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Accounting as a human right: the case of water information

Accounting as a
human right

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Abstract

Purpose – This paper aims to respond to increasing interest in the intersection between accounting and human rights and to explore whether access to information might itself constitute a human right. As human rights have “moral force”, establishing access to information as a human right may act as a catalyst for policy change. The paper also aims to focus on environmental information, and specifically the case of corporate water-related disclosures.

Design/methodology/approach – This paper follows Griffin and Sen, who suggest that a candidate human right might be recognised when it is consistent with “founding” human rights, it is important and it may be influenced by societal action. The specific case for access to corporate water-related information to constitute a human right is evaluated against these principles.

Findings – Access to corporate water-related disclosures may indeed constitute a human right. Political participation is a founding human right, water is a critical subject of political debate, water-related information is required in order for political participation and the state is in a position to facilitate provision of such information. Corporate water disclosures may not necessarily be in the form of annual sustainability reports, however, but may include reporting by government agencies via public databases and product labelling. A countervailing corporate right to privacy is considered and found to be relevant but not necessarily incompatible with heightened disclosure obligations.

Originality/value – This paper seeks to make both a theoretical and a practical contribution. Theoretically, the paper explores how reporting might be conceived from a rights-based perspective and provides a method for determining which disclosures might constitute a human right. Practically, the paper may assist those calling for improved disclosure regulation by showing how such calls might be embedded within human rights discourse.

Keywords Human rights, Water, Sustainability reporting, Information disclosure, Financial reporting

Paper type Conceptual paper

There is no magic in the marketplace (Professor John Ruggie, 2007, p. 3, UN Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business).

1. Introduction

An intersection of human rights and corporate reporting might be considered from two broad perspectives. One is that corporations should be accountable for their

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performance in relation to human rights (Ruggie, 2008; Kobrin, 2009; Ruggie, 2009; Chetty, 2011; Cooper *et al.*, 2011; Frankental, 2011; Gallhofer *et al.*, 2011; Gray and Gray, 2011; Islam and McPhail, 2011; McPhail and McKernan, 2011; Sikka, 2011) and should report on this performance. For example, the UN Global Compact prohibits organisations from being complicit in human rights abuses (United Nations Global Compact Office, 2008, p. 5) and requires them to report on their performance in upholding human rights (United Nations Global Compact Office, 2011). Similarly, the Global Reporting Initiative (GRI) G3.1 guidelines list 11 indicators that consider the reporting entity's activities from a human rights perspective (Global Reporting Initiative, 2011b, p. 1). Under this view, organisational performance in relation to human rights become part of the long list of organisational impacts worthy of reporting (or counter-reporting), albeit a crucial part[1].

A second perspective suggests that access to certain information might actually be a human right, or at the very least constitute a necessary (but not sufficient) condition for the realisation of human rights. It is this second view that is alluded to by Elkington (1999, p. 325):

Whether driven by new regulations, emerging political movements or a recognition that commercial efficiency demands greater levels of transparency, we will see a continuing shift from long-established “need to know” requirements to new “right to know” approaches.

Under this view, it is the availability of information that is itself a right. This view is based on the premise that without such information it is difficult or even impossible for other rights to be realised, and is the perspective explored in this paper.

Whether certain information or disclosures constitute a human right is important because the concept of human rights has normative force, and may also have legislative force in some jurisdictions. Such force – normative or legislative – is often a product of various forms of social and political discourse around the concept of human rights. For example, Risse and Ropp (1999) examined the impact of rights claims in various settings and suggested that this discourse was instrumental in changing practices in a number of cases (particularly when combined with strong advocacy networks operating at both the global and grassroots levels). They also highlighted the power of dialogue, suggesting “transnational human rights advocacy groups should be aware that arguments are among their most powerful socializing tools” (Risse and Ropp, 1999, p. 276). This view is consistent with the approach adopted by high-profile NGOs such as Amnesty International and Human Rights Watch, which attempt to drive social change via explicit appeals to human rights rather than to other moral theories. Sen (2004, p. 320) suggests that in addition to inspiring legislation and NGO activism, human rights can also provoke public discussion, appraisal and advocacy. This notion is highlighted by Meyer *et al.* (1997), who posit a distinct global culture, of which human rights are a central part, that drives both national policy and grassroots activism around the world. A global rights culture has subsequently created “waves of national policy and practice changes” (Meyer, 2000, p. 234). Clapham (2007, pp. 1-2) summarises the power of human rights:

Playing the “human rights card” can be persuasive, sometimes even conclusive, in contemporary decision making; this is one aspect of what makes the moral force of human rights so attractive – they help you to win arguments and, sometimes, to change the way things are done.

In the context of social and environmental accounting (SEA), the “things” that many wish to change relate to corporate disclosures. While the more critical strain of social and environmental accounting has been less optimistic of the possibilities of disclosures to drive change (e.g. Tinker *et al.*, 1991; Gibson, 1996; Lehman, 2001; Tinker and Gray, 2003; Spence, 2009), organisational sustainability reporting has been one of the dominant concerns of SEA research (Mathews, 1997; Gray, 2001; Deegan, 2002; Gray, 2002, 2005; Burritt and Schaltegger, 2010; Gray, 2010). Gray (2010, p. 57) identifies three reasons why organisational reporting is important. First, many organisations misleadingly present themselves as being sustainable and may be unchallenged on this point. Second, large corporations are exceedingly powerful, with a correlative duty for accountability. Third, they are at the heart of the capitalist system (with features of limited discretion, promotion of empty consumerism and political influence), which is largely responsible for unsustainability. Following Gray’s analysis, organisational sustainability reporting might therefore facilitate public discourse (Boyce, 2000) and challenge financially constructed social reality (Hines, 1988)[2], which may in turn lead to greater recognition of human rights.

Despite its apparent potential, organisational sustainability reporting has been shown to be woefully inadequate across various dimensions such as quantity and stakeholder inclusivity (Stark, 2001; Unerman and Bennett, 2004), deficiencies that also apply to the public sector (Cohen, 1993; Burritt and Welch, 1997; Rahaman *et al.*, 2004; Cruft, 2010). Studies have demonstrated clear instances of “greenwash” (Allartdt, 1993; Deegan and Rankin, 1996; Adams, 2004) leading to unsurprising scepticism by potential report users (Tilt, 2007). Such critiques have therefore been accompanied by calls for more extensive mandatory reporting (e.g. Gallhofer and Haslam, 1997; Gray, 2001; Gray and Milne, 2002; Adams, 2004; Adams and Zutshi, 2004; Gray and Milne, 2004), though as Gallhofer and Haslam (1997) point out, such calls (even within academia) have not been nearly as extensive or vociferous as warranted by the urgency of the underlying social and environmental problems. Yet for the most part, calls for mandatory social and environmental information have been unanswered and compliance with frameworks such as the GRI remains voluntary.

In light of a continued failure adequately to address calls for improved corporate reporting, this paper considers whether the “human rights card” might be played. Of course, there is a wide range of institutional, cultural and political forces that will also play an important (and perhaps decisive) role in determining the success of appeals for improved disclosure. Nevertheless, the experiences regarding human rights noted above and explored further in this paper suggest that a plausible appeal to human rights has power, and further that improved disclosure can facilitate discourse that ultimately improves corporate performance.

Within the SEA literature, explicit appeals to rights have been sparse, but nonetheless important: Stanton (1997, pp. 694-5) reads the work of Gray as asserting that rights to receive corporate social and environmental information exist, based in early years on legal rights but more recently on moral rights, a notion central to accountability: “[a]ccountability, according to Gray, is concerned with the right to receive information and the duty to supply it”. Though many studies have considered the role of accounting in discourse (e.g. Power and Laughlin, 1996; Boyce, 2000; Lehman, 2001; Rahaman *et al.*, 2004; Unerman and Bennett, 2004; Rasche and Esser, 2006; Dillard, 2007) few if any studies have explicitly considered the extent to which

SEA might itself be considered a human right on the basis that it is critical to such discourse. This paper therefore seeks to explore this question in relation to the specific issue of corporate water disclosures.

A focus on corporate water disclosures is driven by the increasing importance of sustainable water use. Water is becoming one of the dominant environmental issues around the world, as it is critical for human life, agriculture and many industrial processes but declining in availability. Water management is a key sustainability issue for many countries and has been described as “one of the great challenges of this century” (United Nations Educational, Scientific and Cultural Organisation, 2006, p. 524). Almost three billion people (40 per cent of the world’s population) live in river basins with some form of water scarcity (United Nations, 2008, p. 40). There are concerns that the peak of freshwater reserves has already been passed (Palaniappan and Gleick, 2009) and climate change is expected to exacerbate water stress (Intergovernmental Panel on Climate Change, 2007; Turrall *et al.*, 2011). Water disputes also fuel conflict – Gleick (2006, chapter 1) provides an exhaustive list from 1748 to the present of water-related terrorist attacks.

Water-related disclosures form part of reporting frameworks such as the GRI (Global Reporting Initiative, 2003, 2011a). The Carbon Disclosure Project has recently launched the Water Disclosure Project (Irbaris, 2009) encompassing such measures as corporate water use and water recycling. However, reviews of water information provided in the context of a single firm (Rahaman *et al.*, 2004), the water industry (Crowther *et al.*, 2006) or large corporations (Morikawa *et al.*, 2007; Morrison and Schulte, 2009; Egan and Frost, 2010) suggest that such reporting is inadequate. Australia provides a typical example. In terms of organisational sustainability reporting obligations, Australian companies are not required to comply with frameworks such as the GRI, despite consideration of the matter by various parliamentary inquires (e.g. Corporations and Markets Advisory Committee, 2006). Reporting of any breaches of “significant environmental regulation” is now required under section 299(1)(f) of the *Corporations Act 2001* (Cwlth), and this requirement has improved environmental disclosures (Frost, 2007). Such improvement is, however, from a low base; a study of the 2004 SEA disclosures of the largest 500 Australian listed companies found that only 24 corporations provided discrete SEA reports, and “while the majority of corporations did make some social and/or environmental disclosures within their annual report, this generally took the form of policy statements of limited scope” (Jones *et al.*, 2005, p. 1).

Given the lack of quality water-related information, the remainder of the paper provides an analysis of the extent to which water-related information may constitute a human right. Section 2 provides a normative framework for determining which rights might be recognised as human rights. A review of the work in this area reveals that there are no uncontested principles for determining which rights properly constitute human rights, but that a potential right might be recognised when it satisfies three conditions:

- (1) it is consistent with those “founding” human rights within the human rights tradition;
- (2) it is important; and
- (3) it may be influenced by societal action.

Following these principles, section 3 considers the case for water disclosures constituting a human right, and suggests that political participation is a founding human right, that water is an issue of global importance and an critical subject of political debate, and that there is increasing recognition that the state has an important role in providing the information required for political participation. This analysis suggests that access to water information may indeed constitute a human right. Section 4 explores how such a right might be realised, considering not only corporate reporting via annual accounts and websites but also in terms of possibly more promising avenues such as product- and catchment-level reporting. Section 5 examines a key objection to the analysis, namely that corporations have a countervailing right to privacy, but argues that while this right is legitimate, corporate privacy and public accountability might both be realised via reporting at appropriate levels of granularity. Section 6 offers a summary and conclusions.

2. The recognition of human rights

This paper seeks to establish whether particular water-related disclosures (or put slightly differently, access to particular information) might be considered a human right. In order to address this question it is necessary to examine how rights might be categorised as human rights. Identification of boundaries of human rights is important, as the wider the net of rights is cast, the more the normative force is diluted (Clapham, 2007, chapter 1).

A first step is to distinguish legal rights from moral rights. At any point in time, it is possible to answer narrowly the question of what human rights currently exist by examining the legal doctrines of the day. One might even look at historical trends in legal rights as a guide to the future, and histories of human rights (Laqueur and Rubin, 1979; Ishay, 1994; Griffin, 2008) show considerable expansion of both rights-bearers and rights and from ancient times to modernity[3]. Yet, while legal rights are important, they are not equivalent to human rights and the question of whether a claim constitutes a human right therefore cannot be settled by considering whether it is a right under the current law. As Sen (2004, p. 319) summarises: “[e]ven though human rights can, and often do, inspire legislation, this is a further fact, rather than a constitutive characteristic of human rights”.

The question of whether a claim constitutes a human right is therefore a moral question. In moral philosophy the morality of an action is tested with respect to a moral system (such as utilitarian or deontological ethics), leading to what might be considered moral “proof” (Rachels, 2003, p. 43). While such proof may not be in the same class as scientific “proof”, there is nevertheless the possibility that a robust classification can be derived[4]. Indeed, Putnam (1993) asserts that the distinction between moral and scientific proofs may not be as wide as usually believed, not just because ethics is more objective, but also because science is less objective than popular opinion holds[5].

Identifying human rights is difficult, however, and while Griffin (2008, p. 272) suggests that rights should “mark off a special domain within morality” he acknowledges that the boundary of such a domain is “of course, fuzzy”. A key difficulty is that the moral principles underpinning human rights are wide-ranging. Ishay (1994, p. 7) suggests that much of the intellectual heritage of human rights can be found in the ancient world, including Babylonian concepts of justice, Hindu and

Buddhist concerns for the environment, Confucian emphasis on education, Greek and Roman promotion of rationality and Christian and Islamic principles of human solidarity. Laqueur and Rubin (1979) cite the works of Kant, Locke, Rousseau, Bentham and Mill as central to the conceptual heritage of human rights. Ishay (1994, p. 143) also detects a strong socialist influence. Given this varied intellectual heritage, it is possible that human rights are based more on intuition than derived from a logically derived outcome of a particular moral framework. Griffin (2008) explores this issue in some depth, and provides as an archetypical example the drafting of the *Universal Declaration of Human Rights* in 1948. The drafting committee was advised by philosophers from all major cultures but had little trouble agreeing on a list. A visitor who expressed amazement at this consensus was told “we agree about the rights but on condition no one asks us why” (quoted in Griffin, 2008, p. 25).

Yet while the task of identifying human rights might be difficult, it is not impossible. Examining the quality of the process of establishing rights is one way to determine their validity. For example, Sen (2004, pp. 348-9) suggests that candidate rights should be subject to open discussion: “there must be some test of open and informed scrutiny [. . .]. The status of these ethical claims must be dependent ultimately on their survivability in unobstructed discussion”. Sen emphasises that the discussion is to be wide-ranging: “it is important not to confine the domain of public reasoning to a given society only, especially in the case of human rights, in view of the inescapably non-parochial nature of these rights, which are meant to apply to all human beings”. In justification of this approach, Sen cites Rawls’s notion of “public reasoning”, but this approach also resonates with the broader concerns of deliberative democracy articulated by Habermas and others. For example, a Habermasian might examine the circumstances surrounding the drafting of core documents to determine the extent to which ideal speech conditions are satisfied and therefore be reasonably sympathetic to the relatively inclusive processes of the drafting of the *Universal Declaration of Human Rights*[6]. However, while the process for discussion of rights is clearly important, this does not provide much guidance as to which rights merit discussion and upon which criteria discussion should concentrate.

Focusing more on content than process, Griffin (2008, p. 272) suggests the method to establish human rights might be “first, to establish what ‘rights’ in general are, then what the more specific ‘moral rights’ are, and finally what the still more specific ‘human rights’ are”. For example, Cruft (2010) discusses the difference between human rights and property rights, suggesting a crucial distinction is that human rights are individually justified (such as an intrinsic right not be tortured) whereas property rights (such as a person’s right to own a particular car) can only be justified in terms of benefits to the wider community, as there is no intrinsic right of a person to own that particular property. A corollary is that individual property rights are justified only in terms of the overall benefit of the property ownership system, whereas human rights are justified independently of any such system. Cruft further posits that human rights are recognition-independent (a person still hold these rights even if the community to which she belongs does not recognise them) whereas property rights are not.

Griffin (2008) suggests that legitimate rights might be established based on appealing to “linguistic intuition” and to referring to the “founding” discourse of rights to find the boundaries. For example, he considers the *Universal Declaration* of 1948 and subsequent proclamations are consistent in the types of moral situations they

encompass in terms of justice. More generally, he asserts at least “[p]arts of the extension of the term ‘human right’ are widely agreed” (Griffin, 2008, p. 273). This approach suggests the matter will be decided by examining whether a contemporary claim to rights can be grounded in the historical tradition of rights. If a candidate right can be seen as consistent with, or a logical extension of, previously agreed rights then this augurs well for the candidate right.

Sen (2004, p. 329) similarly suggests that two “threshold” conditions must be met for an issue to be within the domain of human rights: importance and social influenceability. For example, a person’s right not to be assaulted or to receive medical care for a serious health problem meet the criteria. Freedoms from physical harm and access to health care are both serious issues for the individual involved and issues which society can address through policing and sanctions in the first instance and through establishing an effective health care system in the second. In contrast, a right not to be called up regularly by annoying neighbours fails the test of importance because though overly talkative neighbours may be bothersome they do not prevent realisation of the person’s fundamental freedoms. A right to achieve tranquillity also fails, because though the person’s subjective state is important (perhaps even critically so) the nexus between achieving this state and particular societal action is too weak[7].

This discussion suggests that while identifying whether candidate rights constitute human rights is difficult, Griffin (2008) and Sen (2004) suggest that certain key principles can be applied. Specifically, it is necessary to examine the extent to which a candidate right is consistent with “founding” rights and meet the tests of importance and social influenceability.

This approach is adopted in the following section to examine the extent to which access to water-related information might constitute a human right. While no review of the voluminous literature on human rights can ever claim to be exhaustive, the material reviewed for the purposes of the discussion below includes core human rights documents such as those presented by Laqueur and Rubin (1979) and published by the UN as well as various commentaries on human rights, primarily by Griffin (2008), Clapham (2007), Sen (2004) and Ishay (1994). The discussion has also been supplemented via more specific reviews of information rights provided by Sand (2002) and Stec *et al.* (2000) as well as reports by organisations with a strong interest in rights and/or water such as UNESCO, the World Health Organisation (WHO) and the Pacific Institute.

3. The case for the right to water information

As noted above, in order to determine whether water disclosures constitute a human right it is necessary to examine the extent to which such disclosures are consistent with founding rights and meet the tests of importance and social influenceability. This paper suggests that political participation is a founding human right, that water is an issue of contemporary importance and an important subject of political debate, and that there is increasing recognition that information is required in order for political participation to occur. Hence, access to water information may indeed constitute a human right. These arguments are developed below.

3.1 *The right to political participation*

The assertion that political participation is a founding human right is relatively uncontroversial, though its initial manifestation reflected concerns more about

protection from the arbitrary use of power than genuine participation in affairs of the state. Minogue (1979, p. 3) explains that “from early modern times the idea began to develop that, in addition to eyes and ears and all the other normal equipment, human beings also possess invisible things called ‘rights’ that morally protect them from the aggression of their fellow men, and especially from the power of governments under which they live”. For example, the *Magna Carta* of 1215 was an agreement between King John and the English nobility predominantly concerned with the protection (and restitution) of the property rights of the nobility against the sovereign (clauses 23-25, 28-32, 46, 52 and 55-57) and protection of the nobility against arbitrary trial and punishment (clauses 17-22, 38-40 and 45). The English *Bill of Rights* of 1689 again sought to challenge arbitrary behaviour of the sovereign, but by this time it was the rights of the Parliament rather than the nobility that were being protected. The *Bill* enshrined rights including that laws and taxes must be approved by Parliament, that elections be free and that free speech be protected within Parliament. Similarly, the American *Declaration of Independence* of 1776 mostly comprises a list of the rights abuses of the then king of Great Britain, including unjust imposition of taxes and the lack of American representation in Parliament. The French *Declaration of the Rights of Man and of the Citizen* of 1789 also provides for citizen participation in the creation of the law and public office (clause 6). In addition to the declarations discussed above, this participatory theme was also evident in the work of leading political theorists such as Locke, who claimed that the subjects not only authorise a government, but also require it to be responsive to their wishes (Minogue, 1979, p. 8).

Modern human rights agreements, grounded in the era of the two World Wars, have extended these ideas. For example, in 1915 the Fight for Right organisation was established which explicitly linked the war effort to the preservation of human rights (Clapham, 2007, pp. 24-5) and in 1918 president Woodrow Wilson’s “Fourteen Points” program referred to rights of self-determination and statehood for countries seeking autonomy (Wilson, 1918). The 1941 *Atlantic Charter*, jointly issued by President Roosevelt and Prime Minister Churchill, included the right of all peoples to choose their form of governments (principle 3). Representatives from 26 Allied nations signed a Declaration by the UN affirming the Charter in 1942 and a further 21 had signed by 1945, forming the core of the 51 countries who founded the UN in 1945 (Clapham, 2007, p. 32).

The landmark 1948 *Universal Declaration of Human Rights* also makes political participation an explicit right. The preamble states that “recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world”, and Article 21(1) asserts “[e]veryone has the right to take part in the government of his country, directly or through freely chosen representatives”. The 1966 *International Covenant on Civil and Political Rights*, one of the nine “core international human rights instruments” (United Nations, 2007a), reiterates the *Universal Declaration*. Article 25(a) states that every citizen has the right “to take part in the conduct of public affairs, directly or through freely chosen representatives”.

It should be noted that while participation is a founding human right, the way in which this might manifest itself will be highly contextually dependent on such factors as the style of government (e.g. the degree of centralism versus federalism within a democratic framework) as well as cultural norms and technological sophistication (ranging from access to the internet to population literacy levels). Participation might

take place via an online forum in one community, providing written submissions to a governmental inquiry in another and by holding a meeting in a local community hall in a third. Such factors will also be critical determinants of how any right of access to information might be realised, an issue discussed in more detail further below. It should be emphasised, however, that under each scenario it is possible to realise (and violate) the right to political participation. According to Griffin (2008, chapter 14) a right to participation might even be realised in a non-democratic society, though with the caveat that in the modern era of large and complex societies it is democratic governments that are most likely to uphold such rights.

The above discussion suggests political participation is a founding concern of human rights. However, a right to political participation is only salient in relation to issues of importance (recalling Sen, 2004, p. 329). The following section argues that water is just such an issue.

3.2 *The importance of water and the role of corporations*

As noted above, water management is a key challenge (United Nations Educational, Scientific and Cultural Organisation, 2006, p. 524) due to widespread water scarcity (United Nations, 2008, p. 40), declining freshwater reserves (Palaniappan and Gleick, 2009) and the deleterious impact of climate change (Intergovernmental Panel on Climate Change, 2007; Turrall *et al.*, 2011). In the context of human rights, there have been increasingly prevalent discussions regarding the “right” to water. Dubreuil (2006) advances the notion of a three-tiered approach to water rights. The highest priority is “water for life”, which entails “providing water for the survival of both human beings (individual and collective) and other living beings”. Next is “water for citizens”, which entails “providing water for general interest purposes, as regards public health or the promotion of values of equity or social cohesion”. The third level is “water for development”, which “is an economic function relating to production activities, which in general concerns private interests like irrigation for agriculture, hydroelectricity, or industry” (Dubreuil, 2006, p. 4).

The “human right” to water internationally advocated focuses on access to a certain minimum level of water per day for personal needs and sanitation, given the disgraceful statistics regarding the number of people without access to such minimums[8]. The UN suggests four foundations for successfully meeting the challenge of water and sanitation, the first of which is to make the right to water a human right, constituting an entitlement to a secure, accessible and affordable supply of water, with a minimum target of 20 litres of clean water per day for every citizen (United Nations Development Programme, 2006, p. 8). The WHO lists a number of implications of asserting a right to water, not least of which is that the UN human rights system would be able to monitor progress and to hold governments accountable (World Health Organization, 2003, p. 9).

The most comprehensive articulation of water rights is contained within the UN publication *The Right to Water* (United Nations Committee on Economic, Social and Cultural Rights, 2002)[9]. The right to water “entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses” (Article 2), which is a prerequisite for the realisation of other human rights (Article 1). Water is to be allocated for personal and domestic use ahead of other competing demands (Article 6) and should be treated as a social and cultural good, and not

primarily as an economic good (Article 11). The claims of *The Right to Water* have been endorsed by various bodies, including the World Health Organization (2003) and the UN High Commissioner for Human Rights (United Nations, 2007b, paragraph 66), culminating in a formal recognition of a human right to water on 28 July 2010 (United Nations General Assembly, 2010). The details of this right are brief, however, as the document sets out only a declaration that “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights”, calls for assistance from states and other organisations to implement this right and endorses a previous decision for an annual report on water access to the General Assembly (United Nations General Assembly, 2010, p. 3).

While the human right to water is currently viewed as an extension of the right to life, the importance of water as a resource (and hence the need for political debate) is also acute for the other dimensions of water rights identified by Dubreuil (2006), namely water for citizens and for development. As noted above, changing weather patterns resulting from climate change are expected to alter significantly both the incidence and distribution of rainfall and snow-melt runoff (Intergovernmental Panel on Climate Change, 2007; Turrall *et al.*, 2011). An assessment by the UNESCO International Hydrological Program (IHP) also identifies increased population and urbanisation as significant factors placing further demands on infrastructure to deliver fresh water, sanitation, and flood risk mitigation (UNESCO International Hydrological Programme, 2011, p. 12). These factors mean that water management is high on the agenda of many, if not most, nations around the world. Appropriate water policy is also critical: at a global level, the UNESCO World Water Development Report 3 asserted that “[w]ater management around the world is deficient in performance, efficiency and equity” (United Nations Educational, Scientific and Cultural Organisation, 2009, p. 150) and Transparency International (2008) highlights the impact of corruption in undermining effective water governance.

3.2.1 Corporate water impacts. In addition to being an issue for both rich and poor nations, water is also a key issue for corporations. Peak business groups such as the World Business Council for Sustainable Development (WBCSD) also acknowledge the importance of water (World Business Council for Sustainable Development, 2006a). A recent joint publication of the WBCSD and the International Union for the Conservation of Nature (IUCN) states that:

Every business depends and impacts on water resources [...] The future of business depends on the sustainability of water resources, which are increasingly under pressure [...] The global business community increasingly recognises the water challenge (World Business Council for Sustainable Development and International Union for the Conservation of Nature, 2009, p. 4).

The report goes on to identify no fewer than 16 current initiatives and tools for the improvement of business operations in respect of water use (such as the CEO Water Mandate, a public-private initiative under the auspices of the UN Global Compact that requires signatories to assess and improve their water performance).

Yet there have also been criticisms of the role of corporations in relation to water. For example, Corporate Accountability International suggests “realisation of this right [to water] is not yet a reality for more than one billion people around the world. Often this right is undermined by corporate interests” (Corporate Accountability International,

2007, p. 2). CAI suggests that corporations are not merely “recognising” the water challenge (as suggested by the WBCSD) but actively exploiting it:

Corporations play a particularly insidious role in contributing to, and profiting from, the global water crisis. They overuse and threaten water resources in a number of ways, including: using excessive amounts in unsustainable agribusiness practices; worsening climate change that increases drought conditions; spreading industrial pollution and expanding water-intensive industries such as mining, oil production, paper and power generation (Corporate Accountability International, 2007, p. 1).

A key role of water policy, then, is managing the impact of the corporate sector. One particularly controversial example has been the use of corporations to deliver water, primarily through the privatisation of water utilities (Ogden, 1995, 1997; Shaoul, 1997; Ogden and Anderson, 1999; Letza and Smallman, 2001). More generally water scarcity may act as an important constraint to corporate interests (Prior, 2009; United Nations Educational, Scientific and Cultural Organisation, 2009, p. 36), but satiating corporate water appetites may take water from other sectors, such as domestic users (Hills and Welford, 2005; Burnett and Welford, 2007). Such questions of water allocation between different sectors, especially between commercial, domestic and environmental users are clearly matters of public interest.

The above discussion suggests that debates concerning water (including the role of corporations in relation to water) are highly relevant to ordinary citizens and therefore citizens will wish to actively contribute to such debates. Smith (2008) highlights the problems of bottom-up approaches to water management, but as noted in the *World Water Development Report 3* “[s]takeholder engagement is important to improving water resources management through several channels, from direct participation in planning to expanding public awareness. One benefit is reducing corruption [...] Stakeholder involvement through public hearings, advisory committees, focus groups, stakeholder forums and the like has often improved water projects” (United Nations Educational, Scientific and Cultural Organisation, 2009, p. 251). In order to achieve political participation it is increasingly recognised that citizens require information, and this aspect of rights is considered below.

3.3 *The right to information*

While the discussion above suggests that political participation has always been central to human rights, assertion of a corresponding right to information is much more recent (Stec *et al.*, 2000; Sand, 2002; Stiglitz, 2003). Indeed Sand (2002) suggests that historically many European countries considered citizen access to government information incompatible with representative democracy and were therefore reluctant to enshrine public access in legislation. A notable exception is Sweden, which starting with the *Freedom of the Press Act* of 1766 established wide-ranging access rights to public data. There are some references to information and accountability in early rights documents – the French *Declaration of the Rights of Man and of the Citizen* of 1789 also explicitly mentions accountability in a broad sense, stating that “Society has the right to require of every public agent an account of his administration” (clause 15). An explicit requirement for financial accounting is also contained in Section 9 of the US Constitution (ratified in 1787):

No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

Explicit consideration of access to information, however, is largely absent from most early human rights documents. The *Universal Declaration of Human Rights* mentions information only in the context of freedom of expression, namely “the right to seek, receive and impart information and ideas through any media and regardless of frontiers” (Article 19). This principle was reiterated in the *International Covenant on Civil and Political Rights* (1966), which provides that “Everyone shall have the right to freedom of expression; this right shall include freedom to seek, *receive* and impart information and ideas of all kinds” (United Nations, 1966a, Article 19(2) (emphasis added)). The 1966 *International Covenant on Economic, Social and Cultural Rights* Article 11 is concerned with the right to an adequate standard of living, and states that part of the measures needed include “making full use of technical and scientific knowledge, by disseminating knowledge of the principles of nutrition and by developing or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources” (United Nations, 1966b, Article 11(a)). Six of the Articles (16-21) are specifically concerned with reporting. States must report “the measures which they have adopted and the progress made in achieving the observance of the rights recognized herein” (Article 16) in stages (Article 17) and the results summarised and presented to the General Assembly (Article 21). Similar provisions are contained in the *International Covenant on Civil and Political Rights* (Article 40).

More recently, the importance of access to information has been increasingly recognised and enshrined in legislation. Crucially it is governments who are identified as the primary agents responsible for both collecting and providing information. This fact lends support for information rights meeting the rights recognition test of social influenceability discussed above as information rights can be facilitated by government intervention.

While some reporting obligations are enshrined at the international level and within Europe, it was the USA that led the world in providing citizen access to government information in general and environmental information in particular. Pivotal to this achievement was the US *Freedom of Information Act 1966*, which “radically changed the global map of comparative administrative law, and may actually have changed the universal catalogue of constitutional rights” (Sand, 2002, p. 7). This Act became the foundation for equivalent European legislation (though not until 1990) in the form of *Council Directive No. 313 of 1990 on Freedom of Access to Information on the Environment*, subsequently superseded in 2003 by *Council Directive 2003/4/EC on Public Access to Environmental Information* and the Aarhus Declaration, discussed further below.

By 2006, freedom of information (FOI) legislation had been introduced in 70 countries with legislation pending in another 50 countries (Banisar, 2006). Mendel (2003) explicitly links the notion of human rights with modern FOI legislation, arguing that there is both a passive right of access to state information as well as an active obligation on states to publish information that will be of interest to their citizens. Pla (2007) suggests that such obligations might be derived from a variety of multidisciplinary perspectives, including that of human rights.

While FOI legislation has been expanding, implementation remains problematic in many areas. In his global review Banisar (2006) cites a lack of timeliness in responding to requests and excessive exemptions as common problems. In a review of the Canadian FOI system, Drapeau (2009) suggests that a common waiting period of two years renders the system useless and that a culture of government secrecy remains entrenched. Such concerns are evident in the review of the UK FOI implementation performed by Holsen *et al.* (2007), where a lack of timeliness meant that FOI legislation was of limited use to many journalists. Investigative journalists, however, suggested that the legislation had made an important difference in providing data (especially quantitative data) to support existing stories, and had also opened up previously inaccessible avenues. In his review of the Scottish and English FOI implementation, Goldberg (2006) notes both successes and limitations, but also points out that a lack of FOI-related data makes conclusive evaluation of the success of the initiative problematic.

While there has been consideration of the rights of both the individual and the state to privacy in relation to FOI, few studies have examined the application of FOI requests to organisations. An exception is Pla (2005), who reviewed the application of FOI principles to the group of International Financial Organisations (including the International Monetary Fund and the World Bank). She suggests that by virtue of their influence and role within the international financial architecture such organisations should be transparent, yet they are subject to disparate local laws. She therefore calls for an overarching FOI ombudsman to facilitate and mediate FOI requests.

A subset of the information covered by FOI legislation is environmental information. Mendel (2003) cites as a landmark case *Guerra and Ors. v. Italy* [19 February 1998, Application No. 14967/89], where the European Court of Human Rights held that the Italian government was at fault for not providing a family with information regarding the risks of pollution from a nearby chemical factory. Such a right of access to environmental information has a relatively short history. The 1972 Stockholm Declaration provided principles in relation to global environmental management without specifically addressing the issue of environmental information. The later 1992 Rio Declaration (the outcome from the first World Summit on Sustainable Development) built on the Stockholm principles and provided clear guidance on information and participation issues:

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available (United Nations, 1992, Principle 10).

The most detailed pronouncement on environmental information rights to date is the *Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters* (United Nations Economic Commission for Europe, 1998), also known as the Aarhus Convention. This Convention sets out a wide range of provisions in relation to reporting and decision-making and has 40 signatories across Europe as at September 2009 (United Nations, 2009b). The first Meeting of the Parties in 2002 stated that the agreement “addresses fundamental aspects of human rights and democracy,

including government transparency, responsiveness and accountability to society” (United Nations Economic Commission for Europe, 2002, paragraphs 4-5). Since this meeting, the Parties have outlined specific agreements in relation to pollution release and transfers (2003) and genetically modified organisms (2005). The 2009-2014 Strategic Plan seeks to expand the number of signatories and the application of the Convention to other regions of the world, and to have the Convention set a benchmark for a similar global agreement (United Nations Economic Commission for Europe, 2008, paragraphs 7(b), 10).

The Convention explicitly links the right to an adequate environment with information and participation rights in Article 1:

In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention.

Article 3(3) explicitly notes the obligations of states to promote environmental education, “especially on how to obtain access to information, to participate in decision-making and to obtain access to justice in environmental matters” and Article 4(1) provides a general requirement that where environmental information is requested it shall be made available, within the framework of national legislation. The Convention therefore provides another example of the “social influenceability” aspect of information rights by highlighting the responsibilities of states to provide information to enable their citizens to participate in political decision-making.

3.4 Summary of the case for the right to water information

In summary, there is a strong case for access to corporate water-related disclosures constituting a human right. Participation in political decision-making is a foundation human right as evidenced from its inclusion in key rights documents since the *Magna Carta*. Water is an increasingly important issue for the global community due to increased population, urbanisation and climate change in the face of declining freshwater reserves. Therefore water is an important issue for citizens and water management a key responsibility for governments. Further, as corporations play a key role in water use, peak business groups such as the WBCSD acknowledge corporate water-related information is likely to be a significant (World Business Council for Sustainable Development, 2006a, c, 2007). The central tests for inclusion of a right as a human right, namely that it is consistent with founding rights and meet the tests of importance and social influenceability are met. Support for this conclusion is provided by the increasing recognition of information as a human right in other domains, evidenced by the introduction of freedom of information legislation around the world and court decisions such as *Guerra and Ors. v. Italy*. The Aarhus Convention also explicitly links the ability to engage in political participation with the provision of relevant information.

A human right to water-related information resonates with SEA calls for increased mandatory sustainability reporting (e.g. Gallhofer and Haslam, 1997; Gray, 2001; Gray and Milne, 2002; Adams, 2004; Adams and Zutshi, 2004; Gray and Milne, 2004). Yet such a right is meaningless unless detailed in more specificity. After all, there are myriad of ways water information could be captured and reported. While the

contextually dependent nature of water means that it is impossible to provide a definitive reporting framework, the following section considers contemporary articulations of the right to water information as well as current and emerging water reporting practices.

4. Realisation of the right to water information

The previous section has argued for water-related information to be considered a human right. This contention is consistent with the increasing recognition of the importance of water information. Dubreuil (2006) suggests accountability and information are central to realisation of all three types of water rights (water for life, for citizens and for development). Her conception of the “rights of users” includes “access to information, consultation, participation and right to initiate legal proceedings” and posits a corresponding obligation under “duties of authorities”, namely “[t]o encourage information for and participation of users” (Dubreuil, 2006, p. 11).

Water information is explicitly considered in both the *Right to Water* (United Nations Committee on Economic, Social and Cultural Rights, 2002) and the Aarhus Convention. Article 12(c)(iv) of the *Right to Water* includes “information accessibility” as a key right, which “includes the right to seek, receive and impart information concerning water issues” and this requirement is echoed and deepened by Articles 48 and 49. Article 48 addresses the right to participate in decision-making and be provided with applicable information, including the requirement that “[i]ndividuals and groups should be given full and equal access to information concerning water, water services and the environment, held by public authorities or third parties”. Article 53 goes so far as to specify the particular monitoring that should be designed by states, such as establishing indicators for the different components of adequate water (sufficiency, safety and acceptability, affordability and physical accessibility). The framework for monitoring implementation of the right to water set out by Roaf *et al.* (2005) also includes specific indicators in respect of accountability mechanisms such as the existence of monitoring bodies and complaints mechanisms. The Aarhus Convention also contains a number of water-related provisions. Article 5(9) specifically mentions water-related information disclosure in the context of establishing standardised reporting in relation to water, energy and resource use. Annex 1 identifies key activities such as significant groundwater abstraction or artificial groundwater recharge schemes (section 10), significant water transfers between river basins, excluding transfers of drinking water (section 11) and significant dams (section 13). For such activities, Article 6 sets out the requirements for public participation, which include requirements to set out the proposed project, allow time for consideration, facilitate open discussion, and take due account of the public participation in the final decision.

While salient, none of the above examples explicitly considers the role of corporations in relation to water. Given the power of transnational corporations in general (Korten, 2001) the assertion of a right to corporate disclosure stems from the same principles as the right to government transparency. Indeed, it may be even more important. As Chimni (2003, pp. 157-8) points out: “democracy is today a transnational affair and therefore it is not enough to introduce transparency and openness at the level of the nation-state without ensuring that the same norms apply to international actors, viz., states, international institutions, and transnational corporations”. Such sentiments

dovetail with the large body of work within SEA concerned with improving corporate accountability via corporate reporting (reviewed by Mathews, 1997; Gray, 2001; Deegan, 2002; Gray, 2002, 2005; Burritt and Schaltegger, 2010; Gray, 2010).

If there is indeed a right to corporate water-related information a critical question is what form such information might take. In exploring this question it is first necessary to acknowledge that any answers will be contextually dependent. As Cohen (1993, p. 26) points out, Sen's capability approach suggests that while rights might be homogenous in the developing world, rights in the developed world are likely to be more disparate because the basic necessities of life have been secured. Further, in the present case differences in political systems mean that the information required to participate effectively within such systems may also differ. Nevertheless, even within different political systems there exist points of convergence in terms of accounting, such as the move towards international harmonisation of financial accounting and widespread use of pollutant inventory and transfer databases (discussed below).

The legal context for water management and allocation of water rights also has implications for reporting. Coase (1960) contends that from an economic efficiency perspective the legal ownership of a resource is largely irrelevant, as the parties will ultimately arrive at a mutually beneficial arrangement for sharing any given resource. Yet such differences may be highly relevant in determining subsequent reporting obligations. For example, representation of the environment in water allocation decisions may be via the state denying allocation to other users (such as irrigators) or by making allocations to users and then buying back these allocations at market rates. While both arrangements may deliver equivalent water volumes for environmental purposes, the information claims might be different. In the first instance there is heightened state accountability to the users (as the state has implicitly determined that the benefits to the environment trump the direct and indirect benefits of commercial use) and in the second a heightened state accountability to the community (as the state has implicitly determined that the monies used to purchase the water are an optimal use of taxpayer funds). From the perspective of users, in circumstances where state intervention is more difficult, reporting obligations become correspondingly acute. For example, in water-stressed regions where water usage rights are strongly protected and markets insufficiently developed to permit water buy-back by the state, users have a greater accountability for water use and the community a correspondingly greater claim to information.

In spite of such differences some established and emerging water reporting trends are evident. Therefore, while mindful of the cultural, political, technological and legal differences between contexts, the following discussion considers three approaches to corporate water-related reporting, namely:

- (1) organisational reporting;
- (2) product reporting; and
- (3) catchment reporting.

In some areas the examples provided are Australian, as the substantial and ongoing federal investment in water information has created many innovative (though by no means perfect) examples. Indeed, Australia is acknowledged as leading the world in water information (Turrall *et al.*, 2011, p. 36), perhaps due to a relatively rare combination of wealth and water scarcity (Slattery, 2008).

4.1 Organisational water reporting

Sustainability reporting can take many forms, but a widely cited corporate environmental reporting framework is the GRI (jointly funded by the UN Environment Program and large corporations). The GRI has included water-related disclosures in all iterations of the Guidelines (Global Reporting Initiative, 2000, 2002, 2006, 2011c) as well as issuing a stand-alone Water Protocol (Global Reporting Initiative, 2003). Five water-related indicators are included in the current (G3.1) guidelines:

- water withdrawn from the environment by source (EN8 – core);
- water sources significantly affected by the impact (EN9 – additional), the recycling and reuse of water (EN10 – additional);
- water discharged by quality and destination (EN21 – core); and
- the impact of discharges (EN25 – additional) (Global Reporting Initiative, 2011a, pp. 1-2).

Other applicable frameworks include the AccountAbility AA1000 series of standards (comprising the Principles Standard, AA1000APS; Assurance Standard, AA1000AS; and Stakeholder Engagement Standard, AA1000SES), which provide general reporting principles particularly focused on stakeholder inclusiveness but does not prescribe particular water-related disclosures. In addition, the CEO Water Mandate (United Nations Global Compact Office, 2009) sets out organisational responsibilities for water management, but also does not provide detailed reporting obligations.

As noted above, a large body of work in SEA has reviewed organisational reporting and found it deficient (O'Dwyer *et al.*, 2005; Moneva *et al.*, 2006; Milne *et al.*, 2007; Milne and Gray, 2007) and this work has recently been extended to specific reviews of water disclosures with similar results. Such work has been performed by NGOs, most notably the Pacific Institute (Morikawa *et al.*, 2007; Morrison and Schulte, 2009) but also other NGOs (Carbon Disclosure Project, 2010), investor groups (Barton and Morgan-Knott, 2010) and academics and professional bodies (Egan and Frost, 2010; Association of Chartered Certified Accountants, Net Balance Foundation and Sustainable Investment Research Institute, 2010). A common finding is that such reporting is inadequate. For example, in a sample of 110 global companies, selected from high water use industries, Morrison and Schulte found that while 80 per cent of companies purported to use the GRI guidelines, these were not well applied. Only 55 per cent outlined their materiality assessment process and only 53 per cent provided information on the role of stakeholders in the reporting process (Morrison and Schulte, 2009, pp. 8-9). Further, 44 per cent of companies claiming to use GRI water performance indicators inaccurately portrayed these indicators, such as by claiming compliance with EN8 without specifying the water sources (Morrison and Schulte, 2009, p. 44). The Carbon Disclosure Project review of water reporting was less critical, but did not attempt to evaluate reporting and instead provided examples of "best practice". Even here, however, supply chain reporting was identified as problematic (Carbon Disclosure Project, 2010, p. 5). In a review of 32 large Australian companies, the Association of Chartered Certified Accountants, Net Balance Foundation and Sustainable Investment Research Institute (2010) also noted supply chain reporting as a weakness, together with an overall lack of standards for corporate water reporting.

In their review of Australian food and beverage companies, Egan and Frost (2010) remark on an increasing awareness of water issues, but also a lack of basic disclosures of water inflows and outflows.

An obvious response to this situation is to add another voice to the calls for mandatory organisational sustainability reporting, particularly in light of research suggesting that adherence to global reporting standards promotes the quality of sustainability reporting and influences organisational practices (Fortanier *et al.*, 2011). But while organisational reporting may play a role in realising informational rights, an important question is the extent to which the legally constituted organisation is the most useful level of analysis for water-related information. As Gray and Milne (2004, p. 78) point out:

[it is] not the impact of individual organizations that matters but the interactions and total impacts that a range of organizations has on an ecosystem's carrying capacity. This requires a level of analysis that is quite different from the analysis assumed by organizational reporting.

A similar but reciprocal concern has been expressed by Schaltegger (1997, p. 96), who identifies the dilution of accountability that occurs when disparate local impacts are aggregated within a corporate report. Taken together, Gray and Milne (2004) and Schaltegger (1997) raise the distinct possibility that reporting at the organisational level may either be too broad or too narrow for environmental (or sustainability) disclosures.

Indeed the whole nature of an organisational "bottom line" is problematic from a sustainability perspective, rendering the concept of organisational sustainability reporting of debatable value (Norman and MacDonald, 2004; Moneva *et al.*, 2006; MacDonald and Norman, 2007; Pava, 2007; Gray, 2010). Dumay *et al.* (2010, p. 543) suggest that unless there is a revision of the GRI approach, organisational sustainability reports will "have little to do with sustainability and [...] become exercises in internally managing budget variances and/or publicity".

In relation to water, two issues are particularly important. First, measurement of water can be complex as there are many types of water (such as surface water, groundwater, recycled water, wastewater and so on) for which precise measurements can be difficult to obtain and for which definitions are not universally accepted (Lowe *et al.*, 2006). Distinction between these types is critical because of the second issue, which is that different ecosystems have different levels of water requirements and suffer from different levels of water stress, both geographically and temporally. These differences mean that volumetrically equivalent water extractions may have vastly different impacts in different regions, or even in the same region at different times. In this respect water is very different to carbon where the location and timing of emissions is irrelevant to their contribution to climate change. These issues were recognised in the 2009 Carbon Disclosure Project report *The Case for Water Disclosure*: "water disclosure will have to contain qualitative information on the specific watersheds where water is taken. This will have to include social impacts, water policy decisions and wider issues of price, water rights and allocative efficiencies" (Irbaris, 2009, p. 11).

This discussion suggests that though information *about* corporate water use is critical, information *at the level of the corporation* is much less important. Such information may even be meaningless if provided solely at an aggregated level or

without the context of water scarcity, a point made in the audit of BHP's 2007 Sustainability Report by Ernst & Young (BHP Billiton, 2007, p. 67). Even if disaggregated, organisational water use can only be interpreted within the context of ecosystem health and competing water demands. The issue, then, is what sort of disclosure will enable the realisation of a right to corporate water-related information. There are a number of possible alternatives (or additions) to corporate information, which are becoming increasingly prominent, namely water "footprint" reporting and catchment-level reporting, discussed in turn below.

4.2 Water footprint reporting

The concept of the ecological footprint (Wackernagel and Rees, 1996) is well established, though not without critics (such as Fiala, 2008). A similar concept gaining increased currency is the water footprint, which attempts to calculate the total water consumption of a region, organisation, product or service (Chapagain and Hoekstra, 2004, 2007; Hoekstra and Chapagain, 2007, Hoekstra *et al.*, 2011). The report *Consuming Australia* (Australian Conservation Foundation, 2007) examined the water (and carbon) usage of ordinary Australians, and a key finding was that most of the water used is not direct usage, such as showers or watering gardens, but rather is embedded in the products consumed (particularly food). This report prompted a call from a NSW Greens MP for water and carbon labelling on all products (Kaye, 2007). Such calls echo commentators who have explicitly approached the issue of labelling from a consumer autonomy perspective. For example, Beekman (2008) develops a number of "non-superficial" values regarding food, which include areas of health, justice and the environment. In relation to such values, Beekman asserts that governments have either an obligation to regulate in cases where there is a consensus on values, or an obligation to provide information to enable ethical decision-making where there is no consensus. Siipi and Uusitalo (2008, p. 360) similarly contend that consumer autonomy is linked to a right to information in the context of genetically modified food.

The Aarhus Convention also considers product labelling a potentially important source of environmental information; Article 5(8) calls for relevant information to be provided to enable consumers to make informed environmental choices. The 2009-2014 Strategic Plan also refers to product-level information:

The range of environmental information that is made available to the public is gradually widened, inter alia, by developing and implementing mechanisms enabling more informed consumer choices as regards products, thereby contributing to more sustainable patterns of production and consumption (United Nations Economic Commission for Europe, 2008, paragraph 11(b)).

These comments are supported by various empirical studies that show labelling does impact consumer decision-making. Weaver and Finke (2003) reported a significant relationship between utilising the sugar element of food labels and reduced sugar consumption. Unnevehr and Jagmanaitė (2008) found not only a significant consumer response to trans fats labelling but also changed production patterns to reduce or eliminate the use of trans fats in many packaged foods. The Australian Water Efficiency Labelling Scheme, which requires household appliances such as dishwashers and washing machines to display water efficiency information, is estimated to save 87,200 megalitres of water per year by 2021 (Commonwealth Department of Environment and Heritage, n.d.).

Despite the potential contribution of labelling and clear relevance to corporate accountability, such information has received little attention in the SEA literature to date. In one of the few references, Gray and Bebbington (2001, pp. 110-11) summed up eco-labelling thus:

Eco-labelling has proved to be a process fraught with difficulty and conflict [...] The basis of the conflict is real enough – complex products (e.g. washing machines or cars) go through so many processes and are of dubious environmental value in their use such that establishing a single indicator of “environmental effect” is impossible [...] whilst it remains a crucial and live issue eco-labels do not look to become widely, consistently and reliably adopted in the near future.

While concerns over difficulties and conflict continue, in the years since Gray and Bebbington’s assessment, eco-labelling schemes have become more prominent. Harrington and Damnic (2004) found energy labels being used in over 50 countries, and supermarkets such as Tesco have begun to experiment with labelling (particularly in relation to carbon), albeit with limited success (Hall, 2007; Leahy, 2007; Tesco, 2008). Organisations such as Fair Trade have successfully campaigned in many countries to establish a market for their distinctively labelled goods (Hira and Ferrie, 2006). Gondor and Morimoto (2011) examined eco-labelling in Japan, and suggested that eco-labels could play an important role in sustainable seafood consumption.

While water labelling is clearly promising, the comments in the previous section regarding water type and water stress are equally salient here. Rice may require far more water than fruit (CSIRO Sustainable Ecosystems, 2002, p. 193), but this does not necessarily mean that consumers should boycott rice. In water-abundant regions unused water may discharge to the sea, and even in water-scarce regions reporting water efficiency information may be relevant.

This discussion suggests that water labelling and embedded water is worthy of further research, but is certainly not a silver bullet. Indeed, some commentators to dismiss the concept of embedded or virtual water altogether: the Australian National Water Commission stated that “the measurement of virtual water has little practical value in decision making regarding the best allocation of Australia’s scarce water resources” (National Water Commission, 2008, p. 7). Yet the Stockholm Water Prize (the world’s most prestigious prize for water-related contributions) was awarded in 2008 to John Anthony Allan from King’s College London largely for his work on virtual water (Stockholm International Water Institute, 2011). In any event, the following section considers a less polarising possibility for water reporting, which is reporting at the level of the water catchment.

4.3 Catchment reporting

Successful water management is typically not organised around a legal entity or supply chain, but rather follows the physical distribution of water itself. In Australia, Pigram (2006, p. 12) asserts a catchment orientation represents a significant advance in water management. By 2000, utilising this approach Australia had been divided into over 300 surface water and 500 groundwater management units (Natural Heritage Trust, 2000, p. 3), and Australian NGOs such as the Wentworth Group of Concerned Scientists have long advocated for reporting to follow these boundaries (Wentworth Group, 2002, 2003, 2006, 2008). Catchment reporting is broadly the model being adopted by the Australian National Water Account (Bureau of Meteorology, 2009)

though the specific model (and contribution) is subject to current debate (Tello Melendez and Hazelton, 2009; Sofocleous, 2010).

The geographic orientation of catchment reporting is similar to that of what has been arguably the most successful disclosure regime yet devised – the US Toxic Release Inventory (TRI). The TRI requires reporting by organisations about pollution emitted by individual sites and then collates this information in a public database, which enables information to be accessed at the level of a physical region and/or a specific site. In stark contrast to the ineffectiveness of the sustainability reporting cited in the SEA literature, the TRI has been credited with having a major impact on emissions (Fung and O'Rourke, 2000; Sand, 2002; Stephan, 2002). Fung and O'Rourke (2000, p. 115) suggest that the TRI “may be the most successful environmental regulation of the last ten years”, and cite a 45 per cent decrease in TRI-reported chemical emissions between 1988 and 1995. Though some dispute these successes are due to the TRI (Natan and Miller, 1998; Koehler and Spengler, 2007), the TRI model has been replicated throughout the world[10]. Article 5(9) of the Aarhus Convention also endorses this reporting model, and requires establishing “a coherent, nationwide system of pollution inventories or registers on a structured, computerized and publicly accessible database compiled through standardised reporting”. While possibly the most important approach for promoting accountability, this area has been almost exclusively researched outside of SEA, though the insights of the extensive SEA work in relation to organisationally based corporate reporting are highly relevant (Leong and Hazelton, 2008). An exception is Schaltegger (1997, pp. 89-90), who suggests that the utility of such disclosures is limited by the failure to provide details as to how each organisation compiles the information (provided via an accounting policy note in traditional financial statements) and that this omission incentivises low-quality reporting.

An important feature of TRI-style reporting is that the report preparer and the report subject are separated. The governmental body with responsibility for regulation typically compiles information that is submitted by corporations, which has both a practical and possibly also ideological advantage over conventional corporate reporting. Practically, it facilitates data mining and comparison, which results in more informed regulators and citizens and hence improved corporate performance (Stephan, 2002). Ideologically, while focusing on corporate activities this approach also emphasises the governmental role in regulation. Information appearing on a government website in accordance with a governmental edict highlights ultimate governmental responsibility, and may spur governmental provision of the corporate information required to facilitate stakeholder dialogue identified by O'Dwyer (2005, p. 36) and Cooper *et al.* (2005).

Pollutant inventories typically include water discharges, but they do not currently include the type of water information (such as extractions) covered by frameworks like the GRI and called for by users such as the Wentworth Group. It is not difficult, however, to envisage a combination of the catchment-level reporting currently under trial in Australia with the database model of the TRI. Following the informational elements suggested by the GRI, the CEO Water Mandate and the Carbon Disclosure Project, information that would be most salient is site-level water use (distinguished by source such as surface versus groundwater and including proportion of recycled water) and water discharges. Disclosure of the identity and relative levels of water use of

major users would facilitate community debate as to whether the licensing decisions for major water users are appropriate and reflect an appropriate balance of allocation between competing urban, rural, commercial and environmental demands.

Disclosures of the major water users might also inform debate as to how issues of over-allocation might be managed. For example, in Australia it is common for major cities to impose water restrictions when dam levels are low. There is little distinction between domestic and commercial urban water pricing and businesses are encouraged to reduce water use mainly via voluntary programs and government subsidies. Yet water restrictions are imposed on domestic rather than commercial water use, meaning the burden of accommodating water scarcity is predominantly borne by private citizens as opposed to commercial organisations. In this case the nature of such organisations becomes relevant. While few people would bemoan restrictions on watering their lawn to secure an uninterrupted water supply to the local hospital or school, they may feel rather differently if the major users were golf courses or soft-drink bottlers.

In addition to site-level information a standardised rating of water scarcity and ecological health is essential for community understanding as to whether current extraction levels are sustainable. This information is equivalent to knowledge of the danger thresholds for pollutant emissions, without which any disclosures as to actual emissions are similarly rendered meaningless. Consistently measured catchment health information would also be helpful for organisations to report their water impact, particularly if they are attempting to achieve water “neutrality” across their overall operations.

4.4 Conclusions

This section has examined a number of alternatives to realising a right to water-related information and has outlined some of the strengths and weaknesses of the options. It is evident that many options exist beyond the traditional SEA focus on corporate-level reporting; product-level reporting may be valuable and catchment reporting is a promising alternative.

The particular model(s) developed in a given region will ideally reflect the views of stakeholders and will therefore take into account the relevant cultural, political and legal context of water management. The requirement to engage with stakeholders might be considered a crucial characteristic of sustainability reporting (Unerman *et al.*, 2007, p. 86), and O’Dwyer (2005) suggests that stakeholder influence on reporting is a potentially valuable tool to enhance the democratic process, notwithstanding the scepticism of critical scholars (Tinker *et al.*, 1991; Cooper *et al.*, 2005). The GRI G3.1 Guidelines list stakeholder inclusiveness as one of the key principles for report preparation, stating that the reporting organisation “should identify its stakeholders and explain in the report how it has responded to their reasonable expectations and interests” and noting that “[f]ailure to identify and engage with stakeholders is likely to result in reports that are not suitable, and therefore not fully credible, to all stakeholders” (Global Reporting Initiative, 2011c, p. 10). Swift (2001, p. 23) cites a number of options for engaging with stakeholders, including focus groups, interviews, surveys and meetings, and the Internet now also provides interactive opportunities (Unerman and Bennett, 2004).

Promoting and developing stakeholder influence over reporting is therefore a priority for the realisation of a right to water-related information and an opportunity

for further research. While there are a number of potential methods for stakeholder engagement, reviews of sustainability reporting suggest that this potential has yet to be fully realised (e.g. Unerman and Bennett, 2004; Rasche and Esser, 2006; Unerman *et al.*, 2007). Similarly there is limited research canvassing stakeholder needs, especially compared to research concerning the needs of those “primary” stakeholders wielding direct economic power (Tilt, 2007, p. 105). The reluctance of corporations to engage with stakeholders might stem from a number of quarters, such as a reluctance to admit to bad news through to difficulties and costs in actually obtaining reliable information[11].

Even if stakeholders have a right to information, it may not be provided. One morally relevant reason is that companies may also assert a countervailing right to privacy. If such a right is valid, this may significantly blunt the “moral force” of an assertion of a right to information and therefore the ability of disclosure advocates to drive policy change. The validity of this objection is considered in the following section.

5. The corporate right to privacy

The right to privacy is an important human right. In relation to information, Davis (2009, p. 467) defines this right as including “control over to whom and when his personal information be given to others”. A pertinent question is whether corporations are also entitled to the right to privacy. While corporations asserting “human” rights might seem bizarre, there is a long history of corporations asserting rights previously granted to natural persons. The case of *Santa Clara County v. Southern Pacific Railroad Company*, 118 US 394 (1886), established corporate “personhood” in the USA (Nace, 2003)[12] and corporations subsequently exploited the Fourteenth Amendment – passed to protect newly freed slaves – in order to win perpetual succession (Bakan, 2006, p. 5). More recently, corporate appropriation of the US First Amendment right to free speech has also been debated (Dworkin, 2000, chapter 10; Mayer, 2007; Nesteruk, 2007) and European corporations have also sought to rely on human rights (McIntosh, 2000). Grear (2006) reviews this phenomenon in detail, suggesting that “corporations employ the language and concept of human rights to defend and promote their corporate interests – even while they violate the human rights of natural living human beings and communities” (Grear, 2006, p. 189). In relation to water, some business groups have asserted much broader rights than that of privacy. For example, in their submission to the UN inquiry on the right to water, the WBCSD stated:

Certain governments have indicated the right to water does not include water for industry, recreation or transport. By explicitly excluding the right to water for industry in this way, one is indirectly excluding the right for industry to operate, and therefore contribute to the economy, which includes satisfying the Right to Employment (World Business Council for Sustainable Development, 2007, p. 3).

A rebuttal to corporations claiming human rights is that corporations are not moral agents (because they lack autonomy) and therefore have no intrinsic rights. Consequently, corporate rights are limited to those explicitly granted by the community on the basis of public interest. Taking the first element of this argument, if an agent has no choice of action, it is difficult to see how they can be considered morally responsible (or irresponsible). As Kant pointed out, “a free will and a will subject to moral laws are one and the same” (Kant, 1785, p. 39). There are at least two

significant limitations to corporate autonomy. First, corporations operate in competitive markets (Friedman, 1970). Second, the legal structure of the corporation privileges shareholders over other stakeholders (Evan and Freeman, 1993, pp. 255-6). These constraints suggest that corporations (and in particular public corporations) lack autonomy and can be most usefully be considered an amoral entities, overwhelmingly concerned with profit maximisation (Bakan, 2004; Hazelton and Cussen, 2005). Indeed Danley (1993, p. 286) argues that ascribing moral responsibility to a corporation, which he suggests is most correctly regarded as a machine, is a “contemporary form of animism” and he therefore considers “anthropological bigotry” justified[13]. This corporate profit-maximising imperative is articulated by many in the context of social and environmental accounting such as Tinker *et al.* (1991, p. 33) and Gray and Milne (2004, p. 73), though McKernan and MacLulich (2004) provide a contrasting view. Indeed, Adams and Whelan (2009, p. 137) suggest that “managers of Anglo-American corporations are legally obliged and remuneratively encouraged to try to maximize shareholder wealth. This fact can thus be taken, more or less, as a given”.

Two objections might be levelled at this rebuttal. First, the assumption that markets are competitive might be challenged. For example, institutional theory rejects this assumption. Di Maggio and Powell (1983) contend that competitive pressures are most acute in the early years of an industry, but that these pressures gradually diminish to the point where older institutions actually control their environment. While this position might be contested, in any event this does not mean that institutional theorists claim corporate autonomy. To the contrary, the central motivation of DiMaggio and Powell’s initial investigation was the extraordinary homogeneity they observed in firm structures despite operating in seemingly disparate markets and settings. From an institutional theory perspective, agenda-setting is tightly restricted to the legal sphere (triggering coercive isomorphism), exemplar organisations (triggering mimetic isomorphism) and the professions (triggering normative isomorphism)[14].

A second objection is that a focus on organisations fails to recognise that it is merely a collection of natural persons. In other words, it is an error to simultaneously claim that institutions lack autonomy and yet that the individuals comprising the organisation are autonomous agents. The key response to this objection is that individual moral autonomy is constrained by corporate culture. Recent work in moral theory has highlighted the importance of circumstance in driving ethical judgements (Upton, 2009) and suggests that people engaged within a profit-maximizing entity will typically exhibit behaviour consistent with this objective (or leave the sector, voluntarily or otherwise). Of course there are exceptions – such as corporate whistle-blowers – but the general case of corporate ideological influence on employee decision-making remains apposite[15].

The conclusion from the above discussion is that it is difficult logically to claim intrinsic rights for corporations that correspond with their human equivalent. Hence any corporate rights to privacy should be granted only on the basis of the public interest. Yet as noted above, the public interest is likely to be furthered by information relevant to community decision-making. Within rights theory there is a clear distinction between personal information and information required for community debate. For example, Griffin (2008) suggests that such “personal” information constitutes matters such as sexual orientation, and therefore there should not be a

conflict between this right and access to “the information required to function as a normative agent: access to the relevant thoughts of others, to the arts, to exchange of ideas, and, in democracy, to information about the issues before the public” (Griffin, 2008, p. 240).

Within the accounting literature, scholars such as Messner (2009) and Roberts (2009) have considered this issue, not by asserting a right to secrecy but rather by highlighting the possible risks of increased corporate transparency. Messner (2009) utilises the work of Butler (2005) to outline the limits of accountability and suggests the quality of any account depends on the ability of the agent to understand and interpret their actions, which can never be fully realised. Further, the account must be provided within an (largely) externally imposed linguistic structure comprehensible by those both giving and receiving the account, and the characteristics of this structure itself places constraints on the realisation of accountability. Roberts (2009) similarly utilises the work of Butler (2005) and suggests that increased accountability can be counter-productive. First, accountability can involve the creation of an unreachable ideal, meaning that individuals become unnecessarily self-critical, and subject themselves to psychological violence. Second, transparency can drive management focus on only those items that are transparent and ultimately efforts to improve performance that are reflected in reported items become focused instead on the targets themselves. In other words, management *by* indicators becomes management *of* indicators. Roberts (2009, p. 966) therefore calls for “intelligent” accountability where transparency is a necessary but not sufficient condition for accountability. The notion of “intelligent” accountability has a strong resonance with those such as Boyce (2000) noted above, who see the role of accounting disclosure as starting or informing public debate rather than concluding it.

In relation to corporate water information, in 2006 the National Water Commission commissioned PricewaterhouseCoopers to report on the issues of disclosure of pricing and personal information on water use (PricewaterhouseCoopers, 2006). The report primarily focused on information contained within state and territory governmental water registers, which record the identity of water entitlement holders and may also record water trades. PricewaterhouseCoopers noted that both record-keeping practices and privacy legislation varied considerably across Australia, but were particularly concerned that the transition of registers to publicly available databases facilitated their use by direct marketers. PricewaterhouseCoopers endorsed the private/corporate distinction discussed above and suggested that where information related to business interests this did not afford the same level of privacy protection relative to natural persons:

The information contained on some water entitlement registers may be considered business information and therefore does not fall under privacy provisions. This reflects a general view that the community has a “right to know” about the activities of businesses or corporations (PricewaterhouseCoopers, 2006, p. 69).

The report also noted that information regarding water “assets” should be comparable to other types of readily available information:

It is difficult to see how knowledge of water access entitlements or trades is any different from knowledge of other assets (e.g. land) or common factors of production (e.g. machinery) for which values are often publicly available or widely known (PricewaterhouseCoopers, 2006, p. 69).

Yet some degree of corporate information protection is fundamental to capitalism and might therefore conceivably be permitted on the basis of the public interest. The formula for Coca-Cola and the seven “secret” herbs and spices in Kentucky Fried Chicken are obvious examples of intellectual property, but corporate privacy concerns also relate to operational information (such as production levels), which though not constituting patentable intellectual property may place them at a competitive disadvantage if publicly known. Legislation varies in respect of the weight given to such information; some jurisdictions such as the USA explicitly protect trade secrets (*Freedom of Information Act* 5 USC. Sec. 552(b)(4)). The Aarhus Convention recognises corporate rights to privacy, stating in Article 4 that a request for information “may” be refused to protect a “legitimate economic interest” and intellectual property rights (Article 4, s4(d) and (e)). The Strategic Plan also discusses the objective of increased information accessibility in light of “relevant issues of confidentiality of commercial and industrial information and protection of intellectual property rights” (United Nations Economic Commission for Europe, 2008, paragraph 11(b)). However the Convention is explicit in the requirement to consider such matters in light of the public interest, stating in Article 4 that “[t]he aforementioned grounds for refusal shall be interpreted in a restrictive way, taking into account the public interest served by disclosure”. Similar provisions for public interest overrides are present in the legislation of Australia, Canada, Ireland, Japan and the UK (Repeta, 2006).

In practice, determining whether corporate information should be disclosed on public interest grounds is often problematic. Repeta (2006) explores an example of this issue in the application for information relating to the activities of a Japanese biochemical research plant. In this case the ability to maintain trade secrets of current research and the overall design of the plant were overridden by the significant risk to public health posed by the plant. An interesting counter-example, however, is provided by Gallhofer and Haslam (2007) who chronicle the failure of calls from a spectrum of NGOs for mining and oil companies to “publish what you pay” in taxation to developing country governments. Gallhofer and Haslam show that the IASB steadfastly refused to act in the public interest or even follow their own principles of public engagement and suggest that a possible cause is that the funding of the IASB is largely dependant on those very organisations that they are supposed to regulate. This case highlights that disclosure of certain information may indeed be considered highly sensitive by corporations and therefore vehemently opposed.

In relation to water, the sensitivity of water-related information differs markedly by industry. At one end of the spectrum are organisations such as sporting venues, which may use large volumes of water but where these volumes are only crudely correlated with operations (such as whether or not the venue is hosting an event). Such industries have little cause for concern about losing competitive advantage from water disclosures and a right to privacy therefore does not apply. At the other end of the spectrum are industries such as hydroelectricity, where water reserves constitute electricity generation capacity. As water reserves determine the extent to which the company can trade in the energy market such information is highly valuable to other energy traders. However, providing such information in a time-lagged form (such as occurs in the corporate annual reporting cycle) renders this information much less sensitive. In industries such as beverages where water is a large component of production, knowledge of water use at a site level might enable competitors to

reverse-engineer production levels and/or patterns. Yet here concerns may be relatively easily addressed by “blurring” of the information, such as reporting it only within generous usage bands.

This section has explored the corporate right to privacy, and has shown that the issues are complex. First, it is problematic to automatically assert corporate rights because of the limitations to corporate autonomy, which suggests that corporations should not be considered moral agents. Therefore corporations should not be granted “human rights” with the same universal application as human rights applicable to citizens; corporate rights are not “trumps” and corporate privacy should only be respected when it does not contravene the public interest. However, this is not to say that there is no right to privacy, as corporations may legitimately protect trade secrets on the basis that such protection encourages further investment and innovation. In relation to water, disclosures such as water usage are unlikely to constitute such secrets, but may in some instances be correlated with production. Therefore such disclosures are only likely to be of concern to companies operating within certain industries, and for these it is likely that disclosure of relatively imprecise information could protect corporate privacy whilst providing sufficient information for citizens.

6. Summary and conclusions

This paper has explored the perspective that information may not only concern human rights (Ruggie, 2008; Kobrin, 2009; Ruggie, 2009; Chetty, 2011; Cooper *et al.*, 2011; Frankental, 2011; Gallhofer *et al.*, 2011; Gray and Gray, 2011; Islam and McPhail, 2011; McPhail and McKernan, 2011; Sikka, 2011), but that access to information may also constitute a human right. The paper has followed Griffin (2008) and Sen (1993, 2004) to suggest that a potential human right might be recognised when it is consistent with those “founding” human rights within the human rights tradition, when it is important and when it may be influenced by societal action. The case for water disclosures constituting a human right is that political participation is a founding human right, that water is an issue of contemporary importance, and that it is a critical subject of political debate. Further, there is increasing recognition that water information is required for genuine political participation and the state is in a position to require water-related disclosures.

A further theme of the analysis is that while environmental informational rights are increasingly being recognised and asserted, the location of such disclosures may be in areas other than organisational social and environmental accounts. While the actions of organisations are critical (Gray, 2010) it does not necessarily follow that corporate sustainability reports contribute to accountability, as the organisation may not be the salient level of analysis (Gray and Milne, 2004; Schaltegger, 1997; Gray, 2010). This point resonates with critiques of organisational-centric reporting models such as the GRI (Moneva *et al.*, 2006; Dumay *et al.*, 2010). Alternative techniques such as providing databases of environmental information are advocated by the Aarhus Convention and have been credited with considerable success (Fung and O'Rourke, 2000; Stephan, 2002), though public awareness of these sources has been difficult to achieve (Hallo, 2007; Thorning, 2009). Given such success, this means of accountability seems worthy of greater attention within SEA. Similarly, the issue of consumer-level environmental information is also raised by the Aarhus Convention, and while there are clearly challenges for effective environmental labelling (Gray and Bebbington, 2001, pp. 110-1),

the pervasiveness of labelling schemes (Harrington and Damnic, 2004) coupled with some reports of success (Weaver and Finke, 2003; Unnevehr and Jagmanait, 2008; Commonwealth Department of Environment and Heritage, n.d.) suggests this nonetheless represents an additional interesting avenue for further research.

In relation to water disclosures, while studies examining corporate water reporting have generally found such reporting deficient (Morikawa *et al.*, 2007; Morrison and Schulte, 2009; Carbon Disclosure Project, 2010; Egan and Frost, 2010; Association of Chartered Certified Accountants, 2010) they have mainly called for improved reporting at the organisational level. It is evident that the GRI-style model is by no means an automatic choice for water reporting, and even advocates acknowledge difficulties with this approach (Irbaris, 2009). A right to corporate water information might be therefore be realised not only via corporate reporting in annual accounts and/or websites but also in terms of possibly more promising avenues such as product labels and catchment-level reporting. While countervailing corporate rights to privacy are legitimate in some respects, corporate privacy and public accountability might be simultaneously realised by reporting at appropriate levels of temporal and volumetric granularity. Consideration of both the content and delivery of corporate water-related disclosures from these broader perspectives also constitute areas worthy of further research.

Asserting a right to information resonates with the ethos of many SEA researchers exploring the notions of accounting and discourse (e.g. Power and Laughlin, 1996; Boyce, 2000; Lehman, 2001; Rahaman *et al.*, 2004; Unerman and Bennett, 2004; Rasche and Esser, 2006; Dillard, 2007) and supports the legitimacy of concerns regarding disclosures in social and environmental accounts (O'Dwyer *et al.*, 2005; Moneva *et al.*, 2006; Milne *et al.*, 2007; Milne and Gray, 2007). If the claims regarding the moral weight of human rights suggested by authors such as Clapham (2007) and Risse and Ropp (1999) are correct, "playing the human rights card" might prove useful to advancing the calls for more extensive mandatory corporate reporting (e.g. Gray, 2001; Gray and Milne, 2002; Adams, 2004; Adams and Zutshi, 2004; Gray and Milne, 2004).

The exploration of organisational rights to privacy in this paper also has important implications for whether corporate reporting should be voluntary or mandatory. As discussed, a Kantian framework suggests the limitations to corporate autonomy identified by many researchers (e.g. Tinker *et al.*, 1991; Gray and Milne, 2004; Adams and Whelan, 2009) places corporations outside the moral realm and justifies criticism of the appropriation of human rights by corporations (Dworkin, 2000, chapter 10; McIntosh, 2000; Gear, 2006; Corporate Accountability International, 2007). Any "rights" that corporations possess must therefore be carefully justified with reference to the (human) public good rather than merely by corporate "personhood". While many may be sympathetic to the stripping of automatic corporate rights, the corollary is that corporations have limited duties; corporate social responsibility is likely only when in the economic interests of the company, consistent with Friedman (1970). Taking the position that corporations lack moral autonomy therefore becomes an argument for increased regulation and hence also supports calls for mandatory reporting[16].

The perspective of the current paper might also be useful for other areas of disclosure. For example, a similar argument might be made for a right to information in relation to greenhouse gas pollution, though as the debate on global warming is predominately at the level of the nation-state it is national information that is most

salient; as Borschmann (2009) points out, nations too can “cook the books”. The right to information and the intersection of the corporation and the nation-state is also evident in areas such as the recent “publish what you pay” campaign. This campaign advocates disclosure of the taxes paid by resource companies to their host governments, which has the potential to inform community debate regarding development of the infrastructure required for the realisation of basic human capabilities. Casting access to such information as a human right might assist in the battles against global accounting standard-setters as documented by Gallhofer and Haslam (2007).

This paper also chronicles the growing realisation of the importance of access to information for genuine political participation. Seen in this light, sustainability accounting is fundamental to the most important debates occurring in the world today. This view contrasts with the pessimism evident in some reviews of SEA potentiality (Mathews, 1997; Gray, 2010), perhaps because of a focus on corporate-centric sustainability reporting. It is interesting that many of the most positive accounts of the impact of disclosures on organisational practices originate from outside the accounting community and consider forms other than corporate sustainability reporting (e.g. Stephan, 2002; Weaver and Finke, 2003; Unnevehr and Jagmanaitė, 2008). Perhaps it is we accountants, largely operating within a paradigm where social and environmental accounting comprises corporate reports, who are the most sceptical of the ability of accounting to change the world.

Notes

1. The quality of organisational reporting on human rights is generally inadequate (Ruggie, 2007, p. 21) though perhaps improving (Ruggie, 2008, p. 10; 2009, p. 9).
2. Perhaps the most fundamental tactic to promote corporate sustainability (or “social responsibility”) is to simply equate this notion with profitability. After all, corporations are designed to be profitable, so if achieving that objective can also satisfy demands for sustainability then any awkward questions as to financial versus social or environmental trade-offs evaporate. This is the approach of organisations such as Shell International (1998) opining that “Profits versus principles – does there have to be a choice?” and the World Business Council for Sustainable Development (2006b). But given the huge profits yet potentially negative environmental and/or social consequences that remain in industries such as mining, gambling, tobacco and armaments, it is difficult to take such a position seriously. Further, the contention of theorists such as Friedman (1970) that legal compliance is sufficient as laws represent the will of society seem dangerously naïve in the face of relentless corporate lobbying (AccountAbility, 2005; Ostas, 2007).
3. A recent example is the claim that unborn future generations possess rights and that actions that infringe these rights therefore constitute crimes punishable under international criminal law (Hartwich, 2009).
4. Of course not all moral philosophers share this view. Postmodernists such as Richard Rorty dismiss any claims to moral universality. Rorty (2006, p. 375) suggests that theorists such as Kant and Mill are best viewed as “social engineers” using whatever arguments resonated with their audiences and enabled them to achieve their objectives. Therefore a postmodern test of human rights is not whether they are theoretically coherent but whether they make any difference to practice. This is a test they currently pass, despite Rorty’s contention that the emergence of human rights is due more to sentimental stories than increased moral knowledge (Clapham, 2007).

5. The relationship between science and philosophy has a long history. For example Plato believed logic and order pervaded all natural things. Therefore when he observed the supposedly random path of the planets across the night sky he refused to accept that they were truly random, and in *Timaeus* proposed a divinely created universe but one subject to consistent laws and hence understandable. While controversy regarding the origin of the Universe persists, some 2,000 years later scientists such as Kepler, Galileo and Newton confirmed Plato's claim of the mathematical comprehensibility of planetary motion. As an aside, Plato's *Dialogues* also provide one of the first critiques of human rights violations in his account of the execution of Socrates, who might in modern parlance be termed an Athenian dissident.
6. In the accounting literature, Power and Laughlin (1996) utilise a similar approach to explore the moral status of laws from a Habermasian point-of-view. More recently Dillard (2007) discusses the Habermasian influence on SEA and Davis (2008) provides a comprehensive summary of the use of Habermasian theory within SEA.
7. It should be noted that Sen's work in relation to human rights forms part of his larger project to enhance human "capabilities". While a full explanation of Sen's capabilities approach is beyond the scope of this paper, essentially Sen argues that equalising the bundle of primary goods allocated to each person (a Rawlsian approach) does not guarantee justice, because the capabilities of people with respect to those goods are not equivalent. For example, even if given food, the disabled, the very young or elderly may not be capable of becoming nourished. Instead, the capability perspective "concentrates on what actual opportunities a person has, not the means over which she has command" (Sen, 2004, p. 332). Of particular relevance to this paper is the normative grounding of the capabilities approach. Though the capabilities approach was born out of dissatisfaction with Rawlsian approaches to justice (itself a critique of utilitarian conceptions of justice), it does not have an explicit normative theory. Nussbaum (1993) seeks to ground the capabilities approach in Aristotelian ethics by suggesting that there is a close identification with Aristotle's identification of "non-relative virtues" and that contrary to popular perception, these virtues are universal. While sympathetic to this grounding, Sen ultimately rejects it, partly because of concerns that the Aristotelian view of human nature "may be tremendously over-specified" but mostly because the capability approach "does not require taking that route, and the deliberate incompleteness of the capability approach permits other routes to be taken which also have some plausibility" (Sen, 1993, p. 47).
8. It is estimated that 1.1 billion people in developing countries have inadequate access to water and 2.6 billion people lack basic sanitation (United Nations Development Programme, 2006, p. 2). The Millennium Development Goal of halving the proportion of world population without sustainable access to safe drinking water and basic sanitation (Goal 7, target 10) is ahead of schedule in relation to water, but not in relation sanitation (United Nations, 2009a, pp. 45-6). Progress on water is largely due to significant advances in India and China (United Nations Development Programme, 2006, p. 7). Even if the goal were achieved, however, this would still leave 800 million people without water and 1.8 billion people without sanitation in 2015. The UN suggests inequitable distribution of wealth is at the heart of the problem: "scarcity is manufactured through political processes and institutions that disadvantage the poor" and because it is only the poor who are affected, rich nations provide an underwhelming response (United Nations Development Programme, 2006, pp. 3-4).
9. Many other rights documents also refer to safe drinking water and sanitation, including the *Convention on the Elimination of All Forms of Discrimination against Women* (United Nations, 1979, Article 14(2)(h)); the *Convention on the Rights of the Child* (United Nations, 1989, Article 24(2)(c)); the *Convention on the Rights of Persons with Disabilities* (United Nations, 2006, Article 28 (2)(a)); the *Occupational Health Services Convention* (International

Labour Organisation, 1985, Article 5(b)); and the African Charter on the Rights and Welfare of the Child (Organization of African Unity, 1990, Article 14(2)(c)). In addition, over 100 countries have a right to a clean and healthy environment in their constitution, including nearly all constitutions adopted since 1992 (Shelton, 2002, p. 22). Many countries have explicitly recognised the right to water in their national legislation in the last decade, including Uruguay (2004), Algeria (2005), Indonesia (2005), Mauritania (2005), Democratic Republic of Congo (2006), Kenya (2007) and Nicaragua (2007) (Centre on Housing Rights and Evictions, n.d.).

10. For example, equivalent databases exist in Australia (the National Pollutant Inventory), Canada (the National Pollutant Release Inventory), England and Wales (Pollutant Inventory) the European Union (European Pollutant Emissions Register), Indonesia (Program for Pollution Control Evaluation and Rating), Japan (Pollutant Release and Transfer Register), Mexico (Registro de Emisiones y Transferencia de Contaminantes), Scotland (Scottish Pollutant Release Inventory) and Sweden (Swedish Pollutant Release and Transfer Register).
11. A related concern is that of stakeholder power – for there is little point in engaging stakeholders in corporate reporting if stakeholders have no influence on corporate operations (Cooper and Owen, 2007; Owen, 2007). Such concerns underline the point that information is a necessary but not sufficient component of deliberative democracy.
12. Interestingly, Nace (2003, p. 123) suggests that in the written decision of *Santa Clara County v. Southern Pacific Railroad Company*, 118 US 394 (1886), there is no mention of the corporate personhood principle. Rather, the Chief Justice hearing the case made verbal comments to this effect from the bench and the Court Reporter then incorporated these comments into the Statement of Facts. The comments were then highlighted as the main point of the case in the Syllabus (the Court Reporter’s summary of the case), which then became the “precedent” for this fundamental change in corporate philosophy.
13. Legal structures can, of course be changed, and authors such as Evan and Freeman (1993) call for a revision of corporate law to compel a stakeholder focus. While some jurisdictions have examined whether changes to corporate law along these lines might be warranted (Corporations and Markets Advisory Committee, 2006) to date there has been little progress on this regard, perhaps because moving away from a for-profit structure would represent a radical departure from capitalism. An alternate solution to modifying the corporate form might be to locate enterprise within other structures. As noted by Hazelton and Cussen (2005) collectives remain an important source of economic activity, and NGOs have become increasingly influential (The Economist, 1999). But it is the corporate sector that continues to enjoy ready access to global capital markets and therefore remains the dominant economic force.
14. One implication of accepting institutional theory is to alter the point of greatest leverage for corporate change – whereas faith in competitive markets would favour imposition of taxes and subsidies, institutional theory would look to techniques of “soft power”. In later work DiMaggio (1994) emphasises the impact of prevailing culture on management decision-making, suggesting managers are always navigating cultural norms in their quest for organisational success. This perspective was adopted by Egan (2010) who utilised institutional theory to analyse water management practices within the Australian food and beverage sector and suggested that pressure from consumers and community groups (as opposed to economic drivers) was the primary agent of organisational change.
15. An interesting conclusion from this perspective is that better institutional design might conceivably lead to more consistently moral behaviour. Merritt (2000) contends that situationism suggests virtuous behaviour is also largely influenced by social and institutional structures, consistent with the Aristotelian notion of virtue being largely derived from a “good” family and education. But as Merritt points out, the situationist thesis

suggests that this is unlikely to guarantee virtuous behaviour in later life (nor condemn those without such an upbringing to immorality). Rather, situationism posits the design and operation of social structures is of utmost importance to bring out the best, as well as the worst, of character. This perspective might also explain why individuals may display quite different moral character in, say, the workplace as opposed to the home, and may act differently again as a member of a social club.

16. Calls for increased mandatory reporting resonate with Kant's ideas on how to create the "good" society; at the societal level, his *Idea for a Universal History with a Cosmopolitan Purpose* (Kant, 1991, pp. 41-53) conceptualises humanity's past and future as a gradual progression towards the "cosmopolitan purpose" of creating a civil society that can administer justice universally. Such a society enables full realisation of the capabilities of humanity, but requires extensive and universal regulation: "the most precise specification and preservation of the limits of this freedom in order that it can co-exist with the freedom of others" (Kant, 1991, p. 45).

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