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**SUSTAINABILITY ACCOUNTING AND
ACCOUNTABILITY IN PUBLIC WATER COMPANIES**

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Keywords: Sustainability reporting, Public Sector Organisations, Water Utilities; Accountability.



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Abstract

This paper is the report of a field study of nine public water utilities conducted with the aim of exploring whether distinctive, and more progressive, processes of sustainability accounting and accountability are possible in public sector organisations. The findings suggest the existence of an intense communication activity through reporting media that are different from the conventional stand-alone sustainability reports. Moreover, these disclosures seem to be coupled with real organisational strategies and operational activities.

Keywords: Sustainability reporting, Public Sector Organisations, Water Utilities; Accountability.

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SUSTAINABILITY ACCOUNTING AND ACCOUNTABILITY IN PUBLIC WATER COMPANIES

1. INTRODUCTION

The number of large companies that on a regular basis report on their impacts to sustainable development has dramatically increased both in extent and in complexity (Milne and Gray, 2007; KPMG, 2005). Positive studies examine why and how large and private companies report for their social and environmental impacts (Gray *et al.*, 2001; Deegan, 2002). However, scholars have called our attention towards two absences in social accounting research. On the one hand, Gray (2002), Parker (2005), Adams and Larrinaga-González (2007) and Owen (2008) have recently made a call for (field based) research that engages with practice. On the other hand, Ball and Grubnic (2007) also note that the role of public-sector organizations (PSOs) for advancing the agenda of sustainability accounting and accountability is often overlooked. They contend that there are differences between the public and the private sector that justify a distinctive analysis of sustainable development reporting. Combining these two absences, Ball and Grubnic (2007) call for further qualitative research to understand the nature of sustainability accounting and accountability in PSOs.

The aim of this study is to explore whether distinctive, and more progressive, processes of sustainability accounting and accountability are possible in PSOs. To accomplish such aim this research explored sustainability accounting and accountability practices in an intra-industry case study that included nine public water utilities situated in Southern Spain. Different sources of evidence, including reports, interviews with preparers and other forms of engagement, allow exploring the driving forces, and the process, of sustainability reporting by such organizations.

The paper proceeds as follows. The second section reviews the literature and

the institutional developments of sustainability reporting by PSOs. The third section describes the research method, while the fourth section outlines the characteristics of the field study conducted with the aim of exploring sustainability accounting and accountability. The fifth section describes the accountability processes identified in the field study and the sixth section discusses the findings and concludes.

2. SUSTAINABILITY ACCOUNTING AND ACCOUNTABILITY IN PUBLIC SECTOR ORGANISATIONS

Different initiatives have addressed sustainability accounting and accountability in PSOs. The Global Reporting Initiative (GRI) sector supplement for public agencies (GRI, 2005) could have a major influence in such activity. For example, in November 2007 the Swedish Government adopted new guidelines for external reporting by state-owned companies, extending the previous obligations concerning sustainability reporting in such a way that, since the year starting the 1st of January 2008, these companies must supplement their financial reports with a sustainability report following GRI guidelines. Other European countries have also mandated social and environmental disclosure to conform to Recommendation 2001/543/EC (Hibbitt and Collison, 2004). The Spanish government issued in 1999 an accounting standard, obligating the water supply and sewage industry to disclose environmental information as part of their statutory financial statements, later reinforced by a more comprehensive standard affecting companies in all industries (Larrinaga *et al.*, 2002; Criado *et al.*, 2008)

A growing number of studies conduct a distinctive analysis of sustainability accounting and accountability by PSOs (see for example Ball, 2005; Bowerman and Hutchinson, 1998; Burritt and Welch, 1997; Marcuccio and Steccolini, 2005). Ball and Grubnic (2007) contend that this distinctive analysis is justified on the grounds of the specific characteristics of PSOs. Given the apparent limitations of the social accounting project (Gray, 2006), Ball (2002) makes the

case for re-framing it (see Gray, 2002) in the public sector to understand the real incompatibility between sustainability and business as usual (Gray and Bebbington, 2000). In this respect, an analysis of the social and environmental literature suggests four areas of singularity of the public sector:

- i) Public services legitimacy. Services delivered by PSOs are often the result of political decisions derived from public concerns and, consequently, the legitimacy of such organizations is grounded on what Ball and Grubnic (2007) call the freedom from fear of the consequences for the public of not having access to a given resource. These authors rightly point out that these characteristics are especially important if we consider the natural environment.
- ii) Public sector ethos. Ethical motivations of people employed in the public sector, which seem to differ from those in the private sector, should be more coherent with sustainable development (Ball and Grubnic, 2007).
- iii) Ecological relevance. It has been argued that sustainability reporting simply represents an approximation to sustainability reporting in most organizations because sustainable development requires an ecosystem or regional level of analysis (Milne and Gray, 2007). Unlike private companies, whose ecological base is unstable, public sector organizations tend to be geographically defined, allowing a more accurate analysis of sustainable development, based on biological activity and the flow of materials and energy.
- iv) Regulator. Public sector organizations can also have a role in defining policy objectives and, therefore, could have an indirect impact that overreaches its direct impact. For example, GRI's (2005) sustainability performance information is split in three levels. While the first level includes conventional performance indicators, the second level and third level refer to the impact of the agency's policies on sustainable development in its jurisdiction.

Tregidga and Milne (2006) and Adams and McNicholas (2007) conduct case studies of PSOs providing water services. The first study examines the evolution of the discourses used by a leading New Zealand environmental reporting to (re)present itself, characterised by environmental management in the nineties and more recently by the pretended delivery of sustainable development. The second study is an engagement with the process for developing a sustainability report by an Australian water organization, allowing the authors to identify the driving forces of such process. Intriguingly, while both studies investigate PSOs none focused specifically on how the characteristics of such organizations would influence the SER process. Moreover, Tregidga and Milne (2006) found in their company a strong influence of business organizations that promote the “business case” of sustainable development, leading to the preponderance of discourses that make appear sustainability as compatible with “business as usual”. These findings cast doubts about the existence of distinctiveness in the public sector as regards sustainability reporting because even public sector is adopting the less progressive business discourses (Tregidga and Milne, 2006). The question that emerges is if we could find any distinctiveness in PSOs with regard to sustainability accounting and accountability.

Sustainability reporting is dominated by large and multinational companies (Milne and Gray, 2007). The rationale for sustainability reporting is often articulated around the value creation for shareholders *and* other stakeholders (e.g. WBCSD, 2002). The findings of exploratory research suggest the existence of a substantial activity of social and environmental disclosure by PSOs in different countries, but such activity does not always take the form of formal stand-alone sustainability reports. Instead, the public sector (e.g. UK local government authorities; see CIPFA, 2004) seems to be inclined to use a broad range of reporting channels for their social and environmental disclosure. This could explain the relatively low level of reporting found in some Spanish industries, such as water, dominated by small and medium-sized, geographically restricted, public companies. This also reminds the calls often made in the social accounting literature (e.g. Frost, 2007) to extend the scope of

the reporting media considered in social and environmental accounting research.

In general, critics of the current practice of (private) corporate sustainability reporting argue that this practice is doing very little to promote attention to sustainable development and change substantially business practices (Gray and Bebbington, 2000; Gray, 2006; Milne and Gray, 2007). Milne and Gray (2007) argue that corporations avoid the seriousness of sustainable development by ignoring a wider systems conception of sustainability (ecologically relevant) and by translating and defining the term sustainability to make it consistent with what corporations actually do. The question that arises is whether organisations that remained relatively untouched by (private) discourses of corporate sustainability and that often do not publish sustainability reports, undertake distinctive (more effective from a sustainable development stand?) processes of sustainability accounting and accountability.

3. RESEARCH METHOD

The exploration of sustainability accounting and accountability in PSOs was accomplished by conducting an intra-industry field study of nine water utilities situated in Andalusia (Southern Spain), responsible for the distribution of water and the collection and treatment of wastewater (see table 1). Evidence from the field study was gathered through semi-structured interviews and the analysis of documents. The open-ended nature of semi-structured interviews seems to be appropriate for an exploratory study as it allows gaining insight of the facts, as well as of the views about events (Yin, 1994). Prior research in social accounting used this research method (e.g. Larrinaga *et al.*, 2001). Between 2001 and 2003 eleven interviews were conducted with the individuals involved in the communication of financial information in the examined organizations (see table 1). Each interview lasted approximately one hour and a half and explored three themes: environmental accounting, sustainability reporting, and financial accountability (interview guide is available upon request from the

authors). Additionally, one of the authors interacted with these and other companies in the “XIV Annual Workshop of Andalusian Water Companies Association” in November 2002, where he was requested to give a paper discussing the main features of the Spanish standard on environmental accounting disclosure (see above).

Documents analysed included annual reports and accounts from 1997 to 2005, sustainability and environmental reports when available, as well as different documents disclosed (printed and in websites), describing environmental management in the organizations, but specially those used for the different campaigns that attempted to raise consumer awareness on the importance of rational use of water (see table 1).

--- insert figure 1 here ---

4. CASE STUDY

Water availability and management has clear implications for sustainable development. The United Nations (2005) affirm that *“awareness of the importance of the use and management of freshwater resources for achieving sustainable development has increased dramatically in recent years, as a result of a number of ongoing international and national initiatives and activities, leading to the World Summit on Sustainable Development in 2002”* (p.4). Accordingly, the EU Water Framework Directive (2000/60/EC) encompasses social, ecological, economic and quality issues.

Andalusia is a water-deficient area where the distribution of precipitation is uneven, both in time and in space, where water availability does not always meet geographically water demand and where the allocation of water resources generate tensions in ecosystems as well as in the public debate (Velázquez, 2006; 2007). Andalusians perceive water availability as the second

environmental problem, after forest fires (Junta de Andalucía, 2007a). Sustainable development has become an important constituent of the regulation and governance of the water industry (Cashman and Lewis, 2007). The solutions envisaged in those circumstances are not always sustainable: the construction of large desalination plants, the transfer of massive quantities of water or the irrigation of coastal crops with underground water that leads to marine intrusion in aquifers.

Whilst Torres and Pina (2001) identify in Spain a trend to outsource some public services, according to AEAS (2000) 56% of the Spanish population is still served by water companies managed directly or indirectly by local councils, while 32% of the population is served by private companies and the rest by public-private partnerships. Public companies typically serve densely populated urban areas (AEAS, 2000). Therefore, the fact that social accounting research overlooks the public sector (Ball and Grubnic, 2007) could lead to neglect one of the human activities with a greater incidence in sustainable development, at least in Spain. Considering public water utilities in this paper could allow to explore distinctive processes of sustainability accounting and accountability, as suggested by Ball and Grubnic (2007).

The present case study focused on nine water utilities that collectively constitute a recognized area of institutional life because they share common systems of meaning and interact frequently (Scott, 1995). These nine companies are part of an organizational field (Larrinaga-González, 2007), which is the focus of this study, rather than the individual organizations. Table 1 outlines some characteristics of the organizations. In total, they serve a population of 2,439,213 permanent inhabitants, with a notable increase in summer caused by coastal tourism. All the organizations are locally based and respond to the need to manage the whole life-cycle of water of geographically restricted areas. They cover the main urban agglomerations of western Andalusia, including cities such as Seville, Cordoba, Cadis, Jerez and Huelva. They take the form of public corporations and are controlled by local councils: C1 and C2 are controlled by associations of local councils and the rest are controlled by (and serve) single

cities.

Other key players in the institutional field are the government, the water authorities (*Confederaciones Hidrográficas*) of the different basins, the Environmental Protection Agency and the local councils. The public ownership and natural monopoly of these organizations make them less susceptible to competitive pressures. Most of the uncertainty of these organizations stems from their dependency on subsidized capital investments on assets (e.g. dams, wastewater treatment facilities) that are not owned by the public company but by the local councils. In the last two decades, capital investments allowed to prevent water shortages and to improve the standards of wastewater treatment (see below). Water authorities and the Environmental Protection Agency make decisions concerning the availability and the quality of water that also affect the activity of water facilities. The government holds the responsibility of ensuring the availability of fresh water, but local councils are responsible of the actual supply of freshwater and wastewater treatment. In summary, water utilities do not have a great deal of autonomy in their decision making, but depend on external funding for their projects and need to report on all aspects of their activities, especially environmental issues, to a considerable number of institutions.

Environmental management is embedded in the activities of these organisations. Seven out of nine water utilities formalised their environmental policy and management with ISO 14001 certifications (see table 1). In some cases, these initiatives are coupled with the participation of cities in programmes such as Agenda 21 or a similar programme launched by the Andalusian regional government called “Ciudad 21” (Junta de Andalucía, 2006). In addition to the obvious image motivations, some interviewees stressed that certifications were driven by the need to standardise environmental management procedures.

The most important sustainability issues for the organisations examined are the availability of water, the quality of supplied water and wastewater treatment. Different dry periods (1974-76, 1981-83 and 1992-95) affected severely the

availability of water; for example, in the largest city in the area (Seville) in 1975 the reserves of water fell to a minimum as low as 10 Hm³ in 1975 (180 Hm³ capacity; roughly two months supply). These situations typically lead to cuts in water supply to household and industry (e.g. 17 daily hours cut in Seville in 1981) and a relaxation in quality parameters to afford the supply of lower quality water (EMASESA, 2005). The strategy of the organisations examined and other institutions concerned consisted in increasing the damming capacity and managing the demand of water. For example, the capacity of EMASESA more than doubled between 1975 and 2005 from 180 to 400 Hm³, but the demand of water decreased from 355 to 275 litres per person per day (total consumption increased from 91 to 101 Hm³, due to the increase of population) (EMASESA, 2005). Demand management activities in the organizations examined included improved maintenance of pipes to avoid leaks, monitoring of superfluous consumption (e.g. watering grass) and extensive communication to customers, including systematic activities with children at the school.

“To intend that the customer holds a reasonable, positive and responsible culture as regards the use [of water] is so important” (C1: Financial director)

Following the policies of local councils, water utilities implemented incentives to punish non-essential consumption of water: depending on consumption the utilities charge different prices per m³ of water that could multiply threefold for excessive consumption.

The standards of wastewater treatment have improved in Andalusia only recently. While in 1992 just 28% of wastewater was adequately managed, this figure increased to 78% in 2006 (Junta de Andalucía, 2007b). This figure reaches 100% for the urban agglomerations covered by the organizations examined, although APEMSA has experienced problems with its treatment facilities (Junta de Andalucía Official Statistics available at <http://www.juntadeandalucia.es/medioambiente>) and faced ecologist activism.

Interviewees are generally very proud of this accomplishment, and they see themselves as the “good guys” because they are those that fix the environmental problem.

5. SD ACCOUNTABILITY PROCESSES IN PUBLIC SECTOR WATER COMPANIES

The analysis of the evidence suggests that there are three different processes of sustainability accounting and accountability in the organizations examined: environmental financial information mandated by ICAC standards, environmental and sustainability reports and the communication of environmental information through other reporting media, including awareness-building campaigns for demand management.

Environmental financial information

As noted above, since 1999 it is mandatory for water companies to disclose environmental financial information in their financial statements. Although it was mandatory to make such disclosure since 1999, it was not until 2002 that all the companies complied with the environmental accounting standard. Moreover, the degree of compliance is quite low, especially if we consider the lack of recognition of environmental liabilities. Criado, *et al.* (2008) and Llena *et al.* (2007) found similar results for large private companies. Along the lines of this literature, interviewees identify three different problems associated with non-compliance. The first problem is that the actors did not think that this environmental accounting standard was important, compared with other accounting changes that affected the finances of the corporations in the industry.

“I can tell you that all the discussions in the new accounting standard focused on four or five issues, but the disclosure on environmental issues, yes, very good ... this was just introduced. Neither the industry nor the ICAC attached too much importance to this” (M1 – Financial director)

The second obstacle was the lack of enforcement of the standard. None of the financial statements analysed deserved audit qualifications (similar findings for the private sector in Larrinaga *et al.*, 2002). The third obstacle is the difficulty in establishing the criteria to determine which activities have an environmental nature and, therefore, separate environmental investment and expenses from the rest. As the activities of these organisations have an essential environmental component, some utilities decided to label all their assets, investments and expenses as environmental while others suggest that this is nonsense. In this respect, organisation C1 states in its annual report that

“As far as C1’s aim is the integral management of the hydraulic cycle, all its activities should be considered under this standard [as environmental], including all its assets” (2002 Annual Accounts - C1)

The financial director explains this as follows:

“¿How much do you spend in the environment? (...) From the CEO’s pay to the last tube installed” (C1 – Financial director)

M5 recognised environmental investments and expenses for all their water treatment facilities. However, most organisations prefer to disclose as “environmental” only the cost of supplementary activities, because they consider that the disclosure of the cost structure of their activities is sensible for

their competitive position (e.g. the price of water is determined with the help of economic information from the utilities).

“The [Spanish Association of Water Facilities] recommended the disclosure of supplementary information (...) [As a public corporation] the disclosure of [information about the cost structure of activities] could affect us in a competition to award a plant [to a private company]. But if a [private company] disclosed their cost structures, which is its position relative to other [private company]? (...) then they will find it more difficult to obtain the next contract” (M1 – Financial Director).

Sustainability reporting

Although water companies in other countries are leading-edge environmental reporters (see Tredidga and Milne, 2006), empirical studies in Spain (see Moneva and Llena, 2000) suggest that water companies are “poor” reporters. This field study seems to confirm this inference as only the largest utility (EMASESA) voluntarily publishes a sustainability report. This is a stand-alone report, prepared following GRI guidelines and made available in paper and the Internet that received a second prize in the “European Environmental Awards”. Attached to its annual report, GIAHSA also publishes in the Internet, since 2003, a 30-35 pages long environmental report. A third organisation also publishes a short environmental report.

Water utilities tend to disclose just statutory information in their annual reports, mentioning five of them environmental certifications in their (mandated) management report. Only EMASESA reported such information in a voluntary section of the annual report. However, these poor scores in annual reports

should be assessed considering that only EMACSA and EMASESA edit a printed copy of their annual report. The remaining utilities just print copies of their annual reports and distribute them among the owners, financial institutions and official registries. The view of some interviewees is that it is not cost-effective to edit and circulate an annual report:

“We did it [to edit and circulate an annual report], now we circulate it to any interested. Logically, we circulate it to the owner and the board. We did send it also in the past to other companies, but not recently. The cost of preparing an annual report is excessive. But you can see anyway in our management report that the environment is a key concern ...” (M2 – Financial Director).

Although interviewees argue that they are transparent because the local council, but especially opponent councillors, requires it, an examination of corporate websites reveals that they do not make available annual reports in their websites, with the exception of M1 and C2. It seems that size could explain a great deal of the variation in disclosure among the organisations studied, which approximately range from 50 to 750 employees. In the Italian context, Steccolini (2004) argues that annual reports have a minimal role in the accountability of local governments. In this respect, one observation that emerges from the interviews is that small and medium-sized organizations are generally more opaque to the public regarding economic information than environmental information. However, environmental disclosures through the web are more sophisticated than through the annual reports, even for small organizations (see below). The concern on disclosing cost structures could explain the relative opacity on economic issues. However, there is still reluctance to be completely transparent:

“The society is increasingly concerned by environmental issues. The environment is a business. I think that disclosing excessive information

could backfire. If you do not want your disclosures to be misinterpreted, you have to explain it very thoughtfully” (M1 – Financial Director)

Other reporting media

If we expand the focus of the reporting media considered, one observation that emerges is that the environment is embedded in their practices and their reporting. Their core indicators in their reports always include issues such as the quality of supplied water, water leaks, water savings or quality of wastewater treatment.

We should not loose the focus: the activity of this company is the environment. When you talk me about [environmental] reports, brochures, I could answer that, as everything we do has an environmental basis, all [our reporting] is focused to the environment” (M1 – Financial Director)

The lack of (conventional) sustainability reporting could lead to think that these organisations are not responsive to external demands. However, their nature (small and medium-sized public companies) could justify the absence of such information. In these circumstances, it is worthwhile to extend the reporting media considered (Frost, 2007) to other disclosures in the Internet and other communication activities, revealing in this case an intense communication activity in all the utilities. These media included through the years advertising, stickers, the publication of fliers, programming visits to the utilities’ installations and, in recent years, corporate websites. The use of these media allowed the development of communication and engagement with local communities with the shared aim of reducing water consumption and improving wastewater treatment, an objective for which the behaviour of citizens is central. An

indication of the degree of transparency of these organisations is that the only organisation that had pollution incidents disclosed in its website the name, position, email and telephone number of all its employees.

The themes of communication focus around saving water, water quality and water treatment (it is worth mentioning that this information is also reported to the environmental authorities and that we will refer here just to voluntary public disclosure).

Water saving is a key concern for local communities and the utilities themselves. The organisations are very transparent and try to “educate” and engage customers to share responsibility with them. Communication on water saving uses all the media available, including advice on how to save water, web-based educational facilities, information on water reserves or technical information on water saving. This communication, strengthened in dry periods, started in the seventies, as figure 1 exhibits:

--- insert figure 1 here ---

Other examples include updated on-line information on water reserves under the heading “citizens’ information” of EMASESA (<http://www.aguasdesevilla.com/index.php?id=81>), the possibility of computing your own water consumption and actual per capita water consumption (see figure 2).

--- insert figure 2 here ---

Most utilities also disclose updated technical reports on the quality of supplied water. For example, EMASESA benchmarks quality parameters with well-known brands of bottled water. Finally, four companies also disclose on line, even daily, technical reports of wastewater treatment.

6. DISCUSSION AND CONCLUDING COMMENTS

This paper reports a field study of an institutional field integrated by, among other organisations, nine public water utilities based in Andalusia. This field study was accomplished to explore whether distinctive, and more progressive, processes of sustainability accounting and accountability are possible in public sector organisations, compared with private companies and considering the critiques of current practice of sustainability reporting.

Considering first the Spanish accounting standard, this study confirms the findings of Larrinaga *et al.* (2002) on the poor design of such accounting regulation from an environmental point of view. Our results suggest that the lack of compliance stems from the lack of legitimacy of the standard itself. This information is deemed as not relevant compared with non-financial sustainability reporting.

Apart from the largest utility, the practice of sustainability reporting, in all its guises, is quite limited. The evidence suggests that there are several reasons for this. Apart from the obvious observation that sustainability reporting is essentially voluntary, these companies do not find reputational incentives such as those found by quoted companies (Toms, 2002; Bebbington *et al.*, 2008). Moreover, these water utilities do not feel that their legitimacy is under threat; they see themselves as the “good guys”. The mission of these organisations, the reason why a few decades ago local councils decides to create these organisations, is grounded on the freedom from fear of water shortages. Moreover, their communities appear to be quite successful in managing the whole life-cycle of water: increasing availability, decreasing per capita consumption, more awareness and better wastewater treatment. Therefore, the

need to publish sustainability reports to gain or maintain legitimacy is out of question. A final explanation for the lack of sustainability reporting is the (absent) value of financial transparency. If sustainability reporting arguably emerged from annual reports, this is the worst place to start for these water utilities that seem to be so reluctant to disclose financial information. We found that most organisations did not even conceive the idea of preparing a sustainability report, although they have the information and the costs are declining with Internet.

A more interesting, and optimistic, finding in this field study was the use of other reporting media. Although disclosure through other media are still voluntary, there is an intense activity, including education and advertising, to raise the public awareness on the importance of water saving, but also the accounting for the environmental performance of the water utilities. In this respect, corporate websites not only allude to environmental certifications, but also disclose raw management data, even with a daily frequency, or benchmarks for water quality. The literature often criticises that sustainability reporting and real corporate activities are uncoupled (Gray, 2006) and that the first named does not address essential issues (Ball and Grubnic, 2007), but conveys discourses to make appear “business as usual” activities compatible with sustainable development (Tregidga and Milne, 2006). However, disclosure activity of the public water utilities examined seems to be coupled with *real* strategic and operational activities. They address the essential issues and do not attempt to mislead, but to raise the awareness of the public. These organisations address themselves to their “customers” when they account for the quality of service, but they also address themselves to “citizens” when they account for the availability of water. After all, through local councils these organisations are indirectly accountable to citizens.

Responding to the aim of this investigation, these findings suggest the existence of a confluence of motivations and reporting media that are quite different from those usually found in sustainability accounting research. They suggest that the hierarchy of motivations is quite different. While Bebbington *et*

al. (2008) found that for private companies the environment is subordinated to financial success, the objectives of public water utilities seem to be articulated primarily in terms of water sustainability and only secondly in terms of financial success. In this respect, the evidence of water demand management indicates that these organisations have successfully removed economic growth *per se* as an objective (Ball and Grubnic, 2007). The findings also suggest that the reporting media are quite different. The inference that these companies are poor reporters because they do not publish stand-alone reports is simplistic. Instead, those companies, even the smaller ones, proactively communicate with their stakeholders, engaging with them as “citizens” and this seems to have very promising effects in terms of sustainability accounting and accountability.

REFERENCES

- Adams, C. A. and C. Larrinaga-González (2007), “Engaging with organisations in pursuit of improved sustainability accounting and performance” *Accounting, Auditing and Accountability Journal* 20(3): 333-355.
- Adams, C. A. and McNicholas, P. (2007), “Making a difference: sustainability reporting, accountability and organisational change”, *Accounting, Auditing and Accountability Journal*, 20(3): 382-402.
- AEAS (2000) *Suministro de agua potable y saneamiento de agua en España* (1998). Asociación Española de Abastecimientos de Agua y Saneamiento: Madrid.
- Ball, A. (2002) *Sustainability Accounting in UK Local Government: An Agenda for Research*. London: ACCA Research Report No. 78.
- Ball, A. (2005), “Environmental accounting and change in UK local government”, *Accounting, Auditing and Accountability Journal*, 18(3): 346-373.
- Ball, A. and Grubnic, S., (2007), “Sustainability accounting and accountability in

the public sector”, in J. Unerman, J. Bebbington and B. O’Dwyer (eds), *Sustainability Accounting and Accountability*, Routledge, UK (pp. 243-265).

Bebbington, J.; Larrinaga-González, C. and Moneva-Abadía, J.M. (2008) “Corporate Social Responsibility Reporting and Reputation Risk Management”, *Accounting, Auditing and Accountability Journal*, 21(3): 337-361.

Bowerman, M. and Hutchinson, F. (1998) “The Role of Local Authority Accountants in Environmental Decision-Making”, *Financial Accountability and Management*. 14: 4 pp. 299 – 317.

Burritt, R.L. and Welch, S. (1997), “Annual reports of Australian Commonwealth authorities: an analysis of their environmental disclosures”, *Abacus*, Vol. 33 No. 1, pp. 69-87.

Cashman, A and Lewis, L. (2007) “Topping up or watering down? Sustainable development in the privatized UK water industry. *Business Strategy and the Environment*. 16 pp. 93-105

CIPFA (2004): “Advancing sustainability accounting and reporting: an agenda for public service organizations”. The Chartered Institute of Public Finance and Accountancy.

Criado, I, Fernández, M., Husillos, F. and Larrinaga, C., (2008); “Compliance with Mandatory Environmental Reporting in Financial Statements: The Case of Spain (2001–2003)” *Journal of Business Ethics*.

Deegan, C. (2002), “The Legitimizing Effect of Social and Environmental Disclosures - A Theoretical Foundation” *Accounting, Auditing and Accountability Journal*, 15(3): 282-311.

EMASESA (2005) *Así éramos, así somos. 1975-2005*. EMASESA: Sevilla.

Frost, G. (2007) “The Introduction of Mandatory Environmental Reporting Guidelines: Australian Evidence” *Abacus* 43 (2), 190–216.

Gray, R. (2002), “The social accounting project and Accounting Organizations

and Society Privileging engagement, imaginings, new accountings and pragmatism over critique?”, *Accounting, Organizations and Society* 27: 687-708.

Gray, R. (2006), “Social, environmental and sustainability reporting and organisational value creation?: Whose value? Whose creation?”, *Accounting, Auditing & Accountability Journal* 19: 793-819.

Gray, R. and Bebbington, J. (2000): “Environmental accounting, managerialism and sustainability: is the planet safe in the hands of business and accounting?”. *Advances in Environmental Accounting and Management*, Vol. 1, Pgs. 1-44.

Gray, R., M. Javad, D.M. Power and C.D. Sinclair (2001), "Social and Environmental Disclosure and Corporate Characteristics: A Research Note and Extension", *Journal of Business Finance and Accounting*, 28(3-4): 327-356.

GRI (2005), *Sector Supplement for Public Agencies*. Global Reporting Initiative: Amsterdam.

Hibbitt, C. and Collison, D. (2004): “Corporate Environmental Disclosure and Reporting Developments in Europe” *Social and Environmental Accounting Journal* vol.1 pp.1-11

Junta de Andalucía (2007a), *ECObatómetro de Andalucía 2007. Informe de Síntesis*. Consejería de Medio Ambiente de la Junta de Andalucía: Sevilla.

Junta de Andalucía (2007b), *Medio Ambiente en Andalucía. Informe 2006*. Consejería de Medio Ambiente de la Junta de Andalucía: Sevilla.

Junta de Andalucía, (2006) *Memoria de Gestión del Programa Ciudad 21 (2002-2005)*. Consejería de Medio Ambiente de la Junta de Andalucía: Sevilla

KPMG (2005): “*KPMG International Survey of Corporate Responsibility Reporting 2005*”. KPMG Global Sustainability Services. The Netherlands.

- Larrinaga, C., Carrasco, C., Correa, C., Llena, F., and Moneva, J. M.(2002):
“Accountability and accounting regulation: the case of the Spanish environmental disclosure standard”. *The European Accounting Review*. 11:4 Pgs.723-740
- Larrinaga, C., Carrasco, F., Caro, F.J., Correa,C. and Paez, J.M. (2001), “The role of environmental accounting in organizational change: an exploration of Spanish companies”, *Accounting, Auditing & Accountability Journal*, Vol. 14 No. 2, pp. 213-39.
- Larrinaga-Gonzalez, C. (2007), “Sustainability reporting: insights from neo-institutional theory”. In UNERMAN, J., O'DWYER, B. & BEBBINGTON, J. (Eds.) *Sustainability Accounting and Accountability*. Routledge: London
- Llena, F., Moneva, J.M, Hernández, B. (2007) “Environmental Disclosures and Compulsory Accounting Standards: the Case of Spanish Annual Reports” *Business Strategy and the Environment* 16, pp. 50–63
- Marcuccio, M and Steccolini, I (2005) 'Social and environmental reporting in local authorities', *Public Management Review*, 7:2, 155 -176
- Milne, M.J. and Gray, R.H., (2007), The Future of Sustainability Reporting, chapter 10 in *Sustainability Accounting and Accountability*, Unerman, J., O'Dwyer, B and J. Bebbington (eds.), Routledge: London
- Moneva, J.M. and Llena, F. (2000) "Environmental disclosures in the annual reports of large companies in Spain," *European Accounting Review*, vol. 9(1), pages 7-29.
- Owen, D. (2008), “Chronicles of wasted time? A personal reflection on the current state of, and future prospects for, social and environmental accounting research”, *Accounting, Auditing and Accountability Journal*, 21(2): 240-267.
- Parker, L. D. (2005), “Social and environmental accountability research: A view from the commentary box”, *Accounting, Auditing and Accountability Journal*, 18 (6): 842-860.

- Scott, W.R. (1995): *Institutions and Organizations* (Sage Publications Inc.: California).
- Steccolini, I. (2004), "Is the annual report an accountability medium? An empirical investigation into Italian local governments", *Financial Accountability and Management*, 20(3): 327-350.
- Toms, J.S. (2002), "Firm resources, quality signals and the determinants of corporate environmental reputation: Some UK evidence" *British Accounting Review*, 34(3): 257-282.
- Torres, L and Pina V. (2001) "Public-Private partnership and private finance initiatives in the EU and Spanish local governments" *The European Accounting Review* 10 (3): 601-619
- Tregidga, H. & Milne, M. (2006). From Sustainable Management to Sustainable Development: A Longitudinal Analysis of a Leading New Zealand Environmental Reporter. *Business Strategy and the Environment*, 15: 219-241.
- United Nations (2005) "Actions taken in organizing the activities of the International Decade for Action, "Water for Life", 2005-2015". Report of the Secretary-General. 25 July 2005.
- Velazquez, E. (2006). "An input-output model of water consumption: Analysing intersectoral water relationships in Andalusia." *Ecological Economics* 56(2): 226-240.
- Velazquez, E. (2007). "Water trade in Andalusia. Virtual water: An alternative way to manage water use." *Ecological Economics* 63(1): 201-208.
- WBCSD (2002), *The Business Case for Sustainable Development*. World Business Council for Sustainable Development: Geneva.
- Yin, R. (1994) *Case Study Research. Design and Methods*". Thousand Oaks, CA: SAGE. Second Edition.

FIGURE 1

**Advertisement addressed to customers on the need to save water made
by EMASESA in the 70s**



FIGURE 2

Internet reporting on water used daily by customers of Cordoba's water utility



TABLE 1

Public Sector Organizations Water Facilities Included in the Field Study

Identification	Owner	2005 annual turnover (thousand €)	Population served (*)	Sources of evidence				
				Interviews	Annual Accounts / Annual Reports	Environmental / Sustainability Reports	Environmental management	Others
C1	Association of local councils	23,407.84	304,906	1	1997-2005	--	Environmental policy; ISO 14001; OSHAS 18001 and Ecolabel "Doñana 21"	Website, special management report and brochures
C2	Association of local councils	30,540.03	135,242	2	1997-2005	Environmental Report (2003-2006)	Environmental policy ISO 14001 and Ecolabel "Doñana 21"	Website, videotapes, special management report and brochures
M1	Local council	91,429.95	1.038,673	1	1997-2005	Sustainability GRI Report (2003-2006)	Environmental policy ISO 14001	Website, special management report and brochures
M2	Local council	26,129.89	202,687	2	1997-2004	--	--	Website
M3	Local council	15,284.00	146,173	1	1997-2005	Environmental Report (2005)	Environmental policy ISO 14001	Website
M4	Local council	32,348.19	323,600	1	1997-2002; 2004-2005	-	Environmental policy ISO 14001	Website and brochures
M5	Local council	16,547.92	74,261	1	1997-2005	EMAS Statement (Since 2004)	Environmental policy ISO 14001; EMAS	Website and brochures
M6	Local council	6,673.48 **	85,117	1	1998- 2001	-	--	Website
M7	Local council	14.306.24	128,554	1	1998-2002; 2004-2005	-	Environmental policy ISO 14001	Website

* Source: Annual reports of the organizations and INE (www.ine.es)

** 2001 annual turnover