what I think” about how an improvement in the process of reporting could lead to an improvement in outcomes.

I have mentioned that a substantial effort was undertaken to engage staff in the internal performance reporting process using the BSC. Given my familiarity with the design of this process\(^8\), I was particularly interested in identifying

\(^8\) My familiarity was greatly enhanced because the Corporate Affairs Manager had asked me to document the process for MI. This request followed a discussion where we shared a belief that the approach used was remarkable in the extent it sought to engage MI staff in designing MI’s corporate plan.
whether there were examples where staff input had made a difference to the resulting plan, or whether there were examples of staff learning how to enact sustainability targets in the workplace as a result of their engagement in this process.

I was able to uncover one example where integration across MI’s divisions enabled learning to take place. The example was provided by one of the environmental officers and refers to a stage in the internal BSC planning process where performance targets needed to be specified at the ‘unit’ divisional level. This process required negotiation across units concerning conflicting priorities and/or trade-offs. In this example, there were conflicting priorities between three MI divisions about the infestation of weed rushes in and along MI’s canal systems. These weeds grow so rapidly and thickly that they can impede the flow of water through the channels, but they also help to reduce water erosion of channel banks.

[The example] is not really with me – but more with our [the Environment Unit’s] weeds crews and Irrigation Services. Irrigation Services have got to get a certain amount of flow through channels and [so the weeds crews need to] go out and spray to get rid of all the weeds – and from our point of view we want to try and keep the weeds out. But also channel erosion’s another problem as well … the weeds are preventing erosion as well. … It’s something that Assets [the unit responsible for infrastructure maintenance] were saying that we’ve got … to stop erosion and it’s a very expensive process, whereas Irrigation Services are saying you’ve got to spray the weeds. And then all three groups got together and said well if you leave them there – how far do they go down? Do they actually impact on farming? There are some areas where you still have to spray to keep the weeds out, but in other places the channels are wide … and [are] getting plenty of water through anyway. (Staff 4)

Even though only one example like this can be provided, it was clear that the potential for such learning across divisions was seized upon by many in MI. For example, one of the staff in the Irrigation Services Unit referred to the same workshop process where these negotiations took place, highlighting his view that it enabled barriers to break down between units.
I like to take opportunities – like [at] this workshop we had the other day – to disseminate [information about what we do] through to other business units … there’s people [who] said that they found it to be interesting and … weren’t aware of some of the things that we do – some of the volumes of water and the issues that we deal with on a daily basis. From that point of view, I think that helps to break down some of the barriers – not barriers that were put there on purpose – but barriers that are there just because of lack of knowledge. I don’t know what the environmental people do – I can sit back and form an opinion on what they may do – I can form an opinion what I think the assets or engineering people do – but I don’t really have a good understanding of that. And that’s why I’m trying to go down the path of disseminating that information from our business unit to others. (Staff 3)

The need to break down the ‘silo’ mentality within MI was a common theme raised by my interviewees. For example:

Some of the biggest flaws that the company has – and this is the silos bit – is different departments have different understandings about the same thing. Now everybody will say sustainability. To you sustainability means one thing; to me it means another. So we need to draw together … to have a common understanding of where we’re going, what we’re doing and what we need – not just the Board, not just the workers, but also our stakeholders and shareholders as well. (Manager 1)

Many interviewees expressed a lot of enthusiasm for the BSC in terms of its potential to create interaction across units. It was also highlighted as one of the most beneficial aspects of the way in which the TBL reporting workshops we organised were conducted. For example, in a telephone conversation to obtain feedback on the evaluation workshop, the key response was that it provided another useful forum to help MI get out of the silo mentality: “we can work together and find outcomes together”.

Providing these spaces for interaction also increases the potential for change agents to make a difference. Earlier, I quoted Manager 8’s claim that the Corporate Affairs Manager had “a strong influence” on the development and promotion of the River Reach project. According to Manager 8, the Corporate Affairs Manager had been able to use ideas he had acquired from his exposure
to TBL reporting. In this case, the project could be promoted as providing win-win outcomes across the TBL. The Corporate Affairs Manager is therefore identified as a ‘champion’ or ‘change agent’ using the TBL concept to build momentum towards improved sustainability outcomes. However, the point I wish to make here is not about who these champions are, but rather that the TBL reporting project provided a space for them to exercise their activism. In particular, the spaces in the workshops facilitated by the Sustainability Challenge project allowed these change agents to pursue their agendas through increased interaction with other change agents (i.e. supports the second key result listed at the start of the chapter).

It was this particular project that got us all together at the July Workshop in 05 which is something we had never done before … I guess one of the spin offs of the project has been an increased collaboration between [me and another ‘champion’85] and then having workshops with the other people … with the managers and coordinators … as a group of people. And so having that, to me, I think, is very valuable because that increases the cross-sectional interactions and understandings … I think it is also up to people like myself and [others] to take that further into our own teams – maybe that’s where I need to look at it from now on. (Staff 8)

5.4.1 Single-loop or double-loop?

My main interest in analysing MI’s learning outcomes concerns the character of the learning experiences resulting from the TBL reporting process. In particular, I am interested in the distinction in organisational learning theory between single-loop and double-loop learning.

In Chapter 3, the possibility was raised that MI’s prior familiarity with the TBL concept might mean that their learning experiences arising out of the TBL reporting process would be more single-loop in character. MI’s reporting systems had already gone beyond a focus on financial accountability. There are two reasons to support this view. Firstly, as previously noted, MI has

85 As explained in Chapter 4, I have removed italics from these words to emphasise that it is my choice to describe the person to whom Staff 8 is referring as a ‘champion’ – not that Staff 8 would necessarily disagree with me; it’s just my choice of term, not that of Staff 8.
considerable experience reporting its environmental impacts because such reporting is a licence requirement. And yet, while this is the case, the feedback I acquired during my participant observations was that compliance environmental reporting had become little more than a chore to be completed for government departments. It had little meaning for MI apart from serving as a useful reference repository for environmental data. At the time of the Sustainability Challenge project, there was a growing desire amongst those with whom I interacted at MI for something more useful to emanate from the efforts placed into compliance reporting. Secondly, it needs to be noted that in MI’s annual reports from 2001 onwards, key data from the environmental report had been summarised for presentation as part of a quadruple bottom line narrative format (as an account of MI’s environmental, economic, social, and cultural and heritage performance).

Therefore, what was being learnt here was not necessarily challenging any ‘theories in use’ by the organisation. The view that the process resulted in a broadening of existing aspects of reporting rather than a completely new direction in reporting is supported by the following two statements, both of which referred specifically to the input provided by the Sustainability Challenge project:

… the first thing is just broadening our minds to how others report – what other sustainability indicators and factors might be out there – what are the things we’re actually doing or have been doing but have never reported on which would fit under the banner of sustainability reporting. So I think there has been some learning, just from doing that. (Manager 3)

I guess now, having gone through this process, I can see it as assistance and complimentary to help MI to broaden their outlook. (Staff 10)

On the other hand, those involved in the project also suggested that the TBL reporting process had created questions for them, as noted by Manager 7: “it’s raised more questions than it has answers in the first instance.” This might suggest that the process could be inspiring a questioning of MI’s value systems. However, the examples provided of the kinds of questions raised suggest that
tacit operating assumptions or unacknowledged differences of opinion were being made explicit. For example, there had clearly been substantial debate at the Executive level concerning data on groundwater levels given the number of times my interviewees referred to this issue (specifically mentioned by Managers 3, 7 and 8; and Staff 4, 7 and 10). The proximity of groundwater to the surface relates to the key irrigation sustainability issues of salinisation and waterlogging. Therefore, action by MI to lower groundwater levels would seem to be warranted. However, a difference of opinion surfaced when those on the MI Executive sought to clarify what actions MI could take on this issue, as exemplified by the following comment from Manager 3:

*I think [the TBL reporting process] has raised a lot of questions about what we do and what we have an influence on. For example, we’ve always reported our performance in terms of depth to groundwater in the area which is a key sustainability indicator for irrigation – in any irrigation area. And I guess what comes out of that is we’ll continue to report on it. And then you try to look at how you benchmark your activities and what influence it has on groundwater. You know the truth of the matter is – management activities in relation to managing depth to groundwater have a fairly minor influence on that measure because if you have heavy summer and spring rainfall up it goes and so on. So we’ve started to question – sure that’s an interesting thing to know – and we need to know that … but what we should be reporting on is the initiatives that we think will lead to a better performance through which we can influence groundwater … Are we doing things differently or better or do we have a better understanding of how we’re going because of that? … An understanding of how you’re reporting along what lines and what measures and what does it actually mean – has brought forward these questions. And if you’re questioning it, then you’re actually changing what it is you do. So, it’s early days but I can see that the questioning will lead to a difference in what we’re reporting on and therefore what we’re doing.* (Manager 3)

The example Manager 3 provides suggests that the question is not about the underlying values of the organisation, but rather about the organisation’s existing parameters and boundaries of influence. Even so, the reference by both Manager 3 and 7 to these questions is symptomatic of MI being in the
early stages of its TBL reporting process. The implication is that the processes of learning in these early stages could lead to more substantial changes in the future, especially given the link that Manager 3 made between questioning and changing what MI was doing. Indeed, Manager 3 repeated this point later in the interview: “if you continue to question, in effect you are changing how you’re reporting and what you’re doing.”

Making this link between questioning and change raises the possibility that the reporting process could provide an opportunity for a more substantial evaluation of MI’s corporate strategies:

> You can’t just stand still. Collecting data doesn’t help anyone – unless you’re doing something, learning out of it, making something better – pretty straightforward stuff. We’ve got a fair way to go in terms of our knowledge of water. We’ve got lots of data on water but we’re not really doing a lot with it. (Manager 8)

This possibility comes through more clearly in how Manager 7 elaborated on the kinds of questions that have been raised:

> … [questions] about prioritisation of measures and resources in the company to create those measures – and also it challenges you to integrate much more than you previously did – in the absence of having good environmental indicators like net [greenhouse gas] emissions, you just plough ahead with your asset program to change over 12,000 hectares of horticulture [water delivery systems] and convert it to energy [based] systems. But with the other measure you know is in place in your balanced scorecard, you’ve immediately got to come back and say: does this mean that our environmental program is completely off the rails as a result of another driver over here? So it forces you to start to think through the integration of measures – much more than if you just treat them in isolation … The challenge then is to develop a system of trade offs – and understanding and managing the trade offs. (Manager 7)

It is this questioning of priorities and trade-offs that has the potential to lead to a deeper questioning of organisational values and goals. The trade-off discussed by Manager 7 relates to two environmental sustainability goals: a reduction in greenhouse gas emissions and a reduction in water losses during
delivery. Both goals involve actions within MI’s sphere of influence. However, current action to improve water delivery efficiency is partly achieved by replacing gravity-induced delivery in open channels with pressurised piped systems. The pumps needed to pressurise these systems use mainstream energy supplies resulting in increased levels of greenhouse gas emissions. With time, solutions may be found, such as sourcing power generated with no carbon emissions or through carbon offsets. However, with greenhouse gas reduction as a target, the organisation might seek to embark on potential future new initiatives from carbon trading. If this happens, the core identity of MI as an irrigation water supply company begins to shift towards delivering a broader range of environmental services.

Another staff involved in the process asserted that TBL reporting had potential to prompt a systematic questioning and re-evaluation of organisational goals:

*I think if you start looking at your [reporting] systems … you start basically questioning everything you have done – and why you do things – and how you do things. And I think that’s how I have always seen this project – your project – is that that’s how we can change … In order to be able to put something in the annual report, you need the information. And in order to get the information, you need your systems. And in order to have your systems set up, you need to question what you do, and why you do it and how you do it and that’s how the circle I think is completed. That’s how I see it anyway.* (Staff 8)

This statement and the others above suggest that the learning can and should be (or become) more ‘generative’ and ‘strategic’ in nature rather than ‘adaptive’ and ‘operational’. If so, the learning could be described as double-loop in character. For example, Manager 1 notes that the process of TBL reporting is not just about “*patting ourselves on the back*” for a job well done. More importantly:

*… it does highlight flaws that not just us a company but our area [the MIA] needs to concentrate on more. It’s given us a little bit of direction for our R&D for example … we’re setting strategic plans and we’re setting direction … it’s allowing a better reporting system back to the Board. So it’s more than just the annual reporting that we’re*
However, the apparent potential for generative or strategic outcomes to arise out of the learning process does not necessarily mean that the learning process is double-loop. The question here is whether there is a loop back into future planning to complete the experiential learning cycle. Apart from the isolated examples mentioned, I found little other evidence that the character of the learning experiences to date had the potential to challenge MI’s existing values and operating assumptions. Indeed, it is not even clear that there were many at MI who believed that the reporting process should link back into the planning process.

5.4.2 Does the learning link back to strategic planning?

Several interviewees found it strange when I asked them whether the reporting process was able to feed into strategic planning. The most outstanding example of this was Manager 5 who challenged me for even asking the question86.

Triple bottom line reporting is reporting on the results of our strategic direction. You’re calling triple bottom line reporting and strategic direction all in the one. But you have a strategic direction, which is set by the Board … whereas triple bottom line reporting is a measure of performance … they are statements about performance.

(Manager 5)

A similar view was expressed by Manager 3 with respect to MI’s public TBL reporting in particular:

It’s probably more the other way that I think that the development of the balanced scorecard and the more regular reporting to the Board and the organisation about its outcomes will alter the way that the annual report starts to look and feel. (Manager 3)

And, yet again, from Staff 4: “Reporting is a tool to show how you’ve been going in the past…” However, in this case, Staff 4 continued and in so doing

86 I would not want to leave you with the impression that Manager 5 was a particularly antagonistic interviewee. On the contrary, the level of engagement and interaction I enjoyed with Manager 5 was a direct consequence of our mutual interest and experience with TBL reporting.
captured the possibility of change evolving out of iterative evaluation through the reporting cycle:

...and that [reporting on how you’ve been going in the past] can be a catalyst to improve performance but it doesn’t necessarily. I don’t think the reporting itself says — well that’s good — by doing this report that means we’re more sustainable. So I suppose it’s probably the improvements. It’s a matter of having sustainable reporting that’s easy to understand so people know where we’re up to and how we have been performing. It’ll then provide maybe a catalyst to make change – or say we’re on the right track and to keep on going. (Staff 4)

Staff 4’s reference to ‘improvements’ matches how TBL reporting can develop iteratively. By reflecting on data that are easy to understand, stakeholders can evaluate the company’s performance against its targets. This evaluation can then become a catalyst for change, especially if stakeholders are given the opportunity to re-evaluate performance targets in the strategic plan.

One of the themes from my interview data was the notion of a continuous improvement cycle. My interviewees’ frequent use of the term ‘continuous improvement’ did not seem to match how I perceived this notion and I was interested to explore the different perceptions of this idea. The first time I noticed the term continuous improvement being used was in this comment by Staff 7:

I think the whole basis of triple bottom line is about continual improvements … as long as every year we sit back and review the process: what works; what didn’t; fix it up for the next year … it’s a matter of taking the time to do it. (Staff 7)

However, after I prompted Staff 7 to explain what he thought such a process might evolve, he referred to a staff feedback process to be established by the report compiler. He made no connection to those responsible for corporate decision making, and thus the more strategic aspect of improving MI’s sustainability performance overall. This reflected an earlier conceptualisation he offered of what a TBL reporting process entails:

At the end of the day triple bottom line is a process – it’s not actually going to change the programs that we run –
because triple bottom line is simply about reporting what you’ve done – it does work backwards a little bit – but we’re not going to look at the triple bottom line indicators and then go let’s change all of our programs – I don’t think we’d ever do that. (Staff 7)

Manager 4 also referred to iterative improvements, but in this case the improvements were with reference to the BSC reporting framework:

My understanding is [that] there’s been a number of iterations to get to where we are today. Each time that the company has attempted to do so, it’s gone the extra step. But now we’ve got the [BSC] framework in place and we are actively managing, reporting, and reporting externally and internally on those elements of the balanced scorecard and the business plan. (Manager 4)

These views reflected the dominant view that reporting is a one-way product of the strategic plan. The reference to iterative improvements was to aspects of the reporting content alone (see Figure 36).

Figure 36: The link between corporate planning and reporting: Part one

I noted that Manager 5 disputed the way I linked TBL reporting with strategic planning. However, for the internal BSC reporting process, Manager 5 highlighted how it was a useful means to identify problems, and thereby think about solutions.

Internal reporting should really be focussed on identifying successes and failures so we can focus attention on … replicating those successes and we can go and deal with the problems and out of all of those processes … you’re starting to focus. Because you haven’t really known there’s a problem until you see it. (Manager 5)
By extension, this might include the need to address those problems through new objectives and new indicators, as shown in Figure 37.

Figure 37: The link between corporate planning and reporting: Part two

Learning through reporting; identifying solutions to problems

new objectives
new indicators

solutions (learning)

work with staff (& shareholders?)

problems

report

i.e. continuous improvement in reporting

corporate strategic plan (objectives)

Only a few interviewees referred to continuous improvements as part of a cycle linking reporting to improved performance. These interviewees linked a questioning of what they were doing with the potential to change what they were doing (i.e. Staff 8 and Managers 3 and 7, as quoted above). Manager 8 also perceived reporting as part of the ‘doing’ of the organisation – a process akin to the notion of ‘learning-by-doing’ or adaptive management.

*I think it’s important that we’re not just catching and reporting data [but] that we’re actually saying ‘and we’re going to do this and we did this or we tried that and it didn’t work and we’ll now try something else’; [that] it becomes part of the doing of the organisation.* (Manager 8)

Managers 3 and 7 also expressed the view that continuous improvement in MI’s performance was part of the culture or ethos integral to MI’s role as a good corporate citizen.

*The organisation is a corporate citizen in that it has a role to play that goes beyond turning a dollar and it has a real responsibility to the community and the environment ... and there’s also an ethos to continually improve and do what we’re doing better.* (Manager 3)
However, the way Manager 7 expressed this view suggests that MI’s reporting is driven by a desire to bolster stakeholder impressions of the company rather than an intention to be transparent about those areas where performance is faltering.

*The culture we’re trying to build is one of continuous improvement and using objective measurement wherever possible to help facilitate continuous improvement. It’s just really good to be able to report change and positive change or if there’s negative change help to explain why there’s negative change to underpin people’s value sets and their commitment to the company. … Setting some targets and trying to achieve them and being able to report and acknowledge achievement is really important.*

(Manager 7)

Even so, these views begin to show the potential for MI to use reporting as a means to evaluate on its activities, and to feed that evaluation back into its ongoing process of strategic planning, as depicted in Figure 38.

**Figure 38: The link between corporate planning and reporting: Part three**

- Reporting that questions assumptions; becomes part of the ‘doing’ of the organisation
- corporate strategic plan (objectives) → new objectives new indicators → solutions (learning)
- work with staff (& shareholders?) → problems → question what we do
- Why do we collect the data we collect
- Questioning what we do questions why we do it → new objectives new indicators → i.e. continuous improvement in reporting

Part of the ‘doing’ of the org
So, in terms of whether TBL reporting has led to learning, there is evidence that learning has indeed taken place. However, there is less evidence that those who describe their learning experiences perceive this as the kind of learning that leads to changes in the organisation’s ‘theories in use’. It is certainly clear that only a few would perceive that the experiential learning cycle they are engaged in as part of the TBL reporting cycle is actually influencing future strategies towards improved TBL performance (i.e. Key Result 4 listed at the start of the chapter).

5.5 Evidence of engaging and/or building capacity?

Evidence related to the question on capacity draws principally on comments made during interviews with internal stakeholders. For that reason, I will focus on capacity building processes and outcomes internal to the organisation. Because the development of the BSC has played a substantial role in shaping how MI reports internally on its TBL performance, much of this analysis draws on the process and outcomes of the BSC. After examining engagement and capacity building of MI’s internal stakeholders, I then provide an overview of the reasons why external stakeholders have not been engaged in the TBL reporting process, and whether this is likely to change in the future.

5.5.1 How well did MI engage existing internal capacity?

Most evidence of internal capacity engagement resulted from the roll out of the BSC rather than from TBL reporting specifically. The processes used to roll out the BSC were intended to create opportunities for staff interaction and participation and thus increase ownership of MI’s corporate plan. Most staff interviewed expressed a strong appreciation for this approach; for example:

We’re getting a plan in place now that people can understand and that the staff – from the Executive right through to the lowest level – can see the links from what they do through to what the company is trying to achieve. That’s under this balanced scorecard approach – I think it’s tremendous. (Staff 12)
For my research, I was interested to explore the effect this process had on staff capacities related to MI’s TBL performance, given the inclusion of sustainability-related targets into the BSC corporate plan (an aspect to the BSC which was emphasised by Staff 14 and Manager 5). A strong theme emerging from the analysis of interview data related to ownership. Ownership of corporate sustainability objectives can evolve when staff have the opportunity to translate a corporate sustainability-related target into an individual or team level performance target, thus creating a direct link between their day-to-day work and the overarching corporate strategic direction. Such potential is implied in this comment by one of the environment officers:

*The way that our system is set up now [means] that my personal targets are all linked into company targets – just say that [the company target is to] have a more [water] efficient operating system … I can say well – let’s improve the efficiency of Mirrool Creek by 5% and I’m actually leading to that company target. It’s very straightforward with that – being able to see what the company wants to achieve and how my work is actually doing it.* (Staff 4)

In this case, Staff 4 was able to see how his day-to-day work could contribute to the sustainability-related corporate goal of reducing water losses. Staff participation in shaping how the corporate plan translated into individual and team performance targets also nurtured ownership of the plan, as pointed out by two more senior staff (Staff 13 and Manager 5):

*I think as a whole … particularly engineers – probably even the channel attendants – who are not necessarily known for their enthusiasm for these sorts of things – particularly the older ones – have enthusiasm about it [the opportunity to provide feedback on the design of the BSC at their level] – and they like to get involved in some of the strategic planning and decision making processes … Before it’d be – turn up to work and just do. Now they’re showing greater interest and I think it’s got a bit to do with the fact that they’ve got to feel as though they belong to us – environmentally sensitive, socially conscious and financially sound throughout the organisation – because it all leads to better job security – and their happiness in the job too.* (Staff 13)
MI’s managers also tied performance bonus payments to teams meeting their team level targets – including targets related to TBL outcomes.

I see the balanced scorecard as the key to that. Triple line reporting – to me – if I was an employee – is probably more of an outcome. I work for my job review each year and the job review has to be attached to the balanced scorecard and my pay review and all that has to hang off it. It sounds terrible but that’s the carrot that makes people work. (Manager 1)

From the view of MI’s Executive, the BSC alignment of individual performance reviews with MI’s business strategies is “a tool” that would “assist us to achieve that cultural change” (Manager 4). In this way, MI’s managers saw the BSC as a means to inculcate a commitment to MI’s corporate goals. As pointed out by Staff 14, when individual staff responsibility and accountability for corporate objectives is linked “to progression and remuneration…, clearly then we’ll have traction”. Staff 14 contrasted this with MI’s previous attempts at corporate planning where “there wasn’t any accountability or responsibilities clearly defined” because those previous attempts had failed to “grow some roots” down to the individual level.

It is also possible to argue that the pursuit of MI’s sustainability objectives might be undermined by this link to the payment of a performance bonus. While it might demonstrate that MI is prepared to financially back its corporate TBL targets, these TBL targets are still inextricably linked to MI’s other more financially-focused corporate targets. Indeed, the way the performance bonus is structured gives preferential attention to MI’s financial targets:

The way that the performance bonus [is structured] … is strongly influenced by budget. The first 0.6 of a percent additional payment to all staff would be on the basis that we’ve got to do better than budget and then the next 0.4 percent would be applied … subject to doing better than budget … to those business areas where other key performance indicators within the business plan were achieved … so financial, learning and growth, environment etc – and those that perform best on average across all of those indicators will get preferential share of that next amount of money. (Manager 7)
I referred to Manager 4’s view that the BSC was being used to achieve a change in organisational culture. Manager 4 begins with a reference to MI’s prior existence as a government department.

*I suppose the culture that we had inherited as an organisation was not one of inclusion. So we’re also grappling with aspects of bringing the employees into the equation – making them feel part of the team – making them own, if you like, their company. … Those guys at the coal face have been treated like idiots. They’ve been told what to do; they’re not having input in their destiny. So their culture and their attitude is not where this business wants to go. So we’ve got to engage those guys and get those guys committed and on board.* (Manager 4)

As part of this shift away from a public sector culture, Manager 4 is suggesting that MI has developed a new approach that is supposedly giving greater respect to its ‘coal face’ staff and giving them more input into shaping “their destiny”. This might imply a preference by MI for a bottom-up approach to staff engagement. However, the quote then goes on to imply a top-down approach by emphasising a desire to orientate staff destinies in line with where the business wants to go.

The character of this latter approach was reflected in the wording of the prime BSC corporate target related to staff learning and growth. The BSC objective was to “orientate employee endeavours around company goals”. One of the major changes to an earlier version of the BSC came from the Human Resources Unit. They thought there wasn’t enough emphasis on “a commitment to a healthy organisation”, and that an important component of the BSC monitoring process should include a staff survey to gauge their perceptions of the culture of the organisation and how to improve it (as documented in my interviews with the Human Resources Coordinator and the Business Manager\(^87\)). The Human Resources Unit then developed the survey which was subsequently issued, and the results had just been analysed prior to my first round of interviews.

\(^87\) The Business Manager emphasised that the BSC objective had not changed; the only thing that had changed was how to measure that objective.
Apart from this change to the BSC, no other examples were mentioned of how staff had been able to influence the overall direction of the corporate plan. Indeed, for Staff 14, the engagement process up until the time of the interviews would be better described as top-down and consultative in character:

"[The roll out of the BSC] was top-down. As in the Executive worked it through; they then consulted with managers and coordinators; we then in turn consulted with our team… We certainly made … suggestions which provided feedback to the Executive on their first cut. I then did flow it down to my team [but] they weren’t in a position at that stage – I don’t think – to contribute greatly. It was a very new framework – a new concept. They’d be in a far better position now to be able to provide some more constructive feedback because they understand it a little bit more.\" (Staff 14)

Staff 14 later implied that it was necessary to adopt such a consultative approach at this initial stage in developing the framework, and that MI’s ability to consult more broadly would evolve and improve over time. However, the view that the process up until then had been consultative in nature was in contrast to the view I had previously held of the BSC process. Indeed, very few interviewees saw it as being a collaborative two-way process, which at best remained a future aspiration. For example, Staff 13 referred to a recent television interview with Ricardo Semler, who redesigned the management structure of his Brazilian company Semco into one that was highly participatory, as explained in his book (Semler, 1994). After remarking on how well Semler’s approach was working, Staff 13 added that:

"Maybe that’s something for the future for this company. When you get down to that level, everybody’s feeling as though they are contributing, and they own it. They own what we’re trying to achieve. The funny thing about leadership is that we always want to feel as though we know more than the person below us and there’s a view that the more information that you’ve got within yourself the more power you’ve got. So there’s a reluctance – you know it’s waning, but the reluctance hasn’t dissipated enough to have everybody included.\" (Staff 13)
Further evidence that staff were treated as ‘subordinates’ rather than ‘collaborators’ in this initial stage of the BSC roll out was provided by staff in the Environment Unit. One of the officers in the unit noted that:

I suppose from the environmental point of view we did have a bit of input into it [determining key performance indicators] as a whole unit, but it was just sort of brainstorming … it was our Environmental Manager who’s done a fair bit on that. (Staff 4)

The quote below suggests that while the intention was to be collaborative, to speed the process up, and because it was a first time effort, the process of designing the unit level plan was in fact more consultative and top-down.

To be quite honest, basically [our managers] put our measures in there … I can see the benefits behind it and I can see how it could work, but I don’t know if it worked the best. I actually sat down with my staff below me and we did it together. I think [because I and others at my level] are not managers … we’re not privy to the same information … and basically are just told, and of course you can imagine [that] just didn’t sit right [with me]. (Staff 5)

This statement illustrates the complexity of unravelling the extent of collaboration through the vertical structures. There are several layers at which these interactions occur. A process can be established and guidance can be provided, but each set of interactions is influenced by the individual personalities of those involved and how they relate to others. The critical role of those at the manager and coordinator level is revealed in this comment from Manager 6, who is responding to my question about the level of staff input in deciding what MI reports on in its public reports:

That’s a good question. Again when you say staff do you mean all staff or do you mean … managers and coordinators? … I guess we learn from our interactions with staff but we’re a diverse organisation and I guess we rely on our managers and coordinators … they’re the ones who interact with the rank and file staff and they provide us with feedback. So indirectly we’re getting a broad amount of feedback. But [it] comes back to the responsibility of our reporting obligations and it’s generally probably the Executive and … the Board … they have to be comfortable … that we’re reporting on our statutory
requirements and ... the things we’re reporting on also have to hit the mark on the audience who are going to be looking at the report – and sometimes all staff don’t have a full appreciation of the variety of stakeholder interests that are out there ... To be at the top of all those areas of reporting you’re not going to get all staff to have that comprehensive understanding. So it brings it back to probably a few in the organisation who can relate to the higher level reporting versus the level of reporting that’s more localised internally. (Manager 6)

When it came to discussing staff input into the annual report, there was a consensus that this had been a process where the Executive made the decisions, and tasks were assigned by them to their staff as ‘subordinates’. This is in spite of the fact that the newly appointed Public Relations Coordinator had to rely heavily on staff contributions for the content of the report, and saw staff input as a crucial means to generate a feeling of corporate identity:

You want the people who deal with it every day because, from my point of view, wouldn’t they want to be able to tell shareholders ‘this is what we have been up to’. I think for them it’s a positive reflection on what they have done for the year and what they have contributed to the company. That’s how I see it: not only is this report about showing our shareholders what we’ve done, it’s about our people telling their story. (the Public Relations Coordinator)

On the specific question concerning who decided what TBL indicators were included in the recent annual report, Staff 9 explained that this had been decided by the Executive: “well staff would have put the input but management would’ve had to sign off and would’ve said yes, no, yes, no...” Indeed, others noted that the final list of TBL indicators appearing in the 2005-06 report was different to the list that staff had submitted. Their concern was that many indicators did not match those in the BSC and it was not always clear what objective the indicator was measuring progress against. This list was subsequently revised at the March 2007 workshop involving selected MI staff. However, when I asked if the report could be used as an opportunity for other staff to comment on and evaluate MI’s sustainability objectives, Manager 3 implied that the processes for input depend on the staff being engaged:
I think it’s always useful to test that with the broader cross-section of staff, and particularly those who are contributing their chunks to the annual report. So I’ve got no problem with that. Would you … get a much larger group together to start to influence what might be in the annual report, I don’t know. I think so long as some of the key areas are represented there [and] you have the Executive which represent a broader cross-section, I think that’s probably OK. (Manager 3)

In summary, while plans were put in place by MI management to engage the capacity of selected key middle-level staff, the outcomes were not as successful as had been envisaged. This was particularly the case with the annual report given the degree of Executive control in decisions about what to include. However, it was also the case in the design of the internal BSC reporting framework which remained predominantly top-down in execution. The main way in which MI staff felt engaged as a result of the BSC reporting process was in the extent that they were able to link their day-to-day activity with the broader corporate objectives, and the concomitant increase in feelings of ownership for MI’s corporate objectives, including those related to sustainability.

5.5.2 Evidence of increased capacity?

While interviewees were able to give evidence of increased organisational capacity, it was difficult to attribute these changes to TBL reporting. Other influences were used to explain these changes in capacity. For example, after my question to Manager 8: “Do you think Murrumbidgee Irrigation is in a better position now to make changes to enhance sustainability than it was – say a year and a half ago?” Manager 8 responded (after a long pause) that MI was probably in a better situation now than previously, but that this was the result of external influences:

All I can say is perhaps. … We caught the issues in time and I think we’re fortunate with the weather cycles too – that we went from a wet period, which if it had’ve been able to continue for another twenty or thirty years, may have made a lot of damage out here – perhaps irreparable. But it became a dry cycle which is not pleasant but it actually helps you refocus – include your
environmental performance particularly in terms of water application and your land management. (Manager 8)

Staff 7 expressed confidence that MI could achieve environmental outcomes beyond those determined by its licence obligations. When I asked him what had given MI that capacity, he also responded that the increased capacity resulted from increased awareness brought on by other factors:

Staff 7: I think increased level of awareness … probably brought on by the drought and low allocations – they all now sort of sit up and pay attention a little bit more.

Me: And you’re talking here about people in the organisation…

Staff 7: In and outside … the Barren Box project – an iconic project – brought just about every business unit in the company together … they certainly got a good understanding of how it all fits together … those sorts of projects do wonders internally and externally – and they can see it working.

Me: Do you get a sense that they’re also committed to the environmental sustainability outcomes…

Staff 7: Yes, definitely … not necessarily all of them but the big ticket items in terms of water use and water savings and environmental flows, yeah definitely.

Several officer-level staff (e.g. Staff 1, 2 & 11) also referred to their feelings of increased responsibility and confidence, attributing these changes to MI’s new style of management. One view was that this change in management style resulted from MI’s privatisation. Others referred to new personnel appointed to the MI Executive who were attempting to nurture staff ownership and a ‘team’ identity. Staff 11 attributed the change in style to privatisation, noting that his manager expected him “to take a bit of an initiative and a lead role in the projects that we are managing and doing”:

There’s a lot more freedom and decision making in the way you do things and all that sort of thing. And I think all that’s got to filter down to the bottom – and make the whole business sustainable in the long run. If you stay in those old government ways, you will go backwards. (Staff 11)
Staff 11 provided an illustration of such an initiative:

_If a guy comes in and says to me I want to change my path in drip irrigation…., we can look at it and … give him some ideas to think about and … he comes back and says yes that’s a good idea. We then go to Irrigation Services and say we want to shift this guy’s water supply from here to here – these are the pros … and basically they will then say – yes, okay, we agree. And then we go ahead and do it ourselves. Rather than years ago we would [have to go directly to Irrigation Services and] … say this guy wants to go drip irrigation … and they would say yes that will be fine – and don’t think of the overall picture. We’ve taken a bit of initiative to look at different ways to change – [and] probably have a bit of influence [to] look at the impact or the options to rationalise the infrastructure … so between the two units we worked through it and came to a better result. We’ve got a bit of leeway where we can go and take the initiative and change things._ (Staff 11)

Staff 11’s increased confidence can also be attributed to the increased interaction between MI units, which other interviewees have attributed to the way MI rolled out the BSC corporate plan. Staff 1 and 2 – both channel attendants – suggested that their feelings of greater responsibility and confidence resulted from their superiors being more prepared to support them in conflicts that may arise with farmers:

_I think in the last few years we have been given more responsibility … the company is starting to implement these things to back us up properly – whereas years before [when] we’ve locked down a farmer for a reason [i.e. prevented a farmer from having access to irrigation water for breeching the rules – usually stealing water] he’d ring up the big boss and say ‘my crops are dying’, and [then] they’d ring up and say ‘take the lock off and give him his water’… So now I think the company is becoming a little bit more supportive to us when we do have a problem – which is making a lot of difference._ (Staff 2)

_I can see it has been part of the change in management style. I wouldn’t say it’s a more daring attitude but it’s a more we’ll-back-you-up attitude._ (Staff 1)

Neither of these interviewees directly stated that this change in the attitude of their superiors was related to the promotion of greater responsibility and accountability through the BSC. However, both comments were raised in the
context of responses to my questions on whether any changes had eventuated as a result of the new BSC-initiated performance review process.

These examples illustrate the various internal and external factors that influenced organisational changes (as illustrated in Figure 34 on page 202). However, the examples also demonstrate that the roll out of BSC has served as a catalyst for other organisational changes. Staff 14 emphasised that the BSC was a useful tool if it was referred to regularly:

That [pointing to the BSC framework] will evolve and change daily, monthly, I’m hoping – otherwise it won’t be worth the paper it’s written on. You know if that [the framework] was to stay as it is for the next five years, well forget it – it’s outdated. Things will be redundant. So as long as this [the framework] stays current, it stays close at hand, and people are referring to it regularly, it will be a useful tool. If people don’t feel that it’s useful and it sits on a server or in a paper form somewhere, it will be a waste of time. (Staff 14)

In a similar way, the annual public reporting cycle provided a regular reminder to MI and its stakeholders of MI’s sustainability-related objectives. The inclusion of TBL indicators in the BSC was seen as giving MI increased capacity to consistently track its performance over time. Some of these indicators can now be tracked by external stakeholders as well because of their inclusion in MI’s public reports:

If you’ve got something presented to you year by year, it’s always there – you can actually look at how you’re travelling – but also it just reminds you that it’s important. (Staff 4)

[TBL reporting provides] an annual benchmark reference point to alert the community and to alert the managers of the systems to how we’re travelling against those sustainability objectives – it’s having that connection … allowing them to keep the eye on the ball on how we’re travelling given that we hope that the measures that we’re measuring against – within the triple bottom line items – gives us a real reference point to what we’re talking about in relation to sustainability. (Manager 6)

When I asked Manager 6 whether the process of developing these triple bottom line indicators had led to any practical changes, the response indicated
an appreciation of the iterative and cyclical link between TBL reporting and change, while also extending that to the roll out of the BSC across the organisation:

The way you’ve shaped the question is interesting. …

Obviously there’s an economic, environmental and social set of reasons [for all the energy we put into something like the Barren Box project and] … little social programs like DOORS – and our involvement with water trading programs. So I guess it is a case of what comes first – the chicken or the egg in one sense. Does the report motivate us to do that – or do we do those things and then they sit inside the report? I think it’s a combination. Because [the TBL indicators] are headline items, we tend to put them up there – we tend to focus on them and it’s like a set of street lights. If you see the red stop or the green light or the amber light, you take notice. But if there’s nothing there, you tend not to. So if you put those items up there, I think it helps to maintain focus and the balanced scorecard will be complementary to that. [The BSC] is taking it another step. It’s actually taking those issues and in some way trying to cascade that thinking right through the organisation. (Manager 6)

Managers 4 and 7 also referred to the role of the BSC to enhance TBL awareness across the organisation, but suggested that they still had further to go in changing business practices.

The company’s probably not quite there yet but I believe the company has the capacity to get to that end goal. It might not happen in year one, but I think as our maturity improves and our comfort with the process improves – and part of that’s just distributing it to staff – improving their understanding – we will achieve that … We have the capacity to get there but I don’t know if we’re there yet. (Manager 4)

In particular, Manager 7 pointed to the need to improve how the organisation interprets the implications of the data.

I think we’re yet to see the true level of analysis which will unfold over the next two to three years of the business plan. But getting in place the measures and the understanding is the first level and we’re doing that. And I think what you’ll then start to see is a level of maturity build about the analysis, interpretation and reaction going forward. So I think, yes, it’s provided a focus on collection
and interpretation. Well we’re not at the point where we’ve interpreted, and we necessarily are changing business practice to adapt. That’s the next level. (Manager 7)

In other words, a system is now in place that provides opportunities for MI to track progress on sustainability-related performance. However, what MI needs are opportunities to interactively reflect on what those trends mean in terms of modifying its sustainability-related strategies and actions.

5.5.3 Views on external stakeholder engagement in TBL reporting

By the time of the evaluation workshop in March 2007, MI’s attitude to external engagement in the TBL reporting process had changed. The workshop recommended that processes be established to facilitate external stakeholder feedback on MI’s annual reports, including the use of workshops, focus groups and surveys, a view which was supported by MI’s Managing Director. This was in contrast to a Board decision in 2006 after my co-supervisor and I had submitted a set of suggested processes for external stakeholder engagement to the MI Board. The Board decided not to involve external stakeholders at that stage. When I asked Manager 7 what the Board’s reasons were, this was the explanation:

First tell us [the Board] whether you [the Executive] are running this business fundamentally right. Tell me that we’re not at risk in terms of fraud and theft and insolvency; and that our staff are committed and their culture aligns with the company culture; that we’re on top of our environmental programs and meeting targets. Tell me all those things first in an effective monthly, quarterly, annual reporting framework. Then let’s move on to some of these other things that are the whistles and bells. But at least we’ve got confidence in the key elements of the business first. (Manager 7)

One of the participants at the March 2007 workshop emphasised that the Managing Director’s willingness to consult external stakeholders on MI’s TBL reporting process as a means to identify their needs and priorities reflected the most significant change in attitude since the first workshop held in July 2005. The MI Director’s change in attitude was also highlighted by the three CRC IF
workshop facilitators. They referred to his workshop statements that reporting should be viewed as “more than just a report” and that it should seen by MI as “a means to drive improvement in MI’s performance” (see Appendix 4). This change in attitude reflected an increased confidence in MI’s TBL reporting process across MI. The staff who highlighted this change in attitude commented that “everybody” seemed to have a “more positive attitude to reporting because they can see why they were doing it”; i.e. they were clear about “what we’re trying to achieve and why.” Another staff said that this increased confidence explained why the Executive was more prepared to engage external stakeholders in the TBL reporting process.

It is necessary to turn to my participation observation notes to understand more fully the debate within MI related to stakeholder engagement. From the outset, I had presented a view in favour of engaging stakeholders early in the process and used my presentation at the July 2005 workshop to present such a case. It was at that workshop that a concern about managing stakeholder expectations was first registered. MI subsequently surveyed workshop participants to collect their views on stakeholder engagement. The responses were evenly split between those in favour and those opposed to engaging external stakeholders early in the process.

MI participants at the subsequent Joint MI-SC Planning Team meeting were similarly divided. In particular, the two Executive team members took opposing positions. The ‘champion’ for external stakeholder engagement noted that “in my experience, you get positive results from involving people early on” and by “taking some risks”. The other Executive member suggested that there were other means to engage stakeholders rather than involving them in the planning of the TBL report. Another MI participant added a concern that had been raised at the July 2005 Workshop about the effect external stakeholder engagement might have on “raising stakeholder expectations” and how this would be managed. Instead of continuing this debate, the Executive member in favour of stakeholder engagement suggested a compromise. The compromise was to invite external ‘experts’ to participate in the next stage of the TBL reporting planning process, with one ‘expert’ to be sourced from an environmental
organisation. However, as explained in Chapter 4, the two invited experts were unable to attend.

I was curious to explore the dynamics at play within the organisation that influenced this debate and its outcome. In particular, I wanted to understand whether the ‘champions’ of external stakeholder engagement felt disappointed when no external stakeholders became involved. When I posed this question to the Manager ‘champion’, there was a long pause followed by this response:

_The change came about because my own view wasn’t universally shared amongst the Executive as to how that process should happen. There was a view that we have to get our own house in order first. And there’s still some things this business should be reporting on and working towards and once we’ve got that process nailed down in some way shape and form, we can then go out to stakeholders and then start to understand a little more about what they’d like to see._ (interview with the Manager who had argued in favour of external stakeholder engagement)

It was when I asked the Executive member who had opposed external stakeholder engagement that I first learned about MI’s willingness to at least consult its external stakeholders. I was told that MI would now be seeking feedback from its external stakeholders, even if the feedback sought related to report content rather than the implications of that content for MI’s corporate strategies:

_Yes certainly the feedback loop on the reporting style and content needs to start happening. We will endeavour to try and understand stakeholder views on this year’s annual report and whether they like the trends that we’re heading. I’m not sure there’s enough of a difference between this year’s and last year’s that they might pick up where the trend is. So I guess again it’s iterative. As you fold in changes, getting that feedback to say: ‘Are there other ways we can present this better? Is there information you want to know about the company that’s not there?’ I think in the customer surveys each year we’ll start to try and roll that. In terms of company reporting: ‘Are you satisfied with it? What are the elements you want to see within it?’_

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88 The response was not as smoothly delivered as this; I have removed some of the pauses and repetitions to make the response easier to read.
(interview with the Manager who had argued against engaging external stakeholders at the planning stage)

In this quote, there is mention of a plan to develop a customer survey on MI’s reporting mechanisms. The Manager who championed stakeholder engagement noted his preference for more interactive approaches such as using focus groups.

Of course, statements of commitment are not going to convince everybody that such changes will eventuate in practice. However, in my telephone conversations, it was also pointed out that a more outcomes-oriented approach had been promoted as a result of MI’s TBL reporting project, and that this might lay the basis for engagement to evolve. In particular, the point was made that the annual report was no longer being presented as a “glossy document” for MI shareholders, but rather one that provides “pertinent information”. Specifically, the desire is to present information that “we as employees” see as being the organisation’s objectives and strategies – so that MI will in effect be announcing that “these are our strategies and these are the results” through the annual report. This perceived change in approach to MI’s reporting is also reinforced by the less glossy and more cost effective lay-out provided for MI’s 2006-07 Annual Report.

Another common response to the prospect of stakeholder engagement was that MI engages with its shareholders through other means (supports Key Result 6). At a consultative level, MI conducts an audit of shareholder and community perceptions; some interviewees also mentioned a series of focus groups with internal and external stakeholder groups. EnviroWise was the most commonly mentioned mechanism MI is using to collaborate with its shareholders on sustainability issues. Staff from the Environment Unit also mentioned that they had consulted environmental NGOs like the Australian Conservation Foundation and WWF on specific projects. So, for example, when Staff 7 mentioned that MI had developed “good enough relationships” with environmental NGOs to ring them up for advice, I asked whether MI had ever sought their advice on sustainability reporting matters:
Probably not for reporting, no. But for other areas, yes. I mean particularly for the Barren Box project – we’ve had all those organisations come out and we’ve explained to them what we’ve done and how we’ve done it and they’ve provided verbal feedback – when you’re doing this part of it, consider these sorts of things. Same process: [we] just tell them what [we’re] doing and get them to provide comment on it. (Staff 7)

To conclude this and the preceding sections (5.2 - 5.5), I provide the rest of the mind map introduced earlier to illustrate the complexities of the MI context highlighted above (see Figure 39). The mind map depicts the influence of TBL reporting on outcomes in the context of other developments. It includes a link from Figure 34 concerning the uncertainty about whether TBL reporting was the impetus for organisational change or whether it merely facilitated changes brought on by other influences.

5.6 Constraints on change?

5.6.1 Reporting as impressions management

I noted above that the most significant change to MI’s public reporting had been the inclusion of a TBL snapshot page. I also noted that its inclusion reflected a significant attitudinal change by the MI Board. The MI Board is now of the view that time series data are important to demonstrate MI’s progress, even if the data do not always reflect positive change for a particular year. This change in attitude represents an increased commitment to transparency. However, MI’s use of the public report for impressions management remains a major constraint on TBL reporting becoming an agent for change (Key Result 6).

The main problem in using TBL reporting to openly confront sustainability issues, and discuss ways forward, is that an annual report is the primary means an organisation has to present its image to shareholders and the broader public. Several interviewees bluntly stated their views that information flows to external stakeholders needed to be carefully managed. For example:

*I don’t think we want to hang out the dirty laundry. I think we want to correct the problems where they exist. That’s part of doing business. In any business you have areas*
Figure 39: A mind map of case study results: Part two

Research question: Can TBL reporting lead to enhanced sustainability?

Grappling with case study context

- Corporate strategic plan
- Balanced Scorecard (BSC)
- TBL indicators included in BSC for internal reporting
- MI learning; staff awareness raising
- Potential to use BSC TBL indicators in public report
- Potential for external stakeholder engagement
- Env. unit can promote activities through TBL as win-win
- Consultative only – top down at this stage

What do we mean by TBL reporting? Influence of researchers on ideas about what is TBL reporting

- People performance review
- Internal stakeholder engagement
- Focus on financial and compliance objectives
- Staff learning about sustainability diluted by other corporate goals

Challenge of accounting for bigger picture social & economic impacts

Many internal changes observed might have happened anyway

BUT TBL reporting has facilitated these changes

TBL reporting has given ‘champions’ a slogan to push change agenda

Silos break down

Contributes to enhancing sustainability?

Framework and process is in place = capacity to allow greater engagement in future

Potential for external stakeholder engagement

Focus on financial and compliance objectives

Staff performance review

Performance bonus increases staff buy-in

Staff learning about sustainability diluted by other corporate goals

Corporate strategic plan
[of] less than effective operation, and you just have to deal with them. (Manager 5)

Staff 7 also implied efforts to manage impressions through reporting, and that for external stakeholders in particular, MI should be presented in a positive light; i.e. to show that MI is “actually having a minimal impact on the environment”.

His comment followed my inquiry into his views about the intended audience of MI’s public report – i.e. MI staff, shareholders and/or other external stakeholders.

*I think particularly with this organisation, it’s still fairly young as a private company and it’s still fairly young in understanding the importance of integrating all aspects of the business in an environmental framework or business framework that covers the environment. So that’s one aspect to it. And that would be a different style of reporting than you’d have to stakeholders, shareholders [and] just interested community people. They do have a need – probably a right to know that what we’re doing is not adversely impacting the environment. And that’s a critical part of triple bottom line reporting, I think. So there’s two stages to it – how do you report internally to understand what you’re doing as internal processes to improve those – and then how do you communicate to a wider audience through the triple bottom line that we’re actually having a minimal impact on the environment.* (Staff 7)

It is important to stress that my interpretation of this comment fits in with the overall tenor of Staff 7’s interview. He and others (notably Staff 4 and 13) believed that MI was losing the public relations war, and that environmentalist scientists (like Peter Cullen and Tim Flannery) or NGO advocates (like Don Henry from the Australian Conservation Foundation) received more media airplay than representatives from the irrigation industry (example names provided by Staff 4).

Staff 7 again:

*I think generally the wider audience is now more aware of the impact of the environment … [and] because of that slightly increased understanding – and also the negative impacts from some of the crops we’re growing like rice – rice crops have a bad rap – as do crops like cotton in other areas – and I think it cops a bad rap unfairly – [I think] we can be sort of the impartial people [to] say look – this is*
what’s actually happening. We’re not the Ricegrowers’ Association; we’re not Cotton Australia; we’re a supply company that has a vested interest in managing the environment. If we have an unhealthy environment, we don’t exist. Therefore these are the facts and figures. Because of that wider audience understanding, and obviously things like the drought and low water allocations have really drawn attention to that, we need to demonstrate that we’re doing the best we can. (Staff 7)

Staff 7’s desire for MI to be able to present an ‘impartial’ view could be interpreted by others as mere impressions management.

It is important to note before concluding that impressions management is an exercise targeted at both external and internal stakeholders. Manager 7 referred to the results from the staff survey and explained a need for some executive interpretation of the raw data to avoid undermining the impression that MI was an organisation committed to facilitating a culture of continuous improvement:

We could’ve just sent out the raw results to all the staff and said there it is. But what I’ve done in the last couple of days is provide a level of Executive intuition around the results. For instance, I think most in the company said they were satisfied in their job but in that section on learning and growth, overall it ranked quite low … which meant there’s still some uncertainty and other things that we needed to look for. And the intuition that I got was that there’s uncertainty over the drought and their employment security, uncertainty over wages and salaries at the moment because we’re going through an external review and a lot of that influenced their sentiment in that area. Without trying to describe that to people, it probably wouldn’t be immediately obvious if you just present the raw results. But it’s trying to come up with interpretation and challenging them to think about how we go forward. (Manager 7)

Such explanation and interpretation seems reasonable and most interviewees spoke favourably about the style of this particular manager. However, there was one staff interviewed who made a point of saying that this ‘Executive interpretation’ had been more a case of putting negative survey responses in a positive light.
5.6.2 Boundaries of influence

From many of my interviewees’ perspectives, the main constraint on change was MI’s limited sphere of influence. This issue related to groundwater management in particular and was highlighted because depth to groundwater is a key indicator of irrigation sustainability. It became clear that other external influences far outweighed any action that MI could take to influence groundwater levels; i.e. effective action on this issue was seen as being beyond MI’s sphere of influence. MI’s limited sphere of influence was also associated with the bigger picture sustainability issues, especially those related to broader social issues, as well as some global environmental issues, such as climate change. While MI wanted to track progress against these broader sustainability targets, many remained beyond the influence of a single organisation (Key Result 5).

A good example of an MI target that was within MI’s sphere of influence relates to biodiversity conservation. Staff could see that MI had a direct influence on this target through its revegetation work:

*We’re involved with a few projects. One that I’m working on [involves] vegetating a minimum of 100 hectares but looking up to 200 hectares … [on land owned by MI but also on land owned] by farmers and Crown Land as well … it will actually create a corridor through the middle of the area and then we’ll try to encourage farmers to link in so that their plantings all link into the corridor … So it’s a project that we have a great deal of influence over. We’re the suppliers of government incentives for revegetation in the area as well.* (Staff 4)

Indeed, one of the more positive developments in the list of TBL indicators in MI’s 2006-07 report relates to this work. MI was able to provide data on a huge increase in biodiversity plantings from nine hectares in 2005-06 to 361 hectares in 2006-07 (Murrumbidgee Irrigation Limited, 2007, p. 5 reproduced as Appendix 6).

In contrast, action to address depth to groundwater raised the importance of the need for collective action across the entire irrigator community. Yet the trend is increasingly for organisations like MI to push lines of responsibility down to
individual irrigators, a trend that MI would apparently rather resist. This trend extends to the question of whether MI seeks to regulate individual farmer water use so as to manage groundwater levels.

We're not in a position to control [how much water a farmer uses for each irrigation event]. Governments previous to our company existing were never in a position to control it. And universally, if you look at what's happening with water reforms, they're saying get the hell out of that stuff – we want to push all the lines back on to the individual at the expense of collective obligations and duty – which we're resisting because, particularly at that environmental level, that collective obligation and duty is a very real one. Your behaviour on your farm doesn't just affect your farm it affects your neighbour's as well. (Manager 7)

That said, Manager 7 did acknowledge later that there were some elements of groundwater management that MI did have direct control, such as:

Land forming and [stopping] water ponding for excessive periods of time on-farm will contribute to improvements in groundwater – allowing water to pond basically exacerbates groundwater. The land and water management plan is designed to provide incentives to do land forming, get water off farm as quickly as possible back into our system where we can manage it and we know that will have long term impact on groundwater … We are trying to get a better handle on the relative contributions of each of those areas and the extent to which we do control. So to say we have no control is not quite right. … A direct control would be to get in and actively pump groundwater … that's active groundwater management. We don't do that; we do it indirectly through trying to control what happens on-farm – and we're just trying to understand how important that is versus the other factors that influence it. (Manager 7)

Manager 7 then provided a similar position on MI's sphere of influence with respect to climate change:

In terms of other issues over which we have little control, certainly you start to question when you get into things like emissions. There are some direct things we can do to influence emissions. As to whether we have any impact on

89 Not that Manager 7 mentioned this, but the process of land forming can have negative impacts on biodiversity conservation, so there is another trade-off to consider here.
greenhouse gas abatement, that’s questionable given our size and location and all that sort of stuff. And I guess it’s a question of whether small individuals working in isolation can have any real impact on what are global scale problems. So it’s hard to convince yourself that you’re having a serious impact on greenhouse control through what you do in respect of your fleet management and electricity management and all that sort of stuff. (Manager 7)

Drawing a line on the extent of MI’s influence on socio-economic issues was also difficult, with interviewees seeking a greater level of influence than was probably feasible.

This company has always been schizophrenic in nature. Our direct responsibility first and foremost is delivering water and drainage services to our customers. But because of the nature of what our customers do, we can’t help but take on some responsibility for regional outcomes as well – both economically and environmentally. So the company’s never been quite sure how far you should go to be the regional manager, or how far you should retreat back to just being a water provider. So you track a path somewhere in the middle. (Manager 7)

One of the things that the company struggles with is where you draw the line. For example, with this cutback in water episode, where [does] your social responsibility lie in relation to providing to your customers? And the social – because really we are part of the social fabric of the region – and we pride ourselves on that – if we don’t perform well, it’s reflected directly on the region. … [Yet one of] the external Directors … on the Board … often reminds us that we can’t be part of the social. [The Board’s] decisions have to be for the company first and foremost, not for the MIA region. (Manager 1)

One of the issues related to MI’s efforts to influence social outcomes is in managing how its actions are perceived between smaller scale customers (often focused on horticulture and reliant on more expensive high security irrigation water supply) and those of larger scale ventures (where rice or a mix of cropping predominates and which relies more heavily on general security supply):

It’s very difficult because you’ve got a situation of conflict between high security water users and general security
water users. And unfortunately each one sees the other one as getting an unfair advantage over each other for whatever reason at the time. That’s an area of conflict that somehow we’ve got to get over or control better than what it has been. It’s particularly bad at the moment because of the drought and the early cut-off of irrigation supplies. (Manager 2)

MI was seen as having a greater influence on broader economic outcomes by facilitating regional business developments:

We do have some influence … we probably don’t have any direct measures in the business plan at the moment but there is certainly activity taking place in trying to make this area an investment area of choice. We’re certainly conscious of the need to maintain a level of diversity and value adding locally – and our involvement with a company like Websters who are walnut producers from Tasmania – they were looking for areas to invest in – we actively encouraged them to come here and provided some surety to their early development in terms of water supply to get them here. (Manager 7)

We really need areas of growth and change and that’s where we try and focus on helping new agricultural industries – not so much the processing industries because that’s out of our line. (Manager 8)

The extent of MI’s influence can depend, therefore, on what socio-economic changes are being sought. It can also depend on the perceptions of change agents and the creativity in finding new ways to exert influence, as suggested by Staff 8:

I guess it depends [on] how you look at it too. I guess to a degree it’s how much influence do you want to have as to what you have – because you could probably create opportunities too. (Staff 8)

Given that decisions about how to improve social outcomes is so dependent on how relations between the society and the economy is perceived, it is not surprising that organisations find it difficult to determine their boundaries and strategies in responding to the social dimension of sustainability. To this end, it is now time to return to this question of how sustainability is perceived and what
kinds of changes are seen as being required to enhance progress towards sustainability.

5.7 MI perceptions about the kinds of changes required to enhance sustainability

My interpretation of case study results in terms of assumptions about the kind of changes required to enhance sustainability will be presented in Chapter 6. However, it is useful to assess whether messages on this came through from the interview data more directly. There were not many. Only two interviewees referred to the idea of radical or fundamental change. The first was a passing comment by Manager 3:

*I think the building blocks [for reporting on TBL outcomes] are there … who knows where something like our emissions and climate change is going to lead. Who knows where the impact of MI's business on MI community might lead in terms of outcomes. So I just think we need to continue to build on what we've got. So you won't see anything more radical at this stage – they'll start to emerge from that continuing process.* (Manager 3)

The implication here was that it was too soon to comment on whether TBL reporting would lead to significant TBL outcomes. The use of the word ‘radical’ in this context is unlikely to mean ‘radical change’ but is probably intended to mean outcomes that are remarkable or significant in terms of sustainability.

The second reference was by Manager 8 who questioned the validity of pursuing “fundamental” change. The basis on which he questioned this is the trade-off that is implicit whenever the pursuit of environmental benefits comes into conflict with financial constraints.

*I think there’s still some people in the process that think there remains the opportunity for fundamental change in the landscape usage. I think one of the things they will find when this sequence of droughts finishes is that whilst this is a very wealthy area, because of the sizes of the landholdings, it’s very difficult for that wealth to endure a long run of drought. And it’s going to take a long time before you’ll rebuild their equity to a level where they’ll be prepared to contemplate some of the fancier bits of*
improvements of the landscape. Most of the bits that they’ll address initially after coming out of the drought will be the survival lines for themselves, which is human nature and I wish that we’re trying to change that.

(Manager 8)

Manager 8 refers to an issue of the size of landholdings, explaining later that larger farms will be more viable. The need to improve “economies of scale” was also expressed by Managers 2, 4 and 7, including MI’s desire to attract corporate investors (expressed by Manager 7 and Staff 7). The following is an example:

I think to enhance MI’s sustainability, certainly you’ve got to improve your water use methods, your control of salinity and a whole lot of different things. Maybe [also] upscale some of the size of the farming irrigator operations so you get economies of scale. It’s very much a change in scene, especially this year with the drought of course, which will test a lot of the small landholders. … [By upscaling a farmer’s operation], it gives more flexibility depending on the impacts of climate change – if it is climate change or just seasonal fluctuations – it just gives you a bit more scope to vary your crops. (Manager 2)

I quoted Manager 3’s view above that MI’s pursuit of sustainability would develop as an evolving process. Staff 9 also believed that the process would be gradual:

It is hard – when you’re busy – to always be thinking [about] those things, so it has to be a fairly gradual process … I think it’s a gradual happening awareness. But definitely having such a process like this will help people get their mind around it. And like I said, if you have facts and figures to back it up, it makes people really realise what’s happening. (Staff 9)

Such an approach was also supported by Staff 8, whose response captures a preference for a ‘small steps’ approach rather than tackling a much bigger change strategy:

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90 I sought clarification on what Manager 8 meant by these “fancier” things that would fall off the agenda and the response was: “things like some of the investments for biodiversity and particularly terrestrial biodiversity – you’ve got to be a funny sort of a person to care too much about that.”
I think we need to have a go at what we do now – like with the balanced scorecard [and] triple bottom line stuff first – get some experience and some confidence up on that and then maybe build on that from there – rather than starting something really big before we really know exactly what we’re doing. (Staff 8)

There was one suggestion I put to all my interviews that would have entailed a substantial change in approach. This was an idea first raised by one of the Executive team. Its genesis was an initial confusion about the purpose of the Sustainability Challenge project. Instead of it being a project to develop TBL reporting at an organisational level, this manager thought the project would develop TBL reporting at a region-wide level. Together with my reading of the literature at the time, this set off a thought chain that resulted in one of the criteria in my TBL reporting evaluation framework; i.e. to what extent does the TBL reporting process enable those involved to collaborate with other organisations on issues that the organisation cannot deal with on its own? Perhaps what was required was not TBL reporting at an organisational scale, but TBL reporting undertaken by key stakeholders at a regional level. When I put this suggestion to my interviewees, it was impressive to see how inspirational an idea it became. This is just one example:

I think one organisation or one industry can have little impact standing alone. But collaboratively, joining those industries together, obviously it’s just common sense that you will have far greater opportunities to impact those big issues. (Staff 15)

5.8 Conclusion

Through this chapter, I have sought to give maximum space for you to hear from those I interviewed. I have shown that MI’s TBL reporting process has already provided space for learning and engaging capacity in spite of the short time period. However, I have also had to deal with the ‘messiness’ of a case study context where there are a number of other social events and processes influencing outcomes. This has required me to sort through these influences on the various learning, capacity building and change outcomes I have described.
In particular, a feature of the MI case study has been MI’s effort to engage its staff. These efforts have led to increased interaction across the horizontal and vertical structures of the organisation, even if interactions across the vertical structures to date are best described as top-down and consultative. While these efforts have been part of its BSC corporate visioning process, it has also included TBL components of sustainability. Because of the increased interactions, MI has been able to instil an increase in commitment among staff to achieve MI’s sustainability targets. I have also provided some examples of changed practices as a result.

The other feature of the MI case study concerns the challenges that the TBL reporting process has presented to those involved. A key message that has come through the voice of my interviewees is that to confront these challenges, they are beginning to question what they are doing, which lays the basis for them to start to change what they are doing. The BSC process in particular has given MI the capacity to monitor TBL performance trends over time. However, MI managers recognise that they need to develop further capacities in interpreting the implications of the trends being monitored. I have also argued that there has been insufficient focus on linking these reports on past performance with how MI re-evaluates its future strategies.

While MI is committed to improving how it learns from its internal and external reporting processes, there are also a couple of constraints that will be difficult to address. These concern the tendency for its external reporting to become an exercise in public impressions management and the difficulty in identifying practical objectives that MI can achieve on key sustainability issues, especially those of a global nature and those which relate to the social dimension. A potential way forward was mentioned towards the end of this section, and that concerns the prospect of undertaking TBL reporting as a collaborative exercise at a regional level involving multiple stakeholders.

The question that has not yet been adequately analysed concerns whether or not all of these developments and possible future developments are actually going to make a significant enough difference in terms of what organisations can do to enhance sustainability. This is analysed in the next chapter.
Chapter 6
Discussion:
Can TBL reporting lead to enhanced sustainability?

*It depends how you look at it … you could probably create opportunities too.* (Staff 8)

6.1 Answering the ‘big question’

This chapter provides my interpretation of whether TBL reporting can lead to enhanced sustainability – a big question indeed. However, interpreting the link between TBL reporting and the bigger picture goal of enhanced sustainability is required if anything meaningful is to be drawn from my research.

It is important to begin by recalling a point I made at the outset that sustainability should be understood as a process of increasing our adaptive capacity to shift away from unsustainable practices. Even with this in mind, phrasing the question ‘Can TBL reporting lead to enhanced sustainability?’ as a direct and linear cause-effect relationship remains a simplification. TBL reporting by itself is hardly going to create a process of enhancing sustainability. Its influence is cyclical and iterative along with other influences that contribute to enhanced sustainability. I have noted that the question could be rephrased to more accurately capture my purpose; e.g.: Can TBL reporting contribute to the process of enhancing sustainability? Is it a helpful or counter-productive exercise? Does it facilitate the kind of changes required or does it divert valuable time and resources away from implementing the kinds of changes required? The more I refine the question, the more it takes on assumptions about the kind of changes required to progress towards a more sustainable future. However, what is important in this chapter is not how this big picture question is posed, but rather how it is answered. The question prompts a discussion, and through the ensuing discussion, new and more refined questions are put that allow a more thorough answer to be presented instead of a simple and unhelpful “no”. The main purpose of this chapter is to create
discussion, not end it. My aim is to stimulate ideas for future discussion and research agendas.

My discussion is largely framed around the typology of the kinds of change required to enhance sustainability that was presented in Chapter 3. In particular, I will exploit the blurred nature of the distinctions between the three types: status quo, reformist and transformational (see Figure 16 on page 121). A cycle of TBL reporting may have the potential to shift attitudes away from an acceptance of the status quo by creating opportunities for reform through continuous incremental change and iterative learning as part of an outcomes-oriented approach. Interventionist research could be created to increase momentum for such reformist change approaches. But the agenda for change does not need to stop here. I will also examine the strengths and limitations of TBL reporting as a reformist strategy for those seeking opportunities to pursue more transformational change agendas.

I explore the potential for transformational change in two aspects. A transformation can occur through a shift in paradigm; i.e. a shift in the broader thinking upon which individuals and organisations make critical decisions related to sustainability enhancement. In this sense I am particularly interested in exploring the potential for such shifts in assumptions to develop from TBL reporting processes that focus on learning and participation. However, transformational change is also understood as being about structural change, such as a restructuring in the way the economy or society functions. Such structural changes are often related to a crisis or critical moment, which is of particular relevance to the current context of irrigation sustainability in the Murray-Darling Basin.

As I write this dissertation, the sustainability of current water use and allocations across the Murray-Darling Basin has reached a crisis point. For the past two years, there have been critical water shortages in the Murray-Darling Basin, with record low inflows into the river system. For example, from a Murray-Darling Basin media release in December 2007: “Inflows over the 2006/07 water year were just 55% of the previous minimum on record. The two years to the end of November were the lowest two year inflows on record” (Murray-Darling Basin Commission, 2007). Monthly low flow records are more frequent. The June 2008 inflows were lower than the
suggests these water supply shortages are likely to become more common with climate change. The crisis has been regularly aired on nightly news reports and has the attention of state and federal governments. The language is becoming increasingly radical, and radical solutions are receiving greater coverage. These developments suggest that assumptions are already shifting. There is an increasing acceptance that urgent structural changes are required in the system of water allocations across the Basin in order to sustain agricultural production in the Basin, the communities that are dependent on it, and the environments upon which both depend.

This imminent basin-wide crisis provides an indicative microcosm for the impending global sustainability crisis. In both cases, evidence of an impending crisis from over exploitation of finite resources has been mounting for years (cf. Gray, 2006a, p. 82). Strategies need to go beyond mere efficiency improvements and deal with the question of what is sufficient use. This broader context provides a challenge to test the relevance of TBL reporting in the face of a critical and urgent need for structural change.

This chapter begins with my interpretation of the results of the MI case study in terms of whether or not MI’s TBL reporting process is likely to lead towards enhanced sustainability (in section 6.2). To do this I will use the evaluation criteria identified from other documented case studies as presented in Chapter 2. My interpretation of this potential considers the current and potential future changes in MI’s TBL reporting process. I will also consider the implications of the MI case study for the broader possibilities of change that can arise from TBL reporting processes in other contexts. This process of generalising what can be

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\(^{92}\) The CSIRO is currently producing a series of reports related to sustainable water yield across the Murray-Darling Basin, and factoring in various climate change predictions. The report that received greatest media attention was that related to the River Murray catchment region, with worst case scenarios being cited where “flows to the Lower Lakes at the mouth of the Murray would fall by 69 per cent by 2030” from current average levels (Rudd & Wong, 2008). Of course, there are less dire predictions, but what is probably more pertinent to note is that current water use allocations have already “reduced the average annual flow at the Murray mouth by 61%” (CSIRO, 2008, p. ii) and that this has created a situation where exposed sulphates in the soil will acidify rendering the lakes an environmental disaster and useless as an irrigation supply for surrounding farms (Fitzpatrick, Marvanek, Shand, Merry & Thomas, 2008).
learnt from MI’s experiences for other contexts – or ‘analytical generalisation’ (Yin, 1994) – is crucial for the broader interpretation of whether TBL reporting can become a useful tool to enhance sustainability in other contexts.

From this foundation, I will then present my interpretations about TBL reporting more generally. This is where I present ideas on how to make TBL reporting a more effective agent for change towards enhanced sustainability. Two ideas are presented: the opportunity of collaborating with and empowering workplace activists motivated by aspirations of enhancing sustainability; and the potential to develop a collaborative approach to TBL reporting at a region-wide scale.

6.2 My evaluation of MI’s TBL reporting process

It is important to make a couple of comments before I present my evaluation of MI’s TBL reporting process. First, the approach I adopt below has a different purpose to that for which the evaluation criteria were designed. The criteria are intended to provide prompts for discussion resulting in a formative evaluation for those who use it. To this end, I have already provided my key impressions of MI’s TBL reporting process to MI as a participant of the workshop in March 2007 as well as throughout my involvement with MI. The evaluation I present here is directed at making more general and summative comments about TBL reporting more generally, using the criteria as a means to link back to the literature reviewed in Chapter 2. My evaluation also serves as a precursor to the presentation of ideas about how to make TBL reporting processes more effective as tools for change. The second point to note is that my collaboration with MI on its TBL reporting project has been relatively short compared with the time one might expect for substantial changes to be realised. MI is still in early stages of the process of change which means that my interpretation relies on a degree of speculation about the potential for future changes to develop based on current developments and attitudes.
6.2.1 Desired outcome: Collective ownership

Figure 40: Evaluation criteria related to stakeholder engagement

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To what extent are the staff and external stakeholders involved truly representative of all stakeholders who should be involved?</td>
<td></td>
</tr>
<tr>
<td>2. To what extent are staff and external stakeholders empowered to have a voice throughout the process, including when identifying the goals of the process, what the TBL sustainability issues are, what indicators are used to monitor performance against these issues, and when making decisions on how to respond to the issues raised?</td>
<td></td>
</tr>
<tr>
<td>3. To what extent are those with responsibility over the organisation open to new ways of thinking, to hearing and incorporating input from stakeholders and to changing their governance structures towards more team-based decision-making processes?</td>
<td></td>
</tr>
</tbody>
</table>

The three criteria that relate to stakeholder engagement assess the extent that the TBL reporting process has become collectively owned by those with responsibility for the organisation, the staff they employ and other external stakeholders.

6.2.1.1 External stakeholders

A feature of the MI case study was the reluctance amongst managers to engage external stakeholders (Criteria 1 and 3). Those in decision making positions wanted to be confident about their TBL reporting objectives and indicators before inviting external stakeholder input. There is considerable potential for greater engagement of MI’s shareholders and other external stakeholders as the process evolves into the future. I would argue that engaging MI’s shareholders in decisions related to MI’s TBL performance is crucial for MI irrigators to share ownership and collective responsibility for the sustainability issues they both face. A problem is that discussions with shareholders on how to enhance sustainability may fall prey to shareholder concerns about short-term financial viability over long term TBL sustainability (a sentiment that came through the interviews - e.g. with Manager 8). I would also argue that there is also a danger of dressing sustainability within a discourse of conventional business logic rather than as part of a shift in thinking. This is why I argue that it is important to include a range of external stakeholders (Criterion 1) and to adopt participatory learning processes that can help to reveal hidden assumptions that constrain efforts to progress towards sustainability (cf.
Thomson & Bebbington, 2005). Engaging those stakeholders who advocate and/or undertake research for the environment and/or social justice provides a vital counterpoint to evaluate the actions proposed in terms of their TBL effects and trade-offs (Criterion 1). It can also bolster the agenda for change being pushed by internal stakeholders concerned about the environment and/or social justice.

Of course, to simply state that external stakeholders were not involved in MI’s TBL reporting process disguises the full complexity of the MI reporting process. Such a statement does not take into account the engagement of myself and the other Sustainability Challenge researchers (Criterion 1). Also, even though other external stakeholders have not yet been consulted, those in leadership positions have expressed a commitment to do so in the future (suggesting a shift with respect to Criterion 3). Yet this commitment focuses on MI’s shareholders as the key audience for their annual reports, rather than other external stakeholders (Criterion 1), and feedback is likely to only be sought on the usefulness of the TBL report indicators and content, rather than on MI’s TBL objectives and strategies (Criterion 2).

6.2.1.2 **Internal stakeholders**

On the other hand, the level of staff ownership of the internal TBL reporting process (Desired Outcome 1) benefited from a focus on learning and participation (Criterion 2), which is a credit to the approach adopted by MI’s management team (Criterion 3). Management commitment to staff participation and learning is particularly evident in their desire to use the BSC reporting process to facilitate staff interaction in determining its outcomes (Criterion 2). It is also evident in the preparedness of MI managers to rethink their assumptions about how MI can contribute to sustainability as a result of these internal interactions (Criterion 3). There is some evidence that effective engagement of internal stakeholders has increased the scope for collaborative learning and interaction at MI, and that this helped make action on sustainability more practically grounded in the day-to-day work of the organisation (relates to Criterion 9 below).
Again, the simplicity of the above conclusions disguises the complexity of the case study findings. Even though MI has sought to engage its internal stakeholders in determining the outcomes of the BSC process, this has been constrained by a desire amongst those at the top to direct the visioning process and to use it to inculcate a commitment to the corporate vision as determined by those at the top (Criterion 3). It is early days in the development of MI’s TBL reporting process, but MI’s engagement of its internal stakeholders has not gone beyond consultation, and external stakeholders have hardly been consulted at all (Criterion 2). Without a significant shift in management attitudes, it is unlikely that internal and external stakeholders will be vested with increased decision making powers related to MI’s actions on sustainability, thus weakening their ability to own the TBL reporting process and its outcomes (Desired Outcome 1).

It should also be noted that the kinds of challenges faced by those in leadership positions to date have not brought into question their business-as-usual practices or conventional ways of doing things (Criterion 3). Even the more innovative management solutions like River Reach and the Barren Box project are unlikely to fundamentally challenge the status quo; if anything, they reinforce existing irrigation practices. The projects are focused on efficiency gains and providing greater guarantee of supply given current allocations; they do not necessarily expedite a re-evaluation of what comprises sustainable levels of irrigation water supply at a basin or river level. It is also important to stress that neither of these solutions came about as a result of TBL reporting per se. However, both River Reach and Barren Box arose and/or were nurtured through interactive dialogue on sustainability issues with external stakeholders. Another point is that the innovative character of these two projects builds on a desire to find win-win solutions across the TBL dimensions. On issues where solutions have not yet been found, some of the management team expressed reluctance to publicly display MI’s difficulty in resolving these issues. This prevents a more open discussion with stakeholders on joint problem solving and how to manage trade-offs across the TBL (relates to Criterion 7 below).
The broader implications of this evaluation of the MI experience point to a key recurring theme in this dissertation (Key Result 6 concerning TBL reporting and impressions management). The engagement of both internal and external stakeholders is often undermined by a concern at the top to manage impressions and expectations (cf. O’Dwyer, 2005). The MI case study has shown that it can be difficult for decision makers to relinquish control over the corporate visioning process (Criterion 3), including the determination of sustainability-related objectives (relates to Criterion 6 below). Given MI’s emphasis on engaging its internal stakeholders, I was surprised to uncover the extent that staff influence on decision making was undermined by management’s top-down approach to imposing its corporate vision throughout the organisation (Criterion 2). Imposing an enlightened corporate vision that incorporates increased commitment to sustainability enhancement can be part of a positive process of organisational change (e.g. Roome & Wijen, 2006). However, the need for management control can also be used to manipulate employees’ impressions of their company. As observed in the MI case study, this can occur when managers put a positive spin on negative performance trends, such as those related to staff satisfaction. In some cases, management control over how the company implements its corporate vision can also undermine the pursuit of a TBL view of sustainability by placing greater emphasis on financial bottom line criteria. This was observed in the way MI placed greater weight on budget indicators when determining whether performance bonus payments were awarded.
6.2.2 Desired outcome: All unsustainable practices across the TBL identified

Figure 41: Evaluation criteria related to TBL reporting activities

<table>
<thead>
<tr>
<th></th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>To what extent does the process enable those involved to reflect on the organisation’s broader impacts on society, the environment and the economy as a whole, not just its own financial performance and issues already covered under government regulations?</td>
</tr>
<tr>
<td>5</td>
<td>To what extent does the organisation focus on the social dimension of the TBL to enable those involved to consider what the organisation will do to contribute to improved quality of life of and a more just use of resources to benefit current and future generations both locally and globally?</td>
</tr>
<tr>
<td>6</td>
<td>To what extent is the process of identifying TBL issues and indicators focussed on identifying unsustainable practices in the local context; to what extent are the resulting indicators tested for their completeness with other relevant TBL indicator sets, and presented so that they can be easily understood by all interested parties?</td>
</tr>
</tbody>
</table>

Criteria 4-6 assess the extent that the TBL reporting process enables those involved to consider all relevant sustainability issues and identify unsustainable practices to be remedied. MI has already been open to considering its broader TBL impacts (Criterion 4) given its environmental reporting requirements and its desire to be seen as playing a crucial role in the life of the local community. The key constraint on MI’s desire to consider its TBL impacts is how those at MI perceive MI’s boundaries of influence, an issue experienced by others (Archel et al., 2008). For MI, the issues seen as difficult to respond to because they were beyond the organisation’s influence were those that were global in nature and/or related to social justice (Key Result 5; Criterion 5).

The development of the TBL reporting process at the same time as the BSC corporate plan boosted MI’s ability to develop its key TBL targets and to present its progress against those targets (Criterion 6). The TBL targets became an integral part of the corporate vision, and ensured that the TBL indicators were relevant, well defined and clearly linked to corporate targets. The inclusion of a TBL snapshot page in MI’s annual reports meant that the trends on the indicators selected were easy for readers to understand. The potential exists for increased cross-referencing between report content and MI’s corporate targets. For those TBL targets and measures that are not yet included in the annual report, the fact that they are already defined in the BSC means that MI can draw
on these whenever it decides to increase its level of transparency in its public reporting.

A debate at the evaluation workshop over the wording of the desired outcome for this set of criteria is revealing. This debate was sparked by MI’s Managing Director’s concern that a desired outcome of the TBL reporting process was for MI to identify its “unsustainable practices”, thus focusing only on the negative rather than the positive. Again, this concern demonstrates the problems inherent in using a public reporting process to identify ways to improve TBL performance because of a deep-seated reluctance to display one’s ‘dirty laundry’ (relates to Criterion 7 below and Key Result 6). This reluctance to reveal negative TBL trends justifies the increased pressure on organisations to become more transparent and for research that critically examines public TBL reports (Gray, 2006b). For irrigation organisations, such critical scrutiny might be sought from researchers with experience in identifying ways to remedy the negative environmental impacts of sustainability (Criterion 1). For this reason it was useful to have environmental scientists as part of the Sustainability Challenge project. They were able to provide indicators that could be used to monitor the organisation’s negative environmental impacts. In other contexts constructive criticism might be provided by researchers with experience in monitoring and mitigating the social impacts of organisational activity (Criterion 5). In both cases, the focus should be on identifying practical ways forward and openly evaluating the implicit trade-offs in the way we as a society function (relates to Criterion 7 below).
6.2.3 Desired outcome:  
Ongoing dialogue and reflection leading to change

Figure 42: Evaluation criteria related to processes used in TBL reporting

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.</td>
<td>To what extent is the presentation and discussion of the organisation’s TBL performance used to address criticisms of its performance, to foster collaboration on finding solutions to problems and to generate debate about trade-offs across the TBL?</td>
</tr>
<tr>
<td>8.</td>
<td>To what extent is sufficient time allocated for effective dialogue, reflection and target-setting to maximise well-considered outcomes, including action on issues identified as being the most important rather than the most expedient?</td>
</tr>
<tr>
<td>9.</td>
<td>To what extent is the organisation prepared to change the way it functions so that its efforts to enhance sustainability are taken up systematically across the organisation, with sufficient staff-time, skills development and finances allocated to ensure recommended changes are implemented?</td>
</tr>
<tr>
<td>10.</td>
<td>To what extent does the process enable those involved to confront any unsustainable ways in which the broader society functions and to collaborate with other organisations on issues that the organisation cannot deal with on its own?</td>
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</table>

Criteria 7-10 assess the extent that the TBL reporting process results in ongoing dialogue and changes that make a difference, potentially challenging business-as-usual assumptions ( Desired Outcome 3). A TBL reporting process does not end with the production of a TBL report. The TBL report should be used as the basis to spark the next cycle of reporting. To develop a process of continual iterative learning and change requires that focus extend beyond the content of the report to how the report is used. Using TBL reports as part of a process of continuous learning can provide opportunities for stakeholder engagement in reflecting on and evaluating the trends of TBL indicators used and their implications (Criterion 2; Desired Outcome 2). Areas for improvement can be identified; organisational objectives and strategies can be re-evaluated (Criterion 7). This reflection on what has happened in the past can lead to collaborative decisions about how to improve actions in the future (see Figure 43).

Reflection was the key activity in the learning cycle that did not get sufficient focus at MI (Criterion 8). There was insufficient focus on linking the action of producing a report, to reflecting on the trends it displays, and then back into the implications for future action. Most of those at MI did not make the connection between using the report to reflect on past actions and a re-evaluation of future strategies (Key Result 4). This meant that there was a break in the TBL.
reporting process when seen as a learning cycle. This breakdown occurred because insufficient opportunities were provided for reflection after the TBL report was produced.

**Figure 43: The weakest link in the TBL reporting cycle**

That being said, the commitment of time and resources by MI to the TBL reporting process ensured that a discussion of bigger picture sustainability issues was not completely sidelined by the great rush of daily activity, as is so often the case (Criterion 8). Indeed several interviews placed a high value on the spaces provided through the TBL reporting project for some upfront thinking about the sustainability issues MI is facing (relates to Key Result 2). To an extent, these spaces were not just one-off upfront events. The subsequent internal collaboration across MI's horizontal and vertical structures became an integral part of MI's internal TBL reporting process (relates to Key Result 1), and enabled a concern for sustainability to become part of the daily activities of MI staff (Key Result 3; Criterion 9). Increased interaction resulted in innovative responses to practical issues that arose as part of daily work activities (i.e. approach to weeds management, changes to an individual farmer's water delivery network), even if these issues are unlikely to be seen as the most important in the face of societal concerns about the sustainability of irrigation practice (Criterion 8).
However, MI’s Executive team has been reluctant to use MI’s public reporting process as a means to nurture discussion and debate on actions required to enhance its sustainability performance (Criterion 7; and relates back to Criterion 3). Aspects that show MI in a negative light are avoided whereas MI’s positive actions are highlighted. This is a common strategy used for public reporting, linked to the afore-mentioned tendency for impressions management. Organisations generally prefer to only report problems being experienced when they can also report how those problems are being positively managed; i.e. to “correct problems where they exist” to avoid having to “hang out the dirty laundry” (Manager 5). Because this approach dominates the way organisations undertake public reporting, it is unlikely that the desired scenario can develop where organisational stakeholders have the opportunity to discuss how organisations can avert unsustainable trends that they uncover (Desired Outcome 2). In a similar vein, organisations will inevitably prefer to announce win-win solutions rather than allow perceptions to arise of a positive performance on one dimension of the TBL coming at the expense of another (Tregidga & Milne, 2006). To allow any suggestion of a trade-off between economic progress on one hand and environmental disruption on the other are anathema to organisations (Milne, Kearins et al., 2006), even though much about contemporary society builds on this trade-off for which we are all responsible.

From my discussions at MI, two alternatives to the strategy of engaging stakeholders via organisational reporting have been suggested (Key Result 6). The first is to maintain the existing practice of discussing sustainability issues with specific sets of stakeholders (e.g. shareholders, environmentalists) on a case-by-case basis, such as on specific projects like Barren Box or River Reach. However, engaging stakeholders on a case-by-case basis denies the benefits of regular ongoing engagement through a TBL reporting process (relates back to Criterion 2).

The other idea is for MI to collaborate with other organisations on those TBL issues that it cannot deal with on its own (Criterion 10). TBL reporting could be undertaken as a region-wide activity involving a number of key stakeholder
organisations. Of course, region-wide TBL reporting is not a new idea and has been undertaken elsewhere, usually under contract to a research organisation (e.g. Clark Fork Coalition, 2005; O’Connor et al., 2004). However, the difference of this collaborative approach to TBL reporting would be the collective responsibility for the report through the direct involvement of key stakeholders in its design and use. Such a reporting process would also become a regular cycle of reporting rather than a one-off event. The vision could even become a mandatory collaborative activity for all organisations that have a significant influence on sustainability management at a regional level. For example, it could be tied to an existing requirement in Australia for local governments to implement State of the Environment Reporting$^{93}$ and mandatory reporting requirements for other regional government agencies, such as Catchment Management Authorities$^{94}$.

Those I interviewed at MI were all in favour of this vision of collaborative region-wide TBL reporting, although many were concerned about how to implement it. Overcoming differences in organisational culture within MI has been a challenge. Managing such a process with other organisations raises new challenges, especially given that it would likely involve a mix of private and government organisations, and government organisations at different levels (local, state and federal). There is also the potential for organisations to start blaming each other for problems, especially if there is conflict over the management of a particular sustainability issue. Indeed, at the workshop where MI listed the sustainability issues seen as beyond its sphere of influence, the acronym chosen by the facilitator to label such issues was ‘SEP; i.e. ‘somebody

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$^{93}$ As mentioned in Chapter 2, one of the objectives of the National Strategy for Ecologically Sustainable Development (Council of Australian Governments, 1992) is that governments will “introduce regular national state of the environment reporting” and this in turn has led all state governments to do the same. The NSW government has introduced legislation to require all its local governments to develop a regular State of the Environment report.

$^{94}$ Under the NSW legislation that established the agencies responsible for managing natural resource activities at a catchment scale, each CMA has been required to prepare Catchment Action Plans that include processes for monitoring, evaluation and reporting. These are in line with the Natural Resource Management Monitoring and Evaluation Framework established by the inter-governmental Natural Resource Management Ministerial Council (2002). So, for example, in the Murrumbidgee Catchment Management Authority’s (2008, p. 20) Action Plan, the agency stipulates its commitment to reporting annually on progress of implementing the plan. This will include internal reviews of its strategies as well as external reviews undertaken every five years with the NSW Natural Resources Commission.
else’s problem’. Of course this was intended to amuse, especially given the difficulty that would occur if we had tried to identify the organisation responsible for each of the issues listed. However, the acronym captures a human inclination to look for others to blame. Also, region-wide reporting might be an easier exercise to contemplate in a rural setting where the regional context is well-defined and the number and size of key organisations is more conducive to such a collaborative effort. My discussion of this idea continues at the end of section 6.3.3 below.

6.3 Using TBL reporting to nurture reformist and/or transformational change?

The rest of this chapter discusses the broader implications of the evaluation presented above. Admittedly, there are clear challenges in moving from a two year case study at the initial stages of a TBL reporting process towards drawing out some broader conclusions about the link between TBL reporting and the goal of enhancing sustainability. However, the MI case study experience does indicate that TBL reporting can be used to create opportunities for more proactive (rather than reactive) responses to the challenge of sustainability. Two opportunities are discussed in particular: the potential to nurture workplace activism related to sustainability (6.3.2) and the possibility of generating regional collaboration through TBL reporting (6.3.3).

The particular strength of TBL reporting is that it can provide a means for regular and incremental change, especially if it allows for stakeholder participation in organisational strategising based on learning from the outcomes of past actions. It may also provide space for activism by those who believe transformational change is required. However, I would argue that TBL reporting is unlikely to lead to transformational change in a short space of time. If radical structural changes need to be implemented urgently to address an impending sustainability crisis, other strategies might be more appropriate. For example, in the case of the impending sustainability crisis in the Murray-Darling Basin, decisions will most likely need to be made at the government level, and they will
need to be made urgently. I will elaborate on this argument through the rest of this chapter.

It might be assumed that an organisation embarking on a TBL reporting process is by implication rejecting a ‘status quo’ response to the sustainability challenge. However, this is not necessarily the case. What is important is how the TBL reporting process is developed and used. As I have observed, an organisation like MI can modify its reporting towards a TBL account of performance without linking that report back into future planning on how to improve on that performance (Key Result 4). The emphasis in TBL reports could be to account for what has happened in the past without using that as a basis to make decisions about what to do in the future. Or it could forestall taking actions now on the grounds that future technological developments will provide a better guarantee for a sustainable future. Neither approach will challenge the ‘status quo’.

To liberate individuals from these often tacit and understandable responses to the sustainability challenge requires inspiration backed by a practical process to identify alternative ways to respond. This is the vision that began to appear at MI when its Managing Director opened the March 2007 workshop. By his declarations that “reporting is more than just a report” and that it is “a means to drive improvement in MI’s performance”, he sought to inspire enthusiasm for a proactive agenda for change. It opens up potential for those seeking a means to address the difficult sustainability issues MI will need to face, even if his inspirational words were focused on improving the performance of the company in general, rather than its sustainability performance in particular.

The March 2007 workshop then provided the opportunity and the practical means to link reporting (on the past) to actions (for the future) through the process of interactive reflection based around the TBL concept. Here was an example of how the TBL reporting process can be used to nurture a shift away from a ‘status quo’ response. Undertaking similar evaluations of an organisation’s performance trends on a regular basis creates the means to continually drive incremental improvements. Such an incremental and reformist approach was desired by change agents at MI.
On the other hand, researchers involved in one of the other CRC IF Sustainability Challenge case studies have expressed an alternative view. Their view is that even though incremental changes have their place, they will not deliver the kind of changes required of the irrigation industry to thrive in the future. They assert that:

“There seems to be growing conviction among many members of the irrigation community across Australia that an effective paradigm shift is needed – a change from a production-only paradigm to an environmental-stewardship-with-production paradigm” (Wolfenden & Attard, 2007, p. 30).

Transformational change in this sense represents a significant change in assumptions about the purpose of agricultural activities. The notion parallels that used in organisational learning theory of having one’s ‘theories in use’ challenged. Sustainable irrigated agriculture is more than just an issue of sustaining water supply and application. Considerably more thought is required about how water is applied to address the adverse effects its application is having on the environment and future agricultural productivity (both locally and elsewhere across the relevant basin). Prioritising an ethic of environmental stewardship represents a shift in paradigm that can incrementally develop into a transformation of attitudes across an entire industry. One could ascertain the extent that this transformation of attitudes is being generated by identifying all the small wins that they inspire. Such a series of small wins could therefore be interpreted as being part of “the momentum and basic learnings” created by this ‘revolutionary’ change in attitudes (Weick & Westley, 1996, p. 445).

6.3.1 Sustainability: A question of sufficiency, not just efficiency

In the Murray-Darling Basin sustainability is not just an issue of being more efficient with water. It has become an issue of what – in all fairness – is a sufficient amount of water for irrigation. Improvements in irrigation science have greatly improved the ability for irrigators to increase productivity from the amount of water used. There is also scope for further improvements in water use efficiency should these irrigation technologies be more widely adopted.
From an irrigation industry perspective, the roll out of the technologies and other investments to improve water use efficiency are a critical component of the impression to be portrayed to the public via annual reports of TBL performance.

Any action that MI takes to improve water use efficiency still requires shared responsibility and ownership by MIA irrigators. This is because it is predominantly MI irrigators that will practically implement procedures to use irrigation water more efficiently. Individual irrigators in the MIA are being informed about the possibilities of investing in irrigation technologies and improved farming practices at the farm level. This is seen as part of MI's corporate responsibility and undertaken through its FarmWise and EnviroWise programs. As shareholders, their support is also needed for MI to invest in infrastructural improvements because the cost involved is likely to be carried across to charges on water supplied to them as MI customers.

However, these developments raise the question of whether the focus on investments to increase water use efficiency are forestalling debate and action to address the more difficult issue of current water extraction levels that are at the heart of the long term sustainability of irrigation across the Basin. There is the inevitable potential for a 'contest' to develop between irrigators from different regions across the Basin as each region seeks legitimacy for its desired extraction of water for irrigation supply. In Chapter 3, I noted how an alternative ‘home’ perspective might provide a useful approach to organisational action on sustainability as it allows an organisation to focus on its own responsibilities. The same could be applied to address water use at a regional scale, such as the MIA. A ‘home’ perspective could focus MI on reducing water consumption to a sufficient level fairly apportioned from water available for all other needs across the Basin.

Indeed, the ongoing water crisis in the Murray-Darling Basin raises questions about the sustainability of irrigated agriculture, communities and environments. In the current debate about these issues, the need for transformational changes is no longer a radical idea, but is a recommendation based on science. A recent scientific analysis of the predicted impacts of climate change on agriculture in Australia has concluded that incremental changes may not be enough and that
some transformational changes might be required (Stokes & Howden, 2008, p. 245). While this applies to those farming activities that are already on the margins of financial viability, other scientists such as Young and McColl (2008) are calling for transformational changes in the system of water allocations across the Basin. Young and McColl’s proposal is for a complete buy-back of all water allocations so that they can be re-allocated to ensure a sustainable future for water management in the Basin. The starting point for such a reallocation is to guarantee the maintenance of basic river functions of conveyance and to flush pollutants out to sea, with the next step being to guarantee additional environmental allocations.

The idea that irrigation management in Australia could learn from Israeli experiences was a possibility raised as part of my informal discussions with environmental staff at MI. The environmental and political challenges MI face are similar to those managing irrigation from the Jordan River in Israel. The desire to learn from these experiences also prompted the head of the Australian Conservation Foundation to suggest a tour be organised involving representatives from Australia’s farming, environmental and government interest groups. The 2006 tour brought together the afore-mentioned representatives as well as a social researcher, Ray Ison, through whom I was able to obtain a copy of their report (Fargher, Ison, McLeod, Sinclair & Topsfield, 2008). The reason I mention this report is that its key recommendations capture the dilemma of relying too much on a Promethean approach. Entitled ‘Engineered or ecological futures?’, the report notes that the focus in Israel has been on “an engineered, technology driven water future” as captured by one of its proponents: “we are incurable technological optimists” (Fargher et al., 2008, p. 8).

Such faith in technology is clearly based on a Promethean attitude. It can delude future planners that irrigated agriculture can continue to expand to service a growing demand for produce. Using water more efficiently allows this expansion. However, the delusory aspect to this approach is the inability to deal with the question of what is a sufficient level of water consumption from a river for it to remain ecologically sustainable. Indeed, the “unintended consequences”
of such technological optimism could very well “come back to bite” them (as noted by the same Israeli proponent). By contrast, the authors characterise the Australian context as one that aims to provide “ecological futures aided by technological possibilities”. The challenge they are encountering in Australia is that the ability to pursue such “ecological futures” is affected by changing social and political pressures (Fargher et al., 2008, p. 9).

As a response to this Promethean discourse, then, it is important to put technology in its place. The same attitude applies to those who argue that enhanced sustainability is best achieved through economic progress. The sound use of science and the development of a sustainable economy are best seen as means to an end, as is the preferred conceptualisation of sustainability put by the UK government. Under this conceptualisation, the end goals are to live within environmental limits and to build a strong, healthy and just society (UK Department for Environmental Food and Rural Affairs, 2005, p. 8). To present technological and financial progress as a means towards improving social and environmental sustainability could substantially change the way in which TBL reports are conceived and written. While progress would still be incremental and iterative, at least the focus for sustainability would shift from sustaining business activity towards sustaining a healthy and just society that lives within global environmental limits.

However, in the context of a crisis in river basin management, those calling for radical change may wonder if there is any relevance in pursuing TBL reporting at an organisational level. Any radical solution to the system of water reallocations between irrigation, communities and the environment would require a decision by government. In this sense, transformational change is about the entire restructuring of a system.

In the case of the Murray-Darling Basin, such a transformational change focuses on a restructuring of the system of water allocations. By comparison, the argument has also been put that global economic systems also need to be restructured as an “essential precursor” to enable “a redirection towards sustainability” (Gray, 2006a, p. 82). In both cases, governments are seen as the key instrument for restructuring. In both cases, the role of TBL reporting seems
questionable. Yet, as Gray (2006a) argues, corporate TBL reporting can provide the data to show that current corporate activity is indeed unsustainable, and therefore build the case for government action. In addition, as observed in the MI case study, the process of TBL reporting can also clarify the extent that organisations can take actions to enhance sustainability, and the extent that such actions need to be initiated at broader scales. TBL reporting can provide spaces for learning to occur, and the level and depth of learning can expand through the broader engagement of stakeholders in an iterative cycle.

It is unlikely that interactions between MI and its shareholders alone would result in the kind of ‘double-loop’ learning that would lead to a reduced allocation of water for irrigation in the MIA. Vested interests are at stake, creating resistance to a paradigm shift, so the focus is likely to remain on mere efficiency gains. However, a TBL reporting process can help to lay bare the extent of unsustainability. It can raise awareness of the issues and provide a space to discuss responses. In contexts where there is less urgency in responding to an impending sustainability crisis, TBL reporting can become part of industry-wide efforts to generate incremental shifts in attitude towards new ways of thinking and operating. Even if system-wide restructuring ends up being imposed through government action, an increased awareness about the nature of the crisis might help to reduce levels of resistance to such impositions.

In other words, even though the sustainability crisis facing irrigators in the Murray-Darling Basin requires urgent government action, TBL reporting can still play a proactive role in this and other contexts. It can create opportunities for change that interact with change initiatives by others in iterative and cyclical ways. My attention now turns to a discussion of these opportunities.

6.3.2 Creating opportunities for workplace change and activism

One of the key results from the MI case study is that the interaction between external researchers and MI staff provided a supportive environment for internal champions seeking to influence change (Key Result 2). When I was based at MI, I worked alongside staff in the Environment Unit. During one of my periods of observation at MI, I was amused by casual workplace references to
Environment Unit staff as ‘the frog squad’ and jokes about ‘the spread of the frogs’. These references related to the increase in Environment Unit staff and their subsequent move out of their existing office confines into new areas of the building complex. Beneath the jocular repartee was a view that Environment Unit staff were different and isolated from the main focus of MI’s work. Prior to MI’s privatisation, environmental-related work was undertaken by ‘the scientists’ who were generally viewed with suspicion at the time as the resident greenies. Even though the Environment Unit is now recognised as an integral part of MI’s work, there is still a level of isolation as it is almost entirely staffed by those who have joined MI in recent years.

At the time of these early observations at MI, I was reading Ball’s (2007) work on the potential of workplace activism to become aligned with the interests of external environmentalist and/or social justice movements. Her focus on this potential among public service organisations posed an interesting question: to what extent could such workplace activism develop in a recently privatised former public service agency? What are the possibilities to nurture an alignment of the work of MI’s environmental officers with the perspectives of external environmentalist movements? Can TBL reporting be used to drive change in these directions?

Even though nothing was stated directly, I felt that MI staff with whom I collaborated saw me as an ally to advance the agenda for change. The environmental officers with whom I spoke were clearly committed to increasing MI actions to enhance environmental sustainability. There were others in the organisation who shared my commitment to increase MI’s collaborations with key stakeholder groups and identify ways for MI to enhance social justice outcomes in the region. All those from MI who became part of the joint MI and CRC IF Sustainability Challenge TBL reporting planning group shared elements of this change agenda.

95 I overheard this kind of jocularity over morning tea where staff from across MI had come together, an activity encouraged by management to help break down the barriers between units.
96 Personal communication by one of the CRC IF Sustainability Challenge researchers who had been employed as an NRM scientist prior to MI’s privatisation
The collaborative research experience at MI has implications for other researchers pursuing a change agenda through TBL reporting. MI’s internal change agents expressed appreciation for the spaces created as part of the three workshops organised and facilitated by the Sustainability Challenge researchers. The external initiative behind these workshops is unlikely to be the usual process experienced by organisations deciding to embark on a TBL approach to their reporting. Should an organisation choose to employ external consultants to guide its TBL reporting process, the terms of the consultation are likely to be defined by the organisation employing the consultant rather than the collaborative approach adopted in this case study. It is therefore helpful for researchers to negotiate terms of such a consultancy arrangement on the basis of a clearly argued case for participatory approaches to be used. In my case, I would base such a negotiation on the TBL reporting evaluation criteria, using them as prompts for initial and upfront thinking about how such a process should evolve.

For each workshop in the MI case study, the CRC IF Sustainability Challenge team and MI collaboratively determined its focus and distinct set of desired outcomes. The focus of the first workshop was on reflection and goal-setting exercises to inspire new directions for MI’s TBL reporting. The second workshop provided a space for MI (together with its collaborating research partners) to identify sustainability issues and objectives to address those issues. The final workshop provided an opportunity to reflect on the outcomes from the process implemented to date, with a recommendation for similar reflective workshops to be conducted on a regular basis in the future. MI’s commitment to involve a broad cross-section of staff in the TBL reporting process together with an emphasis on participatory processes created opportunities for interaction and a cross-fertilisation of ideas. Indeed, those at MI who were ‘champions’ of such participatory processes ensured that MI remained committed to the creation of such spaces as part of its corporate visioning process.

The interaction between external researchers and internal change agents at MI raises another question concerning whether external change agents can take advantage of these collaborative opportunities to push a transformational
change agenda. This was a methodological issue faced by the researchers I mentioned earlier who were involved in another CRC IF Sustainability Challenge case study. When explaining their methodology, the researchers involved in this case study make the obvious point that researchers cannot impose their transformational change agenda on others. A transformational change of attitudes can only come through learning and by challenging assumptions.

“It is not possible [for external change agents] to impose transformational change [in thinking]. Among other things, transforming change means that those involved learn new ways of viewing and engaging with their worlds and perhaps even completely shifting their paradigms. For example, an irrigator shifting from the view that “he/she is primarily in industrial agriculture” to a recognition that “unless he/she first attends to good environmental stewardship there will be nowhere to do agriculture” is a shift of paradigm. It will influence all decision-making made by that person within the context of their farming and related operations. People need to want to take such steps, not be forced to.

“Agents of change need to work alongside those in whom change is sought. The change agent’s role is to facilitate learning among stakeholders about the complexities of the social-ecological system of interest, and to assist them to find effective strategies for working within such a system.

“Transformational change is likely to be an emergent phenomenon. This means that the outcome cannot be predicted from the current situation and the actions taken” (Wolfenden & Attard, 2007, p. 30).

So what was the experience in the MI case study? Is there any evidence of a transformational change agenda emerging among MI’s internal change agents? First, I should note that MI’s ‘champions’ of participatory change agenda – those who sought to use TBL reporting to discuss ways to improve MI’s TBL performance – were not as constrained as they might have been in a larger corporate organisation. Like those smaller organisations described by Roome and Wijen (2006), the ‘champions’ for such an agenda were not just Environment Unit staff, they were also present on the MI Executive team, and able to push this agenda at that decision making level. On the other hand, as
Johansen (2008b) found, there can be an increased reluctance for employees to speak out critically because of the associated accountability that comes with increased responsibility. This is a particular danger when incorporating a TBL agenda for change within a broader framework where performance bonuses are based on the achievement of corporate targets.

Second, I question the extent that MI’s ‘champions’ of change would support transformational changes as a means to address the sustainability issues they face. Their alignment with environmentalist causes is more likely to focus on projects related to biodiversity protection and environmental stewardship by property owners. They are likely to be tempered from making any radical criticism about the extent of irrigation water supply currently allocated to the MIA. Any such criticism would not only be seen as overtly political, but also detrimental to upholding a commitment to the sustainability of the local communities so dependent on current levels of supply. Staff in the MIA would need to overcome tendencies towards a ‘contest’ perspective with other irrigation areas and focus on a ‘home’ perspective to workplace action on sustainability. MI staff are thus unlikely to consider radical solutions unless those solutions were part of a paradigm shift across the entire Murray-Darling Basin irrigation industry. It is conceivable that this broader shift in paradigmatic thinking could be strengthened by using TBL reporting to create spaces for learning in and across irrigation industry organisations, which might eventually challenge assumptions across the whole industry. Each small step taken could be part of a broader movement of change to create a sustainable future for irrigation communities and the environment across the entire Basin. However, that would be a slow process; too slow to address the urgency of the current crisis in the Murray-Darling.

So while there was not much evidence that MI’s internal change agents adopted an agenda for radical change, I would still conclude that radical shifts in thinking can develop if spaces are provided to foster internal stakeholder engagement in discussions about how to enhance sustainability. The other related key question is whether these spaces will open up for participation by
MI’s external stakeholders. Again, my expectation is that such interactions will develop, as I explain below.

6.3.3 Creating opportunities for change through regional collaboration

My view has not wavered that the spaces created through MI’s TBL reporting need to extend to involve MI’s shareholders and other external stakeholders. While it is possible to pursue collaboration with MI’s external stakeholders through other means, TBL reporting can provide a regular opportunity to review and evaluate actions related to sustainability. It is also possible that there will be opportunities for shareholders to have some input into the design and presentation of MI’s TBL reports. It is unlikely that these opportunities would extend to having input into decisions on sustainability actions. However, as a related activity MI could expand its existing education programs with irrigators to embrace dialogic learning processes. In other words, such activities would promote co-learning for both MI and its shareholders on how to enhance TBL outcomes for the region as measured by MI’s TBL performance indicators. Such collaborative activities could encourage shareholders to place a higher value on broader environmental and social goals and thus facilitate a shift in paradigm towards a more environmentally and socially sustainable future for irrigation. Developments arising out of these processes could also be a key component for inclusion in MI’s public reports.

When mentioning the example of River Reach, I noted that the idea originated not from a government official, nor from an irrigation scientist, nor an MI environmental officer, but from an irrigator discussing ideas with MI’s customer relations staff. Of course, River Reach, which results in selling water to the environment when it is needed by the environment (i.e. during wet seasons to flood ephemeral wetlands and associated forest areas), is not actually a radical solution. It is promoted as a win-win solution that is based squarely on using the market in water trading to resolve competing needs for water by irrigators and the environment at different times. Even so, it demonstrates that innovative ideas can come from those with practical experience. It also suggests that dialogue about management of water allocation to address TBL sustainability
has helped to challenge assumptions about ‘status quo’ irrigation practice in order that innovative – albeit reformist – strategies can be found.

The general reception to the River Reach concept when it was presented to a conference of river management experts\textsuperscript{97} was one of scepticism. However, this might have been due to its presentation by the MI Corporate Affairs Manager, thus seen as an irrigation company initiative, rather than a joint initiative between MI and the Murrumbidgee Catchment Management Authority. That the proposal met key environmental needs identified by this regional-level government agency responsible for watershed management may have been lost on the audience. Should it be successful, River Reach will help to avert some of the environmental damage that the current pattern of irrigation allocations has created. However the success of River Reach also builds on an assumption that there will be seasons in the future where water supplies will exceed irrigation demands, which is likely to be questioned by those who hold a gloomier outlook based on current trends of climate change.

Almost every vision and strategy that came up in my discussions at MI could be seen as a mere reform in the way irrigated agriculture is practised rather than representing transformational changes in practice. In general, the preferred solutions intended to enhance sustainability of those I interviewed were framed in conventional business discourse focused on market solutions and/or upscaling the local agricultural industry. Even the pursuit of targets related to environmental sustainability are linked internally to financial incentives through their association with the BSC as well as by framing their promotion as part of win-win outcomes.

It appears much more difficult to promote management solutions that will result in increases in the price of water. Such price increases may encourage more careful use of water as well as provide MI with funds to improve irrigation infrastructure. Like increased petrol prices through a tax on carbon emissions, there is a deep reluctance to face up to the financial implications of guaranteeing a sustainable future. In particular, there is a concern that

\textsuperscript{97} This was at the 5\textsuperscript{th} Australian Stream Management Conference organised by the CSU Institute for Land, Water and Society in Albury, NSW, 21-25 May 2007.
increases in water charges are likely to exacerbate the difficulty for smaller operators to remain viable in comparison with larger farming enterprises. As part of a reform strategy, it is conceivable that MI could consider price relief strategies as an interim adjustment measure to favour smaller over larger operators. Such a measure matches those being considered by national governments with respect to the social equity impacts from carbon trading, albeit at a much grander scale and with a clearer responsibility and financial capacity. However, price relief is an approach that MI has used before (as mentioned by Manager 1). For MI to use such a mechanism to address social equity impacts among its customers would represent a remarkable outcome for corporate citizenship.

More hard-nosed economic rationalists might oppose such soft adjustment measures because it prevents a free market from deciding which businesses will be sustainable under a future world of tougher water allocations. Environmentalists might also perceive such moves as propping up businesses that are ultimately unsustainable, though this argument has arisen more specifically in relation to the current review of government provision of ‘exceptional circumstances’ financial relief provided to farmers affected by the ongoing drought. The question that obviously arises from both positions is the feasibility of reform strategies to deliver outcomes that are actually sustainable, especially given the increased severity of the water crisis across the Murray-Darling Basin.

It is important that MI engage external stakeholders who can critically examine the impacts of irrigation on TBL sustainability outcomes. This includes irrigation scientists, public servants involved in agricultural and NRM policy and its implementation as well as those active in environmentalist movements. Failure to do so is a standard criticism of corporate TBL reporting (e.g. Adams, 2004). So much more could be gained from the interactive dialogue with those who have alternative visions for the role of irrigation in sustainable agricultural

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98 For example, this was the position presented as the first media release by the former head of the CSU Environmental Sciences School after taking up the position of Dean in the Faculty of Science.
production. In addition, there are other relevant stakeholder groups with whom
dialogue on the social dimension of the TBL could be generated, including
Indigenous Australians. The contributions of these stakeholder groups would be
beneficial in determining how to have a more positive impact on bigger picture
socio-economic outcomes or for collaboratively developing realistic
expectations.

The question then turns to how much power is vested to these various
external stakeholders. Organisational governance structures could be modified
to enable direct decision making influence by these external stakeholder
interest groups (cf. Adams & McNicholas, 2007). Alternatively, decisions about
the pursuit of sustainability could be pursued through multi-stakeholder
collaboration on TBL management. For an organisation like MI, TBL reporting is
a relatively easy adaptation that evolves out of MI’s existing reporting
mechanisms to meet its compliance and other accountability responsibilities. To
develop a process to extend that to a region-wide multi-stakeholder account of
impacts on TBL performance will not be so easy. However, to do so makes a lot
of sense. The irrigation companies who attended the CRC IF Sustainability
Challenge meeting with their government ‘regulators’ recognised the logic of
streamlining reporting requirements. It made sense to them to streamline their
compliance reporting requirements with their existing public reporting
requirements. The logic is no different for a collaborative region-wide TBL
reporting process. Several organisations could begin the process by reporting
on broader regional social and economic indicators, and then discussing how
they collaboratively contribute to those impacts and outcomes.

The potential end vision for such a collaborative and regional TBL reporting
exercise could be directed towards transformational change. Region-wide TBL
reporting could provide a focused activity to inspire the kind of “social learning”
that is being promoted by others involved in river basin management – such as
in a recent special issue of Ecology and Society, notably the article by Pahl-
Wostl, Mostert and Tàbara (2008). Regional collaboration on TBL reporting
would provide an “action space” through which the combined learning
experiences of change agents from multiple organisations could be aligned
through practical tasks that address bigger picture sustainability issues at the regional level. This could lead to innovative and more sustainable approaches for regional agricultural practices and inspire government officials involved to pursue these solutions through broader policy development.

6.4 Conclusion

In essence, an answer to the question of whether TBL reporting might lead to enhanced sustainability depends on how you look at it. Opportunities can be created. Opening up spaces for interaction that leads to co-learning provides change agents with opportunities to pursue their change agenda. A focus on learning and participation allows exploration of different approaches to achieving sustainability. By using these interactive spaces, and by developing learning processes that enable assumptions to be questioned, shifts can occur in business-as-usual approaches. It is through the processes of questioning assumptions and by evaluating past experiences that different avenues for change can be identified and/or rejected. At one level, there can be an increased acceptance of incremental reforms. However, for those like me who believe that a paradigm shift is required, or that structural changes are needed, these interactive spaces can provide a venue through which to nurture discussion and raise awareness for such needs.

In some contexts where TBL reporting is practised, it might be possible to conceive that support for such radical ideas could develop through interactions sparked by workplace activism. However, a more common basis upon which interaction could facilitate such testing of assumptions would come through the engagement of key and critical external stakeholders. Organisations who take up TBL reporting and those consultants employed to facilitate them need to be open to creating opportunities for interactive dialogue and co-learning with all key stakeholder groups. If TBL reporting is ever going to make a difference in enhancing sustainability, such willingness to learn dialogically and iteratively is crucial.

A potentially more promising avenue to explore change options to enhance sustainability might come through a multi-stakeholder approach to TBL
reporting. The same argument applies. The potential for change increases by creating spaces for interactive learning and action based on a shift towards collective responsibility for sustainability enhancement. By working collaboratively, new and innovative ways to restructure the regional economy to help contribute to a sustainable future could be explored. In both cases, the benefit of using a reporting cycle is that the cycle revolves around a regular reporting event, and this facilitates the development of iterative learning. It is all about creating the opportunities; opportunities that include spaces for reflection to complete the learning cycle.
Chapter 7
Conclusion

I have emphasised throughout this dissertation that the release of a TBL report is not the end of the associated learning process. The report is an important output of the learning process because it can be used to evaluate what has been learned in order to determine what needs to be done in the future. In a similar vein, this dissertation is also not the end of the learning process for me. This conclusion chapter is an opportunity to recount what I have learned and the contributions I have made, and these are provided as I summarise my thesis and research outcomes below. The chapter also provides an opportunity to consider the implications of what I have learned for my future research endeavours, as well as for the world of research more broadly, and these are provided in the final section.

7.1 Thesis summary

- **Research design motivated by a desire to facilitate change**

My thesis builds from an acceptance that global society is on an unsustainable trajectory. I am deeply concerned about the harmful effects this is having on the global environment. I am also deeply concerned about the gross inequalities that results from the current system through which we as a global society manage access to the life-giving benefits our planet provides. Such deep concerns inspire a desire for action. This thesis results from research undertaken in response to that desire for action. I wanted to explore the possibilities through which practical action could be undertaken to address this sustainability challenge. The context of over-allocation of water for irrigation in the Murray-Darling Basin has provided a relevant context for me to explore that challenge. The activity of TBL reporting provided a practical activity through which to explore the prospect for change. This is especially so given my association with the broader CRC IF Sustainability Challenge project that enabled considerable access to MI as it developed its TBL reporting process.
• **Research involved learning through critical interaction with society**

Initially, I discounted the possibility that TBL reporting could provide the practical means through which organisations could develop action plans on sustainability. My concerns about inadequate disclosure and misguided approaches towards enhancing sustainability were supported by most of the research that analysed corporate TBL reports. The difference came through my collaboration with other researchers and my case study organisation. I became involved with people who were genuinely committed to identifying practical actions to take, and similarly sceptical that TBL reporting would provide the answer. The core arguments of my thesis were influenced by my interactions with these change agents who were charged with the responsibility to pursue practical change through a TBL reporting process. I recognised their genuine desire to have sufficient capacity to make a practical difference in the quest for a sustainable future, and the potential for this to develop iteratively through the reporting cycle. Yet, at the same time, I remained aware that the fundamental unsustainability of water usage across the Murray-Darling Basin remains a challenge that is beyond the capacity of one organisation to overcome.

• **Research focus on process and outcomes**

Instead of completely dismissing any potential benefit from TBL reporting, I focused my investigation on the links between process and outcomes to identify what benefits might arise from the cyclical process of reporting against the TBL. I used this focus on linking process and outcomes to guide my initial reading of the contributions of other researchers who had documented cases related to TBL reporting. In particular, I explored the processes through which TBL indicators were designed and used, and through which stakeholders were engaged, and how these related to learning, capacity building and other organisational change outcomes. Because most of the TBL reporting case studies I reviewed stemmed from a critical perspective, I was able to use these critical reflections to identify a set of preferred processes to improve TBL reporting. I have explained how this represents a new approach with its focus
on formatively evaluating the process of TBL reporting in contrast to the dominant focus on summative evaluations of report content.

- **Case study focus on process and outcomes**
  The approach of focusing on process and outcomes was also a useful guide for my case study with MI. I was able to observe and influence the process over a two year period. Interviews then provided an opportunity for me to explore and document the outcomes of the process as well as provide an opportunity for my interviewees to reflect on the outcomes of the process for themselves. Through the subsequent analysis I was able to link these reflections with the theory I used to interpret the depth and extent of the learning, capacity building and organisational change outcomes in terms of the prospect of enhancing sustainability.

- **TBL reporting includes internal processes of change**
  The MI case study context also prompted me to rethink what TBL reporting means. Because the TBL reporting process at MI became intertwined with the BSC corporate plan and performance review process, I interpreted the TBL reporting process as functioning in two forms: internal and external. In MI’s case, the internal TBL reporting process involved the incorporation of TBL objectives and measures into the BSC performance review process, and resulted in increased ownership and commitment by staff for these objectives. This commitment was associated with some changed work practices and an increased sense of individual staff responsibility and initiative. It also gave MI the capacity for better planning and to highlight flaws in the pursuit of its TBL objectives. However, associating the pursuit of TBL objectives with the BSC meant that evaluation of MI’s performance was still heavily influenced by financial bottom line indicators. Also, while these trends remain internal and not for public scrutiny, it is unlikely that underlying concerns about the sustainability of MI’s water extraction levels will be addressed. Because the TBL objectives and indicators are part of the corporate plan, the only reason preventing a public display of TBL performance trends is a reluctance to make specific targets and trends transparent.
So, in terms of the case study focus on process outcomes – both internal and external – what are my conclusions in terms of my key research questions? In presenting my conclusions, it is of course difficult to separate learning, capacity building and change outcomes; they are all intertwined.

1. **Learning: Can TBL reporting help organisations learn about sustainability and what they can do to enhance it?**

The MI case study showed the benefits of using TBL reporting to provide a space for interaction and discussion on sustainability issues. The TBL reporting workshops provided opportunities for MI staff to reflect on and discuss the bigger picture sustainability issues and led to raised awareness about these issues across the organisation. It also provided opportunities for change agents. The spaces helped staff crystallise what had been tacit thoughts and encouraged questions and discussion about how MI can achieve its desired TBL objectives for the region. While internal change agents recognised the value of this questioning in terms of their change agenda, it was difficult for MI to change its business-as-usual ‘theories in use’ that would lead to a more profound shift in paradigm about irrigation practice in a water constrained environment.

- **TBL reporting benefits from collaborative learning with stakeholders**

The literature review as well as the MI case study confirmed that stakeholder engagement plays a key role in helping to identify appropriate actions on sustainability as well as nurture ownership and participation in the action plans that eventuate. The application of Freirean pedagogical thinking by Thomson and Bebbington (2005) was particularly useful in this regard. Their argument emphasised the need for organisations to provide processes that nurture the collaborative learning that can help to reveal and confront structural constraints that people face when developing a process for enhanced sustainability. The subsequent review of research that used organisational learning theory to investigate cases of TBL reporting (e.g. Roome & Wijen, 2006) reinforced this idea.
2. **Capacity building/engagement? Can TBL reporting enable organisations to build/engage organisational and stakeholder capacity to respond to the sustainability issues being faced?**

TBL reporting is giving MI the capacity to track its TBL performance over time and the inclusion of a TBL snapshot page in its public reports creates the potential for greater transparency on key TBL performance trends. This capacity helps organisations maintain focus on important issues, and serves as a reminder (or set of traffic lights) to enable iterative and cyclical contemplation on how to improve its TBL performance. The capacity to regularly review TBL performance contributes towards improvement by functioning iteratively and cyclically with other external influences and greater enlightenment about sustainability. However the case study also showed that capacity can be constrained at an organisational level because of the boundaries of an organisation’s influence (further discussed below).

- **TBL reporting can build/engage capacity by creating spaces for learning, reflection and action**

The literature review and my case study investigation emphasised the need to create spaces for interaction so that the organisation and its stakeholders can learn, reflect on what has been learned, and decide future actions collaboratively. Creating spaces for interactive reflection as part of a TBL reporting process could be used to develop an iterative cycle of experientially-based and action-oriented learning through which stakeholders can become enlightened and empowered. Opportunities can be created for internal and external stakeholders to reflect on past experiences and results of actions implemented and feed that back into future strategising. Improvement does not only come through ‘learning-by-doing’; learning after doing requires that stakeholders come together and reflect on the implications of what they have learnt for future strategies and actions.

3. **Change? Can TBL reporting lead to change? Can constraints on change be overcome?**

A commitment to use reporting to drive improvement in TBL performance is fundamental to enhance the prospects for change. Whilst TBL reporting
involves iterative incremental changes, it nevertheless provides opportunities for change agents and could shift the agenda for change from a reactive one to a proactive one. In MI’s case, the link between internal TBL reporting and BSC performance reviews enabled benefits from engaging internal change agents in particular. My interviewees appreciated the opportunities they had to take initiative in deciding future workplace strategies. As internal stakeholders and potential change agents, they were able to articulate each of their own visions for sustainability and what this means for the work of their organisation. Some began to question the organisation’s role and influence related to sustainability enhancement. Admittedly, the examples they spoke of mostly related to organisational boundaries of influence, and were thus seen as a constraint on their potential to enhance sustainability on some issues. The prospect of re-evaluating organisational assumptions remained a potential only. However, combined with external pressures to radically reduce water consumption for irrigation across the Murray-Darling Basin, the impetus for organisational survival creates the prospects of looking for new business opportunities, and new ways of operating. Regional stakeholder collaboration on how to improve TBL outcomes might be a means to begin overcoming the constraints of organisational boundaries of influence. At the very least, increased transparency in reporting could help to demonstrate the extent of unsustainability and increase external agendas for structural change.

- **Finding ways to enhance sustainability requires business-as-usual assumptions to be challenged**

The literature review and my case study experience confirmed that those involved, especially those with decision making powers, needed to be prepared to challenge their assumptions as well as their business-as-usual approaches. In the MI context, this finding builds on a recognition that current organisational practices are unsustainable given the accumulated demands for water resources across the Murray-Darling Basin. The finding also builds on an acceptance that there are benefits in engaging the untapped capacity of stakeholders as well as accessing the tacit knowledge within an organisation. Engaging this tacit knowledge and capacity requires a re-evaluation in the way
decision making processes are undertaken. While there was an increased reference following privatisation for inclusiveness and MI staff working as a corporate team, challenges remained in the practical implementation of that cultural change. Processes remained essentially top-down despite the desire among key personnel for two-way interaction on corporate strategic planning.

4. **Can TBL reporting lead to enhanced sustainability?**

So, can TBL reporting lead to enhanced sustainability? The argument has certainly been well put in the literature that a lot of outputs of the recent corporate emphasis on TBL reporting are tainted with greenwash and have manipulated how sustainability is conceived to the detriment of a sustainable future. I am not about to downplay that conclusion. Nor would I suggest that TBL reporting in and of itself is a useful means to enhance sustainability. It sits along other strategies that can be used to enlighten and empower change agency amongst a concerned citizenship. There are various influences in society that are contributing towards enhanced sustainability, and TBL reporting can interact with these other influences cyclically and iteratively. Also, there are no clear boundaries between those pursuing sustainability based on what is seen as a status quo assumption with those seeking reform, and between those seeking reform and those advocating transformational change. Because of the blurring of these boundaries, those advocating change can shift strategies away from a status quo assumption towards more reformist approaches, and from reformism towards more radical agendas for change. I have therefore reached a conclusion that opportunities to enhance sustainability can be created, depending on how TBL reporting processes are to be perceived and used. By perceiving TBL reporting as a process that enables a continuous cycle of learning and change, it can contribute to enhanced sustainability, which can itself be conceived of as an ongoing process of adaptive management. And the crucial link to complete the cycle is to allow space for discussion and reflection that can enhance future sustainability enhancement strategies.
7.2 Research outcomes

Two research outcomes from my reading of the literature and relevant theory are highlighted below: (1) the TBL reporting evaluation framework developed in Chapter 2; and (2) the analytical tool of blurring assumptions behind change agendas for enhanced sustainability presented in Chapter 3. A third outcome relates to my research methodology, and the benefits of undertaking research using interactive and collaborative approaches.

- **TBL reporting evaluation criteria**

A key outcome from this research is the set of TBL reporting evaluation criteria presented in Chapter 2 as it provides a framework to guide this process of reflection. The focus of the evaluation framework on the process of reporting and its emphasis on formative evaluation provide a new approach to the assessment of TBL reporting. The evaluation framework also has practical application. As was pointed out to me by one of the MI participants in the workshop where they used these criteria, the broad targets that underpin the framework helped make their reflection more outcomes-oriented. It made it easier for them to identify aspects to the process of reporting that they could improve as they built their capacity to progress towards the desired outcomes expressed in the evaluation framework. The participants also appreciated the way that it synthesised the international research experiences related to TBL reporting so that they could learn from the experiences of others, and avoid the pitfalls associated with TBL reporting processes that have been criticised for failing to lead to enhanced sustainability outcomes.

The publication of this framework does not need to be the end of that exercise. Indeed, the current formulation of the criteria is subject to further refinement through future feedback on its use. In terms of my own personal journey, seeking out opportunities to apply the evaluation framework in other contexts is an option for future research activity. There is a potential for me and other external change agents to further the agenda for change through TBL reporting in this way. As I have noted, to make the most of the framework, it is best to appoint an external facilitator committed to formative and participatory
approaches to evaluation. Using the criteria in this way can also increase the potential for the experiential learning to result in challenged assumptions and paradigmatic shifts in awareness. Providing a space for reflection can nurture a shift away from a mere acceptance of the status quo towards incremental reforms; it can also create an opportunity to nurture ‘double loop’ learning should that be required which can become part of a shift towards transformational change. This leads me to another contribution from this research.

- **Analysing and advocating change based on blurring the assumptions behind change agendas**

The typology of assumptions about the kinds of changes that people believe will help enhance sustainability has been a useful tool for analysis. Making and then blurring distinctions between assumptions of status quo, reform and transformational changes allow change agents scope to explore new opportunities to shift thinking and build capacities for enhanced sustainability. There is great value in exploiting human energy for change wherever that occurs and from whatever assumptions are in operation. A process of reform that slowly eats away at the constraints on achieving sustainability is better than no change at all. However, opportunities can also be created to challenge those assumptions prevalent in society that inhibit progress towards sustainability, or fail to address the urgency of the sustainability crisis. Transformational change may not come about through organisational level TBL reporting alone. However, TBL reporting can be used to provide the space through which those involved can become enlightened and empowered in a way that can lay the basis for a transformational change in operating paradigms. It can also lay the basis for acceptance of the need for transformational change in the structures through which access to and allocation of resources are determined.

I have raised two potential avenues through which these shifts in assumptions might be nurtured. The first is the prospect of external change agents working collaboratively with internal change agents. The second is in response to one of the main constraints on organisations seeking to enhance sustainability – their limited boundaries of influence. To overcome the inherent constraints from TBL
reporting at an organisational level, there is considerable merit in the idea to develop TBL reporting processes at a multi-stakeholder region-wide level. I consider this to be of most strategic significance among the areas I would identify as needs for future research, as discussed below.

- **Benefits and issues in collaborative and interactive research**

A third outcome of my research is to reaffirm the value of collaborative and interactive research endeavours. The activity of research (as a re-evaluation of what we have determined as being knowledge) benefits from (indeed requires) interaction with those in society actively involved in the phenomenon being studied. While it may not be possible for researchers to initiate such ‘action research’ endeavours, it is important to make most advantage of this whenever such opportunities arise.

However, the inherent risk for researchers whose research builds on this level of collaboration and interaction is how that research activity and its outcomes are influenced by the power relations between researcher and those with whom they interact. Much has been written about contexts where the researcher is in a position of greater power and influence, especially where the research activity intends to empower those seeking emancipation from a disempowering situation (e.g. Hall, 1978). However, the newer approaches to ‘action research’ that is emanating from management schools where researchers collaborate with companies and/or their managers in relative positions of power raises a new set of power dynamics for researchers to evaluate. For example, to what extent is the researcher a mere consultant being used by the organisation, and to what extent is the researcher able to provide an independent and critical assessment of the organisation’s activities (Gummesson, 2000)?

In my case I gained value from evaluating the level of control I had over the research project compared with my collaborating partners, as well as evaluating who should benefit from the collaboration and why. My emphasis on supporting change agency allowed me to align my collaborative efforts with those who expressed a similar commitment to nurturing learning and participation as a means to stimulate change. This included MI staff on the Executive as well as
those with less decision making responsibilities. So it was not a simple case of supporting the agenda of those in positions of relative power. It was working with change agency wherever such change agency transpired, but recognising and analysing the effect of the overlaying structural constraints related to the operation of power through the organisational hierarchy.

The ability for me to collaborate and to evaluate my influence relative to that of the organisation benefited because of my identity as a doctoral researcher rather than as an established expert in the field. This enabled the research activity to be one characterised as a collaborative learning activity as those in the organisation and I shared the process of learning whether or not TBL reporting could make a difference for enhanced sustainability. My personal reflections also enabled me to support the aspirations of change agents within MI while also maintaining a critical independent view of the process and to point the process in the direction where I thought it should go.

To this end, researchers committed to organisational change processes can improve the influence of their collaborations in field research by identifying like-minded champions and/or workplace activists with whom to become aligned. This may develop through personal contacts (as was the case for at least one of the projects described in Bebbington, 2004) or by initiating research with a substantial period of participant observation through which to observe dynamics and identify allies. The emphasis can then be focused more on understanding and analysing the constraints on change with a view to formative improvement that does not jeopardise the possibility for ongoing collaboration.

Researchers seeking to build alliances with internal change agents could also pursue this agenda through alliances with trade unions. Many trade unions are now incorporating sustainability as a core objective, recognising that workers and workplaces have a central role in enhancing sustainability given that ‘work’ is a basic function that drives societal aspirations; and that the social goals of sustainability correspond closely with union agendas and can make the union agenda more clearly relevant to all of society (Hvid & Lund, 2002; Springett & Foster, 2005). A research alliance with trade unions, and working through trade union workplace representatives could provide new avenues for enlightenment,
empowerment and potential for practical workplace actions related to sustainability.

The emphasis on collaborative learning extended to the process I used to review the literature. Behind the extensive range of academic literature are individuals with needs and aspirations. As a doctoral researcher, it can be daunting to pursue human interaction as part of the process of engaging with the literature these humans have scribed. However, social research requires interaction with society, and that includes interaction with other researchers. My interactions with these other, more established researchers benefited the perspectives I was able to bring to the research. For example, I was able to share in the enthusiasm behind Ball’s (2007) prospect that change can be generated by engagement with internal stakeholders as agents for change. Her interaction with me in the early stages of my case study provided direction and support in my case study focus on internal stakeholder engagement. This was especially useful at the time given my disappointment that there was little prospect for an analysis of external stakeholder engagement in the case study.

I found it especially beneficial to position my interaction with other researchers as part of the literature review research activity that led to a specific and practical outcome. The production of a set of evaluation criteria gave me a rationale to seek their interaction. I was able to ascertain directly whether these criteria would represent a new and useful contribution. It also served as a research activity that sought to synthesise the ideas from a range of key researchers in the field. My presentation of the draft criteria at a conference where many of these established researchers were present provided a crucial confirmation of the usefulness and relevance of the criteria prior to their publication.

7.3 Implications for future research needs

Three future research agendas are highlighted below: (1) the idea to develop a region-wide multi-stakeholder TBL reporting activity as an exercise in ‘social learning’; (2) the need to embed justice in decisions related to the sustainability of water supply and the use of other environmental resources; and (3) the
importance of continually highlighting the need to investigate the social justice implications of sustainability strategies being advocated in contemporary society. In addition, a comment is needed on what further research should be undertaken to improve our understanding of how TBL reporting processes could lead to enhanced sustainability more generally.

**Benefit of further case studies into TBL reporting processes**

There is a methodological concern about how the findings from the MI case study can be generalised to provide an answer to whether TBL reporting processes can enhance sustainability in other contexts. It is clear that the findings of the MI case study are specific to the case study context, but this does not mean that others are unable to draw insights from these findings in future research investigations. Future case study investigations could build on the approach I have adopted, enabling transferability of findings through the theoretical lens I have used. My choice has been to balance breadth of investigation through a review of case studies in the literature with depth of analysis from a single case study. A project of broader scope could pursue this balance between breadth and depth of analysis by examining a number of different case study contexts, including one from the private sector, one from the public sector and one from the non-governmental sector or ‘third’ sector.

**Region-wide multi-stakeholder TBL reporting**

The vision to pursue enhanced sustainability through region-wide multi-stakeholder TBL reporting discussed in Chapter 6 is worth exploring further. Such a task could bring together (1) the existing experience from one-off contributions by researchers that describe and analyse the trends of TBL indicators at a regional level; with (2) the need for organisations within those regions to identify and evaluate how they contribute to TBL trends positively or negatively; and (3) the idea that this develop as a regular and collaborative exercise. Of course the task also requires commitment to the idea from participating organisations. It is likely to require substantial time and commitment, and likely to need the active involvement of a large and multi-disciplinary research team. However, future research related to TBL reporting
could pursue opportunities that nurture such commitments. Alternatively, researchers contributing to the creation of ‘sustainable communities’ could pursue a similar agenda through their research activities. The current research interest in social learning projects could provide another context through which to invest resources by focusing the social learning on a multi-stakeholder investment in region-wide TBL reporting processes.

There are two significant limitations which have affected my ability to analyse the broader political economic constraints on the enhancement of sustainability through the case study investigation. These both relate to the social justice implications of proposals to change the way irrigated agriculture is managed to enhance environmental sustainability outcomes.

- **Justice implications of water allocations**

  The first concerns changes to the way irrigation supply is allocated. More research is required to critically evaluate how to ensure that justice is embedded in the procedures and outcomes of decisions related to the distribution of a scarce water supply among competing users. The pursuit of justice is critical to overcome the development of a ‘contest’ perspective in debates about irrigation sustainability. In my case study research, it was difficult to use a ‘home’ perspective as an effective counter to this ‘contest’ perspective. In other words, a sustainability outcome here focused on improving efficiency of water use and avoided the more difficult question concerning what is a sufficient amount of water use given constrained availability. There was little basis upon which I could analyse what might constitute sufficient water use as this is an issue of justice. Indeed, this is a crucial issue to consider as part of the broader challenge of sustainability. Sustainability requires us all to nurture and begin to guarantee fair access to and use of scarce global resources for all in society and for all in future societies. While we as a global society have used our analytical and technological skills to improve resource use efficiency, we have not done the same to determine how all in society (and all in future societies) can be guaranteed a sufficient use of resources, and no more.
• **Justice implications of sustainability strategies**

The second limitation in my ability to analyse what it means to enhance sustainability in the case study context is related. In much of the current discourse on sustainability, Elkington included, faith is placed in the private sector to come up with the solutions. The danger is that unconstrained commercially driven corporate entrepreneurialism is likely to lead to a focus on technological innovation that will bolster profitability for the company that made the investment. Within the irrigation sector, there are those who argue that we should let the free trade in water allocations determine which agriculture businesses will remain sustainable into the future. This faith in the free market is similar to solutions being posed for the greater challenge of reducing greenhouse gas emissions by trading in carbon. However, as has been noted, there is a danger in relying on market-based measures as it has been “the unfettered market” that has “caused many of the environmental problems in the first place” (Mathews, 1997, p. 493). This has already been observed in the short history of water trading across the Murray-Darling Basin where large commercial farming enterprises funded through managed investment schemes are able to buy out the water allocations from family-owned farming operations affected by the drought (Millar, 2007).

Also, because many actions to enhance environmental sustainability will come at a cost, pursuing these actions will benefit those with greater financial capital resources. I am not suggesting that there is no cognizance of each of these unintended consequences. However, due diligence is required before our society rushes to adopt actions that are later determined to have been “informed by false ideas” (Sayer, 1992, p. 39) and counter-productive to enhanced sustainability.

In particular, these issues raise an inherent logical dilemma for those pursuing the sustainability agenda in the agricultural context. At several times during my research, the view was expressed that the bigger the farming enterprise the more likely it will be to use water most efficiently. This is more than just their ability to purchase improved irrigation technologies. It also relates to their flexibility to vary how they use their water across a range of crops. These
efficiency gains may even lead to increased water consumption as currently unused so-called 'sleeper' water allocations are bought out by these bigger, more water efficient farming operations. The impression I have acquired through this research is that increased corporatisation of agriculture is being advocated by some as a way to improve the sustainability of agricultural production. This not only raises the question of justice related to the viability of smaller family-sized farming operations. It also brings into question the entire sustainability strategy. Many would argue that increased corporatisation across the agri-food sector is counter-productive to the sustainability goal of meeting the needs of all in society and all in future societies. As a consequence, any proposed sustainability strategy needs to be critically examined for any such unintended consequences. Therefore, future research needs to be directed at the justice implications of strategies to enhance sustainability. There is no point pursuing a strategy for sustainability if it facilitates continued concentration of wealth and the means of production as this can only be counter-productive to the long-term goals of a sustainable future for all in society, and for all in future societies. Indeed, researchers should be contributing to alternative and innovative visions of how we as a society construct our economies and use our resources for the sake of a sustainable and just future for all.

Finally, the combined application of organisational learning, stakeholder and political economic theory to a case study investigation into the process and outcomes of TBL reporting has been useful. This case study has provided a useful example of the kind of research that those in the accountancy field have been calling for: one that documents and theorises the field experiences of the researcher, drawing in particular on the so-called ‘learning turn’ in contemporary social research. I look forward to opportunities to engage in or read about similar accounts of case study research experiences related to the process of TBL reporting. More to the point, I would like to see these engagements as part of a broader agenda for change; providing the space for practical activity so that we humans can enhance our capacity to manage our ongoing dependence on the global environment in a just and sustainable way.
Appendix 1: Review of O’Dwyer (2005) for TBL reporting evaluation criteria


**Background reading:** 

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<td><strong>Author &amp; background</strong></td>
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<td><strong>Context of review</strong></td>
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<td><strong>Potential / actual / perceived stakeholders</strong></td>
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<td><strong>Inclusion of social dimension?</strong></td>
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Appendix 1 continues next page (this is p. 1/6)
## Appendix 1 continued: Review of O’Dwyer (2005) (p. 2/6)

<p>| R E P O R T | Description of report content? | The published account itself is not described. The focus of O’Dwyer’s article is the process. He does emphasise, however, significant differences between the hastily written first draft and the final account. The final account was perceived as being “sanitised”; that management had “put their own spin on the results [of the dialogue]” (p. 288). Some Board members were surprised by the degree of negativity in the account, worried that the information could be manipulated by people whose interests lay elsewhere (p. 288). |
| What’s not in the report? | O’Dwyer does not give specific examples of how the report had been “sanitised” by the Board, just that the focus had been on wording; they downplayed anything they considered sounded too negative. |
| Analysis of report content? | X |
| Method of analysis? | |
| Results? | |
| Name of indicator framework? | They closely followed the framework used by the Traidcraft social account, and O’Dwyer refers readers to Gray, 1997, pp. 344-347. |
| Description of indicators used (general overview)? | X |
| Description of social indicators used (specific details – list)? | Although the indicators are not described, the methods used to collect data for the social account show what type of information was gathered: “use of interviews, externally facilitated discussions, postal questionnaires, monitoring media responses and independent opinion surveys” (p. 283, table 1). |
| Analysis of indicators used? | His research is principally based on interviews with a range of people involved in the process (Board members, managers, internal stakeholders and external stakeholders – 15 in total) over a 14 month period. He is therefore able to consider how perspectives differed between each group and how they changed over time. There is thus no actual analysis of the indicators used, but rather how they were perceived. The main issue here had to do with the need to use qualitative indicators, something that was appreciated by those “internal champions” who “were much clearer about the role of social accounting” (p. 284). However, the Board was very uncomfortable with the resultant “subjective nature” of the perspectives included in the first draft, “despite this being a key reason for initially selecting the process” (p. 287). |
| Method of analysis? | |
| Results? | |</p>
<table>
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<th>Description of process to develop indicators?</th>
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<td>O’Dwyer outlines the seven step process adopted to produce the APSO social account (see “description of process of stakeholder engagement”) – step three states that “stakeholder participation” was required to determine “appropriate indicators for measuring APSO’s performance” (p. 283). He also notes that “as part of the process, the identified stakeholders were also asked to identify the criteria by which they believed APSO should be evaluated” (p. 282, footnote 4). He does not go into any more detail than this.</td>
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<th>Analysis? Method of analysis? Results?</th>
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<th>Theoretical assumptions behind process?</th>
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<td>As one of the “champions” of the social accounting process, O’Dwyer clearly emphasises that it has to be a participatory process, and one that involves organisational learning. He cites one of the internal stakeholders who says that the process “should be about the organisational learning” (p. 286) and another who castigated the Board for having “no genuine desire to learn” even though that was how the process was presented to the public (p. 283).</td>
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<th>Description of process of stakeholder engagement?</th>
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<td>The seven step process that APSO adopted is as follows</td>
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<td>“(1) establish the value base (What are the social objectives and ethical values against which APSO will measure its performance?)”</td>
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<td>(2) define the stakeholders (Who are the key groups of people who can influence or are influenced by APSO’s activities?)</td>
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<td>(3) establish social performance indicators (Stakeholder participation in determining the appropriate indicators for measuring APSO’s performance is required.)</td>
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<td>(4) collect the data (use of interviews, externally facilitated discussions, postal questionnaires, monitoring media responses and independent opinion surveys)</td>
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<td>(5) write/construct the accounts (The social accounts will be prepared and written by APSO. This is analogous to the practice in financial accounting.)</td>
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<td>(6) Submit the accounts to independent external audit (A financial auditor is appointed to head the process. Will apply general auditing standards to determine of the accounts are relevant, understandable, reliable, complete, objective, timely, and consistent, and whether in his opinion, they are a true and fair view of APSO’s ethical performance and impact on its stakeholders in the period reviewed by the accounts.</td>
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<td>(7) Publication (The social accounts report, including the auditor’s report is published and distributed to all stakeholders.)”</td>
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<td>O’Dwyer also notes that “management publicly claimed” the process was about changing the way APSO “dealt with its identified stakeholders” and that “feedback to stakeholder post-account publication was crucial” for this to happen. This should be seen as an additional stage, but one that was not handled well (see analysis below).</td>
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<th>Analysis? Method of analysis?</th>
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<td>His method of analysis is described in detail as an appendix to the report. As mentioned in the section on indicators above, most of his analysis is based on interviews with 15 people involved in the process (Board members, managers, internal stakeholders and external stakeholders) over a 14 month period. He also used information from internal and external documents, including any media reporting on APSO. As he was on the audit review panel, he was also able to record his own observations during this part of the process.</td>
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### Results?

He presents the results of his analysis in a chronological rather than a thematic fashion, so the summary I present here is a synthesis of what I think are the key issues he raises. O’Dwyer focuses most of his discussion on how the different groups of people he interviewed had different perceptions of the process, focusing on two issues:

1. the exclusion of local communities in developing countries (or their representatives) as a key group of stakeholders, partly because they were the most inconvenient/problematic to include, and partly because the Board felt that they were not accountable to this group (see section on ‘potential / actual / perceived stakeholders’); and

2. the dissatisfaction by the Board of so much negative comment in the first draft, and the subsequent perception by staff and external stakeholders that the revised draft had been “cleansed” or even covered up (see section on ‘description of report content’).

These issues stemmed from different motivations between those he describes as the ‘internal champions’, committed to the process, and a majority of the Board members who had not shown enough leadership and commitment in this regard. This difference is accentuated in the willingness of the stakeholders to engage in learning, whereas it was felt that there was “no genuine desire to learn” on the part of the Board (p. 283, citing an internal stakeholder).

There was also confusion over who the social account was supposed to be accounting to – i.e. to whom did they have to prove their legitimacy? For those behind the process, they felt it was about being accountable to their stakeholders (especially external), whereas they saw the Board essentially only wanting to legitimise “APSO’s operations in the eyes of the Department of Foreign Affairs” (which funded the activities) (p. 283).

Another related difference of perception centred on the rationale for engaging the stakeholders in dialogue. Only “one or two” Board members seemed committed to a process of engagement that would contribute to changes in the organisation, whereas most Board members “perceived the process as a legitimation exercise focused on maintaining the status quo” (p. 282-3, citing an internal stakeholder).

Reasons for these differences were not just about motivations, it was also about differences in experience. Board members whose experience was in commercial organisations seemed to find the process focused on organisational learning inappropriate “as they viewed the process as a crude control mechanism … they were concerned with ‘evaluation’ while social accounting was concerned with ‘accountability’” (p. 283).

O’Dwyer concludes that the dialogue process was flawed, and blames the “cursory consultation” on the power relations involved – APSO’s unremitting power over its stakeholders in developing countries rendered the pursuit of an open, critically focused dialogue impossible” (p. 285) – and on mistrust.

### Theoretical assumptions behind process?

O’Dwyer uses theoretical discussions on stakeholder engagement, legitimacy and accountability to inform his analysis. There is no direct reference to organisational learning theory, but this also seems to have informed the process.
Appendix 1 continued: Review of O’Dwyer (2005) (p. 5/6)

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<th>OUTCOMES</th>
<th>Analysis of outcomes from the organisation’s perspective?</th>
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<td></td>
<td>O’Dwyer’s analysis of the outcomes of the social audit process is another aspect which makes this study unique. An important and unique part of this analysis is that different people within the organisation had different perceptions of the success of the process.</td>
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</tbody>
</table>

| Organisational learning (e.g. increased awareness / knowledge) | O’Dwyer emphasises quotes by those he interviewed that many on the Board had shown unwillingness to learn, and were more concerned about the organisation’s public image. However, despite not having the willingness to learn, it is clear from my reading of the article that the process had led to a lot of learning, but that the response to the learning was not: ‘OK let’s fix the problems’, the response was more one of: ‘let’s present the criticisms in a more positive light’. |

| Capacity building (e.g. increased confidence to change, improved networks) | I’d conclude from reading this that – for the organisation as a whole – any learning that had taken place had not led to capacity building. Constraints had their origins right from the start – different motivations behind the process, no effective way to resolve conflicts relating to power relations and mistrust, and a lack of commitment to the process by many on the Board which seemed to wield most power over the actual publication of the account. Also, the decision on the steps in the process finished with the publication of the account. O’Dwyer emphasises that no decision had been made over what would happen after the account had been published, thus undermining the potential for the social audit process to be seen as ongoing. All of this points to a need to develop some contingency plans to deal with all of these issues as part of the planning of the process. |

<table>
<thead>
<tr>
<th>Change in policies?</th>
<th>O’Dwyer does not report on any changes in policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>New programs?</td>
<td>O’Dwyer does not report on any new programs</td>
</tr>
<tr>
<td>Change in practices?</td>
<td>O’Dwyer does not report on any changes in practices</td>
</tr>
<tr>
<td>Analysis of outcomes from the perspectives of individuals in the company?</td>
<td>This is not presented in a systematic way – O’Dwyer is focused on exploring differences within the organisation as a whole.</td>
</tr>
</tbody>
</table>

| Individual learning (e.g. increased awareness / knowledge) | It seems clear that most individuals involved in the process found it a useful learning experience. |
| Capacity building (e.g. increased confidence to change, improved networks) | It seems clear that most individuals were frustrated that the process could not lead to any change. |

<table>
<thead>
<tr>
<th>Change in practices?</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analysis of outcomes from the perspective of external stakeholders engaged in the process?</td>
<td>O’Dwyer refers to a “black hole” – a deficiency in the process to provide substantive feedback to stakeholders after the account had been finalised. He quotes one of the internal stakeholders who says: &quot;without ongoing dialogue [with external stakeholders] it doesn’t actually change anything. People can say they have done something but actually nothing happens&quot; (p. 289).</td>
</tr>
</tbody>
</table>

| Analysis of outcomes from the perspectives of the media / general public? | X |

| Analysis of ‘credibility gap’? (i.e. differences between internal and external expectations?) | O’Dwyer doesn’t use this term, but it is clear that he is arguing that there is a very serious credibility gap here: “For the Board, publishing the account seemed to have constituted the key ‘event’ as opposed to responding to its contents on an ongoing basis” (p. 290). |
### Appendix 1 continued: Review of O’Dwyer (2005) (p. 6/6)

<table>
<thead>
<tr>
<th>TBL benefits (from author’s perspective)</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBL benefits (that occur to me after reading this article)</td>
<td>X</td>
</tr>
</tbody>
</table>

**TBL limitations / issues (from author’s perspective)**

1. TBL reporting “is only as good as the organisation that’s using it” (p. 290)
2. “Much of the corporate rhetoric surrounding [TBL reporting] processes simplifies their complex nature and tends to downplay many concerns as to how they can achieve ‘real’ organisational change on behalf of stakeholders” (p. 291).
3. There is the danger that rather than leading to reporting that addresses the concerns of stakeholders, it could just as easily lead to a “systematic process of stakeholder silencing” (p. 291), thus preventing stakeholder empowerment.
4. There is a danger of excluding particular stakeholder groups.
5. It is difficult to handle the issues of power relations and lack of trust between the various participants in the process.
6. The issue of power is especially pertinent when it comes to the stage of deciding what goes in the report, not just in terms of content, but perhaps more importantly in the way the content is portrayed.

| TBL limitations / issues (that occur to me after reading this article) | X |

**Potential evaluation criteria (from author’s perspective)**

1. To what extent does the process involve formal empowerment of stakeholder groups as part of their dialogue with the organisation (p. 292)?
2. To what extent does the management of the organisation allow mechanisms to be put in place that allow stakeholders to have a voice into corporate decision making (p. 292)?

<table>
<thead>
<tr>
<th>Potential evaluation criteria (that occur to me after reading this article)</th>
<th>3. To what extent does the thinking behind the reporting process consider how it will lead to organisational change?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4. To what extent do external stakeholders believe that their opinions and criticisms have been included and fairly portrayed in the report?</td>
</tr>
<tr>
<td></td>
<td>5. To what extent is the management of the organisation ready and prepared to receive criticism, learn from it, publish it, and respond to it?</td>
</tr>
<tr>
<td></td>
<td>6. To what extent is the process focused on ensuring that the dialogue continues after the report has been produced, and leads to change?</td>
</tr>
<tr>
<td></td>
<td>7. To what extent does the planning and facilitation of the process take into account power relations and contingency plans when things go wrong, especially when mistrust develops?</td>
</tr>
</tbody>
</table>
Appendix 2: Review of Milne et al. (2004) for TBL reporting evaluation criteria


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<table>
<thead>
<tr>
<th>DETAILS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author &amp; background</td>
<td>The three authors are based at NZ’s University of Otago School of Business. Markus Milne is professor of accountancy and business law at the school, Sara Walton is a lecturer and Helen Tregidga is a postgraduate student – who has since produced a paper focusing on one of the companies, Watercare (reviewed separately). Milne has written substantially in the area, including a recent chapter he co-authored with Rob Gray in The triple bottom line: Does it all add up? Work by Kearins on Shell and the Body Shop reports (Livesey and Kearins, 2002) has been reviewed separately.</td>
</tr>
<tr>
<td>Context of review</td>
<td>Milne et al (2004) are exploring the way reports produced by member companies of the NZBCSD represent the concept of sustainability and sustainable development. They orient this discussion by presenting three broad approaches to sustainability: [1] the “growth forever” response, which places faith in human ability to find solutions in the future, and is associated with the status quo; [2] the “weak” reformist response, within which the approach associated with TBL reporting lies; and [3] the “strong” critical response, which argues that fundamental change is required if we are to truly deal with the contradictions between development and sustainability. They identify how these three approaches have appeared in NZ, and analyse discourse produced by the NZBCSD and 8 of its members’ reports. They identify metaphorical themes used, and what these representations tell us about how the NZBCSD and its members have responded to the challenge of contributing towards a more sustainable future.</td>
</tr>
<tr>
<td>Type of report</td>
<td>TBL / sustainable development / sustainability reports</td>
</tr>
<tr>
<td>Name of organisation reviewed</td>
<td>Hubbard Foods, Sanford Ltd., The Warehouse, Urgent Couriers, Meridian Energy, Mighty River Power, Watercare Services, Landcare Research</td>
</tr>
<tr>
<td>Period of review</td>
<td>Milne et al (2003; 2004) looked at the 2001 reports only</td>
</tr>
<tr>
<td>What sector(s)</td>
<td>Food, Fisheries, Retail, Courier services, Energy production, Bulk water supply and waste water treatment, Research</td>
</tr>
</tbody>
</table>

Appendix 2 continues next page (this is p. 1/5)
Appendix 2 continued: Review of Milne et al. (2004) (p. 2/5)

| Background on company or organisation reviewed | NZBCSD was established in 1999. It organised a Leadership Forum in 2000. It has 40 members (Milne et al, 2003) and one of the conditions of membership is accepting a commitment to publicly release a TBL report within three years (ibid., p. 3). The 8 reports were the only ones the authors could identify as TBL reports in 2001. Four (Meridian, Sanford, Landcare and Watercare) had previously produced TBL or environmental reports; it was the first such report for the other 4. |
| Potential / actual / perceived stakeholders | “A range of stakeholders are identified by the reporters and typically include employees, local communities, consumers/customers, shareholders, suppliers, and in some cases the media, government, Tangata whenua (indigenous people of New Zealand), the Business Council, NGOs and school/educational establishments. By far the greatest attention [was given] to employees, local communities and customers … the publicly listed companies Sanford and The Warehouse also gave considerable attention to shareholders” (Milne et al, 2004, p. 19). The authors note that Landcare had a slightly different approach to their stakeholders, referring to them more often as partners, most likely because of the nature of their product being research and consultancy. Another point worth mentioning here is that Milne et al (2003) felt it necessary to modify the benchmarking tool they were using from UNEP/SustainAbility (1996) so that they could specifically include a measure on stakeholder relations and partnerships with Maori people “to acknowledge Maori culture within the New Zealand context” (op cit., p. 6). Half of the reports scored well in their reportage on their relations with Maori people (i.e. “detailed and honest” or better according to the terms set by the UNEP/SustainAbility ranking) which was one of the better scoring items on the list (ibid., p. 10). While the perceived range of stakeholders are quite broad, when it comes to evaluating the reports, Milne et al (2003) clarify that “most of the reports cover few stakeholders (typically few beyond employees and local communities) … Where local communities are included, … the focus is almost invariably on the organisation’s sponsorship of local community groups and not the negative impacts of its core business” (ibid., p. 12). Discourse analysis by Milne et al (2004) led to their conclusion that “the reporters tend to conceive themselves at the centre of relationships with stakeholders” and thus “the conception is not what is the position of our company in wider society but how does everyone interact with us … the focus in most cases tends to be on the direct and immediate relationships between the organisation and each stakeholder group, and typically on the positive impacts the organisation is having on each group” (ibid., p. 21). |
| Inclusion of social dimension? | Milne et al (2004)’s analysis of the social dimension comes through most clearly when analysing the way relationships with stakeholders are perceived in the report (as discussed in ‘Potential / actual / perceived stakeholders’ section above). They also note that “wider social issues of equity and social justice are absent from these reports” (ibid., p 21). |
| Description of report content? | There is no description of the content of each report; their focus is to analyse the content (see section on ‘analysis of report content’ below). |
| What’s not in the report? | Milne et al (2003, p. 12): “Most of the reports … could easily be accused of cherry-picking elements of news. Where local communities are included, for example, the focus is almost invariably … not the negative impacts of its core business. The reports generally ignore the major social issues that arise from corporate activity such as lobbying, advertising, increased consumption, distribution of wealth and so on.” Milne et al (2004, p. 21): ”Wider social issues of equity and social justice are absent from these reports and so from their conceptions of sustainable development.” |
## Appendix 2 continued: Review of Milne et al. (2004) (p. 3/5)

<table>
<thead>
<tr>
<th>Analysis of report content? Method of analysis? Results?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milne et al’s analysis in 2004 is built on their 2003 analysis. They are discussed separately.</td>
</tr>
</tbody>
</table>

1. Milne et al (2003) use the UNEP/SustainAbility (1996) scoring system to evaluate the completeness and quality of the reports. Two reviewers scored each of the eight reports using these criteria as a check on the subjectivity involved in such a process. Two organisations, Landcare and Watercare scored relatively well. They are also among the top scorers by UNEP/SustainAbility worldwide. However, the authors note that these are relatively small organisations “whose “job” it is to “care” for the land or water” (*op cit.*, p. 11). They also have been engaged in environmental and social reporting practices and have won national awards. The other reporters score much lower (mostly because they are less complete, but also because the reporting quality is lower), and the authors note that “a fair and predictable reaction” is that “it’s early days”, and given time they will improve their reporting” (*ibid.*, p. 12). While such improvement is expected, the authors note that “evidence from longer-standing international surveys suggests there will be limits to that improvement” (*ibid.*). Another aspect noted by the authors is that ease with which companies report on efforts where there are win-win elements such as energy and waste management issues. However “they are less inclined to tackle voluntarily the win-lose issues that involve increased costs or sacrificed financial benefits for environmental benefits” (*ibid.*).

2. Milne et al (2004) examines the language used to represent conceptions of sustainability in the reports, focusing on metaphors used when referring to sustainability. This interpretive structuralist approach is built on the notion that language is not only used to represent reality, but also “as a way of constituting reality” (*ibid.*, p. 8); i.e. producing meaning. In addition to the 8 TBL reports, they also analysed the contents of materials produced by the NZBCSD. Representation of sustainability were identified and categorised into themes (p. 10). The following five themes were discussed: [1] sustainable development as a journey (this theme is examined in more detail in Milne et al (2005) and discussed further below); [2] sustainable development as a means to an end, involving notions of measuring and managing that seek to communicate a sense of control and expert management of the resource base; [3] win-win notions that sustainable development can be good for both the environment and for business; [4] sustainable development as a commitment to stakeholders, using notions of caring, trust and dialogue; and [5] sustainable development as a balancing act, often used to avoid saying how conflicts are actually going to be resolved. They conclude that “NZBCSD’s position on sustainable development is no different to that of corporate social responsibility” (p. 21), and this confusion when conceiving sustainability means that organisations involved rarely respond to the critics of the reformist approach that there are natural limits to development, that organisations not only produce, they also destroy – most operating in an unsustainable way, and that sustainability requires more than just a response from one organisation as it is a systems level concept (p. 22). They acknowledge that it is difficult to criticise organisations which are “leading the way”, quoting NZ’s PM Helen Clarke “with sustainability issues, any steps forward are worthwhile”. However, as pioneers in advocating change in business practices, the rhetoric they use to promote sustainability issues might end up misleading NZ’ers about the true meaning of sustainability, and what is required to attain it. They conclude with a question, not unlike that driving my research: “One wonders to what extent these changes [associated with the development of sustainability reporting] represent real underlying changes in business practices … and/or to what extent they are simply representative of, or indeed a complicit part of, a changing corporate rhetoric” (p. 24).

3. Milne et al (2005) take the metaphor of sustainability as a journey further in a more thorough analysis of a much wider range of business and professional texts obtained via a Google search of texts using both “sustainability” or “sustainable development” and “journey”. Again the way in which this metaphor was used was organised into themes, and they concluded the metaphor has the effect of [1] simplifying sustainability into everyday language; [2] binds the journey with a faith in progress; [3] defers the achievement of sustainability because if forestalls the “radical change many commentators believe is necessary” (p. 19); [4] it could be
Appendix 2 continued: Review of Milne et al. (2004) (p. 4/5)

<table>
<thead>
<tr>
<th>Analysis of report content?</th>
<th>Method of analysis?</th>
<th>Results?</th>
</tr>
</thead>
<tbody>
<tr>
<td>used to deflect criticism or dissent by the ambiguity of being on a path to something without having to discuss “what of (radically different) performance is needed to provide a sustainable future” (p. 19); and [5] redefines sustainability “in ways that do not threaten business as usual” (p. 20). Because the journey metaphor enables lack of clarity about the meaning of sustainability “it serves to justify and reinforce incremental rather than radical efforts to change – precisely because it avoids all discussion of what it is business might (or needs to) change to” (p. 21). This is tied to a distinction made between “what a sustainable business would actually look like” as one that “contributes to a sustainable society” as opposed to one that merely becomes a “sustainable business”; i.e. sustaining itself perhaps even “at the expense of society” (p. 22). Organisations who adopt the metaphor are able to (re)present themselves as “doing some things to change and are aware that they have to do more, without necessarily specifying in any particular detail what the ultimate destination of their respective journeys will be” (p. 22) “it deemphasises discussion of desirable future states of living, and neatly sidesteps any debate about, or need to radically change course” (p. 23).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


| Description of indicators used (general overview)? | X |
| Description of social indicators used (specific details – list)? | X |
| Analysis of indicators used? Method of analysis? Results? | X |

| Description of process to develop indicators? | X |
| Analysis? Method of analysis? Results? | X |
| Theoretical assumptions behind process? | X |
| Description of process of stakeholder engagement? | X |
| Analysis? Method of analysis? Results? | X |
| Theoretical assumptions behind process? | X |

| Analysis of outcomes from the organisation’s perspective? | X |
| Organisational learning (e.g. increased awareness / knowledge) | X |
| Capacity building (e.g. increased confidence to change, improved networks) | X |
| Change in policies? | X |
| New programs? | X |
| Change in practices? | X |
| Analysis of outcomes from the perspectives of individuals in the company? | X |
| Individual learning (e.g. increased awareness / knowledge) | X |
| Individual capacity building (e.g. increased confidence to change, improved networks) | X |
| Individual change in practices? | X |
| Analysis of outcomes from the perspective of external stakeholders engaged in the process? | X |
| Analysis of outcomes from the perspectives of the media / general public? | X |
| Analysis of ‘credibility gap’? (i.e. differences between internal and external expectations?) | X |
## Appendix 2 continued: Review of Milne et al. (2004) (p. 5/5)

<table>
<thead>
<tr>
<th>TBL benefits (from author's perspective)</th>
<th>1. TBL reporting enable the pursuit of win-win scenarios for both the environment and business (but see limitation below).</th>
</tr>
</thead>
</table>
| TBL benefits (that occur to me after reading this article) | 2. Today’s TBL reports might represent the ‘thin edge of the wedge’ of future reporting practice, TBL reporters are pioneers on the journey to sustainability with an emphasis on going beyond just ‘talk’ by backing up the talk with action.  
3. Pioneering TBL reports have often been in response to criticisms based on sound (radical) concepts of sustainability about the way businesses were operating.  
4. There is a potential for TBL reports to communicate sustainability issues to a broader audience in a more accessible way than many other contemporary efforts. |
| TBL limitations / issues (from author’s perspective) | 7. Simplifying the concept of sustainability with the use of everyday metaphors has the tendency to de-emphasise discussion of desirable future states of living, and sidestep or forestall the debate about whether radical change is necessary.  
8. It is difficult for TBL reports to respond to arguments that there are natural limits to development, that organisations not only produce, they also destroy, that most operate in an unsustainable way, and that sustainability requires more than just a response from one organisation as it is a systems level concept.  
9. TBL reporting is all about incremental change and avoids discussion about radical efforts businesses might need to adopt to achieve sustainability.  
10. There is a tendency to only present the good news, and the more complex and broader social issues of equity and social justice are not often dealt with in TBL reports.  
11. TBL reporting encourages a perception of the reporting organisation at the centre; stakeholder relationships are analysed from this perspective leading to a tendency to focus on direct and immediate relationships between the organisation and each stakeholder group.  
12. The focus on win-win scenarios means that organisations are less inclined to tackle win-lose situations where they may need to sacrifice financial benefits in order to make a contribution to a more sustainable society. |
| TBL limitations / issues (that occur to me after reading this article) | |
| Potential evaluation criteria (from author’s perspective) | 8. To what extent does the TBL reporting process represent real underlying changes in business practices rather than simply representative of a changing corporate rhetoric?  
9. To what extent are social issues of equity and social justice dealt with in the TBL reporting process?  
10. To what extent does the reporting process include stakeholder groups with less direct or immediate relationships with the organisation? |
| Potential evaluation criteria (that occur to me after reading this article) | 11. To what extent does the reporting process enable those involved specify what changes they need to make in the future?  
12. To what extent does the reporting process facilitate all those involved to discuss, debate and detail what the destination of the journey towards sustainability will be like, and what needs to be done to reach that destination?  
13. To what extent does discussion on sustainability during the reporting process focus on contributions towards a sustainable society as opposed to merely sustaining the business?  
14. To what extent does the reporting process enable those involved find resolutions to the conflicts surrounding development and sustainability?  
15. To what extent does the reporting process lead the organisation to make financial sacrifices in the interests of contributing to sustainability? |
Appendix 3: Information statement provided to interviewees

Information Statement for Interviewees for my PhD Project:
Triple bottom line reporting: Can it lead to enhanced sustainability?

Most of you already know me, Michael Mitchell, a PhD student based at Charles Sturt University with a scholarship from CRC for Irrigation Futures. My supervisors are Prof. Allan Curtis and Dr. Penny Davidson [contact details provided]. [The MI Corporate Affairs Manager] is the industry mentor for my PhD project.

My research is investigating the extent to which triple bottom line (TBL) reporting processes are useful means through which organisations can learn about how they can make practical contributions towards a sustainable future. I am not so much interested in the report itself. I am more interested in the impacts arising from the reporting process: how it contributes to a process of learning and capacity building within the organisation and among its key stakeholders; how that learning and capacity building enables changes to be implemented by the organisation; and whether those changes result in an improvement in organisational performance on sustainability issues.

My interviews will focus on your thoughts in response to these questions. I am interested in the extent to which you as an individual feel you have learnt, feel better equipped and have been practically enabled to contribute to the sustainability issues being faced by the organisation. I am also interested in your thoughts and attitudes about how you think the organisation as a whole has learnt, is better equipped and has been practically enabled to make contributions towards a sustainable future. I am also interested in any constraints that impede such progress. The interviews will take between 30 minutes and an hour, and will be taped unless you do not agree to this.

This note is to advise you that I will respect your wishes to keep things you say confidential. Nobody else will have access to my records and/or transcripts of these interviews. I will not mention your names in any publications derived from this research; I will use coding instead to prevent identification. Even so, you need to be aware that those with responsibility for your employment may, through clever guesswork, imagine they can identify sources of quotes or comments that I use. I will at all times seek to avoid this, including, if necessary, removing any comments from the record that you are concerned about.

If you consent to being interviewed, please read and sign the attached consent form which I will collect at the start of the interview. My intention is to produce research that will help you and others evaluate the effectiveness of TBL reporting. However, if you have any concerns about the interviews, or wish to withdraw consent for me to use the interview records, please feel free to discuss this with me or my supervisors at any time. Whatever your concerns are, I will respect your wishes, and will be happy to discuss how I will use my records in accordance with your wishes.

NOTE: Charles Sturt University’s Ethics in Human Research Committee has approved this project. If you have any complaints or reservations about the ethical conduct of this project, you may contact the Committee through the Executive Officer:

The Executive Officer  
Ethics in Human Research Committee  
Academic Secretariat  
Charles Sturt University  
Private Mail Bag 29  
Bathurst NSW 2795  
Tel: (02) 6338 4628  
Fax: (02) 6338 4194

Any issues you raise will be treated in confidence and investigated fully and you will be informed of the outcome.
Appendix 4: Report of MI’s TBL reporting evaluation workshop

This report summarises the outcomes of the 3rd workshop on triple bottom line (TBL) reporting that has developed through collaboration between Murrumbidgee Irrigation and the CRC for Irrigation Futures (see below). The workshop was held in Griffith on 23 March 2007.

Workshop aims and background:

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Aim:</th>
<th>Organised with:</th>
<th>When:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Workshop</td>
<td>For MI to review its past reporting and set goals for future reporting</td>
<td>CRC IF ‘Sustainability Challenge project’</td>
<td>July 05</td>
</tr>
<tr>
<td>2nd Workshop</td>
<td>To identify TBL issues and objectives to include in MI’s Annual Report</td>
<td>CRC IF Sustainability Challenge project</td>
<td>Dec 05</td>
</tr>
<tr>
<td>3rd Workshop</td>
<td>To evaluate MI’s progress on TBL reporting, develop an action plan for the future and review measures used in MI’s Annual Report</td>
<td>CRC IF PhD student, Michael Mitchell</td>
<td>Mar 07</td>
</tr>
</tbody>
</table>

3rd Workshop: Who went and what happened?

Participants: 10 MI staff (and 2 apologies) and 3 facilitators from CRC IF

Session 1: Evaluate progress on TBL reporting and develop an action plan:

Participants used criteria developed by PhD researcher Michael Mitchell to evaluate MI’s progress on TBL reporting. They were asked to identify positive developments to date (summarised below) and areas where MI could make improvements. To respond to the latter, the workshop developed the action plan shown on page 2.

Session 2: Review measures used in MI’s Annual Report:

The second session focused on the measures used in the ‘TBL Snapshot’ on page 3 of MI’s 05-06 Annual Report. Participants first discussed which of the measures included on that page should be retained in future reports and why. They then added to this list by selecting from the ‘Balanced Scorecard’ measures used as part of MI’s internal performance reporting system.

Workshop results:

i. Summary of positive developments to date:

- TBL ‘snapshot’ page introduced in 05-06 Annual Report
  - road-tested; a foundation for future refinement
- Internal ‘Balanced Scorecard’ (BSC) reporting systems established
  - has involved lots of time for reflection / strategic thinking
  - has increased management’s understanding of staff; led to significant organisational changes
  - reporting against BSC monthly and quarterly; monthly staff newsletter produced
  - BSC reporting can be linked to TBL format for public reporting
  - TBL performance indicators being developed and tested
- Commitment from management to TBL reporting
  - time allocated for workshops involving key staff across different parts of MI
  - willingness to be transparent; a CRC IF case study of TBL reporting
- Process to develop TBL reporting underway
  - appreciation of the need to address TBL issues and social obligations
  - helped MI Board think about equity issues – part of agenda for further discussion
  - staff engaged in contributing to Annual Report content
  - community consulted on MI’s major projects
  - internal discussions on collaborating with other organisations – e.g. research projects
ii. Action Plan: List of actions recommended to improve future process of TBL reporting

1. Acknowledge and build on progress achieved to date (see summary on page 1)

2. Establish project team to integrate BSC & key performance indicators (KPIs) into TBL format for future Annual Reports with the aim of improving connectivity between BSC and TBL. Tasks:
   a. Continue to identify TBL indicators for Annual Report from BSC measures dictionary and Business Unit Plans (BUPs)
   b. Unit managers to condense BUP KPIs up to corporate plan KPIs and to TBL
   c. Make connection between perceptions audit and TBL
   d. Plan for more types of communication media to be used for public reporting

3. Publish monthly BSC data to MI team – channel these into TBL report

4. Use monthly staff newsletter to canvas ideas and get feedback

5. Use quarterly managers and coordinators meetings to go through BSC to discuss implications for TBL reporting and so that reporting goes up through the organisation

6. Use the scheduled Business Unit team meetings to empower team members to link BSC measures with TBL performance – could be part of 7 below

7. Conduct workshops (with staff and shareholders) for reflection and planning on the reporting process and to think about actions

8. Conduct surveys and/or focus groups with shareholders and/or other stakeholders to engage them in reflection on TBL performance and reporting – a question of timing; also challenging

9. Use cross-referencing in Annual Report from snapshot page to detailed explanations in performance reporting pages – including strategic objectives being addressed by each indicator

10. Enhance connection between Board / managers' strategic planning and final report – Board considers what they want to report on the year prior

iii. Revised list of measures recommended for inclusion in future MI Annual Reports

The workshop recommended that the snapshot page be divided into two sections: (1) statistics to be used as part of a page that introduces the company; and (2) measures that will be used to track MI's performance against the TBL in a snapshot format. The suggested rearrangement of indicators is shown in the appendix together with a list of measures that workshop participants recommended be added to the Annual Report either in the introduction or on the performance snapshot page.

Concluding comments and recommendation:

When introducing the workshop, [MI's Managing Director] emphasised that reporting is more than just a report. Reporting is a means to drive improvement in MI’s performance. Organising opportunities for reflection provides the link between reporting and developing strategies to improve performance; a key link that ensures MI can build on past efforts on a path of continuous improvement as shown in the diagram over the page. Feedback from the workshop suggests that it was a valuable opportunity for key staff from across the organisation to get together and share ideas. The involvement of staff has been a key element in MI's approach to date, and MI recognises the benefits of engaging external stakeholders in this process as it develops its reporting process into the future.

Recommendation:

MI should organise similar workshops after the release of MI's annual report every year to get key staff and other external stakeholders together to reaffirm or reassess MI's corporate objectives and the quality of the measures used to assess progress against those objectives.

Michael Mitchell, June 2007
## Appendix 5: TBL snapshot page in MI’s 2005-06 Annual Report

### MI Snapshot

<table>
<thead>
<tr>
<th>Measure</th>
<th>2005/06</th>
<th>2004/05</th>
<th>2003/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of MIA region</td>
<td>ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIA irrigated area</td>
<td>ha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company water licences</td>
<td>ML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of landholdings</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Economic

<table>
<thead>
<tr>
<th>Measure</th>
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<th>2004/05</th>
<th>2003/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating revenue</td>
<td>$'000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating expenditure</td>
<td>$'000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating earnings before interest and tax</td>
<td>$'000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net temporary transfers into licence</td>
<td>ML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net allocation advances into licence</td>
<td>ML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-allocation supply diverted</td>
<td>ML</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total irrigation diversions (excluding environmental flows)</td>
<td>ML</td>
<td>1,096,619</td>
<td>826,207</td>
</tr>
<tr>
<td>Sales (including DNR licences)</td>
<td>ML</td>
<td>820,000</td>
<td>648,417</td>
</tr>
<tr>
<td>Maximum pre-end February availability enhancement</td>
<td>% 8</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Total allocation enhancement</td>
<td>% 3</td>
<td>3</td>
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#### Environmental

<table>
<thead>
<tr>
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<th>2005/06</th>
<th>2004/05</th>
<th>2003/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater area less than two metres</td>
<td>%</td>
<td>12.0</td>
<td>10.0</td>
</tr>
<tr>
<td>MIA EnviroWise program/Incentives delivered</td>
<td>%</td>
<td>62</td>
<td>46</td>
</tr>
<tr>
<td>Crops planted (% hectares)</td>
<td>%</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>- winter cereals</td>
<td>%</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>- horticulture</td>
<td>%</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>- rice</td>
<td>%</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>- other</td>
<td>%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop water use</td>
<td>ML/ha</td>
<td>2.4</td>
<td>3.4</td>
</tr>
<tr>
<td>- winter cereals</td>
<td>ML/ha</td>
<td>7.4</td>
<td>5.4</td>
</tr>
<tr>
<td>- summer cereals</td>
<td>ML/ha</td>
<td>5.6</td>
<td>6.1</td>
</tr>
<tr>
<td>- citrus</td>
<td>ML/ha</td>
<td>5.1</td>
<td>5.5</td>
</tr>
<tr>
<td>- vines</td>
<td>ML/ha</td>
<td>12.9</td>
<td>12.7</td>
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</table>

#### Social

<table>
<thead>
<tr>
<th>Measure</th>
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<th>2004/05</th>
<th>2003/04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees (full time equivalent)</td>
<td></td>
<td>188</td>
<td>179</td>
</tr>
<tr>
<td>Lost time to injuries</td>
<td>hours</td>
<td>692</td>
<td>996</td>
</tr>
<tr>
<td>Total training expenditure</td>
<td>$’000</td>
<td>363</td>
<td>360</td>
</tr>
<tr>
<td>Total training expenditure / base salaries</td>
<td>%</td>
<td>3.53</td>
<td>3.72</td>
</tr>
<tr>
<td>DOORS assistance</td>
<td>$’000</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Sponsorships / donations</td>
<td>$’000</td>
<td>20</td>
<td>16</td>
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</tbody>
</table>

### Glossary

DNR = Department of Natural Resources, FRS = flow rate share, ha = hectares, IHSS = Integrated Horticulture Supply.
MI = Murrumbidgee Irrigation, MIA = Murrumbidgee Irrigation Area and Districts, ML = megalitres
### Table 1: Three-year snapshot of company information

<table>
<thead>
<tr>
<th>Company information</th>
<th>Measure</th>
<th>2006/07</th>
<th>2005/06</th>
<th>2004/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of MIA region</td>
<td>ha</td>
<td>660,000</td>
<td>660,000</td>
<td>660,000</td>
</tr>
<tr>
<td>MIA irrigated area</td>
<td>ha</td>
<td>196,125</td>
<td>140,200</td>
<td>125,100</td>
</tr>
<tr>
<td>Company water licences</td>
<td>ML</td>
<td>1,486,000</td>
<td>1,487,000</td>
<td>1,485,000</td>
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<tr>
<td>Number of landholdings</td>
<td></td>
<td>3,320</td>
<td>3,287</td>
<td>3,259</td>
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<tr>
<td>Net temporary transfers into licences</td>
<td>ML</td>
<td>6,142</td>
<td>14,712</td>
<td>11,463</td>
</tr>
<tr>
<td>Net temporary transfers out of licences</td>
<td>ML</td>
<td>51,226</td>
<td>19,888</td>
<td>19,750</td>
</tr>
<tr>
<td>Net allocation advances into licences</td>
<td>ML</td>
<td>0</td>
<td>103,905</td>
<td>(111,590)</td>
</tr>
<tr>
<td>Off-allocation supply diverted</td>
<td>ML</td>
<td>0</td>
<td>74,173</td>
<td>62,411</td>
</tr>
<tr>
<td>Total irrigation diversions</td>
<td>ML</td>
<td>559,952</td>
<td>1,038,519</td>
<td>826,207</td>
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<tr>
<td>(excluding environmental flows)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>ML</td>
<td>411,686</td>
<td>829,990</td>
<td>648,417</td>
</tr>
<tr>
<td>Conveyance – used</td>
<td>ML</td>
<td>148,054</td>
<td>208,529</td>
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<tr>
<td>Groundwater area less than 2 metres</td>
<td>%</td>
<td>8</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Average depth to shallow groundwater</td>
<td>metres</td>
<td>3.52</td>
<td>3.53</td>
<td>3.21</td>
</tr>
<tr>
<td>Crops planted (% hectares)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter cereals</td>
<td>%</td>
<td>49</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Horticulture</td>
<td>%</td>
<td>27</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>Rice</td>
<td>%</td>
<td>2</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>%</td>
<td>22</td>
<td>27</td>
<td>28</td>
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<tr>
<td>Crop water use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter cereals</td>
<td>ML/ha</td>
<td>2.4</td>
<td>2.4</td>
<td>3.4</td>
</tr>
<tr>
<td>Summer cereals</td>
<td>ML/ha</td>
<td>7.6</td>
<td>7.4</td>
<td>5.4</td>
</tr>
<tr>
<td>Citrus</td>
<td>ML/ha</td>
<td>5.7</td>
<td>5.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Vines</td>
<td>ML/ha</td>
<td>4.5</td>
<td>5.1</td>
<td>5.5</td>
</tr>
<tr>
<td>Rice</td>
<td>ML/ha</td>
<td>13.4</td>
<td>12.9</td>
<td>12.7</td>
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<tr>
<td>No of employees (equivalent full-time)</td>
<td></td>
<td>177</td>
<td>186</td>
<td>179</td>
</tr>
</tbody>
</table>

### Abbreviations

- ACCC: Australian Competition and Consumer Commission
- ACF: Australian Conservation Foundation
- AFFRA: Acoustic Survey for remote areas
- BWSS: Barkers Creek Storage and Water Reliability Assessment
- DECC: Department of Environment and Climate Change
- DWE: Department of Water and Energy
- GS: general security
- ha: hectares
- HS: high security
- IHSS: Integrated Horticulture Supply
- IPART: Independent Pricing and Regulatory Tribunal
- IVR: Interactive Voice Recognition
- MDB: Murray-Darling Basin Commission
- MDBC: Murray-Darling Basin Commission
- MI: Murrumbidgee Irrigation
- MIA: Murrumbidgee Irrigation Area
- ML: megalitre
- NAP: National Action Plan for Salinity and Water Quality
- NFF: National Farmers’ Federation
- NHT: National Heritage Trust
- NPSW: National Plan for Water Security
- NWI: National Water Initiative
- PM: Prime Minister
- SRFSS: Southern Riverina Youth Support Services

Murrumbidgee Irrigation Limited 2007 annual report
### Table 2: Three-year snapshot of environmental, social and economic indicators

<table>
<thead>
<tr>
<th>Measure</th>
<th>2006/07</th>
<th>2005/06</th>
<th>2004/05</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIA EnviroWise incentives delivered</td>
<td>218</td>
<td>187</td>
<td>258</td>
</tr>
<tr>
<td>Value of MIA EnviroWise incentives delivered</td>
<td>$000</td>
<td>1,500</td>
<td>1,300</td>
</tr>
<tr>
<td>MIA EnviroWise incentives / full-time employees</td>
<td>$000</td>
<td>512</td>
<td>451</td>
</tr>
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<td>FarmWise participants</td>
<td>83</td>
<td>60</td>
<td>130</td>
</tr>
<tr>
<td>Biodiversity plantings</td>
<td>hectares</td>
<td>301</td>
<td>9</td>
</tr>
<tr>
<td>NAP administration versus on-ground (funds spent on admin versus on-ground works)</td>
<td>%</td>
<td>8</td>
<td>12.5</td>
</tr>
<tr>
<td>Compliance breaches</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>SOCIAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lost time to injuries</td>
<td>hours</td>
<td>1,757</td>
<td>890</td>
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<td>Lost time frequency rates</td>
<td>injuries per million hours</td>
<td>35.6</td>
<td>32.1</td>
</tr>
<tr>
<td>Average lost time per injury / disease</td>
<td>days</td>
<td>23.4</td>
<td>11.1</td>
</tr>
<tr>
<td>Total training expenditure / base salaries</td>
<td>%</td>
<td>3.35</td>
<td>3.33</td>
</tr>
<tr>
<td>Attendance</td>
<td>%</td>
<td>96.5</td>
<td>96.1</td>
</tr>
<tr>
<td>DOORS assistance</td>
<td>$000</td>
<td>30</td>
<td>30</td>
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<tr>
<td><strong>ECONOMIC</strong></td>
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<td></td>
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<tr>
<td>Operating revenue</td>
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<td>20,636</td>
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<td>Operating expenditure</td>
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<td>Operating earnings before interest and tax</td>
<td>$000</td>
<td>(1,579)</td>
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<tr>
<td>Net assets</td>
<td>$000</td>
<td>311,095</td>
<td>290,123</td>
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<td>Contract and other revenue</td>
<td>$000</td>
<td>1,287</td>
<td>951</td>
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<tr>
<td>Investment revenue</td>
<td>$000</td>
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<td>1,597</td>
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<tr>
<td>Non-operating government revenue</td>
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<td>14,100</td>
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<tr>
<td>System efficiency</td>
<td>%</td>
<td>74</td>
<td>79</td>
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<tr>
<td>Pre-end Feb availability enhancement</td>
<td>%</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>
## Appendix 7: TBL snapshot page in MI’s 2007-08 Annual Report

### MI INFORMATION

#### Table 1: Three-year snapshot of company information

<table>
<thead>
<tr>
<th>Company Information</th>
<th>Measure</th>
<th>2007/08</th>
<th>2006/07</th>
<th>2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of MIA region</td>
<td>ha</td>
<td>660,000</td>
<td>660,000</td>
<td>660,000</td>
</tr>
<tr>
<td>MIA irrigated area</td>
<td>ha</td>
<td>609,073</td>
<td>106,125</td>
<td>140,200</td>
</tr>
<tr>
<td>Company water licences</td>
<td>ML</td>
<td>1,426,000</td>
<td>1,488,000</td>
<td>1,487,000</td>
</tr>
<tr>
<td>Number of landholdings</td>
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<td>3,353</td>
<td>3,200</td>
<td>3,297</td>
</tr>
<tr>
<td>Net temporary transfers into licences</td>
<td>ML</td>
<td>15,629</td>
<td>6,142</td>
<td>14,712</td>
</tr>
<tr>
<td>Net temporary transfers out of licences</td>
<td>ML</td>
<td>160,624</td>
<td>51,226</td>
<td>19,888</td>
</tr>
<tr>
<td>Net allocation advances into licences</td>
<td>ML</td>
<td>0</td>
<td>0</td>
<td>100,905</td>
</tr>
<tr>
<td>Off allocation supply diverted</td>
<td>ML</td>
<td>0</td>
<td>0</td>
<td>74,173</td>
</tr>
<tr>
<td>Total irrigation diversions (excluding environmental flows)</td>
<td>ML</td>
<td>395,687</td>
<td>598,052</td>
<td>1,038,619</td>
</tr>
<tr>
<td>Sales</td>
<td>ML</td>
<td>210,257</td>
<td>411,494</td>
<td>629,590</td>
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<tr>
<td>Conveyance** used</td>
<td>ML</td>
<td>125,960</td>
<td>140,024</td>
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<tr>
<td>Ground cover area less than 2 metres</td>
<td>%</td>
<td>&lt;1</td>
<td>8</td>
<td>12</td>
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<tr>
<td>Average depth to shallow groundwater</td>
<td>metres</td>
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<td>3.53</td>
</tr>
<tr>
<td>Crops planted (% hectares)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>winter cereals/oilseds</td>
<td>%</td>
<td>30</td>
<td>49</td>
<td>35</td>
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<tr>
<td>horticulture</td>
<td>%</td>
<td>48</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>noe</td>
<td>%</td>
<td>0**</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>other</td>
<td>%</td>
<td>16</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Crop water use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>winter cereals/oilseds</td>
<td>ML/ha</td>
<td>1.8</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>summer cereals</td>
<td>ML/ha</td>
<td>5.1</td>
<td>7.8</td>
<td>7.4</td>
</tr>
<tr>
<td>citrus</td>
<td>ML/ha</td>
<td>5.0</td>
<td>5.7</td>
<td>5.5</td>
</tr>
<tr>
<td>vines</td>
<td>ML/ha</td>
<td>3.9</td>
<td>4.5</td>
<td>5.1</td>
</tr>
<tr>
<td>noe</td>
<td>ML/ha</td>
<td>13.3</td>
<td>13.4</td>
<td>12.9</td>
</tr>
<tr>
<td>No of employees (equivalent full-time)</td>
<td></td>
<td>165</td>
<td>177</td>
<td>189</td>
</tr>
</tbody>
</table>

* Subject to AFPR (off-phase meter) correction
** A small amount of noe was grown, approximately 0.2%, but rounding equivalent was 0

### Abbreviations

- ACCC: Australian Competition and Consumer Commission
- AFPR: Accurate Flow Reconciliation
- Bligh: Bligh Basin Irrigation
- CMA: Catchment Management Authority
- DECC: Department of Environment and Climate Change
- DPIE: Department of Primary Industries and Environmental Affairs
- GS: General Security
- ha: Hectare
- HS: High Security
- IHIS: Integrated Horticulture Supply
- IPI: Interactive Voice Recognition
- KtCO2e: Kilograms of carbon dioxide equivalents (greenhouse gas emissions)
- MIA: Murray Irrigation Area
- MIA: Murray Irrigation Area
- MRA: Murray-River Irrigation Area
- NAP: National Action Plan for Salinity and Water Quality
- NFH: National Farmers Federation
- NIC: National Irrigators Council
- NRMA: National Resource Management Authority
- SBRS: Southern Riverina Youth Support Services
- TJ: Terra Jules
# PERFORMANCE SNAPSHOT

## Table 2: Three-year snapshot of environmental, social and economic indicators

<table>
<thead>
<tr>
<th>Measure</th>
<th>2007/08</th>
<th>2006/07</th>
<th>2005/06</th>
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</thead>
<tbody>
<tr>
<td><strong>ENVIRONMENTAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIA Envirowise incentives delivered</td>
<td>427</td>
<td>218</td>
<td>187</td>
</tr>
<tr>
<td>Value of MIA Envirowise incentives delivered</td>
<td>$1.00m</td>
<td>2.500</td>
<td>1.500</td>
</tr>
<tr>
<td>MIA Envirowise incentives / full-time employees</td>
<td>833</td>
<td>512</td>
<td>451</td>
</tr>
<tr>
<td>FarmWise participants</td>
<td>92</td>
<td>93</td>
<td>69</td>
</tr>
<tr>
<td>Biodiversity plantings</td>
<td>hectares</td>
<td>504</td>
<td>351</td>
</tr>
<tr>
<td>NAP administration versus on-ground (funds spent on admin versus on-ground works)</td>
<td>%</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Compliance breaches</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Emissions</td>
<td>kg CO₂-e</td>
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<td>Energy use</td>
<td>TJ</td>
<td>40.17</td>
<td>40.86</td>
</tr>
<tr>
<td><strong>SOCIAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lost time to injuries</td>
<td>hours</td>
<td>672</td>
<td>1,757</td>
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<tr>
<td>Lost time frequency rates</td>
<td>hours</td>
<td>39.8</td>
<td>36.8</td>
</tr>
<tr>
<td>Average lost time per injury / disease</td>
<td>days</td>
<td>7.6</td>
<td>23.4</td>
</tr>
<tr>
<td>Total training expenditure / base salaries</td>
<td>%</td>
<td>2.73</td>
<td>3.35</td>
</tr>
<tr>
<td>Attendance</td>
<td>%</td>
<td>96</td>
<td>90.5</td>
</tr>
<tr>
<td>DOORS assistance</td>
<td>$’000</td>
<td>0*</td>
<td>30</td>
</tr>
<tr>
<td><strong>ECONOMIC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating revenue</td>
<td>$’000</td>
<td>14,219</td>
<td>15,067</td>
</tr>
<tr>
<td>Operating expenditure</td>
<td>$’000</td>
<td>18,323</td>
<td>19,308</td>
</tr>
<tr>
<td>Operating earnings before interest and tax</td>
<td>$’000</td>
<td>(4,128)</td>
<td>(4,241)</td>
</tr>
<tr>
<td>Contract and other revenue</td>
<td>$’000</td>
<td>2,523</td>
<td>1,339</td>
</tr>
<tr>
<td>Investment revenue</td>
<td>$’000</td>
<td>3,099</td>
<td>2,944</td>
</tr>
<tr>
<td>Non-operating government revenue</td>
<td>$’000</td>
<td>16,845</td>
<td>11,056</td>
</tr>
<tr>
<td>Profit before income tax</td>
<td>$’000</td>
<td>8,122</td>
<td>18,503</td>
</tr>
<tr>
<td>Net Assets</td>
<td>$’000</td>
<td>315,503</td>
<td>311,995</td>
</tr>
<tr>
<td>System efficiency</td>
<td>%</td>
<td>63</td>
<td>74</td>
</tr>
<tr>
<td>Pre-end Feb availability enhancement (return from 2005/06)</td>
<td>%</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

*DOORS assistance: MI withheld the annual $20k contribution in 2007/08 pending a review of the DOORS program. Funds were still available from past contributions to assist participants in the 2003/04 program.
References


Brown, A., & Gray, I. (2003). Should, can and how might researchers help to integrate social, economic and environmental considerations into the planning process? In B. Pritchard, A. Curtis, J. Spriggs & R. Le Heron (Eds.), Social dimensions of the triple bottom line in rural Australia (pp. 49-59). Canberra: Bureau of Rural Sciences.


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