Instituto Superior de Ciências do Trabalho e da Empresa

SOCIAL AND ENVIRONMENTAL ACCOUNTING:
A CASE STUDY ON A PORTUGUESE CEMENT COMPANY

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For Ricardo and our sweet babies: Miguelinho and "Grãozinho de Trigo"

"Be the change you want to see in the world."

Mahatma Gandhi

"It is not important how many things you do, but the love you put in each one!"

Madre Teresa de Calcutá

This work was done with love ... for my family … for my planet … and for my Lord, as He makes me believe more in His divine force, that I get from the wind and from the songs of the birds, than in my weak spirit…

Abstract

The aim of this thesis is to study Social and Environmental Accounting (SEA) in the light of the results of an intensive case study of a Portuguese cement company (Secil), that although operating in an environmental sensitive industry, has been recognised for being socially responsible. The evidence collected through an in-depth qualitative case study is treated in four studies, which compose this thesis, and each is developed as an independent contribution. Firstly we analysed the recent developments in social and environmental accounting research (SEAR). This paper seeks to analyse 6 years of publications in SEAR in the 19 top accounting journals, allowing us to conclude about content, methodologies, research questions, data, industry type and countries of domicile which are nowadays more frequent in SEAR. Following that we analyse the environmental accounting regulation as a reasons for the increase of environmental disclosures by the companies, to confirm if legitimacy theory explains Secil's environmental disclosures, exploring the regulation proxy. In paper 3 we examine the use of the Internet for social responsibility information disclosure by Secil and compare and contrast corporate social responsibility (CSR) disclosure practices on Secil's web page and on its annual report. We also conclude if Secil uses a legitimacy strategy to communicate with its stakeholders through these media. Finally, the last study is focused on the sustainability topic, in particular to investigate the legitimacy strategies employed by Secil to defend and downplay its sustainability performance and activities related to media pressure. Media pressure was analysed as well as sustainability practices in order to conclude about the repair legitimacy strategies used.

Several conclusions have emerged over the different studies, alerting us to the fact that companies are already on a path towards sustainability and giving importance to the theme of social environmental accounting but that there is still a long way to go.

Keywords: Social and Environmental Accounting; Case study, Legitimacy theory, Portugal

JEL Classification System: M41 – Accounting; M14 - Corporate Culture; Social Responsibility

Resumo

Esta tese pretende abordar temas relativos à Contabilidade Social e Ambiental (SEA) como resultado de um intensivo estudo de caso da empresa Secil – Companhia Geral de Cal e Cimento. A evidência recolhida nesta análise qualitativa está organizada por 4 estudos independentes, tendo todos eles como "pano de fundo" a contabilidade social e ambiental nas várias vertentes. Começáramos por uma abordagem aos desenvolvimentos recentes desta área como linha de investigação. A análise de 6 anos de publicações em 19 journals de contabilidade permitiram concluir sobre os tópicos mais investigados, as metodologias aplicadas, o tipo de dados considerados, a influência (ou não) do tipo de indústria e os principais países envolvidos em estudos sobre contabilidade social e ambiental. Analisamos a regulamentação em contabilidade ambiental como factor que contribuiu para a maior divulgação de informação nesta área pelas empresas e como factor legitimador das suas actividades. Procedemos a uma análise dos meios de divulgação utilizados para divulgar informação social e ambiental, com enfoque nas páginas Web, comparando essa informação com a divulgada no relatório e contas. Foi também nosso objectivo concluir se a teoria da legitimidade explica a divulgação de informação social e ambiental nestes 2 meios de comunicação para os stakeholders. Por fim, no último estudo, aborda-se o tópico da sustentabilidade nas empresas, com enfoque nas estratégias de legitimidade utilizadas pelas empresas como resposta à pressão pública. Para o caso em estudo foram analisadas as questões de "pressão " dos media, as práticas de relato de sustentabilidade e por fim concluir-se sobre as estratégias de "reparar" a legitimidade utilizadas.

Várias conclusões foram surgindo ao longo dos diferentes estudos, alertando-nos para o facto de as empresas estarem já num caminho rumo à sustentabilidade e dando importância à temática da contabilidade social ambiental, mas percebendo que há ainda um longo caminho a percorrer.

Palavras – chave: Contabilidade Social e Ambiental, Estudo de caso, Teoria da legitimidade; Portugal

JEL Classification System: M41 – Accounting; M14 - Corporate Culture; Social Responsibility

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Chapter 1

Introduction

1.1. Background of the research

An historical view suggests that social and environmental accounting (hereafter SEA) became an active area of research and practice during the 1970s (Gray and Bebbington, 2001). However, the decade of 1960 played a crucial role in its development. During that time capitalism was weakened and needed to legitimise its existence. Soon the novelty of the social aspect introduced between the businesses and the society was welcomed (Gray, 2002). SEA is already a well defined research area that developed through corporate social responsibility literature of the 1970's, which explores the relation between the accounting, the organisation and the society. This literature reflected the importance of social matters to the economic growth (Jones, 2003).

Themes such as social justice, environmental degradation, accounting politics, morality (Tinker and Gray, 2003; Lehman, 1999), political nature of the linguistic dualisms (Everett, 2004), labour and environmental intentions, and performance (Gray, 2002), began to appear connected with SEA, during this period.

The decade of 1980 was also important for the increase of social, environmental and ethical disclosure, and in the decade of 1990, disclosures had more incidence in environmental questions than in social matters. Given the increasing importance of environmental issues, many companies started to report more environmental information through independent reports focusing only on environmental subjects (Adams, 2004). The increase of legislation requiring companies to report environmental information probably contributed to this situation. Recent years have witnessed the increasing prominence of expressions, such as sustainability or sustainable development, which have become important issues within the political and organisational agenda. This makes companies improve their reporting practices and begin to disclose sustainability reports, following the triple bottom line ideas. That means giveing information about social, environmental and economic issues in the same report.

The increase of interest in social and environmental issues has been followed by an increase in academic writing and publications (Gray, 2002; Deegan, 2002; Parker, 2005;

Mathews, 1997). Gray *et al*. (1996) argue that social and environmental accounting and reporting play a relevant role in this context as tools for analysing the sustainability performance of the organisations and note that these have been relevant subject in the academic literature.

1.2. Outline of the research

With the purpose of answering the calls for richer and more in-depth understandings of how and why SEA processes evolve within organisations, in this thesis, we present a real-life case study on a Portuguese large cement company – Secil.

We aim to contribute to the social and environmental accounting literature and add to the scarce research on social and environmental responsibility disclosure by Portuguese companies. We want to analyse different issues regarding to SEAR such as the relationship between the environmental regulation and the environmental disclosure; the Internet as a medium of social responsibility disclosure; preferred media to disclose social information (Internet or annual reports); sustainability reporting practices; answers to public pressure; employees' opinions about sustainability practices. These topics are addressed in the different papers of this thesis providing a multi-faceted picture of the social and environmental accounting situation of a large Portuguese company.

A further aim of this thesis is to analyse the analytical power of Legitimacy Theory in explaining social and environmental disclosures and practices by the companies. Legitimacy theory, at its simplest, argues that organisations can only continue to exist if the society in which they are based perceives the organisation to be operating to a value system which is commensurate with the society's own value system (Gray *et al.,* 1996). For Suchman (1995), legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions. Legitimacy theory is based on the idea that in order to continue operating successfully, corporations must act within the bounds of what society identifies as socially acceptable behaviour.

Secil Company comprises various factors that make it the ideal company for our study. Secil was founded in 1918 and is today one of Portugal's leading cement producers. With an annual output of about 4 million tons of cement, it meets more than 35% of the country's demand for cement. Secil heads a corporate group with operations in Portugal, Spain, France, Tunisia, Angola, Lebanon and Cape Verde. The scope of this study is the 3 cement production plants in Portugal that represent 69% of the volume of sales of the group. These 3 plants function independently according to Secil's sustainability reports, webpage and other documents. Secil employs a total of 690 workers in these 3 plants. The group employs a total of 2 769 workers and has a 285M Euros turnover.

This company was selected for at least four reasons. Firstly, we decided to choose a large company working in an environmentally sensitive industry, as prior research indicates that company size and industry type are strong predictors of the quantity of environmental disclosures (Adams *et al.*, 1998; Mathews, 1997; De Villiers and Staden, 2006; Herbohn, 2005; Deegan, 2006; Gray *et al.*, 1995a; Gray *et al.*, 1995b; Patten, 2002). Secondly, we consider Secil a good company for a case study as it had faced some public exposure and have to react positively to preserve their image near the consumers, the stakeholders and the public in general. Thirdly, it has been widely recognised for being socially responsible towards the environmental and the local community. Fourthly, we had the possibility to make a research protocol with the administration and have access to different sources of data over a period of two decades.

1.3. Research method

A single case study methodology for the empirical research is employed. This follows a number of calls for the use of case study research in SEA literature (Parker, 2005). Moreover the case studies have become very popular as a way to reduce the gap between theory and practice that accounting has been accused of (Major and Vieira, 2009, p. 4). Others studies in SEAR use this methodology, such as Deegan *et al.* (2002); Larrinaga (1999); O'Dwyer (2005); Jones (2003); Lamberti and Lettieri (2008); Adams (2004); Unerman (2000); Rahaman *et al.* (2004); Lamberton (2000); Ball (2005); Adams and Kuasirikun (2000); Moerman and Laan (2005); Larrinaga and Bebbington (2001).

Following Yin (2003) case studies are the preferred strategy when “how” or “why” questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context. This study meets these conditions. We examine “how” and “why” the company discloses social and environmental information from different perspectives, as explained in section 1.4. We have no control over the company's reporting process or over the company’s practices and actions. We study a contemporary phenomenon in the context on the real life of Secil.

This research followed some of the steps suggested by Ryan *et al.* (1992) and Yin (2003) when conducting case studies. They are: 1. developing a research design; 2. preparing to collect data; 3. collecting evidence; 4. assessing evidence; 5. identifying and explaining patterns. Some steps were not followed in a sequential order, but in an interactive way.

The case study requires that the researchers prepare a detailed study of an organisation using a variety of evidence (Larrinaga and Bebbington, 2001). Data was generated by using observation, documentary evidence and interviews. Each thesis’s paper is focused these three different sources, such triangulation ensures the validity and reliability of qualitative research (Yin, 2003). The main analysed sources are Secil’s annual reports from the period of 1997 to 2007 (paper 2); Secil’s webpage and annual report from 2007 (paper3); media articles from *“Expresso”* newspaper from the period of 1998 to 2008; sustainability reports from 2005 to 2007; and semi-structured interviews (paper 4). Others sources are analysed to complete Secil’s picture such as brochures, CD roms, presses releases, etc. This is a descriptive case study (Ryan *et al.*, 1992) with the purpose of providing information concerning the nature and the form of existing SEA practices in Secil’s case.

A case study should take into account five fundamental characteristics to an exemplary case study: the case study has to be significant; must be “complete”; must consider alternative perspectives; has to produce enough evidence and should be built in an ingenious way (Yin, 2003, p. 161). With this purpose, the present thesis aims to achieve a complete study of Secil's company in order to understand the disclosure strategies and the behaviour regarding social and environmental issues.

1.4. Organisation of the thesis

This thesis is based in four papers. Each is developed as an independent contribution, although they are related, as they refer to the same company and the same main issue: social and environmental accounting in Secil.

Following this introduction, chapter two contains the first study written up as a paper entitled: "Recent developments in social and environmental accounting research". This paper seeks to contribute with a literature review of the articles published on SEAR in a group of top accounting journals in the period of 2000 to 2006. This literature review allows us to categorise all the analysed studies and to understand the content, methodologies and research questions which are nowadays more frequent in SEAR.

Chapters three, four and five present the second, third and forth studies of the present thesis respectively. The second study gave rise to the paper entitled: "Environmental accounting regulation and annual report disclosure: the case of a Portuguese cement company". This paper is concerned with environmental disclosures in Portugal in the annual reports following the publication of the Portuguese accounting environmental standard number 29 - Environmental Issues (in 2002), and the Technical Interpretation number 4 – Emissions Rights: Accounting of the Emission Licenses (in 2006). This paper aims to identify if Secil Company changed its disclosure practices due to the issuance of regulations regarding environmental disclosure; and to confirm if legitimacy theory explains Secil's environmental disclosures, exploring the regulation proxy.

Chapter four includes the paper with the title: "An examination of social responsibility on the web and on annual reports: a Portuguese case disclosure". The purpose of this paper is to examine the use of the Internet for social responsibility information disclosure by Secil. It also aims to compare and contrast corporate social responsibility (hereafter CSR) disclosure practices on Secil's web page and on its annual report; and to conclude if Secil uses a legitimacy strategy to communicate with its stakeholders through these media.

Chapter five provides the paper entitled: “Sustainability strategies of Secil Company: extending the applicability of legitimacy theory”. This study aims to identify the legitimacy strategies employed by Secil to defend and downplay its sustainability performance and activities related to media pressure. This paper underlines legitimacy theory, originating from the notion of a “social contract” between organizations and society.

The thesis ends with the conclusions and discusses some directions for further research.

Chapter 2 (paper1)

Recent developments in social and environmental accounting research[1]

[1] This paper was submitted to Social Responsibility Journal in 28/11/2008. We already received comments from the reviewers. We have to resubmit the paper before the end of July 2009.
A draf of this paper was presented in 30th Annual Congress of the European Accounting Association, Lisboa, 25th – 27 April, 2007 and in the 10th Congress of the International Institute of Costs, Lyon, 13th – 15th June, 2007.

Abstract

In the last years, we have assisted to a growth of interest in social and environmental questions. Many companies developed environmental management and auditing systems and improved their social and environmental disclosures practices. These developments implied the growth of research based on the analysis of information disclosed by the companies.

The purpose of this study is to contribute to a reflection about the articles that have been published on social and environmental accounting from 2000 to 2006. A literature review of the articles published on this issue in the top accounting journals in the last seven years allows us to understand the content, methodologies and research questions which are nowadays more frequent in the social environmental accounting research area.

The content is classified in four groups: social and environmental disclosures; regulation impact; social and environmental accounting; and relations among environmental disclosure and environmental performance. For each group, we identify the research method; data origins and type of data; industry's activity and country of domicile.

Results allow us to conclude that almost all the studies are based on content analysis and interviews. Data are collected not only from the financial statements but also from other sources of information disclosed by companies. In many cases, industry activities are selected carefully and most of the studies used data from UK, Australia and USA.

Suggestions for future research are provided for each one of the four groups analysed.

Keywords: Social and environmental accounting, Literature review, Categories, Research.

2.1. Introduction

"If social accounting is anything, it is the opening up of new spaces, of new accountings, not simply reacting to old ones."

(Gray, 2002, p. 698)

Over the last decade there has been an increasing interest by the community at large in social and environmental questions. This debate has resulted in wake-up calls for companies to be more socially responsible and manage their environmental impact in a better way (Wilmshurst and Frost, 2000), and to make them realise that this may add value to their companies. In response, many companies have developed environmental management and accounting systems and have increased their social and environmental disclosure practices (Larrinaga *et al.*, 2001; Gray *et al.*, 1995a; Guthrie and Parker, 1989). This led to an increase of research work based on the analysis of information disclosed by the companies (Unerman, 2000).

It is difficult to establish the precise date when social and environmental accounting practice began. However, several authors agree that it started at some point between the 1960's and the 1970's[2], (Gray and Bebbington, 2001; Parker, 2005), with further development during the 1980's (Adams, 2004). Gray (2002) states that it reached full maturity in 1980 and that in 1990 it became the "talisman of the world". The need for companies to discuss social and environmental questions with stakeholders led to the development of new corporate structures and to the increase of the number of companies that began to disclose this kind of information. These reports contain quantitative and qualitative information and carefully selected pictures (Thomson and Bebbinton, 2005).

The purpose of this study is to contribute to the literature by reviewing articles published in social and environmental accounting area from 2000 to 2006. A literature review of the top accounting journals on the issue in the last seven years allows us to

[2] It is not the aim of this study to understand the geographical origin of this subject or where does it stand at present around the world. Nevertheless, studies referring to the historical evolution of social and environmental accounting are mostly from the UK, Australia and the USA (Parker, 2005; Adams *et al.*, 2000).

understand the content, methodologies and research questions used more frequently in the social environmental accounting research (hearafter SEAR) area.

The content is classified in four groups: social and environmental disclosures; regulation impact; social and environmental accounting; and relations among environmental disclosure and environmental performance. For each group, we identify the research method; data origins and type of data; industry's activity; and country of domicile.

In the next section, some considerations are provided on social accounting versus environmental accounting. Section three discusses the SEAR with special focus on three studies: Mathews (1997), Gray (2002) and Parker (2005). In section four the research design and findings about the different themes of social and environmental accounting are presented. Section five presents an overview of research methods, data, industries and country of domicile. Finally concluding remarks are drawn and topics for future research are provided.

2.2. Social accounting versus environmental accounting

Accounting can be seen as the language of business (Belkaui, 2004), which allows to communicate to all interested parties information how companies perform. This information can be conveyed through different means. Some of these means are mandatory, such as financial statements for publicly traded companies, or voluntary, such as environmental and sustainable development reports. The latter reports are also accounting reports because they represent mechanisms for accountability (Buhr and Reiter, 2006, p. 8).

Different studies refer to the subject in a variety of ways: "corporate social accounts", "social accounting", "social and environmental accounting" (Cooper *et al.*, 2005, p. 954), "social and environmental report", "social and environmental accounting". It is difficult to determine the frontiers between social accounting and environmental accounting. But the history of this subject area enables us to argue that if such frontiers exist that they are fuzzy and ever changing.

Gray (2002, p. 703), states that "finally, we are a very long way from finding a coherent integration of social and environmental issues. For many of us, environment was one part of the social. Now we find, through sustainability, that the social is part of the environmental. Both statements are true but hardly helpful. There is important work to be done here." An historical view suggests that social accounting became an active area of research and practice during the 1970s (Gray and Bebbington, 2001, p. 275). However, the decade of 1960 played a crucial role in its development. During that time capitalism was weakened and needed to legitimize its existence. Soon the novelty of the social aspect introduced between the businesses and the society was welcomed (Gray, 2002, p. 690). Social and environmental accounting is already a well defined research area that developed through corporate social responsibility literature of the 1970's, which explores the relation between the accounting, the organisation and the society. This literature reflected the importance of social matters to the economic growth (Jones, 2003, p. 762). As maintained by Bartolomeo *et al*. (2000, p. 34): "Much of the interest shown by academia, particularly in the UK, can be seen as an extension of the social accounting movement which flourished briefly in the 1970s. This aimed to broaden the scope of accounting from its traditional - and legally-defined - concentration on financial stakeholders, to a broader accountability to external stakeholders generally and to society as a whole. Although those initiatives failed to persist, the social accounting approach has influenced debate and practice in environmental reporting externally".

Themes such as social justice; environmental degradation; accounting politics; morality (Tinker and Gray, 2003; Lehman, 1999); political nature of the linguistic dualisms (Everett, 2004); labour and environmental intentions and performance (Gray, 2002), began to appear connected with social and environmental accounting, during this period.

However, isolated examples suggest that the history of social reporting goes back to the 1920's. "Lewis *et al*. (1984), revealed the existence of a body of literature (and practical tradition) concerning corporate financial reporting to employees dating back to at least 1919. Similarly, Hogner's (1982) study of US Steel's reports over eight decades highlights a long and rich history of corporate social reporting" (Guthrie and Parker, 1989, p. 343). Gray (2002, p. 689) argues that: "the giving and receiving of "social accounts" is probably as old as human society, it has fallen to other disciplinary tribes to examine and explore these accounts and only latterly have (typically feminist and feminist-influenced) accounting researchers turned their attention to such matters."

The decade of 1980 was also important for the increase of social, environmental and ethical disclosure (Adams, 2004, p. 731), and in the decade of 1990, disclosures had more focus in environmental questions than in social matters. We can contend that the literature on social and environmental accounting modified its subjects of analysis. Prior to 1990, labour concerns (information disclosure to employees and their consequent decision-making, collective bargaining, the role of trade unions, and wider theoretical issues on the nature of work and employment) dominated. Afterwards, environmental issues started to dominate[3] (Gray, 2002, p. 695). Social and environmental accounting followed this tendency.

Given the increasing importance of environmental issues, many companies started to report more environmental information through independent reports focusing only on environmental subjects (Adams, 2004). The increase of legislation, requiring companies to report environmental information, probably contributed to this situation[4], as noted by Adams (1998 *et al.*, p. 3): "Corporate social accountability is likely to be an increasingly important element of the Western European psyche in the years to follow, evidenced not only by corporate, professional and academic developments, but also by the increasing legislative developments of the European Union and European Economic Area requiring greater corporate social responsibility and accountability (see Gray *et al.*, 1996)."

With the increasing interest for environmental questions, this discipline started to appear frequently as "social and environmental accounting". Mathews and Perera (1996,

[3] With the exception referred by Gray (2002, p. 695): "Ullmann (1976) and Dierkes and Preston (1977) gave us two of the earliest examples of environmental accounting, which was concerned to the increase of environmental disclosures in firm's reports".

[4] In Europe, the publication of the Commission Recommendation of 30th May on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies (2001/453/EC) came to suggest that the Members States should adopt the orientation internally. In October 2004, PriceWaterhouseCoopers published a study untitled: "Implementation in Member States of Commission Recommendation on Treatment of Environmental Issues in Companies' Financial Reports". This study presents the situation point on the implementation of the European Commission Recommendation by the different EU member states. By analysing it we can understand that not all countries have adopted the majority of its guidance. However, it has undoubtedly been a major step in terms of regulation in this area. In Portugal, following this recommendation an Accounting Standard on environmental issues was published in 2002 (Directriz Contabilística 29 - Matérias Ambientais), by the Portuguese Accounting Standards Board (Comissão de Normalização Contabilística). For more details see paper 2.

p. 364), argue that as social accounting has many meanings for many people, its definition and analysis can be difficult. However, they contend that we can consider the social accounting as an extension of the reporting in non traditional areas providing information on employees, products, services to the community and prevention or reduction of the pollution. Therefore, they consider the environmental question as part of the social accounting. Gray (2002, p. 687) follows the same line of thought, stating that he prefers to use the term social accounting as a generic term independently of different labels under which it appears: social responsibility accounting; social audits; corporate social reporting; employee and employment reporting; stakeholder dialogue reporting; environmental accounting and reporting.

Mathews and Perera (1996) classify and clarify the meaning of each associated area to social accounting. Environmental accounting appears associated to the: Total Impact Accounting (TIA). From this literature review point of view, it also could be part of "Social Responsibility Accounting".

Table 2.1 outlines in a simple way the different areas of social accounting. As the topic of the environment started to gain importance from the 1980's onwards, it almost became an autonomous area and many studies analyse social information and environmental information, either together or separately. Adams (2004, p. 732) refers that environmental reporting is generally considered a subset of social reporting, but the most common type of social and ethical reporting, warrants separate label. In this paper, when we refer to both areas, we prefer to use the expression: social and environmental accounting (hereafter SEA).

Division	Purpose	Area of main use	Time Scale	Measurements used (**)	Associated areas
1.Social Responsibility Accounting (SRA)	Disclosure of individual items having a social impact	Private sector	Short term*	Mainly non-financial and qualitative AAA Levels I	Employee reports, human resource accounting, industrial democracy
2.Total Impact Accounting (TIA)	Measures the total cost (public and private) of running an organization	Private sector	Medium and long term	Financial AAA Level III	Strategic planning, cost-benefit analysis, **environmental accounting**
3.Socio-economic Accounting (SEA)	Evaluation of publicly funded projects involving both financial and non-financial measures	Public sector	Short and medium term	Financial and non-financial AAA Level II and III	Cost-benefit analysis, planned programmed budgeting systems, zero based budgeting, institutional performance indicators, value for money audit
4.Social Indicators Accounting (SIA)	Long term non-financial qualification of societal statistics	Public sector	Long term	Non- Financial quantitative AAA Level II	National income accounts, census statistics
5.Societal Accounting (SA)	Attempts to portray accounting in global terms – overarching theories	Both all embracing	All	Financial aggregates	Systems theory, mega-accountancy trends

*Normally short term to fit annual reporting patterns
** The author explains the different levels of measurements used (see p. 378)
Adapted from Mathews and Perera (1996, p. 379)

Table 2.1. Social accounting sub-divisions

2.3. Social and environmental accounting research

The increase of interest in social and environmental issues has been followed by an increase in academic writing and publications (Gray, 2002; Deegan, 2002; Parker, 2005; Mathews, 1997). As argued by Gray (2002, p. 691) “the business and management literature which had generated the basic terms of debate about “social responsibility” was increasingly interested in the accounts, audits and metrics of social accounting (see, for example, Blake and Epstein). Speculative texts (most notably Estes and Gambling; and Jensen, 1976) together with the occasional speculative chapters in books of readings (see, for example, Solomons, 1974) and the influential AAA reports represented the first attempts to make any sense of this new sort of accounting"

We can consider that there are three main studies about the historic evolution of social and environmental accounting research: Mathews (1997), Gray (2002) and Parker (2005). Mathews (1997)[5] presents a well detailed literature review, covering the last twenty-five years, on social and environmental accounting. The author distinguishes between three periods of time: from 1971 to 1980, from 1981 to 1990 and from 1991 to 1995. For each period of time, he divided the articles in: empirical studies, normative statements, philosophical discussion, the non-accounting literature, teaching programmes and text books, regulatory frameworks, and other reviews of the literature. This division is very helpful as a starting point for those who intend to research in this area. Finally, the author presents the current position of the literature on social and environmental accounting, predicting possible directions, making some comments and concluding that "accountants, whether academic or professional, must redirect their efforts before it is too late and they find themselves to be experts in a shrinking area of diminishing importance. One way to prevent this happening is to broaden the field covered by accounting to include social and environmental data, including environmental audit" (Mathews, 1997, p. 506).

Gray (2002) presents a critical analysis of the literature published in social accounting over the last twenty-five years, with a particular focus on publications in the Accounting, Organization and Society Journal (AOS). He presents an historical retrospective of this subject, reflects on the dimensions of social accounting and identifies the most important publications in this area. This article is very rich and presents a critical perspective of the author, dealing with questions such as: the loss of domain of publications by authors from the USA; critics to this topic made by other authors and possible reasons for the publishing difficulties. He ends it by stating what he dreams for the development of the social accounting project through the next twenty-five years.

[5] This work has been updated and further detailed in two others articles: Mathews (2003), A brief description and preliminary analysis of recent social and environmental accounting research literature, *Indonesian Management and Accounting Research*, Vol. 2 No. 2, p. 197-264; and Mathews (2004), Developing a matrix approach to categorise the social and environmental accounting research literature, *Qualitative Research in Accounting and Management*, Vol. 1 No. 1, p. 30-45.

Parker (2005) analyses and critiques the contemporary research in social and environmental accounting. He refers to the texts published from 1980 onwards and offers an empirical analysis of publications in this area. The article includes a balance between research in social accounting and environmental accounting; the methodologies and topics more used in four interdisciplinary journals of accounting research: Accounting, Auditing and Accountability Journal (AAAJ); Accounting Forum (AF); Critical Perspectives on Accounting (CPA); and Accounting, Organization and Society (AOS). In what concerns to empirical analyses, the author joins more two journals specially dedicated to this topic: Social and Environmental Accounting Journal (SEAJ) and Journal of the Asia Pacific Centre for Environmental Accountability (JAPCEA).
He analysed publications from 1988 to 2003 and divided the studies in three subjects: (1) social; (2) environmental; (3) social and environmental, concluding that the majority of the papers (66%) focus their attention on environmental information, 25% refer to social responsibility and 9% study both areas (Parker, 2005, p. 852). The author also conducted a survey on the theories more used in SEAR, identifying the main studies that have contributed to the development of those different theories.

Although it is not an historical study, Medawar (1976) is very important to the social environmental accounting area. It is written from (and about) the agony, frustration, success and essential necessity of one of the deepest and most influential processes of engagement in the history of social accounting. It is informed, neither by any love for capitalism or managerialism, nor by any subscription to terrorism or revolution but by a deep rooted sense of justice, decently, need for change, personal commitment and reasonableness outraged by unreasonableness (Gray, 2002, p. 700).

These articles revel very important for the present work, as they allow us to understand the historical contributions in SEAR. The aim of the present study is to complete and add the contributions made by these papers analysing empirical studies published after 2000 and conclude about which topics are more analysed; which type of activities are chosen for analysis; what type of data is used; the preferred methods; and the countries involved in each study. On the other hand we intend to answer to the literature gap identified by Parker (2005) that argues that more studies reflecting on social and environmental accounting publications are needed.

2.4. Research design and findings

The purpose of this study is to contribute with a reflection regarding the articles that have been published on social and environmental accounting from 2000 to 2006. The aim is to categorise the social and environmental accounting literature and understand the content, methodologies and research questions which are more frequent in SEAR.

We analyse the relevant literature published between 2000 and 2006 in 19 accounting journals (see appendix 2.1). From the analysis of these 19 journals we concluded that 9 did not published any article pertaining to social and environmental accounting during the analysed period. These journals are: Journal Accounting Research; Journal of Accountings and Economics; Review of Accounting Studies; Accounting and Business Research; Accounting and Finance; Accounting Business and Financial History; Accounting Horizons; Accounting, Management and IT; and International Journal of Intelligent Systems in Accounting, Finance and Management.

Journals such as Accounting, Organizations and Society (AOS); Accounting, Auditing and Accountability Journal (AAAJ); Critical Perspectives on Accounting (CPA); and European Accounting Review (EAR) published more than 10 articles about SEA in the analysed period. The journal which published more articles is AAAJ. Researchers that published in this topic are primarily from United Kingdom, USA, Australia and Canada. We find authors from other countries such as Spain, Italy, Nederland, etc, only in EAR.

After analysing the literature we can conclude that empirical studies attracted a lot of researches over the last years as the majority of studies are empirical, this conclusion is consistent with Mathews (2003). For our final sample we just consider these ones. In order to obtain the results for this study, we firstly classify the papers according to eight topics: study objective; industry's activity; data origins; type of data; research method; period of analysis; country of origin; and conclusions. Then, based on prior research (Cormier and Gordon, 2001; Jones, 2003; Mathews, 1997; Adams and Kuasirikun, 2000; Parker, 2005), we categorise all the empirical studies in four categories. These categories are different from those proposed in other studies, as we use "theme" as the basic criteria. Although, Mathews (1997), refers that a logical criteria is doing it by methodology and maintains that an alternative structure could be devised using criteria such as country of origin or accounting sub-group. Defining the categories we felt the difficulties pointed out by Mathews (1997, p. 482): "This is a personal review in which the author makes many choices; what to include and what not to include, under which sub-heading or heading a particular subject should appear, and the emphasis to be given to particular developments."

The proposed categories in this study are: (1) social and environmental accounting; (2) social and environmental disclosures; (3) relations between disclosure and performance; and (4) regulation impact. Table 2.2[6] provides summary information about empirical studies by different categories. Each category is detailed next.

	1. Social and environmental accounting	**2. Social and environmental disclosures**	**3. Relations between disclosure and performance**	**4. Regulation impact**
Accounting, Organization and Society (AOS)	Herbohn's (2005)		Al-Tuwaijri *et al.* (2004); Patten (2002); Richardson and Welker (2001)	Deegan and Blomquist (2006)
Contemporary Accounting Research		Johnston and Rock (2005); Sridhar and Magee (2001)		
Accounting, Auditing and Accountabily Journal (AAAJ)	O'Dwyer (2003); O'Dwyer (2005); Ball (2005); Larrinaga *et al.* (2001); Jones (2003)	Campbell *et al.* (2003a); Cormier and Gordon (2001); Tilt (2001); Unerman (2000); Freedman and Stagliano (2002); Deegan, 2002; Kuasirikun and Sherer, 2004; Milne and Patten (2002); O'Donovan (2002); Ogden and Clarke (2005); Patten (2005);	Adams (2004); Murray *et al.* (2006)	

[6] Table 2.2 excludes three journals from the sample (The Accounting Review; Abacus; and The International Journal of Accounting) as they did not published empirical articles about SEAR.

		De Villiers and Staden, (2006); Campbell *et al.* (2006); O'Dwyer *et al.* (2005), White and Hanson (2002); Wilmshurst and Frost (2000)		
European Accounting Review	Antheaume (2004); Bartolomeo *et al.* (2000); Bouma and Kamp-Roelands (2000)	Adams and Kuasirikun (2000); Moneva and Llena (2000); Cormier *et al.* (2005)	Hassel *et al.* (2005)	Collison and Slomp (2000); Larrinaga *et al.* (2002)
Journal of International Finance Management and Accounting		Vanstraelen *et al.* (2003)		Bewley (2005)
Review of Quantitative Finance and Accounting		Campbell *et al.* (2003b)		
Critical Perspectives on Accounting	Kuasirikun (2005); Lamberton (2000); Larrinaga and Bebbington (2001); Birkin *et al.* (2005); Cooper *et al.* (2005) ; Lodhia (2003)	Rahaman *et al.* (2004); Coupland (2005); Buhr and Freedman (2001)		Buhr (2001); Grinnell and Hunt (2002)

Table 2.2 – Studies on SEAR published in accounting journals from 2000 to 2006, by categories

As Parker (2005) and Mathews (1997) contribute in a major way to this study, we present the categories that they used. Gray (2002) also have a important contribute but besides he provides a review of the social and accounting literature of the last twenty-five years with particular attention to the ones published in the AOS journal, the analysed literature was not divided, as it is not the purpose of that study. Parker (2005) divides SEAR literature (from four journals since 1980) in three categories: social; environmental; and social and environmental topics. Then, he presents 18 themes: regulation; external disclosures; research methods; theoretical framework; attitudes of interest groups; environmental management systems and management accounting;

performance; education; drivers: philosophy/ context; socially responsible investments; accountability; social/ environmental audit; ethical issues; sustainable development; national practices/ regulations; industry studies; accounting approaches; and SMEs. Mathews (1997), employed sub-headings to analyse the literature published in the last twenty-five years such as: empirical studies; normative statements; philosophical discussion; the non-accounting literature; teaching programmes and text books; regulatory frameworks; and other reviews of the literature. For our study, this sub-heading does not make sense as we analyse only empirical studies.

2.4.1. Social and environmental accounting

This category includes all the articles that have the purpose to analyse the accounting system in order to improve it to produce social and environmental information. Researchers study this topic through different approaches: understanding how and why social accounting processes evolve within organisations; finding how to improve environmental accounting; studying the relationship between environmental accounting and organizational change; providing valuation techniques and accounting tools to improve the social and environmental accounting process; studying accounting attitudes face to social and environmental questions; understanding and analysing the potential of social and accounting research; and comparing different accounting practices across countries. We outline these approaches below.

Trying to respond specifically to calls for richer, more in-depth understandings of how and why social accounting processes evolve within organisations, O'Dwyer (2005) presents a case study examining the evolution of a social accounting process in an Irish overseas aid agency, the agency for personal service overseas. This agency is a non-profit organisation focused on human development, operating as part of Ireland's international co-operation programme with so-called developing countries. Jones (2003) tries to improve environmental accounting using a real-life case study from a leading UK company.

Organizational change is the object of study of several researchers. Larrinaga *et al. (*2001) study the relationship between environmental accounting and organizational change, in the Spanish context. Throughout the paper they describe the discourses that emerge in different organizations and outline a map of organizational change for the nine companies studied.

Ball (2005), attempted to build a model of change using frameworks that have been used to contribute to the understanding of transformation in terms of how environmental accounting might be potentially constructive or empowering, or captured and colonised. In her paper, the question of the effectiveness of environmental accounting in acting as an agent for organisational change has been approached in different terms. The question is how environmental accounting might, by contrast, contribute to a process of deinstitutionalisation, even when attempts to develop such accounting are not entirely successful.

Larrinaga and Bebbington (2001), present a case study of a Spanish electricity utility. They explore the two positions in the literature which are characterized as "organizational change" and "institutional appropriation". They try to understand if organizations can, and do change in substantial ways when they respond to the environmental agenda. They also aim to analyse environmental accounting is part of the process of enabling these organizational changes or if that organizations will not change in response to environmental demands.

Other researchers study valuation techniques and accounting tools to improve social and environmental accounting process, such as Herbohn's (2005) study. This author proposes to evaluate the applicability of valuation techniques recently developed by environmental economists within full cost environmental accounting frameworks. He examines a reporting using these valuation techniques that were undertaken by an Australian Government Department. Antheaume (2004) also presents an experiment in full cost accounting, applied to the case of an industrial process, with the objective of incorporate environmental impacts into accounting-based investment decisions. Bouma and Kamp-Roelands (2000) seek to explore how environmental management information systems could be designed for better satisfy the needs of those, using the information which emerges from these systems. Others studies intend to design an accounting model to evaluate performance in achieving the objectives of sustainable development. For example, Lamberton (2000) applied such a model to an organisation striving for a mix of ecological, social, and economic goals.

Accounting attitudes on social and environmental questions is a phenomenon addressed in two of the studies of the sample analysed in the present paper. Kuasirikun (2005) evaluates perceptions of current accounting as well as attitudes to social and environmental accounting by accounting professionals. Making use of empirical data generated by questionnaire study and interviews, the paper aims to shed more light on the development and implementation of social and environmental accounting. With a similar objective, Lodhia (2003) aims to ascertain the views of accountants on environmental accounting, assess their preparedness in handling environmental issues within the traditional accounting practice. She suggests reasons for their involvement or non-involvement in environmental management accounting and reporting. With a similar argument, O'Dwyer (2003), proposes an in depth examination of managerial conceptions of corporate social responsibility in the Irish context.

Some studies try to understand and analyse the potential of social accounting research. For example, Cooper *et al*. (2005) present a discussion about the political potential of social accounting. The purpose of their paper is to add to the various streams of SEA and perhaps to point it in a slightly different direction. In this paper it is argued that social accounts should be produced independently of the management of organizations and in order to disrupt current ideological understandings they should be theoretically driven. While applauding the thoughtful and thought-provoking work of many social and environmental researchers, this paper goes over some old arguments and presents an alternative as a means of developing the social accounting arena (Cooper *et al*. (2005, p. 951). It is important to identifying the strengths and weaknesses of traditional accounting, as Birkin *et al*. (2005) do. In their paper, social and environmental accounting is evaluated against the needs of sustainable development.

Finally, we identify in this category one study across countries. Bartolomeo *et al.* (2000) report and analyse the results of a trans-European project to investigate the present and potential future links between the environmental management and management accounting functions of a company or business. The research involved interviews with accountants and environmental managers at eighty-four companies in

Germany, Italy, Netherlands and UK, and detailed case studies of fifteen companies in those four countries.

2.4.2. Social and environmental disclosures

Studies that analyse the social and environmental disclosure practices are included in this category. Social and environmental reporting can be analysed with different purposes: to understand the disclosure practices of a specific country; to analyse the disclosure practices pertaining to a particular category of information; to analyse some of the specific aspects connected with environmental or social matters, such as liabilities; to try to validate some theory (most of the studies use legitimacy theory); to compare disclosures practices from different countries; and others.

In this category two studies have the purpose of describe and evaluate corporate social and environmental disclosure practices in a specific country to critically appraise various dimensions of these annual reports in Thailand (Kuasirikun and Sherer, 2004) and in South Africa (De Villiers and Staden, 2006). Some studies pretend to analyse specific categories of information disclosed by companies about social and environmental matters. Campbell *et al.* (2006) explore "community disclosures" topic in annual reports. The paper seeks to address a gap in the understanding of this category of disclosure by reporting on a survey of community disclosures by UK based companies over a 27 year period for a cross sectional sample of ten companies in five sectors. Patten (2005) examines one specific category of environmental disclosure: projections of future spending for pollution abatement and control equipment.

Some studies analyse specific issues regarding to environmental or social matters, such as liabilities. Sridhar and Magee (2001) examine the effect of accounting requirements, financial condition and liabilities regimes on companies' investment choices. They also analyse several externalities that companies may face as remedial liability of potentially responsible parties under the comprehensive environmental response, compensation and liability act of 1980 and the Superfund Amendments and Reatithorization Act of 1986 in USA. In a similar way but with a different purpose, Johnston and Rock (2005) investigate whether companies identified as potentially responsible parties (PRPs) under the Comprehensive Environmental Response. The paper analyses the discretionary accrual behaviour of 612 PRPs from 1981 to 1995 and increase the power of tests by identifying those PRPs with the most incentive to manage earnings during PRP identification years.Freedman and Stagliano (2002) paper's is concerned with financial statement disclosure of environmental liabilities by companies that are coming to the US securities market for the first time in an initial public offering. This specific disclosure type has not been previously reported in the accounting literature. Campbell *et al. (*2003b) investigate the potential uncertainty-reducing role of accounting information in the context of contingent Superfund liability valuation. They first develop theoretical arguments for the way in which reduction of uncertainty regarding these contingent liabilities is expected to affect security prices. Empirical proxies are developed for two types of uncertainty surrounding contingent Superfund liabilities: site uncertainty and allocation uncertainty.

Some papers have a "social theory" as the basis of their study. Different "social theories" have been developed in attempt to explain various aspects of corporate social behaviour. The most used theories within the SEA are legitimacy theory[7] (Tilling, 2004; Deegan, 2002; Campbell et al., 2003a) and stakeholder theory. Legitimacy theory at it simplest, argues that organizations can only continue to exist if the society in which they are based perceive the organization to be operating to a value system which is commensurate with the society's own value system (Gray *et al*., 1996, p. 46). Legitimacy theory is based on the idea that in order to continue operating successfully, companies must act within the bounds of what society identifies as socially acceptable behaviour (O'Donovan, 2002, p. 344). Stakeholder theory is closely aligned with legitimacy theory and the two are often used to complement each other (Deegan, 2002). When stakeholder theory is used, the focus is placed on the tendency of managers to implement changes in order to manage or appease powerful stakeholders (De Villiers and Staden, 2006, p. 766). Others theories are used in SEAR such as accountability theory; political economy theory; institutional theory; and many others identified by

[7] Information about legitimacy theory in relation to social and environmental disclosures is well covered in a number of existing publications. Deegan and Blomquist, (2006, p. 346) refer that there are a number of easily accessible sources about this subject such as Deegan (2000); Gray *et al*. (1995a); Gray *et al*., (1996); Mathews (1993). Further, *Accounting, Auditing and Accountability Journal* published an edition (Vol. 13, No. 3, 2002) that was dedicated to the use of legitimacy theory in explaining corporate social and environmental reporting practices. For more details about this theory see O'Donovan (2002), De Villiers and Staden (2006); Patten (2005); Deegan and Blomquist (2006); Moerman and Laan (2005).

Spence and Husillos (2006, p. 7): habermasian ideal speech ethics, habermasian legitimacy theory, organisational change theory, institutional theory, structuration theory, ecological modernisation theory, deep ecology theory, eco-feminist theory, ecological responsiveness theory, media agenda setting theory. While it has been argued that these are not fully fledged theories and that they are still being developed, they do, however, provide useful frameworks for studying corporate social behaviour (Gray *et al.*, 1996, p. 45; O'Donovan, 2002, p. 345).

Wilmshurst and Frost (2000) consider that legitimacy theory provides an explanation for the management's motivation to disclose environmental information within the annual report. Ogden and Clarke (2005) aim to explore how organizations use annual reports for legitimacy purposes in the context of the privatised regional water companies in the UK. O'Donovan (2002) pretends to extend the applicability and predictive power of legitimacy theory by investigating to what extent annual report disclosures are interrelated to: attempts to gain maintain and repair legitimacy; and the choice of specific legitimation tactics. Campbell *et al*. (2003a), examines the extent to which voluntary disclosures represent an attempt to perceived legitimacy gaps in order to gain, maintain or restore legitimacy between the reporting entity (the company) and its relevant constituencies. The effects of companies' perceptions of legitimacy-threatening factors are discussed and enrich the traditional understanding of legitimacy theory as it pertains to social disclosures. Milne and Patten (2002), explore the role that environmental disclosures might play in producing a legitimating effect on investors within the context of the chemical industry. The basis of the examination of Cormier and Gordon (2001) is also legitimacy theory. These authors use a small sample case-type approach. In particular, they are interested in social and environmental disclosures found in annual reports and how these disclosures differentiate between publicly owned and privately owned enterprises. Coupland (2005) albeit indirectly, also analyses this theory. Her paper presents an analysis of web-based financial and corporate social responsibility (hereafter CSR) reports, and aims to locate and make visible how distance is created between CSR issues and accounting practices in the web-based literature of organizations; to examine how CSR is constructed as a concern of the organizations.

From the sample analysed in the present study, we can conclude that the majority of studies use the legitimacy theory. However, one was found that refers to stakeholder theory, one to institutional theory and one that joins both theories. Moneva and Llena (2000) analyse the environmental reporting practices found in the annual reports published by companies operating in Spain, and try to determine the evolution of these practices, on the basis of stakeholder theory. Cormier *et al.* (2005) identify determinants of corporate environmental disclosure using a multi-theoretical lens that relies on institutional theory, economic incentives and public pressures. Results show that risk, ownership, fixed assets age, company size as well as routine, determinate the level of environmental disclosure. Rahaman *et al*. (2004) use a combination of institutional theory and Habermas' legitimation theory to explain social and environmental reporting at a Ghanaian public sector organisation, the Volta River Authority.

Some papers were found that analyse social and environmental disclosure across countries. Adams and Kuasirikun (2000) tries to understand how ethical reporting practices have developed differently in two Western European countries: UK and Germany. Vanstraelen *et al.* (2003) present an across country study in Belgium, Germany, and the Netherlands. They examined the relationship between voluntary nonfinancial disclosure practices and some company characteristics: industry classification, country of domicile, geographic dispersion, cross-listings, company size, and compliance with International Accounting Standards. Buhr and Freedman (2001) explore the role of cultural and institutional factors in motivating production of mandatory and voluntary disclosure by comparing environmental disclosure produced by Canadian and US companies on a longitudinal basis. They conclude that Canadian culture and institutional infrastructure is more conducive to the production of environmental disclosure than US counterparts.

Finally, other studies were found with different objectives. Tilt (2001) considers the relationship between corporate environmental policy of Australian public companies and subsequent reporting and disclosure related to that policy found in their annual reports. Unerman (2000) based on observations made during the conduct of a 100-year content analysis study, examines a broad range of Shell's corporate reports and argues that an exclusive focus on annual reports is likely to result in an incomplete picture of reporting practices. He also contributes with further insights to the debate on measurement techniques. White and Hanson (2002) prove that annuals reports are the focus in studies of environmental responsibility, ethical investments, corporate social responsibility and others, using content analysis technique. O'Dwyer *et al.* (2005a), presents an in-depth investigation of non-governmental organisations' perceptions of corporate social disclosure in Ireland. It commences the process of addressing a lacuna in the corporate social disclosure, whereby the perspectives of non-managerial stakeholders have been largely ignored.

2.4.3. Relations between disclosure and performance

In this category, studies are included that aim to analyse the social and environmental disclosure and relate it to companies performance. From our sample, we can conclude that companies performance has been studied from different perspectives: relation between environmental performance and environmental disclosure; relation between financial and social disclosure and the cost of equity capital; relationship between environmental performance and shareholder value; relationship between social and environmental disclosure and the financial market performance; interrelations among environmental disclosure, environmental performance, and economic performance; how corporate reporting on ethical, social and environmental issues reflects corporate performance.

The purpose of Patten (2002) is to examine the relation between the annual report environmental disclosures for a sample of 131 US companies and their environmental performance as based on toxics release data from 1998. In contrast to the previous examinations, results indicate that, controlling the company size and industry classification, there is a significant negative relation between performance and disclosure for the sample companies. However, the disclosure level of companies from non-environmentally sensitive industries is more affected by toxic release levels than is the disclosure of companies from environmentally sensitive industries (Patten, 2002, p. 763).

Richardson and Welker (2001) test the relationship between financial and social disclosure and the cost of equity capital for a sample of Canadian companies. They concluded, contrary to expectations, that there is a significant positive relation between social disclosures and the cost of equity capital. Hassel *et al.* (2005), contribute with empirical findings to the current debate on the relationship between environmental performance and shareholder value. The paper provides insights into how environmental information is reflected in the market value of listed Swedish companies. Using the residual income valuation model, they express market value of equity as a function of book value of equity, accounting earnings, and environmental performance, where the last variable is used as a proxy for other value-relevant information (Hassel *et al.,* 2005, p. 41). Murray *et al.* (2006) explore whether there is any relationship between social and environmental disclosure and the financial market performance of the UK's largest companies. They try to explore how the alleged potential of financial markets contribute to social responsibility and sustainability of the companies. These authors concluded that no direct relationship between share returns and disclosures was found. However, the longitudinal data revealed a convincing relationship between consistently high (low) returns and high (low) disclosure. Al-Tuwaijri *et al.* (2004) provide an integrated analysis of the interrelations among environmental disclosure, environmental performance, and economic performance. Based on the argument that management's overall strategy affects each of these corporate responsibilities, they conjecture that prior literature's mixed results describing their interrelations may be attributable to the fact that researchers have not considered these functions to be jointly determined.

Finally, Adams (2004) is also included in this category. This article assesses in detail the extent to which corporate reporting on ethical, social and environmental issues reflects corporate performance of Alpha company case study. It also assess the potential of guidelines developed by the Global Reporting Initiative and the Institute of Social and Ethical Accountability, as well as the industry's own "responsible care" initiative to reduce the "reporting-performance" portrayal gap and improve corporate accountability.

2.4.4. Regulation impact

In this category we include studies that aim to evaluate the regulation impact in social and environmental behaviour of the companies. Several studies were found in different country contexts: Spanish, Australian, Canadian and US American. The author decided to include two studies which are not empirical in this category, as they give an important contribution to this theme.

Larrinaga *et al.* (2002), use the Spanish reform as the subject of their study and investigate whether environmental accounting regulation is an institutional reform. Therefore, they analyse if it would be capable of increasing organisational accountability regarding their environmental impact. Deegan and Blomquist (2006) explore the influence of an initiative of WWF-Australia on the environmental reporting practices from the Australian minerals industry. The evidence provided in the paper suggests that the WWF's initiative influenced revisions to the industry code, as well as the reporting behaviour of individual mining companies. Buhr (2001) uses the highly politicized passage of the North American Free Trade Agreement (NAFTA) and its environmental side agreement as a venue to explore the nature of accountability and environmental disclosure. She concludes that managers and companies do not see themselves as accountable for or liable to speak about their environmental performance in connection with NAFTA. Bewley (2005) investigated the economic consequences of four financial reporting regulations relating to environmental liability reporting in samples of 170 US and 156 Canadian public companies during the period of 1984 to 1997. The study's purpose was to investigate the factors that made financial reporting regulation effective in enhancing the relevance and reliability of accounting information.

The two non-empirical studies considered in this category are Collison and Slomp (2000) and Grinnell and Hunt (2002). The first one describes the work of Fédération des Experts Comptables Européens (FEE) and its impact in environmental and social accounting. These authors reviewed the activities of FEE in the context of the developing environmental agenda and concluded that the Working Party plans to explore this area and to assess its potential importance for the profession of accounts, by carrying out a survey among its members on developments in social accounting and report. The second one, Grinnell and Hunt (2002), examines the financial statement issues related to gifted pollution allowances within the context of the Financial Accounting Standard Board's Conceptual Framework and finds that it provides a clear rationale for recording gifted permits as assets and liabilities. They also examined alternative means by which a utility could extinguish its liabilities and present an illustration of the actual accounting entries under various regulatory and market scenarios.

2.5. Overview of research method, data, industry and country of domicile

In this section we present an overview of the research methods, data, industries and country of origin employed in SEAR.

2.5.1. Research method

There are several research methods which are used in SEAR. Examples of these methods are statistical modelling; hypothesis testing and analysis; experimental design; document analysis (content analysis); questionnaires; interviews; case studies; action research; and ethnography (Gray, 2006). Research in SEAR paid greater attention to methodology in order to reduce subjectivity (Campbell *et al.*, 2003a). The majority of studies used content analysis. O'Donovan (2002, p. 352) explain that content analysis is a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity. Frequently content analysis is used in a combination with interviews to managers or to different groups of stakeholders. Kuasirikun and Sherer (2004, p. 635) argues that "content analysis of corporate reports has been widely mobilised in the SEA literature to identify the characteristics of corporate social and environmental disclosure. (…) Typically, such content analyses of annual reports have sought to analyse corporate annual reports in terms of what they indicate (or do not indicate) about employees and their conditions, what they bring to light (or what they suppress) regarding the impact of the corporation's activities upon the environmental and what openness they bring (or what silences they maintain) in respect of other dimensions of the impact of corporate activity."

Milne and Adler (1999) provide a good overview of content analysis and explore the weakness of the applicability of this technique. Unerman (2000) complements Milne and Adler's contribution to corporate social reporting research methods, by exploring two further areas in which choices must be made when conducting a content analysis study: what documents to analyse, and how to measure disclosures. Mathews (1997, p. 491) adds some comments to content analysis technique and conclude that although it is largely used, since the period 1980-1990 it is criticized for, in the majority of cases just reporting what exists without paying attention to normative issues.

The sample analysed in the present paper includes some studies which used content analysis such as De Villiers and Staden (2006); Tilt (2001); Ogden and Clarke (2005); Larrinaga *et al*. (2001); Wilmshurst and Frost (2000); Kuasirikun and Sherer (2004); Campbell *et al*. (2003a), Unerman (2000); Adams and Kuasirikun (2000) and Larrinaga *et al*. (2002). Interviews are becoming an important method in SEAR. As Deegan and Blomquist (2006, p. 354) contends, the best way to gather information is to ask the relevant people directly, rather than to use other forms of secondary data. In our sample, studies such as Joshi *et al*. (2001); Deegan and Blomquist (2006); Herbohn (2005); O'Dwyer (2005); Wilmshurst and Frost (2000); O'Dwyer (2003) and O'Donovan (2002) uses interviews to collect data. Some researchers prefer statistical models (Murray *et al.*, 2006; Al-Tuwaijri *et al.*, 2004; Cormier and Gordon, 2001; Bewley, 2005; Vanstraelen *et al.*, 2003; Sridhar and Magee, 2001), or study cases (O'Dwyer, 2005; Adams, 2004; Unerman, 2000; Rahaman *et al,* 2004; Lamberton, 2000; Ball, 2005; Moerman and Laan, 2005). Discourse analysis has recently began to be used in SEAR, although none study from our sample use this method.

2.5.2. Data origins and type of data

Social and environmental disclosure from organizations has increased over the last years, besides the annual report, companies began to use other ways of disclosing information. Adams and Laing (2000)[8] argue that corporate publications include the annual report; the web site; newsletters; environmental, health and safety reports; press releases; CD ROMs; and videos. In fact, actually companies use a wide range of corporate documents to provide information on their social behaviour to the public (such as, brochures, press releases and separate environmental reports, etc), however, annual reports remain the most extensively used document in the analysis of corporate social reporting by researchers. Some advantages are attributed to the annual report such

[8] This article can also be found in CSEAR (Centre for Social and Environmental Accounting Research) webpage: www.st-andrews.ac.uk/~csearweb/intromaterials/carol.htm (accessible in 20/09/2006). This research centre has great importance for all the value contribution that it gives to the development of SEAR. It has an excellent library and many materials can be found in its webpage.

as credibility; usefulness to various stakeholders; regularity; accessibility and completeness in terms of the company's communication on social issues (Kuasirikun and Sherer, 2004, p. 635). Most studies consider the annual report as the major forum for disclosure (Tilt, 2001; Gray *et al.*, 1995b; Ogden and Clarke, 2005). Gray (1995b, p. 82) adds: "the annual report not only is a statutory document, produced regularly, but it also represents what is probably the most important document in terms of the organization's construction of its own social imagery".

Our findings are consistent with these conclusions. The majority of the literature analysed use the annual report as the main source to collect information: De Villiers and Staden (2006); Patten (2005); Tilt (2001); Ogden, and Clarke (2005); Moneva and Llena (2000); Cormier *et al.* (2005); Freedman and Stagliano (2002); Kuasirikun and Sherer (2004); Campbell *et al*. (2003a); Adams and Kuasirikun (2000) and Larrinaga *et al.* (2002). Before 2000 there are also, many studies that used annual report as the main source (Guthrie and Parker, 1989; Gray *et al.,* 1995b; Milne and Adler, 1999). However the annual report is unanimously regarded as an important document, is not possible to ignore the importance of a joint analysis of this document along with others produced by the company. Unerman (2000) in is longitudinal study of disclosures in the totally of corporate communications by Shell, demonstrated that disclosure of social information in the annual report represented only a small proportion of the company's total social reporting.

International databases and databases available in the origin country are used by the researchers to select their companies' sample. From the analysed studies, the biggest samples were composed of 198 companies (Al-Tuwaijri *et al.*, 2004), 140 companies (De Villiers and Staden, 2006) and 119 companies (Patten, 2005). Some authors made case studies, focusing in a company and some of them made a longitudinal analysis of the company in question (for example: O'Dwyer, 2005; Adams, 2004; Unerman, 2000; Rahaman *et al.*, 2004; Lamberton, 2000, Ball, 2005; Moerman and Laan, 2005).

2.5.3. Industry

Many studies conclude or defend that company industry (and size) are strong predictors of the quantity of environmental disclosures[9] (Adams *et al.*, 1998, p. 1; Mathews, 1997, p. 484[10]; De Villiers and Staden, 2006, p. 773; Herbohn, 2005, p. 521; Deegan and Blomquist, 2006, p. 344; Gray *et al.*, 1995a, p. 49; Gray *et al.*, 1995b, p. 87). Patten (2002, p. 765) argues that larger companies, presumably due to visibility concerns and availability of resources, tend to disclose more information than smaller companies. Similarly, companies from industries that have high sensitivity to potential environmental legislation usually categorized as the petroleum, chemical, metals, and paper industries tend to make more extensive disclosures than companies from less environmentally sensitive industries.

We notice that in the majority of the studies from our sample, the industry activity is selected by the researchers with care. They argue that this proxy can influence the results. Vanstraelen *et al.* (2003) refer that many studies selected manufacturing industries (such as: automobiles, chemicals, construction, electronic equipment, machinery and equipment, metal, and pharmaceuticals) since they disclose a significant amount of information in their annual reports and typically engage in a considerable volume of international business transactions. De Villiers and Staden (2006, p. 772) also defends that companies whose operations modify the environment, such as extractive industries (mining), are more likely to disclose information about their environmental impacts than companies in other industries. Although some studies selected the industry activity according to the purpose of their study (see for example Campbell *et al.*, 2003 and Adams and Kuasirikun, 2000).

Although others studies do not consider industry activity when collecting their data but paid great attention to others factors, such as size, profitability, capital market performance (Mathews, 1997, p. 484). In this case the activities are joined in categories without caring whether they are more sensitive or not to the environment (see Al-Tuwaijri *et al.*, 2004; Tilt, 2001; Larrinaga *et al.*, 2001; Kuasirikun and Sherer, 2004).

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[9] Industrial activity is stronger connected with environmental disclosures than with social disclosures.

[10] Mathews (1997, p. 484) joins other characteristics: "Measures of the volume of different types of information could also be related to characteristics of the disclosing organizations, such as size or industry, and profitability or capital market performance."

From our sample many studies also conclude that company size (and others factors) determine the level of social and environmental disclosure and consider company size as a data differentiating factor (for example O'Donovan, 2002; Campbell *et al.*, 2003a; Kuasirikun and Sherer, 2004; Adams and Kuasirikun, 2000; Cormier *et al.* 2005). The size of a company can be measured by its total assets or by the number of employees (Tilt, 2001).

2.5.4. Country

Different studies provide strong evidence suggesting that country of domicile is a factor which influences the level of social and environmental information disclosed by the companies (Patten, 2002). So country of domicile is considered as an important determinant of the level and type of corporate social disclosure (Smith *et al.*, 2005). Moneva and Llena (2000) also refer that there are differences in the nature of the environmental reporting, depending on the company's country of ultimate ownership. Thus, when a country has a high level of social consciousness is expected that the companies in these countries provide more voluntary information about these SEA issues.

Therefore when we are looking to the conclusions from different studies, it is important to consider the data's country of domicile. Adams *et al.* (1998) study concludes exactly that company size, industrial grouping and country of domicile all influence corporate social reporting patterns. In our sample the majority of the literature uses data from UK, USA and Australia. Nonetheless, we can find data from other countries, such as Spain, South Africa, Thailand, Ireland, Canada, Germany, Sweden, Belgium, Netherlands, Italy, Ghana and Fiji.

2.6. Concluding remarks and future research

In this section, some suggestions for future research pertaining to each of the four groups analysed are provided as well as concluding remarks.

Regarding "social and environmental accounting" category, we conclude that it is important to produce more studies in the literature like Cooper *et al.* (2005). She presents an alternative as a means of developing the social accounting arena. We need to stop and reflect in order to understand what companies are doing, as Gray (2002) suggests and try to be close to the real needs. It is also important to join theory and practice in SEA project.

It is crucial to involve managers and stakeholders in this dialogue and continue Bouma and Kamp-Roelands (2000) study. These authors try to explore how environmental management information systems could be designed in such a way that they better satisfy the needs of those using the information which emerges from these systems. And try to bring this idea to the accounting system.

Another purpose is based in Bartolomeo *et al*. (2000) study, which is the only in our sample (for this category) that compares different countries practices of social and environmental accounting. Countries less developed in this field should learn with countries more developed so other studies across countries are welcome to compare and improve SEA systems.

There are few studies that analyse social and environmental non-governmental organisations (NGOs). These organisations constitute an important group of non-financial stakeholders. As O'Dwyer *et al.* (2005a; 2005b) argue, there is a gap in the corporate social disclosure literature because the perspectives of non-managerial stakeholders have been largely ignored. One important step was the special issue of the Accounting, Auditing and Accountability Journal in 2006 about the paper of NGO's, although it is not enough.

We argue that there is a need for open discussion on what should be the social and environmental report. This discussion should include more parties. As Buhr (2001), this must be built around stakeholder's dialogue, giving each stakeholder a voice in the corporation. It is also urgent that companies do not just disclose but rather take action. From other hand it is important to notice the "poisoning" problems for SER and make some suggestion to improve it. Works such as Thomson and Bebbington (2005), are very welcome. They talk about more careful and sophisticated reading of accounts; more detailed understanding of the specific organisational mechanisms; a more focused and sustained examination of stakeholder engagement. All these topics seem to be required.

In our sample there are fewer studies about the third theme (Relations between Disclosure and Performance). Additional research in this topic appears warranted. Replicate the Murray *et al.* (2006) study's in countries with very competitive financial markets could be an interesting challenge.

Regarding the fourth theme (Regulation Impact), the opinions about the importance of mandatory disclosures are different. Freedman and Stagliano (2002, p. 94) argue that: "Mandated environmental disclosure may be used by stakeholders to aid in the assessment of a company's environmental performance. This performance includes the potential risk that companies may incur: economic costs/losses from not reducing pollution. Although the usefulness of mandated environmental disclosures has not been accepted universally by accounting scholars, there does seem to be a convergence of views amongst some critical theorists and "middle of the roaders" as to the need for such regulations".

Government is an important agent with a regulating role. For example Buhr (2001) calls for an interventionist regulatory stance in the green accounting arena.Some studies with standard organisms such as International Accounting Standard Board could be welcome as there is no International Accounting Standard (IAS) or International Framework Reporting Standard (IFRS) in this topic and some orientations to environmental accounting could be helpful.

We hope that this paper encourages academic debate in this important arena and that new forms of thinking about Social Accounts can arise. After this "journey" through SEAR, we feel that there is space for other matters in this topic that have been left unexplored. We are thinking of areas that can be connected with SEA, such as psychology (Buhr and Reiter, 2006, refer the use of this discipline in their work), theology (see Davison, 2004; McKernan and MacLullich, 2004; McPhail *et al.*, 2005), eco-feminist, underprivileged and under-represented minority groups (Parker, 2005).

Theology and Accounting was the issue of two special numbers of AAAJ in 2004 and in 2005. It is possible to find very interesting studies and reflections on this topic, which can mean an "open door" to other themes in SEA. We wish that many others studies, such as the latter may be carried out on this topic. In a society where we hear so much about humanisation and socialisation it is imperative for the organisations, that are in the middle of economic evolution, to be dynamic agents to the communities and to the planet in general. We would like to see themes such as "accounting, love and justice"[11] and the rediscover of human values in the companies, in future research.

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[11] Remember the article published by McKernan and MacLullich (2004), *in Accounting, Auditing and Accountability Journal* with the title: "Accounting, love and justice" and the words of McPhail *et al.* (2005, p. 324/5): "Our initial motivations in undertaking the editorship of this special issue were therefore twofold. First, we were interested in what answers could be offered to the questions "can theology and accounting be intellectually linked?" and "what would a theological take on accounting look like?" The second motivation was to seek to stimulate research, which drew from deep religious concern, other than the undoubted and impressive Islamic scholarship which already exists within accounting. We have been greatly stimulated on the second of these two motivations and whilst we are a lot closer to answers on the first motivation we await further literature on and around these issues in the future with considerable interest."

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Appendix 2.1: Accounting Journals (our sample)

1	Accounting Review
2	Accounting, Organization and Society
3	Journal Accounting Research
4	Contemporary Accounting Research
5	Journal of Accountings and Economics
6	Review of Accounting Studies
7	Abacus
8	Accounting and Business Research
9	Accounting and Finance
10	Accounting Business and Financial History
11	Accounting Horizons
12	Accounting, Auditing and Accountability Journal
13	Accounting, Management and IT
14	European Accounting Review
15	The International Journal of Accounting
16	International Journal of ISAFM
17	Journal of International Finance Management and Accounting
18	Review of Quantitative Finance and Accounting
19	Critical Perspectives on Accounting

Chapter 3 (paper 2)

Environmental accounting regulation and annual report disclosure: the case of a Portuguese cement company[12]

[12] This paper was submitted to the special issue of the Accounting, Auditing and Accountability Journal in 30/12/2008. We are waiting for an answer.
Early draf of this paper will be presented in 32nd Annual Congress of the European Accounting Association, Tampere, 12 a 15th May, 2009.

Abstract

This paper is concerned with environmental disclosures in Portugal in the annual report following the publication of the Portuguese accounting environmental standard 29 - environmental issues, in 2002, and the Technical Interpretation 4 – Emissions Rights - Accounting of the Emission Licenses, in 2006. The purpose is to observe whether there is a significant higher level of environmental disclosure, following these publications.

The paper contributes to the understanding of the impact of accounting regulation on Portuguese companies' disclosure strategies. A case study methodology is used and data are collected through content analysis of annual reports during the period 1997-2007 of Secil Company (a large Portuguese cement company). This paper underlines legitimacy theory. It aims to confirm if legitimacy theory explains Secil's environmental disclosures, exploring the regulation proxy.

The results from this study show that accounting regulation has an impact in the content of environmental information in the annual reports of Secil Company. Mandatory environmental reporting is a way to enhance accountability pertaining to environmental issues in organisations.

This study contributes to the Portuguese environmental accounting literature and adds to the scarce research on environmental responsibility disclosure by Portuguese companies. Suggestions for future research are provided in the conclusions.

Keywords: Environmental regulation; Case study; Legitimacy theory, Mandatory environmental disclosure, Portugal

3.1. Introduction

"Accountants, whether academic or professional, must redirect their efforts before it is too late(...). One way to prevent this happening is to broaden the field covered by accounting to include social and environmental data, including environmental audit"

(Mathews, 1997, p. 506).

Social and Environmental Accounting (hereafter SEA) appears as a vehicle that facilitates communication within the community and the development of possibilities for change, thereby creat democratic conditions for the development openness, closeness and transparency (Lehman, 1999). Thus, it is important to understand how companies manage their SEA and if they do it due to regulation pressure.

Some studies show that environmental accounting is material to financial statement users (Deegan and Rankin, 1997). However, in the absence of environmental accounting standards, the users are forced to rely on voluntary environmental reporting. This has raised a number of critiques as research has conclusively demonstrated the argument that voluntary environmental reporting is being actually used to at best legitimate corporate activities, or at worst to cover a misleading view of corporate environmental performance. The results of some studies indicate that environmental reporting is not related to corporate environmental performance (an important aspect is the non-disclosure of bad news). In addition, the vast majority of companies are not making any environmental disclosure (Larrinaga *et al.*, 2002, p. 724).

Legislation on this issue is welcome. Gray *et al.* (1996) in the conclusions of the chapter *Corporate social reporting practice: current trend in Western Europe*, say: "the most appropriate solution for Europe is to go down the route of making social reporting mandatory, but to do so by a process which can quickly reflect innovations and developments in practice." (Gray *et al.,*1996, p. 212).

In fact, by the mid-1990s a regulatory framework for environmental reporting was beginning to emerge. While it is largely dependent upon the sort of voluntary initiatives in Europe, national governments, business organisations and professional accounting bodies were all beginning to lend their weight to the development of reporting about corporate interaction with the natural environment (Gray *et al.*, 1996, p. 168). Some information was produced by the European Commission such as the Fifth Action Programme on the Environment: T*owards Sustainability* (1993); the Sixth Action Programme on the Environment: *Environment 2010: Our Future, our choice* (2001) and the Commission Recommendation of 30 May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts. Many other documents were produced by professional accounting bodies, such as the *European Accounting Reporting and Auditing: survey of current activities and developments within the accountancy profession* (1995) by the Fédération des Experts Comptables Européens. This means that a number of organisations has been addressing this issue.

Over the last 25 years, European accounting regulation has been closely related to the 4th Directive (annual accounts), 1978, and to the 7th Directive (consolidated accounts), 1983. The main purpose of the directives is to harmonise the accounting rules for financial reporting in the EU countries. In recent years, the development has meant that regulation through directives is hardly expedient for environmental issues. The decision was made to issue the Commission Recommendation on the treatment of environmental issues in companies' financial reports. It is intended for the member states to recommend or require, in national legislation, that rules be complied with (PricewaterhouseCoopers, 2004).

In Portugal, following the publication of the Commission Recommendation in 2001, an accounting standard on environmental issues was published in 2002 (Directriz Contabilística 29 – Matérias Ambientais). Before this date there was a vacuum of regulatory information meaning that the companies were not required to disclose any environmental information in their accounts and that just a few did it. Some national studies report that the few environmental disclosures that were made, usually appeared in the letter of the President and the management report (Rodrigues *et al*., 2002; Carvalho and Monteiro, 2002, 2003). Anyway the majority of Portuguese companies did not disclose any information.

The objective of this paper is to identify if companies change their disclosure practices due to the issuance of regulations regarding environmental disclosure. This is the main point of this study. Some studies have attempted to examine this issue in different European countries. For example, Bebbington (1999) made an evaluation of the environmental reporting compulsory in Denmark; Llena *et al*. (2007) analyse the environmental disclosures and compulsory accounting standards in Spain; Larrinaga *et al*. (2002) also analyse accounting regulation in the Spanish context; Bebbinton *et al*. (2003) try to build systems for effective regulation, based on the case of the electricity sector in Spain and in the United Kingdom; Criado *et al. (*2008) analyse the compliance with mandatory environmental reporting in financial statements in Spain. Studies that focused on Spain concluded that there is a low degree of compliance with the standards published. But it is important to note that all periods analysed are very close to the standards publication (2001-2003) and perhaps companies had not yet enough information about standards and were adapting their systems to produce information according to the new regulation. However, this study investigates the disclosure of environmental information for periods after the publication of the standard.

This paper underlines legitimacy theory. We aim to confirm if legitimacy theory explains Secil environmental disclosures, exploring the regulation proxy. Lindblom (1994) refers law as a way to assess the status of legitimacy. She assumes that legality is a necessary and sufficient condition of legitimacy. The implication for corporate social disclosure (hereafter CSD) would be that the proper domain of CSD is the reporting of a corporation's compliance with social legislation. Criado *et al*. (2008) confirm that legitimacy theory suggests that the companies' wish to be seen as complying with the law and partial compliance with regulation could be explained by an evolved version of this theory (Criado *et al*., 2008, p.259). But others theories have been used to explain this phenomenon such as the political economy theory (Larrinaga *et al*., 2002) and the regime theory (Bebbington *et al.,* 2003).

A case study methodology is used and data is collected through content analysis of annual reports of Secil Company, as mandatory environmental reporting is referred to the disclosures in annual reports. To get more information on the case study company, we analyse its web page (in October 2008) and some internal documents published since 1997. This analysis allowed us to provide a better understanding of the company and complete its picture, as recommended by case study methodology (Yin, 2003).

Our research contributes to the existing literature in the following ways: it contributes to the Portuguese environmental accounting literature and adds to the scarce research on environmental responsibility disclosure by Portuguese companies; as the majority of the studies employ legitimacy theory to voluntary information, it contributes to the development of legitimacy theory by talking about mandatory environmental information; using the case study as the research methodology it answers the calls to use this methodology as a research device (Parker, 2005); it contributes to the debate of regimes for effective environmental reporting regulation (adding Bebbington *et al.,* 2003); it provides a description of the Portuguese environmental accounting regulation; it highlights the behaviour of a Portuguese company in a sensitive environmental industry thought in annual reports.

We first explore theoretical perspectives before taking in account the reporting of environmental issues and regulation background. Prior research on the European context and Portuguese environmental regulation are explored. Next, background information on Secil and the research method are discussed. We present the results, followed by conclusions, which includes limitations and areas for further research.

3.2. Theoretical perspectives

3.2.1. Legitimacy as it is generally applied in social and environmental accounting research

Different "social theories" have been developed in attempt to explain various aspects of corporate social behaviour such as: legitimacy theory, stakeholder theory[13], accountability theory and political economy theory. While it has been argued that these are not fully fledged theories and that they are still being developed, they do, however, provide useful frameworks for studying corporate social behaviour (Gray *et al.*1996, p.

[13] "Stakeholder theory is closely aligned with legitimacy theory and the two are often used to complement each other (Deegan, 2002). When the managerial (or positive) interpretation of stakeholder theory is used, the focus is placed on the tendency of managers to implement changes in order to manage or appease powerful stakeholders" (De Villiers and Staden, 2006, p. 764).

45 and O'Donovan 2002, p. 345)[14]. One of the most used theories within the social and environmental accounting is legitimacy[15] theory (Tilling, 2004; Deegan, 2002; Campbell *et al.*, 2003)[16].

Suchman (1995, p. 572) says that many researchers employ the term legitimacy, but few define it. Within contemporary organisations theory, legitimacy is more often invoked than described, and it is more often described than defined. Over the years, social scientists have offered a number of definitions of legitimacy, with varying degrees of specificity. In one of the earliest genuinely organisational treatments, Maurer (1971), cited by Suchman (1995, p. 573), gave legitimacy a hierarchical, explicitly evaluative cast, asserting that "legitimation is the process whereby an organisation justifies to a peer or super ordinate system its right to exist". Contributing to this debate we collect some more ideas about this theory.

Legitimacy theory, at its simplest, argues that organisations can only continue to exist if the society in which they are based perceives the organisation to be operating to a value system which is commensurate with the society's own value system (Gray *et al.,* 1996, p. 46). For Suchman (1995, p. 574), legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions. Legitimacy theory is based on the idea that in order to continue operating successfully, corporations must act within the bounds of what society identifies as socially acceptable behaviour.
Tiling (2004, p. 4) says that legitimacy can be considered as similar to an asset, perhaps somewhat like money, a resource an organisation requires in order to operate. Certain

[14] Spence and Husillos (2006 , p. 7) refer other theories used in SEAR such as: habermasian ideal speech ethics, habermasian legitimacy theory, organisational change theory, institutional theory, structuration theory, ecological modernisation theory, deep ecology theory, eco-feminist theory, ecological responsiveness theory, media agenda setting theory.

[15] "The concept of legitimacy was originally defined in political science and in that context focused on the analysis of the legitimacy of political institutions. Paralleling somewhat the development of the concept of legitimacy in political science was the extension of the concept into the analysis of organisations other than those of a governmental nature" (Lindblom, 1994, p. 2).

[16] Information about legitimacy theory in relation to social and environmental disclosures is well covered in a number of existing publications. Deegan and Blomquist, (2006, p. 346) refer that there are a number of easily accessible sources about this subject such as Gray *et al.* (1995a), Gray *et al.* (1996). Further, *Accounting, Auditing and Accountability Journal* published an edition (Vol. 13, No. 3, 2002) that was dedicated to the use of legitimacy theory in explaining corporate social and environmental reporting practices. For more details about this theory ser for example: O'Donovan (2002); De Villiers and Staden (2006); Patten (2005); Deegan and Blomquist (2006); Moerman and Laan (2005); Eugénio (2006).

actions and events increase that legitimacy, and others decrease it. Much of the extant research into why companies disclose environmental information in the annual report indicates that legitimacy theory is one of the more probable explanation for the increase in environmental disclosures since the early 1980s (O'Donovan, 2002, p. 344). And the majority of the studies proposes that corporate social accounting is an indicator of corporate "legitimacy needs" (Lindblom, 1994). However, there are some conflicting results: Guthrie and Parker's (1989) failed to confirm legitimacy theory as the primary explanation for corporate social reporting.

Some of the studies that use legitimacy theory are referred below. Wilmshurst and Frost (2000) consider that legitimacy theory provides an explanation for the management's motivation to disclose environmental information within the annual report. Ogden and Clarke (2005) aim to explore how organisations use annual reports for legitimacy purposes in the context of the privatised regional water companies in the UK. O'Donovan (2002) pretends to extend the applicability and predictive power of legitimacy theory by investigating to what extent annual report disclosures are interrelated to: attempt to gain, maintain and repair legitimacy; and the choice of specific legitimation tactics. Campbell *et al.* (2003) examines the extent to which voluntary disclosures represent an attempt to close a perceived legitimacy gap in order to gain, maintain or restore legitimacy between the reporting entity (the company) and its relevant constituencies. The effects of companies' perceptions of legitimacy-threatening factors are discussed and enrich the traditional understanding of legitimacy theory as it pertains to social disclosures. Milne and Patten (2002) explore the role that environmental disclosures might play in producing a legitimating effect on investors within the context of the chemical industry. The basis of the examination of Cormier and Gordon (2001) is also legitimacy theory. These authors use a small sample case-type approach. In particular, they are interested in social and environmental disclosures found in annual reports and how these disclosures differentiate between publicly owned and privately owned enterprises.

Coupland (2005), albeit indirectly, also analyses this theory. Her paper presents an analysis of web-based financial and corporate social responsibility (hereafter CSR) reports, and aims to locate and make visible how distance is created between CSR issues and accounting practices in the web-based literature of organisations; to examine how CSR is constructed as a concern of the organisations and to investigate how this is legitimated. Many other recent studies continue to use legitimacy theory as an explanation to environmental disclosures (see for example Cho and Patten, 2007; Cho, 2009).

3.2.2. Legitimacy and law

To Lindblom (1994), companies always want to have legitimacy as the failure of a corporation to maintain the condition of legitimacy can have a variety of negative consequences including difficulty in attracting human and financial resources, difficulty in attracting purchasers for the corporation's outputs, and legislative or regulatory action which the corporation may wish to avoid (Lindblom, 1994, p.4).

Lindblom (1994) refers law as a way to assess the status of legitimacy. She assumes that legality is a necessary and sufficient condition of legitimacy.[17] The implication for CSD would be that the proper domain of CSD is the reporting of a corporation's compliance with social legislation. However, if we focus on the examination of disclosures in response to social and environmental regulation, the literature under review suggests that whereas Patten (2005) and Llena *et al.* (2007) believe that legitimacy theory can explain the low level of compliance with SEER (Corporate, Social, Ethical and Environmental Reporting) regulation, Adams *et al.* (1995) cited by Criado *et al.* (2008), contend that legitimacy theory does not explain non-compliance with regulation because the truth behind that theory is a desire to be seen as complying with the law.

We aim to complement Lindblon's (1994) vision, as her study does not attempt to address issues related to "mandatory" corporate social disclosure. Although she refers that there are implications to be derived from this discussion of legitimacy for mandated

[17] Although Lindblom (1994) refers that some studies indicated the correlation between societal values and norms and legal system is imperfect. Is an interesting point of view, but is not explored in this study. Besides the law, Lindblom (1994) refers that economic exchange can be considering a necessary and sufficient condition for legitimacy. The economic exchange assumption of legitimacy implies that the market is the sole source of corporate legitimacy. Under this assumption, which has been called the "fundamentalist approach", it is held that the corporation exists to earn a profit for the owners and, doing so, makes the appropriate contribution to society (Lindblom, 1994, p. 9). This question is also not explored in this study but could be interesting for further research.

disclosure in what concerns theory construction. We aim to analyse the "law proxy" in the disclosure of mandatory environmental information in annual reports and not voluntary information disclosed in sustainability reports or other documents.

If organisational legitimacy theory predicts that corporations will do whatever they regard as necessary in order to preserve their image of a legitimate business with legitimate aims and methods of achieving it (De Villiers and Van Staden, 2006); if legitimacy theory is based on the idea that in order to continue operating successfully, companies must act within the bounds of what society identifies as socially acceptable behaviour (O'Donovan, 2002, p. 344), and if legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995), we believe that Portuguese companies want to follow the law since in Portugal compliance with the law is something inside the cultural and moral values. We expect that Secil will be interested in disclosing information according to law, as a tool for legitimating its activity. The purpose of this study is to observe whether there is a significantly higher level of environmental disclosure after the publication of the Portuguese standards (DC 29 and IT 4) and if the level of disclosure is a strategy to legitimate Secil's activity.

On the other hand, if companies that comply with mandatory environmental reporting in annual reports avoid legal, economic and social sanctions. As Lindblom (1994) said, legitimacy is a condition or a status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exits between the two values systems, there is a threat to the entity's legitimacy (Lindblom, 1994, p. 2). And these threats take the form of legal, economic and other social sanctions (Dowling and Pfeffer, 1975, p. 122).

3.3. Reporting of environmental issues and regulation background

3.3.1. Prior research

In prior research we can find studies that aim to evaluate the regulation impact in social and environmental behaviour of companies. Several studies were made in different country contexts: Spanish, Danish, UK, Australian, Canadian and US American.

Larrinaga *et al.* (2002), use the Spanish reform as the subject of their study and investigate whether environmental accounting regulation is an institutional reform. Therefore they analyse if it would be capable of increasing organisational accountability regarding companies' environmental impact. This paper is particular interesting for our study because it is concerned with one environmental accounting standard, which requires that all the Spanish companies must include environmental disclosures in their financial statements. Others papers also study the Spanish standard such as Llena *et al*. (2007) and Criado *et al*. (2008). Llena *et al*. (2007) take into account the implementation of the Spanish compulsory accounting standard of 25 March (2002) and its impact on the environmental reporting behaviour. They conclude that for the first year in which the environmental accounting standard was in force (2002), the results show a high percentage of environmental disclosures in the notes to the annual accounts, although the degree and level of disclosures is very heterogeneous. Criado *et al*. (2008), with the purpose of understanding if legally specified disclosure requirements and enforcement mechanisms will enhance the quality of environmental reporting, examine a survey of the reporting patterns of the largest Spanish companies between 2001 and 2003 exploring the extent of their compliance with the Spanish environmental accounting standard (ICAC-2002), which obliged them to make environmental disclosures in their financial statements. The results suggest that progressive and improved regulation could increase the volume and quality of SEER (Corporate, Social, Ethical and Environmental Reporting) disclosures. However, they also suggest that persistent non-compliance means that the problems associated with voluntary disclosure still exist. Finally, through an impression management perspective, the study reveals the diverse strategies, ranging from dismissal to concealment, that are employed by companies to avoid transparency.

Bebbington (1999) explores the Danish case. Danish Environmental Protection Act required certain Danish companies to publish environmental information in the form of a "green account". The findings show a positive conclusion about the environmental reporting law and have implications for other countries, as they grapple with the question of whether or not to institute mandatory environmental regimes.

About building regimes for effective regulation, Bebbington *et al*. (2003) explore the reporting practices of companies within the electricity industry in Spain and the United Kingdom. This investigation aims to contribute to the understanding of accounting regulation by providing a fine grained explanation of the differences in environmental reporting between Spain and the UK. The authors use the regime theory for explaining those matters. It is a very interesting perspective as building regime is in the middle of two debates: lack of compliance with regulation and calls for regulation.

Other point of view on regulation in environmental information is given by Bewley (2005). He argues that prior research suggests that financial reporting regulation is associated with the market-value relevance of reported information and with changes in companies' financial reporting decisions. It extends prior research on the usefulness of reported accounting information by examining the relevance of a specific balance sheet item, the accrued environmental liability. This study also investigates whether the relation between company value and reported environmental liability accrual information changes, when regulations specifically aimed at enhancing the usefulness of this reported item are enacted. Second, this study hypothesizes that the enforcement power of the regulatory body issuing a regulation strengthens its impact on the relation between company value and environmental liability accruals.

Some other studies focus on the accounting bodies work in this issue. Collison and Slomp (2000) describe the work of the Fédération des Experts Comptables Européens (FEE) and its impact in environmental and social accounting. These authors reviewed the activities of FEE in the context of the developing environmental agenda and concluded that the Working Party plans to explore this area and to assess its potential importance for the profession of accounts, by carrying out a survey among its members on developments in social accounting and report. Grinnell and Hunt (2002) examine the financial statement issues related to gifted pollution allowances within the context of the Financial Accounting Standard Board's Conceptual Framework and find that it provides a clear rationale for recording gifted permits as assets and liabilities (to society). They also examine alternative means by which a utility could extinguish its liabilities and present an illustration of the actual accounting entries under various regulatory and market scenarios.

To conclude this point about prior research, we can refer some studies that explore particular aspects of environmental regulation. Deegan and Blomquist (2006) explore the influence of an initiative of WWF-Australia on the environmental reporting practices of the Australian minerals industry. Buhr (2001) uses the highly politicized passage of the North American Free Trade Agreement (NAFTA) and its environmental side agreement as a venue to explore the nature of accountability and environmental disclosure. Buhr and Freedman (2001) explore the role of cultural and institutional factors in motivating production of mandatory and voluntary disclosure by comparing environmental disclosure produced by Canadian and US companies on a longitudinal basis. Regulation issues are referred as mandatory disclosure. Sridhar and Magee (2001) examine the effect of accounting requirements, financial condition and liabilities regimes on companies' investment choices. Johnston and Rock (2005) investigate whether companies identified as potentially responsible parties under the Comprehensive Environmental Response. Compensation and Liability Act (more commonly known as Superfund) appear to manipulate earnings to minimise their exposure to Superfund clean-up and transaction costs.

Regarding the Portuguese context, it is not possible to find any paper about environmental accounting regulation in annual reports. Only Monteiro and Guzmán (2005) investigate current levels and types of environmental reporting by Portuguese companies, and try to make a preliminary assessment of the extent to which the new accounting standard has influenced practice. They analyse 109 companies (largest Portuguese companies), collect data from presidents' letters, management reports and the notes to the financial statements. In conclusion, they refer that patterns of disclosure are on the low side by European standards but the change between 2002 and 2003 is certainly consistent with the new accounting standard, starting to have an impact.

The present study aims to fill this gap by providing empirical evidence about Portuguese regulation in environmental disclosure in annuals reports, comparing results 5 years before and after the publication of the Portuguese accounting standard.

3.3.2. European legal framework

A study made for the European Commission in 1999[18] indicated that reporting practices varied widely between companies. Therefore, the value of the information provided by companies was of limited use, due to the lack of harmonization, preventing full understanding of that information and rendering difficult comparisons between companies. The information is often disclosed in non-harmonized ways among companies and /or reporting periods, rather than being presented in an integrated and consistent manner throughout the annual accounts. This is a consequence of the lack of regulation. Based on these findings, the Commission decided to foster an improved standardization of reporting on environmental issues in companies' financial reporting. The Commission Recommendation of 30 May (2001) on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies was a very important step in the reflection of this issue (2001/453/EC)[19].

The Commission believed that to meet the objectives of the recommendation, action by Member States was necessary. For that reason, the Commission encourages and leaves scope to Member States for measures at national level. Moreover, discussions on ways to improve the present situation are likely to continue at international level (2001/453/EC, p. 17). Following these indications, many European countries adopted this Recommendation. In fact, the way in which the environmental performance of a company is affecting its financial health is of importance to investors, creditors and other stakeholders, as well as of concern to national governments and the community. Thus, the publication of this document was a very important step in the regulation of this issue.

[18] "Study in environmental Reporting by companies", EC2000 (cited by PriceWaterHouseCoopers, 2004).
[19] Before 2001, European Commission already has work teams working in this issue and produced some documents as referred in introduction session.

In 2004, PricewaterhouseCoopers prepared a report with the objective of assessing the degree of implementation of the Commission Recommendation on treatment of environmental issues in companies' financial reports, in different member states[20]. They conclude that no country has fully implemented the Commission Recommendation in its legislation; most countries legislation wholly or partly meets the recommendation in respect of "recognition and measurement and disclosure in balance sheet and notes to the accounts"; only few countries (Portugal, Denmark, Finland, France) have introduced elements of the recommendation to "disclosure in annual report" in their legislation; however many countries point out that the Commission Recommendation has given rise to considerations and had affected the approach to reporting on environmental issues.

European accounting regulation has, over the last 25 years, been closely related to the 4th Directive (annual accounts) from 1978 and the 7th Directive (consolidated accounts) from 1983. The main purpose of the directives is to harmonise the accounting rules for financial reporting in the EU countries. In recent years, it is apparent that regulation through directives is hardly expedient. It was decided to issue the Commission Recommendation on treatment of environmental issues in companies' financial reports and that member state must require, in national legislation that rules be complied with. (PricewaterhouseCoopers, 2004)

In the latest amendment to the 4th Directive, references made to the Commission Recommendation and the following mandatory provision on intellectual capital and environmental have now been inserted: "To the extent necessary for an understanding of the company´s development, performance or position, the analysis shall include both financial and, where appropriate, non-financial key performance indicators relevant to the particular business, including relating to environmental and employee matters". (The underline is our).

[20] The title of the Report is "Implementation in Member States of the Commission Recommendation on treatment of environmental issues in companies' financial reports", October 2004. This report has more objectives that the one focused. The other objectives are: identify and summaries views of responsible authorities, reporting companies and users as regards the relevance and usefulness of the information resulting from applying the European Recommendation; suggest ways to improving the scope and extent of implementation, in the old EU Members States (EU 15) as well as in the new Member States; and suggest possible enhancements of the European Recommendation.

The International Accounting Stand Board (hereafter IASB) has published several international accounting standards (hereafter IAS) about provisions and accounting principles that are relevant when dealing with environmental issues. Nevertheless, there is little guidance directly related to such matters and no specific IAS solely focused on environmental issues. But the rules in the Recommendation are in accordance with the similar IAS in this issue, in particular IAS 36 on impairment of assets, IAS 37 on provisions, contingent liabilities and contingent assets and IAS 38 on intangible assets[21]. Almost all Portuguese accounting standards are based in an IASB accounting standards[22]. Nonetheless, the Portuguese environmental accounting standard is based in the European Commission Recommendation from 2001.

Because we aim to study the impact of regulation in environmental disclosures in annual reports, we consider important to give a general picture of the implementation process in EU 15, as it has varied considerably from one country to another. It was not implemented similarly in each country. However many countries point out that the Commission Recommendation has given rise to considerations and has had an effect on the approach to reporting on environmental issues (PricewaterhouseCoopers, 2004, p. 13).

The table below provides an overview of the implementation in the individual countries. The overview reflects the answers from the questionnaire survey.

[21] The Recommendation is also influenced by a statement of position on accounting and financial reporting for environmental costs and liabilities prepared by the United Nations Working Group on International Standards of Accounting and Reporting (2001/453/EC, p. 17).

[22] For an overview about the Portuguese Accounting Standards, see the Portuguese Accounting Standard Board's website: www.cnc.min-financas.pt.

Country	Recognition and Measurement	Annual Report Disclosure	Balance Sheet and Notes Disclosure	Other Planed Implementations	
				Yes	No
Austria	V	%	(V)	X	
Belgium	V	%	V	X	
Denmark	V	V	(V)		X
Finland	V	V	V		X
France	V	V	V		X
Germany	V	%	%	X	
Greece	(V)	%	%	X	
Ireland	(V)	%	(V)	X	
Italy	NA	NA	NA	NA	
Luxembourg	%	%	%	X	
Portugal	V	V	V		X
Spain	V	%	V		X
Sweden	(V)	%	%	X	
Netherlands	(V)	%	%	X	
United Kingdom	(V)	%	(V)	X	

% = no implementation; (V) = partially implemented; V = implemented with respect to national regulations, etc; NA = no answer

Source: PricewaterhouseCoopers, 2004

Table 3.1 - Overview of level of implementation of the European Commission Recommendation (2001) in EU Member States

3.3.3. Portuguese environmental regulation

In Portugal, the requirements for disclosure environmental information in the annual report have been implemented in the national accounting standards. Following the Commission Recommendation, the Accounting Standard 29 – Environmental Issues (Directriz Contabilística 29 - Matérias Ambientais – DC 29) [23] (hereafter DC 29), has been published by the Portuguese Accounting Standards Board (for more details see Eugénio (2004).

[23] The Portuguese Accounting Standards Board (CNC) is proposing a new system of accounting standards to replace the Official Chart of Accounts (POC) and complementary legislation, to be followed in and after 2010. The new system is similar to the IASB model. The set of standards proposed includes one on environmental issues – NCRF 26 – Environmental issues. This standard is similar to DC 29 and is the only standard which is not based in an IASB standard. In this study, as the new system in not in force yet, we decided to follow DC 29 (instead of NCRF 26).

This standard was published in 5 June 2002 (before 2002, there wasn't any Portuguese regulation to environmental issues) and has been homologated by the Government on 25 June 2005. It was intended to come into force for financial years beginning on or after 1 January 2003. But because it took 3 years until it was published in the official gazette (Diário da República) of 18th April 2005, its articles referring the date, were amended by the Order No. 1339/2006 (2nd series) of 19th January 2006 by the Office of the Secretary of State for Fiscal Affairs. This Order established its application to the exercises that will begin on or after 1st January, 2006.

DC 29 is divided into 9 chapters, as follows: 1. objectives; 2. scope, 3. context; 4. definitions; 5. recognition (of environmental liabilities and environmental expenditure); 6. measurement (of environmental liabilities); 7. disclosures (in management report, in balance sheet and in the notes to the annual accounts); 8. entry into force; and 9. appendix (Eurostat definitions to environmental expenditures). This standard is applied to all companies and is limited to information provided in the annual reports and consolidated annual reports of companies with regard to environmental issues. It does not deal with special purpose reporting, such as environmental or sustainability reports.

This standard covers requirements for recognition, measurement and disclosure of environmental expenditures, environmental liabilities and risks and related assets that arise from transactions and events that affect, or are likely to affect, the financial position and results of the reporting entity. This standard also identifies the type of environmental information that is appropriate to be disclosed in the annual and consolidated annual report with regard to the company's attitude towards the environment and the enterprise's environmental performance, to the extent that they may have consequences on the financial position of the company. To our study the most important is "disclosure" chapter as we aim to check if Secil discloses information according to this standard or not.

According to DC 29, in management report, companies should disclose information about (1) environmental protection; (2) environmental performance and (3) separate environmental reporting. These categories were defined by the author, as explained in method session, according to DC 29 text. In (1) Environmental protection topic

companies should include information about policy, programmes, activities, certifications and protection systems that have been adopted by the company in respect of environmental protection measures, particularly in respect of pollution prevention; environmental protection measures (owing to present legislation or resulting from change in future legal requirements that have been substantially enacted, have been implemented or are in process of implementation); key areas of environmental protection (this information is particularly useful if, in an objective and transparent manner, it provides a record of the performance of the enterprise with respect to a given quantified objective and reasons as to why significant differences may have arisen).
In (2) Environmental performance topic companies should include information about energy use, materials use, water use, emissions, and waste disposals. DC 29 suggests presenting quantitative eco-efficiency indicators with comparative data for the previous reporting period (and, where relevant, detailed by business segment). In (3) Separate environmental report topic companies should refer if the company issues a separate environmental report that contains more detailed or additional quantitative or qualitative environmental information. If the environmental report has been subject to an external verification process, this should be stated in the annual report. It is relevant to inform users of the annual report as to whether or not the environmental report contains objective, externally verifiable data. The scope and boundaries of the reporting entity should preferably be the same in both the annual report and the separate environmental report. If not, they should be clearly stated in the environmental report so that it can be identified to what extent it corresponds to the entity reporting in the annual report. Furthermore, the reporting date and period of the separate environmental report should also preferably be the same as that of the annual report.

According to DC 29, in balance sheet, companies should disclose information about Environmental provisions under the heading “other provisions”.

DC 29 suggests that environmental information should be disclosed in the financial notes, in note 48 - with the heading: "Information about the environmental issues". According to DC 29 different subjects should be disclosed. It suggests 12 topics of information to disclose but since some are about the same subject, we worked this information in order to eliminate repeated points and summarize the information. The information was joined into 5 categories in order to build a checklist as objective as possible. The 5 categories are: (1) General, where is requested a description of the valuation methods applied in calculating the value adjustments, on environmental issues. We add "accounting policies"; (2) Environmental Profits, detailed government incentives related to environmental protection received. In this topic other environmental incentives were considered. A description and amount should be stated; (3) Environmental liabilities and contingent environmental liabilities, in this topic we include according to DC 29 text i) disclosure and details of the environmental liabilities and contingent environmental liabilities; ii) in the case of long-term site-restoration, the decommissioning and dismantling costs and the accounting policy; iii) undiscounted amount of the liability and the discount rate (if value method has been used and the effect of discounting is material); (4) Environmental expenditure capitalised, it refers to the amount that should be desegregated by topics and breakdown of capitalised expenditure by environmental domain; (5) Environmental expenditure charged to the profit and loss account, that should include: the amount of environmental expenditure charged to the profit and loss account and the basis on which such amounts are calculated. This amount should also be desegregated by topics and a breakdown of the expenditure by environmental domain should be given. It also includes the costs incurred as a result of fines and penalties for non-compliance with environmental regulations, and compensations paid to third parties; and extraordinary environmental expenditures charged to the profit and loss account.

In 2006, given the legislation published and the doubts raised about how to recognise transactions related to emission rights for greenhouse gases, it was issued the Technical Interpretation 4 – Emissions Rights - Accounting of the Emission Licenses (hereafter IT 4), by the Portuguese Accounting Standards Board, published in official Gazette nº 101 (2nd series) of 25th May, 2006. This interpretation is applicable to all companies which adopt the Official Chart of Accounts (POC). This interpretation does not apply to the accounting treatment to be adopted by the intermediary brokers or companies who have not been allocated licenses. It deals with issues such as the accounting treatment, recognition and measurement of emission licenses and the disclosure of this information in the notes to the accounts. In our study we also consider this document, also, as it makes part of the Portuguese environmental accounting regulation. So we add to our content analysis framework the information regarding to this disclosure in the financial notes.

The checklist constructed by the author, follows closely this standard. Topic (6) Emissions rights, according to the checklist show in Figure 3.1., it should include information about: Emission licenses allowance for the year, for the period 2005-2007 and for the subsequent five years; Greenhouse emissions rights in tonnes of equivalent carbon dioxide; Emission licenses sold in the year, in tonnes of carbon dioxide and its price; Emission licenses acquired in the year, in tonnes of carbon dioxide and its price; Fines, penalties and additional sanctions related to the emissions rights; Fair value of licenses held.

We also refer to the publication of the Decree-Law nº 35/2005 about the inclusion in the management report of non-financial performance issues, such as environmental information. This law is the transposition for the Portuguese legislation of the European Commission Directive n. º 2003/51/CE of accounting modernization. This law does not add any disclose information in the notes of financial statements, in addition to the already referred in DC 29.

3.4.Background information on Secil [24]

> ***Our Vision:*** *The Secil group seeks to be an international group in the manufacture of cement and construction materials that is a point of reference in terms of quality and costs, being highly profitable and an example in* <u>*social and environmental behaviour*</u>*.*
>
> (Secil Sustainability Report, 2007, p. 30)

Secil was founded in 1918 and is today one of Portugal's leading cement producers. With an annual output of about 4 million tons of cement, it meets more than 35% of the country's demand for cement.

[24] Secil company's information was adapted from the information in Secil's webpage, accessed in October 2008, Secil Sustainability Report (2007) and Secil Annual Report (2007).

Secil heads a corporate group with operations in Portugal, Spain, France, Tunisia, Angola, Lebanon and Cape Verde. Mainly for the production of cement, through its subsidiaries, manufacturing plants in Outão, Maceira, Pataias (Portugal), Sibline (Lebanon), Gabés (Tunisia) and Lobito (Angola), along with the production and sale of concrete, aggregates and the operation of quarries. Although the core of its activities is the production and sale of cement, (the ones that are analyse in this study), Secil currently also consists of a group of 30 enterprises that operate in complementary areas, ranking from the manufacture of read-mix concrete to the manufacture and sale of building materials, besides the operation of quarries, the design and implementation of industrial projects, as well as the development of environmental protection solutions and solutions for the use of waste as a source of energy. Currently the group employs a total of 2 769 persons in all the areas of its activities. The sale and distribution of their products are carried out by the corresponding commercial departments, in Portugal and all around the world.

Secil's main shareholders are Semapa (SGPS), SA and CRH plc, which directly and indirectly own 51% and 49% of the voting rights, respectively. Semapa is a holding company quoted on EuroNext Lisbon, with the Queiroz Pereira family as its majority shareholder, continuing a family tradition of close involvement in Portuguese industry and finance. Based in Ireland, CRH plc is an international conglomerate in the construction materials sector, operating in 23 countries.

The scope of this study is the 3 cement production plants in Portugal that represent 69% of the volume of sales of the group. Secil employs a total of 690 workers and has 285M Euros turnover. Thus, henceforth, when we talk about Secil we mean these 3 plants. These 3 plants functionally almost independent as sustainability reports and webpage cover just them.

In the 2007 sustainability report (p. 24-25), Secil recognizes that cement production implies the existence of potential environmental impacts throughout the while manufacturing process. They say that Secil has come a long way in the management and minimization of its environmental impacts, finding new business opportunities that aim to create value for the company and its stakeholders. Under its environmental management system, Secil seeks to address all the aspects and environmental impacts, finding solutions to minimise them. The major environmental concerns naturally focus on the major environmental impacts. There are the changes in climate, the consumption of non-renewable natural resources and the degradation of the habitats of flora and fauna (and as a result, the visual impact). This information is relevant to understand the type of environmental expenditures and liabilities the company should refer in the annual report regarding the Portuguese environmental accounting standard.

In Secil's mission and vision it is possible to find expressions such as "sustainable development" and "social and environmental behaviour." Looking at the last sustainability report (2007) it is possible to conclude that this company is caring about the importance that environmental and social issues have to their stakeholders.

This company was selected for at least four reasons. Firstly, we decided to choose a large company working in an environmentally sensitive industry, as prior research indicates that company size and industry are strong predictors of the quantity of environmental disclosures (Adams *et al.*, 1998, p. 1; Mathews, 1997, p. 484[25]; De Villiers and Staden, 2006, p. 773; Herbohn, 2005, p. 521; Deegan and Blomquist, 2006, p. 344; Gray *et al.*, 1995a, p. 49; Gray *et al.*, 1995b, p. 87). Larger companies, presumably due to visibility concerns, tend to disclose more information than smaller companies. Similarly, companies from industries that have high sensitivity to potential environmental legislation, tend to make more extensive disclosures than companies from less environmentally sensitive industries (Patten, 2002a, p. 765). Secondly, we consider Secil a good company for a case study as it had faced some public exposure and have to react positively to preserve their image near the consumers, the stakeholders and the public in general. Secil faced with co-incineration debate (for details see Branco *et al.,* 2008), Outão plant location in a protected forest area, etc. Thirdly, it has been widely recognized for being socially responsible towards the environmental and the local community. Fourthly, the author had the possibility to make a research protocol with the administration and have access to different sources of data over a period of two decades.

[25] Mathews, (1997, p. 484), joins other characteristics: "measures of the volume of different types of information could also be related to characteristics of the disclosing organisations, such as size or industry, and profitability or capital market performance."

3.5. Research method

3.5.1. Case Study

A single case study methodology for the empirical research is employed. This follows a number of calls for the use of case study research in the SEA literature (Parker, 2005)[26].

Others studies uses this methodology, such as Deegan *et al.*, 2002; Larrinaga, 1999; O'Dwyer, 2005; Jones, 2003; Lamberti and Lettieri, 2008; Adams, 2004; Unerman, 2000; Rahaman *et al.,* 2004; Lamberton, 2000; Ball, 2005; Adams and Kuasirikun, 2000; Moerman and Laan, 2005; Larrinaga and Bebbington, 2001; but with different purposes. For example O'Dwyer (2005), trying to respond specifically to calls for richer, more in-depth understandings of how and why social accounting processes evolve within organisations, presents a case study examining the evolution of a social accounting process in an Irish overseas aid agency, the Agency for Personal Service Overseas. Jones (2003) tries to improve environmental accounting using a real-life case study from a leading UK company. Rahaman *et al.* (2004) use a combination of institutional theory and Habermas' legitimation theory to explain social and environmental reporting at a Ghanaian public sector organisation, the Volta River Authority. Adams and Kuasirikun (2000) try to understand how ethical reporting practices have developed differently in two Western European countries: UK and Germany. Ball (2005) aims to build a model of change using frameworks that have been used to contribute to our understanding of transformation in terms of how environmental accounting might be potentially constructive or empowering, or captured and colonised. Larrinaga and Bebbington (2001) present a case study of a Spanish electricity utility. They explore the two positions in the literature which are characterized as "organisational change" and "institutional appropriation". Moerman and Laan (2005) present a case study utilizing textual analysis of publicity available documents examined though a legitimacy perspective.

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[26] Parker (2005, p. 853) offers an empirical analysis of the profile of SEA publications. He defines a category to research methodologies as case/field/interview study, and conclude this method represent only 12 per cent of papers published while literature/theory/commentary represent 52 per cent of papers published (was the dominant methodological category). He argues that is an apparent increase in case/field/interview research and it is become a widespread accepted method in this research area.

Following Yin (2003, p. 1) case studies are the preferred strategy when "how" or "why" questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context. This study meets these conditions. We examined "how" and "why" the company discloses environmental information in the annual report (type, quantity and quality), as a legitimating strategy. As researcher, we have no control over the company's reporting process. We want to study a contemporary phenomenon in the context on the real life of Secil.

The case study involves the researchers in order to prepare a detailed study of an organisation using a variety of evidence (Larrinaga and Bebbington, 2001) and should take into account five fundamental characteristics to an exemplary case study: the case study has to be significant; must be "complete"; must consider alternative perspectives; has to produce enough evidence and should be built in an ingenious way (Yin, 2003, p. 161). With this purpose, the present study aims to be part of a more complete study of Secil's company to understand the disclosure strategies and the behaviour regarding social and environmental issues. As this study focus on compliance with environmental regulations for financial information, we analysed the annual reports from 1997 to 2007. For a complete picture of the organisation, the Web page, the 2007 sustainability report and internal documentation were consulted and analysed. Such triangulation ensures the validity and reliability of qualitative research (Yin, 2003). This is an descriptive case study. In the future, in order to get a richer and more in-depth understandings of Secil disclosures strategies, we aim to analyse the sustainability reports, press releases and published news about the company (see paper 4).

Annual reports of Secil were obtained for the years 1997 to 2007 and coded in their entirely. The starting point chosen was five years before the first regulations were issued on environmental accounting (following Buhr, 1998). 2007 was chosen as the ending point since it is the last year available. So, as the Portuguese Standard 29 was published in 2002 we choose 5 years before and 5 years after, it means the pre- and post-event periods in deemed to allow an examination of changes in the extent of environmental disclose related to the event (Branco *et al.,* 2008; Jantedej and Kent, 1999). It is expected that the extent of environmental disclosures will increase after 2002. Anyway is important to note that although DC 29 was published in 2002, it only got in force in 2006 (as explained before).

There are other environmental publications that can be explored within a case study. But as the aim of this study is to analyse the impact of the accounting regulation issue, and as regulation only mention the annual report, we focus our analysis in this document. Anyway, many studies consider the annual report as the major forum for disclosure[27] (Tilt, 2001; Gray *et al*., 1995b; Ogden and Clarke, 2005; Kuasirikun and Sherer (2004); Deegan *et al*. (2002). For the sake of focus, content analysis coded only explicit references to the subject's enounced in the two key documents: DC29 and IT 4.

3.5.2. Content analysis

Content analysis was employed to assess the extent and nature of the environmental disclosure. Content analysis has been used extensively in the accounting literature in the analysis of annual reports (see De Villiers and Staden, 2006; Tilt, 2001; Larrinaga *et al.* 2001; Wilmshurst and Frost, 2000; Kuasirikun and Sherer, 2004; Campbell *et al.*, 2003; Unerman, 2000; Adams and Kuasirikun, 2000; Larrinaga *et al.*, 2002; Branco *et al.*, 2008). This technique consists of classifying the information disclosed into several categories of items which capture the aspects one wants to analyse.

The content analysis literature reflects a debate on how best to code and count the various types of social and environmental disclosure and, the relative merits of different methods of data capture have been discussed by different authors (see for example Milde and Adler, 1999; Campbell *et al.*, 2003; Gray *et al.,* 1995b; Guthrie and

[27] However, Kuasirikun and Sherer (2004, p. 635) says that companies use a wide range of corporate documents to provide information on their social behaviour to the public, such as, brochures, press releases and separate environmental reports, annual reports remain the most extensively used document in the analysis of corporate social reporting due (arguably) to their credibility; usefulness to various stakeholders; regularity; accessibility and completeness in terms of the company's communication on social issues. Gray *et al.* (1995b, p. 82) adds: "the annual report not only is a statutory document, produced regularly, but it also represents what is probably the most important document in terms of the organisation's construction of its own social imagery". Other advantages are given by Deegan *et al.* (2002, p. 324): "Measurement of corporate social disclosure has largely focused on information provided in companies' annual reports. This medium is considered the preferred information source for a number of stakeholder. Use of the annual report enables comparisons to previous studies, and allows examination of whether managements' perceptions of using information in the annual report to respond to public concerns is supported".

Abeysekera, 2006; Unerman, 2000). Commonly used measurement methods have included word count (Campbell *et al.*, 2003; Wilmhurst and Frost, 20002; Deegan and Rankin, 1996), sentence count (Branco *et al.*, 2008; Buhr, 1998; Ogden and Clarke 2005; Tilt, 2001; Williams and Pei, 1999; Patten, 2002a), line count (Garcia and Larrinaga, 2003; Patten, 2002b), summed page proportions (Adams and Kuasirikun, 2000; Kuasirikun and Sherer, 2004), frequency of disclosure and "high/low" disclosure. Most studies of social and environmental disclosure use one or a combination of words, sentences and pages. Following Hackston and Milne (1996) we consider using the number of pages to be problematic due to differences arising from font size, margins, graphics, etc.; while the number of words[28] causes difficulties due to concise or verbose styles of writing. For the years 2007 and 2006 the line and sentences method was employed, with the purpose of comparing information and reach some conclusions on which is the more objective method: sentence count or line count. Sentence count was the selected method because not all the reports have the same line length, which means different results for the same information. On the other hand, a sentence summarizes an idea, so it is considered the most appropriate. Milne and Adler (1999) argue that most prior studies, while using words, paragraphs or pages to measure the social and environmental content of the text, actually use sentences to code the content.

To enable content analysis to be performed in a replicable manner we developed: a checklist, an environmental disclosure instrument (hereafter EDI) and decision rules for coding, measuring and recording the data:

- First, the checklist constructed was based on the specific items of information referred by the two main documents of this study: Portuguese accounting standard 29 – environmental issues (DC 29) and Technical Interpretation nº 4 – Emissions Rights (IT 4). It consists in identifying the main ideas to be disclosed from the standard speech.
As DC 29 requires information on management report, balance sheet and financial notes and IT 4 requires information just on financial notes, we grouped the information in

[28] It is possible to find different ideas on this subject. For example, Wilmshurst and Frost (2000, p. 16) say that the "use of word counts assists in guarding against inconsistencies in calculating the quantity of disclosure. Zeghal and Ahmed (1990) indicate that words are the smallest unit of measurement for analysis and can be expected to provide the maximum robustness to the study in assessing the quantity of disclosure."

those 3 different documents from the annual report[29]. As in DC 29 the information appears dispersed and sometimes repeated in different paragraphs, it was necessary to join the same information in the same topic. Some options were taken such as: in management report join a), b) and c) in the same topic: Environmental protection; in the notes there are 12 topics – they were joined into 5 categories. The final dimensions of disclosure theme[30] are: in Management Report: environmental protection; environmental performance; separate environmental report; in Balance Sheet: Environmental Provisions (liabilities); in Notes: general; environmental liabilities and contingent environmental liabilities; environmental profits; environmental expenditure capitalised; environmental expenditure charged to the profit and loss account; emissions rights. The 6th category corresponds to the information in IT4, regarding Emission rights. IT 4 standard is very concise and so, working on this document was easier. These categories are shown in detail in Figure 3.1.

The evidence, in the checklist, is classified according Gray et al. (1995b, p. 99) as "monetary" (M) if it contained and was related primarily to financial disclosure of actual financial numbers; "non-monetary" (NM) if it contained and was primarily related to actual numbers of a non-financial nature; and "narrative" (N) otherwise.
Gray (1995b) uses the term "declarative" instead of "narrative". Other studies use this classification, or similar classification to this one such as Kuasirikun and Sherer (2004); Buhr and Freedman (2001) and Hackston and Milne (1996).

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[29] Hackston and Milne, (1996, p. 84), says that some studies exclude the dimension of location in report as the literature is unclear as to why location in report is important. Location data appears to have very little value beyond permitting description. It is not the case of present study as the aim is to analyse compulsory information according to environmental regulation that refers explicitly the location where company should disclosure the different information.

[30] Different studies constructed the instrument categories based on earlier studies. The most cited are Guthrie and Parker (1990) and Gray *et al.* (1995a). These studies include the dimensions of disclosure theme as environment, energy, products/consumers, community, employee/human resources, general/other.

	Year (1997…2007)						
	Monetary		Non-Monetary		Narrative		TOTAL
	S	N	S	N	S	N	S
Management Report (MR)							
1. Environmental protection							
1.1. Policy, programmes, activities, certifications, protection system							
1.2.Environmental protection measures (because actual or future legislation)							
1.3.key areas of environmental protection (emissions)							
2. Environmental performance							
2.1. Eco-efficiency indicators such as energy use, materials use, water use, emissions, waste disposals							
3. Separate environmental report							
3.1.If exists and reporting date and period							
3.2.Audited by an external verification process							
Balance Sheet (BS)							
1. Environmental Provisions (liabilities)							
Notes to the annual accounts (N)							
1. General							
1.1.Description of the valuation methods the methods applied in calculating the value adjustments, on environmental issues (and accounting policies)							
2. Environmental Profits							
2.1.Government incentives related to environmental protection received							
Others environmental profits							
3. Environmental liabilities and contingent environmental liabilities;							
3.1.Disclosure and details of the environmental liabilities and contingent environmental liabilities							
3.2. Long-term site-restoration, decommissioning and dismantling costs, the accounting policy							
3.3.Undiscounted amount of the liability and the discount rate (if value method has been used and the effect of discounting is material)							
4. Environmental expenditure capitalised							
4.1.Amount of environmental expenditure capitalized (this amount should be desegregated by topics)							
4.2.Breakdown of capitalised expenditure by environmental domain							
5. Environmental expenditure charged to the profit and loss account							
5.1.The amount of environmental expenditure charged to the profit and loss account and the basis on which such amounts are calculated (this amount should be desegregated by topics)							
5.2.A breakdown of the expenditure by environmental domain							
5.3.Costs incurred as a result of fines and penalties for non-compliance with environmental regulations, and compensations paid to third parties							
5.4.Extraordinary environmental expenditures charged to the profit and loss account							
6. Emissions Rights							
6.1. Emission licenses allowances for the year, for the period 2005-2007 and for the subsequent five							
6.2. Greenhouse gas emissions in tonnes of equivalent carbon dioxide							
6.3. Emission licenses sold in the year, in tonnes of carbon dioxide and its price							
6.4. Emission licenses acquire in the year, in tonnes of carbon dioxide and its price							
6.5. Fines, penalties and additional sanctions related to the emission rights							
6.6.Fair value of licenses held.							

S= Setentes; N= Notes

Note: This instrument was constructed by the autor, based on the requires of Environmental Accounting Standard 29 (topic 1 to 5) and Tecnical Interpretation 4 (topic 6).

Figure 3.1 – Environmental Disclosure Instrument (EDI)

-Second, an Environmental Disclosure Instrument (EDI) to record the information was constructed. It attended to Tilt's (2001, p. 197) recommendation: that in order to minimise subjectivity, a rigorous instrument must be developed. Three classes were used in the categorisation process: 1. Quantity of disclosure – based on the number of sentences; 2. Evidence of disclosure – monetary, non-monetary or narrative; and 3. Notes – this class is important for the author to memorise some additional information, such as the number of the page (from the annual report) and the number of the financial note (this class proved to be very important when the author have some doubts and need to revise the recorded information). EDI is shown in Figure 3.1.

-Third and finally, decision rules for coding, measuring and recording data were developed. The basic rules were adapted from Hackston and Milne (1996) and a number of other decision rules were developed by the author to facilitate a consistent interpretation of the checklist and the instrument[31].

In order to record and subsequently analyse the data collected, a database was set up in Microsoft Excel in which statistical association could be drawn and graphical representations of trends and switch-points generated. In order to ensure internal consistency, data capture was undertaken throughout the investigation only by one researcher (as Campbell *et al*., 2003, p. 567).

To reduce subjectivity, the first year analysed was 2007, as a pilot experience, because it is the most recent year and it is expected to have more information. It provided improvements in the checklist and the rules. The instrument was subsequently revised as a result of pre-test. The main difficulty was deciding if the information in MR was a concrete measure to protect the environment or it is just environmental information. To overcome this difficulty some rules directly connected with the kind of information disclosed were improved. After analyzing all the annual reports (1997-2007), the information was reanalysed in order to find any incorrect classified information in the different categories and reduce subjectivity involved in the content analysis process.

[31] A copy of the checklist and coding rules can be obtained from the authors.

3.6. Results and discussion

The annual report is used to disclose environmental data in a variety of ways and there are several reporting alternatives (Moneva and Llena, 2000): (a) Compulsory reporting: balance sheet; profit and loss account; notes to the annual accounts; and management report (compulsory in Portugal for medium and large-sized limited companies). (b) Voluntary reporting: general corporate information; chairman's report or letter to the shareholders; separate environmental report; etc. In order to obtain the conclusion about compulsory information[32] according to DC 29 and IT4, the management report, the balance sheet and the notes to the annual accounts were analysed .

Results are provided in order to understand "How did the company disclose the information in annual reports?" and "What did the company choose to disclose according to the regulation?" With these general research questions we can make up the the story disclosed by Secil in its application of accounting regulation.

3.6.1. How did the company disclose the information in annual reports?

Secil's annual reports were analysed for a period of 11 years, from 1997 to 2007. During this period we can identify many differences in the quality and quantity of the information disclosed.

Regarding quantity, Secil's 1997 annual report has 57 pages, and in 2007 it has 185 pages, which means a growing number of pages over the years, as show in Figure 3.2. Environmental information has a similar behaviour: 3,1 pages[33] in 1997 and 9,4 in 2007, as show in Figure 3.3.

[32] Guthrie and Parker (1990) and Gray *et al.* (1995a) draws an important distinction between voluntary disclosures and those disclosures mandated by legislation. But it depends, of course, on the country which we are analyzing. For example Hackston and Milne (1996, p.86) says that in New Zealand, so little social disclosure is mandated by legislation that no provision for the voluntary/mandated distinction is made in the interrogation instrument, as all the classified disclosures are treated as voluntary.

[33] We consider 14 sentences = 1 page (as we use sentence method to record the environmental information.)

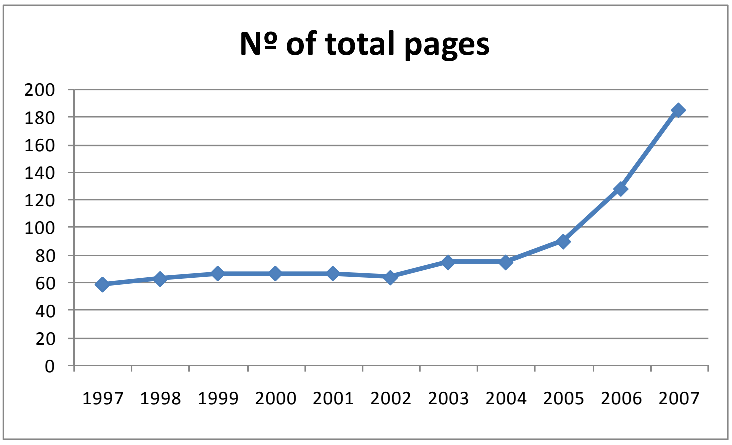

Figure 3.2 – Number of total pages of Secil's annual reports over the period 1997-2007

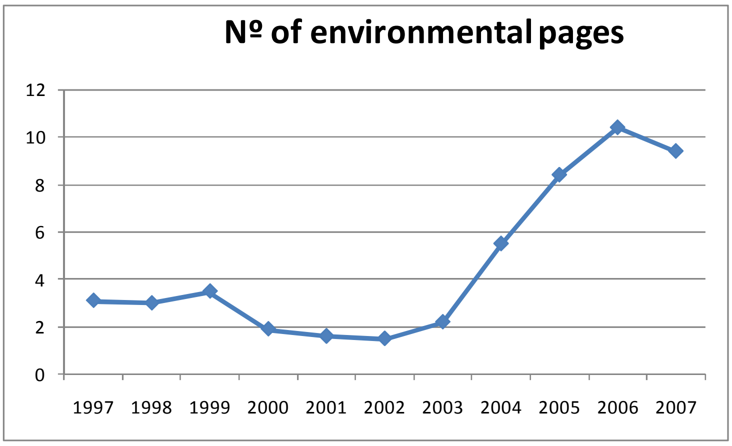

Figure 3.3 – Number of environmental pages of Secil's annual reports over the period 1997-2007

After 2004 the increase is higher. It is also in 2004 that environmental information increases, and that the impact of DC 29 was more obvious in the annual report. But the internationalization of the company (to Tunisia, Lebanon, Angola and Cape Verde) contributed significantly to this growth, as Secil begins to disclose some pages on information from the subsidiaries in these countries. As well as, a larger number of tables and detailed information in the notes contributed to this increase. In 1997, the management report has 17 pages, while in 2007 it rose to 61 pages; notes to the financial statements have 43 pages in 1997 and 124 pages in 2007.

Quality of information also changes. Besides a modern design, more pictures and well structured information in 2007 comparing to 1997 (and last years). It is also possible to notice that some topics change. To a better understanding of Secil's disclosure strategy, 1997 and 2007 annual report chapters's structure are analysed:

-In 1997, the report of the board of directors (chapter I) includes: 1.Summary; 2. Secil: the market; production; human resources, organisation and planning; investment; 3. Other businesses: ready-mixed concrete; aggregates; precast concrete, fibrocement; binders and mortars; timber cement panels; distribution of cement in the Atlantic Islands, cement transport; electricity production; cement paper bags; waste enhancement and recycling; 4. Financial area. Chapter II - Consolidated balance sheet and consolidated statements of profit and loss, includes: consolidated balance sheet; consolidated statements of profit and loss; consolidated statements of cash flow; notes to the consolidated balance sheet and the consolidated statements of profit and loss. This chapter ends with the stator bodies and the names and pictures of the directors. The last two chapters (III and IV) include the report and opinion of the audit board; legal certification of accounts and auditors' report.

-In 2007, chapter I changed the name to "Director's report" and includes: 1. Overview ("summary topic" in 1997, but now includes information about countries where Secil has subsidiaries and includes several indicators: leading operational indicators and leading business indicators); 2. Major developments; 3. Portugal: economic background; cement; ready-mixed and aggregates; precast concrete, mortars and binders; Madeira; use of biomass and waste for energy purposes. 4. Tunisia: economic background; cement; ready-mixed and pre-cast concrete. 5. Lebanon: economic background; cement; ready-mixed. 6. Angola: economic background; cement; 7. Cape Verde: economic background; cement; aggregates. 8. Development; 9. Corporate organisation; 10. Financial. Chapter II – Consolidate Financial Statements includes (similar to 1997): consolidated income statement; consolidated balance sheet; consolidated statements of cash flow; index to the consolidate financial statements (this index revealed to be an important tool as it makes it easier to find notes regarding environmental issues, although there are environmental information in "mixed information" notes); notes to the consolidate financial statements. In Annex (chapter III) are included the report and opinion of the statutory auditors (in 1997 named as legal certification of accounts) and group diagram.

Main presentation differences are: the statutory boards, is included on the first pages rather than in the end (as in 1997); in 2007 there is a message from the chairman of the directors (not included in 1997); the directors' report includes much more information and notes are much more detailed.

	1997	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*TOTAL*
Management Report (MR)	43	42	47	26	20	20	22	20	29	45	35	**349**
Balance Sheet (BS)	0	0	0	0	0	0	0	2	2	2	2	**8**
Notes to the annual accounts (N)	0	0	2	1	2	1	9	55	86	99	95	**350**
TOTAL	**43**	**42**	**47**	**27**	**22**	**21**	**31**	**79**	**117**	**146**	**132**	**707**

Table 3.2 – Environmental disclosure included in the annual reports of Secil over the period 1997-2007 by location

The location of environmental information between 1997 and 2007 changed significantly. As shown in Table 3.2, in 1997 and 1998, 100% of environmental information was disclosed in the management report (MR), in 2007 only 26% was disclosed in the MR and 70% was disclosed in notes (N). Year 2004 means a change in the location of the environmental information, as notes represent 29% in 2003 and 71% in 2004. More detailed analysis leads to conclude that environmental information in MR does not increase so much[34] compared to the Notes, during these 11 years. In notes there are no reference to environmental information in 1997 and it increases to 95 sentences in 2007. As concluded ahead, the publication of DC 29 and IT 4 have influenced these results, as the majority of the information disclose are according to these two documents.

In the analysis of environmental disclosure in the annual reports of Secil it is also important to evaluate the importance attributed to environmental issues by analyzing the existence of specific sections devoted to them. In the period of 1997 to 2007 Secil's annual reports do not include any autonomous section on the environmental issues. But since 1996 it presents a section on "waste recovery and recycling". This section is used to provide information on Secil's involvement in various business projects designed to support the re-use of waste as fuel and raw materials. In 2006, a section on

[34] Excluded energy consumption – non-monetary information - 13 sentences in 1997 and 35 sentences in 2007.

“sustainability” was included in the overview topic. Some information is given about the actions taken in order to respect the environment such as making more rational use of natural resources (replacing natural raw materials and fossil fuels with alternative materials) and improving energy efficiency. 2006 Secil’s annual report refers that significant strides have been made in sustainability area particularly in the Portugal-Cement business area including the publication of a sustainability report; environmental Monitoring Committees; increased use of alternative fuels; reduction of specific CO_2 emissions by approximately 1% from 2005 to 2006; registration with EMAS (Eco-Management and Audit Scheme); launch of information booklets on Ordinary Industrial Waste and Hazardous Industrial Waste. Other years have environmental information in the overview section, but not under a title such as “sustainability”, as in 2006. “Production” and “Investment” sections also provide information on environmental issues. DC 29 does not suggest any specific section where to disclose environmental information in the management report.

In the balance sheet, as suggested by DC 29, environmental information must be mentioned in “other provisions” (in liabilities). Secil discloses environmental provisions since 2004, once again according to DC 29.

For the notes, DC 29 and IT 4 refer a specific section (note) to disclose environmental information. They suggest “note 48 – Other information” with the heading “Information about environmental issues”. Table 3.3 reflects the different notes used by Secil to disclose environmental information. Only from 2004, Secil started disclosing a special note referring to environmental issues (66) as reflection of the publication of DC 29. Even though IT 4 was published in 2006, references to emission rights appear since 2003. However detailed information according to IT 4 orientation’s only is provided in 2005 (only 4 sentences) and 2006 (26 sentences), also as a result of the IT 4 publication. Before 2004, information record in Table 3.3, does not have a special mention to environmental issues in Secil’s annual reports, however they were considered, as they are required according to DC 29. It means that Secil discloses this environmental information, in a separate way, voluntary.

Year	Note	Financial Note	Subject
1999	50	Other debtors and creditors	Subsidy received to the Continuous Improvement of Environmental Performance of the Cement Sector, attributed by IAPMEI
2000	52	Accruals and deferrals	Deferred income: investment subsidy to the continuous improvement of environmental performance of the cement sector, attributed to CMP in 1999
2001	27	Movement in fixed assets	Caption construction in progress: installation of sleeve exhaust filters
	52	Accruals and deferrals	Deferred income: investment subsidy to the continuous improvement of environmental performance of the cement sector, attributed to CMP in 1999
2002	27	Movement in fixed assets	Caption construction in progress: installation of sleeve exhaust filters
2003	27	Movement in tangible and intangible assets	Environmental rehabilitation; visual and paisagistic rehabilitation and quarry rehabilitation
	63	Incentive grants "SIME" program	Non reimbursable environmental improvement
	66	Contingent Liabilities	CO_2 Emission Rights
2004	23	Basis of presentation and significant accounting policies	Liabilities and environmental expenditures
	27	Movement in tangible and intangible assets	Environmental rehabilitation and store quarries, filters for exhaustion
	46	Movement in provisions	Environmental recovery of quarries
	63	Incentive granted/received - “SIME" Program	Non reimbursable environmental improvement
	66	Environmental Information	Environmental policy; environmental expenses; incentives attributed/received; environmental rehabilitation of the quarries
	69	Contingent liabilities	CO_2 Emission Rights
2005	23	Basis of presentation and main accounting policies	Liabilities and environmental expenditures; CO_2 emission licences
	27	Movements in fixed assets	Environmental rehabilitation, quarries and equipments for incineration of residues, filters for exhaustion , acquisition of material for analysis of emissions to the atmosphere
	46	Movement in Provisions	Environmental recovery of quarries
	63	Incentive granted/received - “SIME" Program	Non reimbursable environmental improvement
	66	Environmental Information	Environmental policy; environmental expenses; incentives attributed/received; environmental rehabilitation of the quarries
	69	Contingent Liabilities	CO_2 Emission Rights
2006	23	Bases of presentation and principal valuation criteria	Environmental liabilities and expenditure; CO_2 emission licenses
	27	Movements in fixed assets	Industrial property and other rights - refers to the fair value of greenhouse gas emission licenses granted free of charge
	46	Movement in Provisions	Provision to environmental rehabilitation of quarries
	55	Other accounts receivable and payable	“Other accounts payable – Environment Institute” refers to the fair value of greenhouse gas emission licenses
	56	Accruals and deferrals	Subsidies for emission licenses issued free of charge
	61	Incentives attributed/ received under SIME program	SIME- Industrial Modernization Incentives Scheme. Non-repayable environmental improvement
	64	Environmental issues	Environmental policy; environmental expenditure; environmental rehabilitation of quarries; greenhouse gas emission licenses
2007	1	Summary of basing accounting policies	Intangible assets; provisions
	2	Risk managements	Environmental legislation; energy cost
	7	Other operating income	Emission allowance alocated free of change
	8	Other operating cost	Emission allowance costs
	16	Other intangible assets	Greenhouse emission allowance
	29	Provisions	Environmental renovation
	32	Payables and other current liabilities	Instituto do ambiente - fair value of CO_2 emission allowances
	36	Expenditure on environmental safeguards	Environmental expenses and capitalised

Table 3.3 - Financial notes with references to environmental issues included in the annual reports of Secil over the period 1997-2007

3.6.2. What did the company choose to disclose according to the regulation?

A detailed analysis of the results from content analysis is provided in Table 3.4, 3.5 and 3.6. The 3 key documents (MR, BS, and N) are analysed separately.

	1997				1998				1999				2000			
	M	NM	N	TOTAL	M	NM	N	TOTAL	M	NM	N	TOTAL	M	NM	N	TOTAL
Management Report (MR)	0	30	13	**43**	0	30	12	**42**	0	30	17	**47**	0	1	25	**26**
1. Environmental protection	0	0	13	**13**	0	0	12	**12**	0	0	17	**17**	0	1	25	**26**
2. Environmental performance	0	30	0	**30**	0	30	0	**30**	0	30	0	**30**	0	0	0	**0**
3. Separate environmental report	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Balance Sheet (BS)	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
1. Environmental provisions (liabilities)	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Notes to the annual accounts (N)	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1	0	0	**1**
1. General	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
2. Environmental profits	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**	1	0	0	**1**
3. Environmental liabilities and contingent environmental liabilities;	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
4. Environmental expenditure capitalised	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
5. Environmental expenditure charged to the profit and loss account	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
6. Emissions rights	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**

Table 3.4 – Environmental disclosures included in the annual reports of Secil over the period 1997-2000, with quantity and evidence detailed

	2001				2002				2003				2004			
	M	NM	N	TOTAL	M	NM	N	TOTAL	M	NM	N	TOTAL	M	NM	N	TOTAL
Management Report (MR)	0	3	17	**20**	0	0	20	**20**	0	1	21	**22**	0	0	20	**20**
1. Environmental protection	0	3	17	**20**	0	0	20	**20**	0	1	21	**22**	0	0	20	**20**
2. Environmental performance	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
3. Separate environmental report	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
Balance Sheet (BS)	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**
1. Environmental provisions (liabilities)	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	2	0	0	**2**
Notes to the annual accounts (N)	2	0	0	**2**	1	0	0	**1**	2	0	7	**9**	24	0	31	**55**
1. General	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	6	**6**
2. Environmental profits	1	0	0	**1**	0	0	0	**0**	2	0	0	**2**	6	0	5	**11**
3. Environmental liabilities and contingent environmental liabilities;	0	0	0	**0**	0	0	0	**0**	0	0	4	**4**		0	4	**4**
4. Environmental expenditure capitalised	1	0	0	**1**	1	0	0	**1**	0	0	3	**3**	8	0	10	**18**
5. Environmental expenditure charged to the profit and loss account	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	10	0	6	**16**
6. Emissions rights	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**

Table 3.5 – Environmental disclosures included in the annual reports of Secil over the period 2001-2004, with quantity and evidence detailed

	2005				2006				2007			
	M	NM	N	TOTAL	M	NM	N	Total	M	NM	N	Total
Management Report (MR)	3	0	26	**29**	7	0		**45**	3		32	**35**
1. Environmental protection	3	0	24	**27**	7	0	0	**43**	3	0	31	**34**
2. Environmental performance	0	0	2	**2**	0	0	0	**0**	0	0	0	**0**
3. Separate environmental report	0	0	0	**0**	0	0	0	**2**	0	0	1	**1**
Balance Sheet (BS)	2	0	0	**2**	2			**2**	2		0	**2**
1. Environmental provisions (liabilities)	2	0	0	**2**	2	0	0	**2**	2	0	0	**2**
Notes to the annual accounts (N)	35	2	49	**86**	43	9		**99**	56		39	**95**
1. General	0	0	8	**8**	0	0	0	**10**	0	0	**14**	**14**
2. Environmental profits	6	0	7	**13**	4	0	0	**7**	12	0	0	**12**
3. Environmental liabilities and contingent environmental liabilities;	6	1	3	**10**	6	0	0	**6**	11	0	2	**13**
4. Environmental expenditure capitalised	12	0	17	**29**	10	0	0	**24**	9	0	9	**18**
5. Environmental expenditure charged to the profit and loss account	11	0	11	**22**	13	0	0	**26**	9	0	9	**18**
6. Emissions rights	0	1	3	**4**	10	9	0	**26**	15	0	5	**20**

Table 3.6 – Environmental disclosures included in the annual reports of Secil over the period 2005-2007, with quantity and evidence detailed

Management Report

In management report, according to DC 29 (IT 4 only has requirements regarding financial notes), companies should disclose information about (1) Environmental protection (this information should be narrative); (2) Environmental performance (this could be monetary, non-monetary or narrative) and (3) Separate environmental reporting (this information should be narrative). These categories were defined by the author, as explained in method session, according to DC 29 text.

Almost all the information disclosed by Secil regarding (1) Environmental protection is related to pollution prevention as required in the Portuguese standard. The majority of the information is on the co-incineration process, environmental certification (ISO 14001 and EMAS), recovery of waste, and paisagistic quarry rehabilitation. This information was recorded in 1.1. in the EDI (see Figure 3.1). In 2.2. from the EDI (environmental protection measures) Secil discloses information about environment investments required by future legislation such as filters for exhaustion (these references appear from 1999 to 2004); environmental licenses required by legislation and a plan regarding paisagistic rehabilitation. Since 2005 Secil's annual report refers that they are in compliance with the emission rights legislation:

"The financial year of 2005 marked the first period – 2005-2007 – for the trading in CO_2 emission rights in the European Union; Secil is pleased to record the fact that clinker output at its three plants did not exceed the annual value fixed in the licenses granted to it by the Portuguese Government under PNALE – the National Plan for the granting of CO_2 Emission Licenses" (Secil annual report, 2005, p. 11.)

About key areas of environmental protection (1.3) no information was found.

As Figure 3.4 shows, the majority of environmental information in the management report is about environmental protection (72%). All the information is narrative, according to the requirements of DC 29.

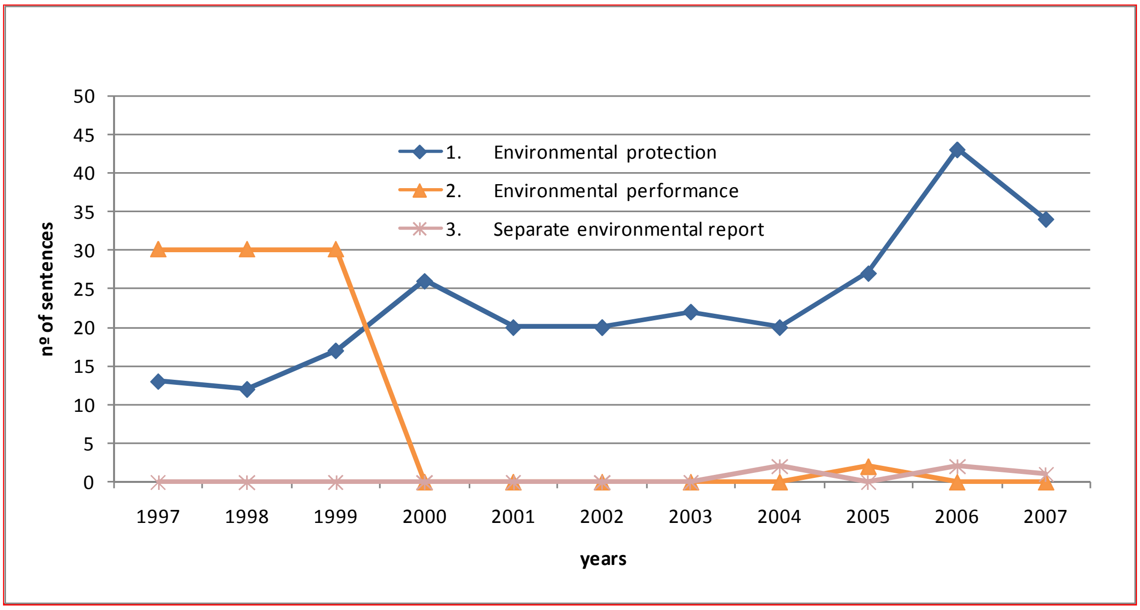

Figure 3.4 – Environmental disclosures included in the management report of the annual reports of Secil over the period 1997-2007

Before the publication of DC 29, Secil already published environmental information in the management report about environmental protection in a voluntary way, but it is visible that after 2004 it increases and more subjects are presented.

In (2) Environmental performance topic, Secil only discloses information about energy consumption (information about energy production was excluded as it reflects the activity and not environmental protection directly). From 1997 to 1999 Secil shows a table with the energy consumption. In constructed rules, the tables (monetary and non-monetary) that provide information from the checklist should be interpreted as one line equals one sentence and classified accordingly; headings to tables are also classified. From 1997 to 1999 30 non-monetary sentences in environmental performance were counted. No more references appear, except 2 sentences in 2005, also about energy consumption.

Total sentences in MR decrease from 1999 to 2000 (from 47 sentences in 1999 to 26 sentences in 2000); this decrease is explained by the fact of energy consumption only being shown from 1997-1999. If we exclude non-monetary information, sentences in MR increase as follows: 1997 – 13; 1998- 12; 1999- 17; 2000- 25. Secil begins to publish an "environmental and social report" in 2000, and this could be a possible explanation for energy consumption information being excluded after 1999.

No references or indicators to materials use, water use, emissions or waste disposals are given. Secil, in this topic, does not disclose all information requested by DC 29 before or after its publication. On the other hand, the company has now a sustainability report where they disclose all the indicators, and according to DC 29 a reference should be made in MR[35].

What concern with the (3) Separate environmental report topic, Secil issues a separate environmental report untilled "Environmental and Social Report" for the first time in 2000 and publishes it first sustainability report in 2005. Only in 2006 appears a reference to a separate report in the management report. However, in Notes it is possible to find the following information since 2004:

"Note 66 – Environmental information - Environmental Policy: The Group's environmental policy is clearly detailed in the annual "Social and Environmental Report" presented in an autonomous documen." (Annual Report, 2004, p. 59).

[35] This is one of the critics made by different countries according to the PriceWaterHouseCoopers (2004) report. Many countries think this information shouldn't appear in the management report but only in a separate report.

Because DC 29 suggests that information should appear in the MR and not in the notes, it was not record in content analysis.

No reference is made to an external verification process or to the scope and boundaries of the reporting. Also there is no reference to the reporting date and period of the separate environmental report. It is possible to conclude that from 2004 Secil wants to inform its stakeholders about the existence of a separate environmental report, as DC 29 suggests, but only from 2006 did it in the appropriate document.

Balance Sheet

According to DC 29, provisions should be shown in the balance sheet under the heading “other provision”. In content analysis, environmental information in balance sheet was recorded when liabilities have a heading as “other provision” and at the same time in financial notes the details of other provisions refer to an environmental provision. Tables 3.4, 3.5 and 3.6 show that environmental provisions are recognised by Secil, since 2004. The influence of the DC 29 is clear. This subject is quite new in Portuguese accounting standards. Portuguese accounting standards have no reference for example for constructive obligation or contingent liabilities. These “expressions” were refereed by the first time by Dc29. Information disclosure is obviously monetary as it is in the balance sheet.

Financial Notes

Both DC 29 and IT4 suggest that environmental information should be disclosed in the financial notes, in note 48 - with the heading: "Information about the environmental issues". According to DC 29 different subjects should be disclosed. DC 29 suggests 12 topics of information to disclose but since some are about the same subject, author worked this information in order to eliminate repeated points and summarize the information. The information was joined into 5 categories in order to build a checklist objective, simple and rigorous as possible. The 5 categories are: 1.General (this information should be narrative); 2. Environmental Profits (be narrative and monetary); 3. Environmental liabilities and contingent environmental liabilities (narrative, monetary and non-monetary); 4. Environmental expenditure capitalised (monetary and narrative); 5. Environmental expenditure charged to the profit and loss account (monetary and narrative); Last topic (6) Emissions rights, according to IT 4 (non-monetary and monetary). More details are given in section 3.3.3. about Portuguese Environmental Regulation.

	1997	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*TOTAL*	
Notes to the annual accounts (N)	**0**	**0**	**2**	**1**	**2**	**1**	**9**	**55**	**86**	**99**	**95**	**350**	
1. General	0	0	0	0	0	0	0	6	8	10	14	**38**	11%
2. Environmental Profits	0	0	2	1	1	0	2	11	13	7	12	**49**	14%
3. Environmental liabilities and Contingent environmental liabilities;	0	0	0	0	0	0	4	4	10	6	13	**37**	11%
4. Environmental expenditure capitalised	0	0	0	0	1	1	3	18	29	24	18	**94**	27%
5. Environmental expenditure charged to the profit and loss account	0	0	0	0	0	0	0	16	22	26	18	**82**	23%
6. Emissions Rights	0	0	0	0	0	0	0	0	4	26	20	**50**	14%
% of the total	**0**	**0**	**1%**	**0%**	**1%**	**0%**	**3%**	**16%**	**25%**	**28%**	**27%**	100%	100%
								96%					

Table 3.7 – Environmental disclosures included in the notes of the annual reports of Secil over the period 1997-2007

Table 3.7 reflects environmental disclosure over time in the notes. This disclosure is insignificant before 2003. In 2003 there are 9 sentences referring mainly to greenhouse gas emissions and to environmental expenditure capitalised. In the following years the increase in the environmental disclosure is significant. In 2004 only "emissions rights" have no disclosures, but in 2005, 2006 and 2007 Secil discloses information about all topics (1 to 6), meaning that the company is in compliance with all the DC 29 and IT 4 requirements.

The references before 2003 are concerned with a government incentive related to environmental protection (4 sentences) and environmental expenditure capitalised (2 sentences). In 2004, 33% of environmental disclosure information is about environmental expenditure capitalised, 29 % about environmental expenditure charged to the profit and loss account and 20% to environmental profits.

Looking at the financial notes categories', according to EDI and Tables 3.4, 3.5 and 3.6, (1) General information is narrative. In 2004 only some topics about environmental accounting policies are given, which represent 11% of the total environmental disclosure in notes but in 2007 much more issues are presented (15%). They are concerned with intangible assets (CO_2 emissions licenses) and provisions; about risk management: environmental legislation; energy costs; and about environmental expenses and capitalised.

Other reference to the compliance of Secil with the legislation is presented in the annual report:

“Secil group respects the actual effective legislation, having undertaken significant investments in the last years. Although no significant changes to actual legislation are foreseen in the near future, further investments in this field may be necessary, in order to comply with eventual new limitations set by the competent authorities.”(Note 2.2.3. Environmental legislation, Secil Annual Report, Secil, p. 93):

Since 2004, Secil makes a direct reference to DC 29 and since 2006 it also refers to the compliance with IT 4. In 2006, note 23 (bases of presentation and principal valuation criteria), included in Environmental liabilities and expenditure topic, Secil makes an explicit reference to the accounting standard 29:

“The Group has adopted the criteria established in Accounting Guideline n. 29, issued by the Accounting Harmonization Board, as its accounting policy for recognizing liabilities and expenditure of an environmental nature” (Secil Annual Report,2006, p.78).

In topic CO_2 emission licenses, from the same note (23), Secil makes an explicit reference to IT 4:

“In accordance with Technical Interpretation no. 4 of the Accounting Harmonization Board, greenhouse gas emission licenses held by the Group, when acquired free of charge, are recognized as an asset under “Intangible fixed assets – industrial property and other rights...” (Secil Annual Report,2006, p.78).

This confirms that Secil knows these two key environmental accounting regulation documents and follows them, even if not fully.

Regarding to (2) Environmental profits topic, Secil discloses information since 1999 (except in 2002), regarding a government grant (SIME) and, in 2006 and 2007, regarding the recognition of CO_2 Emissions licences. In 2004 this topic represents 20% of the environment disclosures in notes and 13 % in 2007.

(3) Environmental liabilities and contingent environmental liabilities topic, has it first record in 2001 but only have expression in 2003 and the following years. In 2007 it represents 14% of the environmental disclosures. Some continent liabilities are in regard to CO_2 emissions licenses and some environmental provisions are regarding to environmental rehabilitation of quarries. Almost all the information with regard to disclosure and details of the environmental liabilities and contingent environmental liabilities (3.1) represent 84 % of all the information published about topic 3.

Environmental expenditure capitalised (topic 4 in EDI), as shown in Table 3.7, is the topic with more disclosures over the years (27%), reaching the top in 2005. Since 2004, Secil has had a special note for environemntal information where it discloses almost all the information regarding environmental expediture. However it is possible to find information about this topic in other notes (see Table 3.3.)

After Environmental expenditure capitalised (4), Secil discloses more environmental information about Environmental expenditure charged to the profit and loss account (5) (23%). This topic is mencioned since 2004 in the same special note for environmental information. The amount of environmental expenditure charged to the profit and loss account (5.1) disaggregated by topics, the basis on which such amounts are calculated and a breakdown of the expenditure by environmental domain (5.2) is shown. But no information appears regarding to costs incurred as a result of fines and penalties for non-compliance with environmental regulations, and compensations paid to third parties (5.3) or with extraordinary environmental expenditures charged to the profit and loss account (5.4). It could be due not so much to the non-compliance with DC 29, but because Secil does not have this kind of information.

Last topic, (6) Emissions Rights, is directly conected with the publication of IT 4 in 2006, as in 2005 only 4 sentences appear and in 2006 it increases to 26 setences. After only two years of obligation it represents 14% of the total environmental information in the notes (as Table 3.7). In 2005, Secil only disclosed information about Emission licenses allowances for the year, during the period 2005-2007 and for the subsequent five years (6.1). But in 2006 and 2007, information about emissions rights are more complete. There is just no information about emission licenses sold in the year (6.3), fines, penalties and additional sanctions related to the emission rights (6.5). Once again, the most reasonable explanation, is that Secil does not have this kind of information to disclose.

Secil complies with the evidence in the different notes as monetary, non-monetary and narrative, according to DC 29 and IT 4.

From the findings is possible to conclude that the publication of DC 29 and IT 4 influence greatly the environmental disclosure in Secil's annual report. Table 3.7 shows that 96% of the environmental disclosuse in notes belongs to the years 2004 – 2007 (ather the publication of these two regulation standars).

3.7. Conclusions

This paper is concerned with environmental disclosures in Portugal in the annual report following the publication of the Portuguese accounting environmental standard 29 - environmental issues, in 2002, and the Technical Interpretation 4 – Emissions Rights - Accounting of the Emission Licenses, in 2006. The purpose of this study is to observe whether there is a significant higher level of environmental disclosure, following these publications. A case study methodology is employed to study Secil's behaviour towards environmental law. Secil is one of the largest Portuguese cement companies. It has an international presence (Portugal, Angola, Lebanon, and Cape Verde) and it operates in an environmentally sensitive industry. In order to develop a fuller and richer picture of Secil's environmental regulation performance, the content analysis of annual reports from 1997-2007 were used. This paper underlines legitimacy theory. It aims to confirm if legitimacy theory explains Secil's environmental disclosures, exploring the regulation proxy.

DC 29 was issued by CNC in 2002. It is important to remember that the first date to be in force was 2003 and many companies know it contets since it publication by CNC.

But DC 29 was just published in the official gazette in 2005 so the date change and it was in force only for the exercises that begin in or after 2006, as explained before.

The results for the period 1997-2007 show a significant increase in the environmental information in 2004 and then in 2006, after the DC29 and the IT 4 were in force, respectively. The results are more visible in the notes - 96% of the environmental disclosure in notes belongs to the years 2004-2007. The increase of environmental disclosure in the management report is less higth as Secil already disclosured environmental information in this document voluntarily. Environmental information in the balance sheet appears, also for the first time, in 2004. The topic according to IT 4, Emissions rights, is directly connected with the publication of IT 4 in 2006, as in 2005 it only appear in 4 sentences and in 2006 it increase to 26 sentences. It is possible to conclude that Secil has the intention to follow the requirements of the two regulations (and they say exactly that in the annual report). Secil adopts a strategy of acquiescence (complying with the standard) with compulsory environmental information. Oliver, (1991) cited by Criado *et al*., 2008 identifies others strategies that companies could adopt with mandatory information such as avoidance (concealing non-compliance) or defiance (dismissal, ignoring explicit norms).

Although, DC 29 was issued by CNC in 2002, only since 2004 have environmental disclosures increased more substantially One possible explanation is that it takes time before the new legislation is clearly understood and followed and, as PriceWaterHouseCoopers (2004) study concludes, there is a lack of environmental knowledge within top management and the financial departments preparing the annual reports. We believe that sometimes, it is not easy to build the multidisciplinary teams that would be ideal to produce accounting environmental information.

Thus, the results show that accounting regulation has an impact on the content of environmental information in the annual reports of Secil. Mandatory environmental reporting is a way to enhance accountability pertaining to environmental issues in organisations.

These findings provide some support for the suspicions of Gray *et al.* (1996), that environmental regulation, which means mandatory information, contributes directly to the increase of environmental disclosure. This study allows us to conclude about the quantity of environmental disclosure and its quality as we examine the compliance of the information with the law. Results show that Secil discloses environmental information regarding almost all the topics required by the law. In 2006 and 2007 Secil improves substantially the quality of the information and has a high level of compliance with the Portuguese environmental regulation. Following Bebbington (1999), we can conclude that when companies are obliged to report under the terms of the law, they do so.

This paper underlines legitimacy theory to explain Secil's environmental disclosures, exploring the regulation proxy. Secil changes its disclosure practices due to the issuance of regulations regarding environmental disclosure, as the company feels that it is its obligation towards the stakeholders and society in general. Secil is interested in disclosing information according to the law, as a tool for legitimating its activity. On the one hand, there are significantly higher levels of environmental disclosure after the publication of DC 29 and IT 4. In different parts of the annual report, Secil says that it is a compliant company. It has the care to inform the stakeholders that it complies with the law. Secil wants that it activities are acceptable to the society and that it image is transparent as shows that they are responsible. This study contributes to the literature by confirming that legitimacy theory explains environmental disclosures, exploring the regulation proxy, for mandatory information.

In summary, the evaluation of Secil's experience with mandatory environmental reporting appears to contain primarily positive outcomes. There appears to be a high level of compliance with the law. On the downside, it seems that more work needs to be done in terms of the quality of reporting, mainly in the management report, as not all information required by the DC 29 is disclosured. So, consistent with Larrinaga *et al.* (2002), we conclude that legislation could improve environmental reporting and, supporting Criado *et al.* (2008) regulation is likely to attract the attention of more powerful stakeholders and is potentially a key, therefore, to more effective accountability.

3.7.1. Limitations and future research

There are some limitations in our study. As regulation requires, we concentrated on annual report disclosures, with allow us to conclude if a company discloses information about the topic suggested by the regulation. But it is not possible to discover if the company discloses "all" the information that they have to. Thus, in the future we could analyse other sources of information and cross the information in order to conclude if there is missing information according to regulation requirements. At the same time, this analysis could lead to a richer and more in-depth understanding of Secil's disclosure strategies. From other hand, "not applicable" issues were not explored.

Future research that might prove useful, could include speaking with the people involved in preparing the environmental information in annual reports in order to understand which difficulties the company has about the implementation of the regulation and a critic view. It also will be interesting to have a sample of others Portuguese companies, in order to conclude if the results are similar to those of Secil. Make an across country study, involving other European countries that have implemented the European Recommendation, could allow us to conclude if law continues to be a legitimating tool.

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Chapter 4 (paper 3)

An examination of social responsibility on the web and on the annual reports: a Portuguese case disclosure[36]

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Abstract

Annual reports were the most traditional medium for social responsibility information disclosure. However, over the last decade, Internet usage has exploded and this medium is now being suggested as a potentially powerful tool for disclosing social and environmental information and increasing corporate accountability (Patten and Crampton, 2004).

The purpose of this paper is to examine the use of the Internet for social responsibility information disclosure by Secil, one of the largest cement Portuguese companies. The role of the Internet as a medium of environmental and social communication is assessed and compared with the disclosure in the annual report. The disclosure practices of Secil in its website were compared and contrasted with respect to the amount, nature and type of disclosure relative to its annual report. As the Internet is a largely used medium having an impact on a large group of stakeholders, this study aims to provide some insights into what Secil is choosing to disclose in its website about corporate social responsibility (CSR) and to confirm if the communication strategies to legitimate its action are being employed according to Lindblom (1994). The quantity of corporate social disclosures was measured using content analysis.

In October 2008, the content of Secil's web page was analysed and compared to Secil's 2007 annual report. For further conclusions, a longitudinal analysis for annual reports from 1997 to 2007 was done.

The results allow us to conclude that the Internet is a powerful tool used by Secil to disclose social responsibility information. Findings suggest that Secil provides significantly more corporate social disclosures on its website than in its annual reports but both media seem to be used to legitimate its activities. Also, Secil puts greater emphasis on disclosing environmental information through both media but human resources information is more visible in its annual report than on the web page.

Keywords: Social responsibility; Web page; Annual report; Disclosure; Legitimacy theory; Portugal; Case study

4.1. Introduction

The business community faces many pressures from the green consumer, environmental groups, employees and investors to accept its environmental accountabilities and to provide information about its environmental (and social) performance. This information is becoming increasingly important to a broad range of corporate stakeholders because it is a key resource in managing a business's response to the issue of environmental and social accountability (Dixon *et al.*, 2004).

As an answer, in recent years, it has become increasingly common for large corporations to communicate information to their stakeholders by using not only the traditional media, such as the annual report, but also the Internet. Many companies provide websites which include large amounts of information on a rich range of financial and corporate social responsibility matters (Pirchegger and Wagenhofer, 1999; Patten, 2002c; Craven and Marston, 1999). Compared to traditional printed reports, the Internet offers many more opportunities to communicate information, and its importance in this regard is rapidly increasing.

As Jones and Xiao (2004) argue, the Internet has become an increasingly important means of communication. The Internet is an increasingly attractive market place with business-to-business e-commerce predicted to increase from US $919 billion in 2001 to US $8.53 trillion by 2005. The majority of the largest listed companies in developed countries have now an Internet website on which they publish not only financial information, but also social responsibility information, products and services, etc. In Portugal, the context is similar. According to the Marktest study (2007), the percentage of Portuguese population that uses computer at home has doubled from 1997 to 2007 (25.8 % to 55.9%, respectively).

Companies have been paying attention to this phenomenon. According to Ashbaugh *et al.* (1999, p. 243), companies, responding to a survey, indicate that communicating with potential and existing shareholders is an important reason for establishing an Internet presence. This study suggests that companies that place a premium on high-quality external reporting perceive the Internet to be an effective communication medium to complement their traditional reporting practices.

All commentators agree that the Internet is here to stay. The Internet is welcomed as a potential solution to some well recognised problems of general purpose reporting (such as untimely information and lack of customised information). The Internet may facilitate the increased provision of information, real-time reporting, customised and disaggregated financial and corporate social information. Green and Spaul (1997), cited by Jones and Xiao (2004, p. 239), see the Internet as enabling the communication and dissemination of a whole range of additional non-financial information.

There are many empirical studies on company disclosure. Disclosure can be categorised as mandatory or voluntary. This paper is concerned with company voluntary disclosure on the Internet and in the annual reports. An extensive literature and a number of theories exist to explain company voluntary disclosure. The theories include agency theory, signalling theory and cost-benefit analysis (Craven and Marston, 1999). Some authors use a theoretical basis which combines stakeholder and legitimacy theory (Barros *et al.,* 2008; Cooper, 2003). Although this hypothesis was considered by the author, the final decision was to use legitimacy theory as a possible explanation for social responsibility disclosure.Owing to recent developments in information technology, companies are beginning to voluntary disclose their financial and CSR information on the Internet using their websites (Craven and Marston, 1999). Companies perceived a significant number of benefits associated with the voluntary disclosure of information. According to Craven and Marston (1999, p. 323) some benefits are: improved image/ reputation of the company; better investment decisions by investors; improved accountability to shareholders; more accurate risk assessment by investors; and fairer share prices.

It is our purpose to understand what the company decided to disclose and through which medium. Content analysis technique was employed to analyse all the different links of Secil's web page in 2008. We classify them in environmental, human resources, community involvement or products according to a framework. The same process was conducted for the 2007 Secil's annual report. For further conclusions in what concerns environmental issues, a longitudinal analysis for the annual reports from 1997 to 2007 was done.

Lindblom (1994) (as cited by Gray *et al.*, 1995, p. 54) suggests that in addition to other purposes, disclosure may be used to educate and inform companies' relevant publics of changes in performance and activities. Companies can use social disclosure to seek to change perceptions of the relevant publics, or to manipulate perception by deflecting attention from issues of concern by focusing on other (presumably more positive) aspects of corporate social performance. In support of Lindblom's claims, some studies (Cho and Patten, 2007; Branco *et al.*, 2008) provide evidence that companies with larger environmental problems tend to provide higher levels of positive or neutral environmental disclosure in their financial reports. These authors argue that the environmental disclosures are being used as a legitimating tool to offset or mitigate the negative impact of actual environmental performance (Patten, 2002c). In this study we also aim to understand what Secil intends to communicate through its web page and through its annual reports in order to legitimate its activities.

This paper provides several contributions. Firstly, it answers to different calls in the literature to analyse what companies are actually saying in their disclosures (Thomson and Bebbington, 2005). This case study allows us not only to identify the amount of CSR disclosure made by a company but also what kind of information this company decides to disclose in each of these two media: web page and annual reports. Secondly, it also provides a case study methodology for web information, as the majority of the studies analyses other sources using samples and not a case study. And thirdly, it identifies and comments on the quality or completeness of the information provided. Many studies simply recognise the existence of some information on the relevant issue (as Frost *et al.*, 2005). In particular, this paper complements prior research by providing an empirical analysis of the contents of the web page. Coupland (2005b, p. 355) says that the Internet is a mechanism by which organisations communicate with a wide and diverse readership. However, there has been little academic consideration regarding the extent to which opportunities for interaction actively impact on what may be said. Various studies acknowledge that to fully understand corporate social disclosures researchers must investigate these alternative media and research is also necessary to identify how companies are utilising this new medium compared to traditional means

(Williams and Pei, 1999). This paper provides a comparison of the CSR information disclosed in the web and in the annual reports.

This paper aims to analyse the use of the Internet to communicate corporate social responsibility (hereafter CSR) information. A single case study was conducted on a Portuguese large cement company (Secil). This study identifies the CSR information disclosed on Secil's web page, its disclosure strategy in order to assess some legitimacy strategies according to Lindblom (1994) and compares this information to the annual report CSR disclosure.

The rest of the paper consists of 6 sections. The next section reviews the prior studies focusing on the Web as a communication tool. Section 3 discusses the annual reports and the web pages as sources of data on CSR disclosures. The research methodology used in this study is then outlined. Section 5 includes the findings for the CSR disclosures on Secil's web page; comparison of CSR disclosure practices on Secil's web page and on Secil's annual report; and legitimacy strategies to communicate with stakeholders through the web page and the annual reports. In section 6 some conclusions are drawn. The final section summarises the limitations of the study and further research is suggested.

4.2. Web as a communication tool

Web pages can employ interactive features to collect information, monitor public opinion on issues and proactively engage citizens in direct dialogue about a variety of matters (Esrock and Leichty, 1998, p. 306). Cooper (2003) argues that the Internet as a medium for communication has an important role to play in this stakeholder management process. It is this expected accessibility of the Internet that makes it a good tool for communication with a wide range of stakeholders. In addition, the Internet allows users to easily identify relevant information to their own interests without first being required to wade through endless irrelevant data. It also provides the opportunity for organisations to be connected with stakeholder groups, thus enabling other interested parties to see both the organisations and the stakeholder's perspective.

Prior research had explored this new medium of information disclosure. Some focus on financial information, others on CSR information or both. Focusing on financial information, Jones and Xiao (2004) provide consensus views of a group of experts on financial reporting on the Internet by 2010 and discuss the role of the Internet, the determinants of change and the pace of change in relation to financial reporting. Ashbaugh *et al*. (1999) examine companies' use of the Internet to enhance the relevance of their financial reporting. They explore companies' financial reporting on the Internet using a sample of 290 nonfinancial companies. They observed that the usefulness of companies' financial reporting on the Internet depends on how easy it is to access that data, the amount of data disclosed and /or whether users can download or analyse the data.

Other studies describe the level of usage of Internet communication technologies for financial information in a specific country. Gowthorpe and Amat (1999) used a sample of Spanish listed companies to analyse this medium of communication of financial and other information to interested parties and, to discuss the actual, and potential, development of the Internet as a means of establishing "corporate dialogue" with stakeholders. They examined the extent to which listed companies in Spain are currently improving the quality and timeliness of communication with their stakeholders by means of up-to-date reporting on the Internet. Craven and Marston (1999) examine the extent of financial information disclosure on the Internet by the largest companies in the UK. This study finds a statistically significant positive relationship between the size of a company and the use and extent of disclosure on the Internet and concludes that there is no significant association between industry type and the level of disclosure. Pirchegger and Wagenhofer (1999) analyse Austrian companies. They use a score to measure the usage of the Internet, test for company size, and ownership structure. The criteria used is divided in four groups: content, timeliness, technology and user support. The results show that the quality of Austrian websites has improved significantly from 1997 to 1998. Some of these studies date from 1999 and so, although the use of Internet is growing exponentially, they concluded that the percentage of users in the population was still low.

More recently, some studies analyse the Internet as a tool for communicating with stakeholders and a social responsibility disclosure medium (see, for example, Cooper, 2003; Jones *et al.* 1999; Maignan and Ralston, 2002; Patten, 2002c; Patten and Crampton, 2004; Williams and Pei, 1999; Rikhardsson *et al.*, 2002; Snider *et al.,* 2003; Coupland, 2005a; Coupland, 2005b; Chapple and Moon, 2005; Esrock and Leichty, 1998; Jackson and Quotes, 2002). Jones *et al.* (1999, p. 71) consider that because corporate stakeholders are increasingly gathering and disseminating information about company activities through the Internet, it "should become another important medium through which to communicate environmental information". Such a view can obviously be used when referring to social responsibility information, of which environmental information is considered to be a component (Branco and Rodrigues, 2006).

These studies analyse the web page as a communication tool with different purposes. Using the web information, Chapple and Moon (2005) investigate CSR reporting in seven Asian countries: India, Indonesia, Malaysia, Philippines, Singapore, South Korea, and Thailand, to understand if CSR is homogeneous or varies among countries. Coupland (2005b) critically examines the language drawn on to describe socially responsible activities in the context of the corporate web page. She argues that constructions of CSR are made plausible and legitimised according to the context of the expression. This paper considers how CSR necessarily invokes legitimacy from beyond the boundaries of an organisation, an industry sector or business organisations in general. This suggests that CSR may not be managed in a bounded manner. Coupland (2005a), using a discourse/textual analytic approach, examined some aspects of how the language adopted and the positioning of financial and CSR reports in web-based communications contribute to constructing a plausible, legitimated, version of banking organizations in terms of these activities. The selection of the banking sector for investigation was based on an expectation that profit-oriented concerns would predominate. Patten (2002c), identified the level of financial and social responsibility information disclosures included on the web pages of insurance companies. The major purposes of this study, therefore, are to specifically identify the extent to which insurance companies are providing financial and social responsibility information on their websites, and to identify whether the insurance company web innovators in terms of marketing development are also the industry leaders in terms of financial and social responsibility disclosure. Esrock and Leichty (1998) assess how corporations are using websites in relation to normative social responsibility standards and potential agenda-setting activity. This study provides a picture of how the development of technology is being implemented by organizations as a communication tool.

Some studies compare social responsibility disclosures (SRD) through the Internet with other media of disclosure, such as annual reports, sustainability reports and web pages (Frost *et al*., 2005; Williams and Pei, 1999; Patten and Crampton, 2004, Branco and Rodrigues, 2006a; Branco and Rodrigues, 2008). These studies are particularly interesting to the present study as our aim is to compare two media of CSR disclosure: annual reports and web page of the Secil company. Anyway, none of these uses a case study methodology. Frost *et al*. (2005) examine the nature and extent of sustainability reporting practices in the various reporting media used by Australian companies (annual reports, discrete reports and websites). They conclude that the annual reports have the lowest level of coverage of GRI indicators. The discrete report is the primary medium for disclosure, with slightly less information provided on the corporate website.

Williams and Pei (1999) aim to provide some insights about international comparison studies of CSD practices via websites. The major objective of this paper is to identify, if any, variations in CSD practices on websites across national boundaries relative to those in annual reports. Practices of 172 listed companies with websites in Australia, Singapore, Hong Kong and Malaysia were compared and contrasted with respect to the amount, nature and type of disclosure on their websites relative to those on their annual reports. They have different conclusions depending on the country. Patten and Crampton (2004) present an analysis of both annual report and corporate web page environmental disclosures for a sample of 62 U.S. companies. Their study indicates that corporate web pages appear to be adding at least some additional, non-redundant environmental information beyond what is provided in the annual reports.

Regarding the Portuguese context, it was possible to find 3 studies about CSR on the Internet. They all compare web page and annual report CSR information (Branco and Rodrigues, 2005; 2006; 2008). Branco and Rodrigues (2006), examine the social responsibility information disclosure on the Internet but only for one sector: banks. The purpose of their study is to ascertain whether Portuguese banks use their websites as a medium to disclose social responsibility information and to identify what types, within this kind of information, banks do. This study is important for us as it compares such disclosure with similar disclosure in annual reports. The authors conclude that banks with a higher visibility among consumers seem to exhibit greater concern to improve the corporate image through social responsibility information disclosure. Results thus suggest that legitimacy theory may be an explanation of social responsibility disclosure by Portuguese banks. Branco and Rodrigues (2005) examine social responsibility information disclosure on the Internet by Portuguese listed companies in 2003 and also analyse annual reports for those companies which disclose such information on their web pages. The results are interpreted through the lens of legitimacy theory, and show that companies of sectors that have a larger potential impact on the environment or industries with a high visibility among consumers seem to exhibit greater concern in improving the corporate image through social responsibility information disclosure.

Branco and Rodrigues (2008) use a sample of Portuguese companies with shares listed on the Portuguese Stock Exchange (Euronext – Lisbon) and identify the factors that influence social responsibility disclosures. This study is also important for the present paper as it compares the Internet (corporate web pages) and the annual reports as media of social responsibility disclosure (SRD) and analyses what influences disclosure. Results suggest that companies prefer the annual report as an SRD medium. Portuguese companies seem to be quite sensitive to public perceptions, as a proxy by their media visibility and their size, when determining their SRD strategies.

4.3. Annual report versus Internet

Companies use a wide range of corporate documents to provide information on their social behaviour to the public, such as the annual report, brochures, press releases, separate social and environmental reports, and recently web pages. However, the annual report is considered by different authors (Guthrie and Parker, 1989; Gray *et al.*, 1995b; Milne and Adler, 1999) the most extensively used document in the analysis of corporate social reporting due to their credibility; usefulness to various stakeholders; regularity; accessibility and completeness in terms of the company's communication on social issues (Kuasirikun and Sherer, 2004, p. 635). Most studies consider the annual report as the major forum for disclosure (Tilt, 2001; Gray *et al.*, 1995b; Ogden and Clarke, 2005). Gray (1995b, p. 82) adds: "the annual report not only is a statutory document, produced regularly, but it also represents what is probably the most important document in terms of the organization's construction of its own social imagery". Prior literature uses the annual report as the main source to collect information (De Villiers and Staden, 2006; Patten, 2005; Tilt, 2001; Ogden and Clarke, 2005; Moneva, and Llena, 2000; Cormier *et al.*, 2005; Freedman and Stagliano, 2002; Kuasirikun and Sherer, 2004; Campbell *et al.*, 2003; Adams and Kuasirikun, 2000; Larrinaga *et al.*, 2002; Guthrie and Parker, 1989; Gray *et al.*, 1995b; Milne and Adler, 1999). However, if the annual report is an important document by unanimity, it is not possible to forget the importance of a joint analysis of this document with others produced by the company. Unerman (2000), in his longitudinal study of disclosures in the totality of corporate communications by Shell demonstrated that disclosure of social information in the annual report represented only a small proportion of the company's total social reporting.

Recently, some studies also analyse the Internet as a tool for communicating with stakeholders and as a social responsibility disclosure medium (see, for example, Cooper, 2003; Jones *et al.* 1999; Maignan and Ralston, 2002; Patten, 2002c; Patten and Crampton, 2004; Williams and Pei, 1999; Rikhardsson *et al.*, 2002; Snider *et al.,* 2003; Coupland, 2005a; Coupland, 2005b; Chapple and Moon, 2005; Esrock and Leichty, 1998; Jackson and Quotes, 2002). This means that the annual report is no longer seen as the most important source of research, and that many authors begin now to also analyse web pages as they have several benefits.

The benefits of using the Internet for communicating information to stakeholders over traditional communication channels are related substantially to the possibility of disseminating more information less expensively and in a more timely fashion, and also related to its interactive nature. One of the more interesting features of the Internet is that it allows companies to provide information targeted to different stakeholders and to obtain feedback from them (Branco*,* 2006, p. 87). As argued by Esrock and Leichty (2000), cited by Branco (2006, p. 87), "unlike traditional mass media channels, a single website can have multiple sections, each targeted to a different audience." Furthermore, as pointed out by Campbell *et al.* (2003, p. 572), the Internet "is possibly the most powerful means of providing targeted information to specific concerned stakeholders as a legitimation strategy. Certainly the Internet website of a company has the potential to reach a much wider lay and environmentally-concerned audience (than the annual report)".

Williams and Pei (1999, p. 392) also agree that the World Wide Web offers various advantages over the traditional print format of annual reports. Such benefits are related to the following aspects: potential to promote harmonization in disclosure practices; the ability to deliver information to a wider spectrum of stakeholders across a broader locality (global rather than just national) within the same time frame with greater regularity and lower costs; obtain information that is timely and relevant directly from the entity in virtual real time; websites can be updated at any time, thus allowing a stakeholder instantaneous access to information from any location, at any time of the day; the majority of Websites have e-mail facilities and other communication devices that enable the stakeholder to request, query and impart with the provider immediately upon receiving information. This ability to communicate with companies immediately enables a closer and more personal relationship between the stakeholder and the entity in question.

One important aspect which can be regarded as a limitation of the Internet when compared with annual reports is the proximity of the narrative material in the annual report to the audited financial statements. The fact that the auditors must read such material gives it a degree of credibility that other media cannot claim to have (Neu *et al.*, 1998), including the Internet. Chapple and Moon (2005) pointed out that the layout and style of websites vary enormously which, in a comparative study, can be a disadvantage.

4.4. Research method

The major purposes of this study are (1) to identify the CSR information disclosed on Secil's web page; (2) compare and contrast CSR disclosure practices on Secil's web page and its annual report; (3) to conclude if Secil uses a legitimacy strategy to communicate with its stakeholders through the web page and the annual reports.

4.4.1. Case study

A single case study methodology is employed. This follows a number of calls for the use of case study research in the social and environmental accounting literature (Parker, 2005). We can find some studies using this methodology but with different purposes (Deegan *et al.*, 2002; Larrinaga, 1999; O'Dwyer, 2005; Jones, 2003; Lamberti and Lettieri, 2008; Adams, 2004; Unerman, 2000; Rahaman *et al.,* 2004; Lamberton, 2000; Ball, 2005; Adams and Kuasirikun, 2000; Moerman and Laan, 2005; Larrinaga and Bebbington, 2001)[37] and not analysing CSR information on the web. Secil Company was chosen for the reasons already mentioned in paper 2. Since Secil is a large company, we expect to find a significant amount of social responsibility information on its website as prior research (Esrock and Leichty, 1998; Craven and Marston, 1999; Barros *et al.,* 2008; Branco and Rodrigues 2008) concluded: the number of social responsibility items on the web page was positively correlated with the size of an organization and the implementation of tools to make a website more navigable.

Secil is a large company and it belongs to an environmental sensitive industry, although the industry sector was not correlated with the disclosures in web according to Esrock and Leichty (1998); Craven and Marston, (1999); Patten and Crampton, (2004). Thus, we also expect to find a significant amount of social responsibility information on its annual reports. Many studies conclude that the company's industry sector and size are strong predictors of the quantity of environmental (and social) disclosures[38] in annual reports (Adams *et al.,* 1998; Mathews, 1997[39]; De Villiers and Staden, 2006; Herbohn, 2005; Deegan and Blomquist, 2006, Gray *et al.,* 1995a; Gray *et al.,* 1995b).

Secil has a web page since 1997 but it was only significantly improved in 2004. They do not update their web page frequently[40]. Secil's website was accessed and reviewed

[37] For details about these studies, see paper 1 and paper 2.
[38] Industrial activity is more strongly connected with environmental disclosure than with social disclosure.
[39] Mathews (1997, p. 484) adds other characteristics: "Measures of the volume of different types of information could also be related to characteristics of the disclosing organisations, such as size or industry, and profitability or capital market performance."
[40] This information was collected during a telephone conversation between the author and the institutional communication department director of Secil), on 29/10/2008. This talk took about 30 minutes and it

during the month of October 2008 to determine the nature and extent of social responsibility disclosure (hereafter SRD). All the links were analysed and the whole website was reviewed using content analysis technique.

To allow comparability, Secil's annual report from 2007 was also analysed and coded using the same technique as used for the web page and according to the same framework. We analyse the whole annual report with the exception of financial statements. For further conclusions, a longitudinal analysis for annual reports from 1997 to 2007 was done for the topic: environmental disclosures.

4.4.2. Content analysis

To measure the level of social responsibility information disclosed by Secil, we use content analysis. Content analysis is the most used method to examine SRD. This technique has been readily applied in corporate social disclosure based research. Content analysis is usefully defined as "a technique for gathering data that consists of codifying qualitative information in anecdotal and literary form into categories in order to derive quantitative scales of varying levels of complexity" (Abbott and Monsen 1979, cited by Gray *et al.*, 1995b, p. 80).

Content analysis[41] was used to determine the extent of disclosure. This method, which has been used in a number of previous studies (Gray *et al.*, 1995 a; Gray *et al.*, 1995b; De Villiers and Staden, 2006; Tilt, 2001; Larrinaga *et al.* 2001; Wilmshurst and Frost, 2000; Kuasirikun and Sherer, 2004; Campbell *et al.*, 2003; Unerman, 2000; Adams and Kuasirikun, 2000; Larrinaga *et al.*, 2002; Branco *et al.*, 2008; Ogden and Clarke, 2005), requires the examining of the reports or other sources, such as web pages, for the presence or absence of statements relative to various areas of environmental and social concerns (Patten, 2002b).

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allowed the author to gather more information and to obtain some answers to the questions that rose during her analysis of the web page information.

[41] For more details about this technique see Gray *et al*., 1995b. Paper 2, also, gives more details about content analysis.

The review for social responsibility disclosure was based on the coding scheme adapted from several empirical studies in the area, that developed a SRD index (see, for example Branco *et al*., 2008; Gray *et al.,* 1995a; Gray *et al.,* 1995b; Hackston and Milne, 1996; Patten, 2002c; Williams and Pei, 1999; Chapple and Moon, 2005; Deegan *et al.,* 2002). Definitions applied in the checklist instrument were derived from the same prior literature. Appendix 4.1 shows the detailed checklist of categories of social responsibility disclosure used in this study, and appendix 4.2 shows the decision rules.

The content analysis literature reflects a debate on how best to code and count the various types of social and environmental disclosure. Commonly used measurement methods have included word count (Campbell *et al*., 2003; Wilmhurst and Frost, 20002; Deegan and Rankin, 1996), sentence count (Branco *et al*., 2008; Burn, 1998; Ogden and Clarke, 2005; Tilt, 2001, Williams and Pei, 1999; Patten, 2002a), line count (Garcia and Larrinaga, 2003; Patten, 2002b), summed page proportions (Adams and Kuasirikun, 2000; kuasirikun and Sherer, 2004), frequency of disclosure and "high/low" disclosure. The type of content analysis used in this study involves categorizing the disclosure based on specific items of information found in the reports. The total amount of social and environmental disclosure is quantified by using a sentence count method. This is consistent with other studies such as Branco *et al*. (2008); Buhr (1998); Ogden and Clarke (2005); Tilt (2001); Williams and Pei (1999); and Patten (2002a).

In accordance with mainstream CSR literature, we identify four major themes for CSR (1) environmental (2) human resources, (3) products and consumers, and (4) community involvement. Gray *et al.* (1995b) contend that defining what is environmental disclosure, is an arbitrary exercise. However, as Garcia and Larrinaga (2003), we followed the definitions given by Gray *et al.* (1995b). Thus, we excluded environmental disclosures when they were part of the business (Gray *et al.,* 1995b). Some examples of environmental disclosures considered are: any statement and information related with environmental policies, environmental management system (including ISO 14001 and Eco Management and Audit Scheme – EMAS), pollution from business operations, pollution arising from use of product, discussion of specific environmental laws and regulations affecting company operations and products, prevention or repair of damage to the environment resulting from processing of natural resources; conservation of natural resources and recycling activities, sustainability environmental aesthetics, conservation of energy in the conduct of business operations; energy efficiency of products; and other environmental matters.

For the other themes: following prior literature, human resources disclosure covers issues such as employee health and safety; employment of minorities or women; employee training; employee assistance/benefits; employee remuneration; employee profiles; employee share purchase schemes; employee morale; industrial relations; other human resources disclosures. Products and customers disclosure encompasses disclosures related to product safety; product quality; disclosing of customer safety practices; customer complaints/satisfaction; provision for disabled, aged, and difficult-to-reach customers; other product and customer disclosures. Community involvement disclosure includes disclosures relating to charitable donations and activities; support for education; support for the arts and culture; support for public health; sponsoring sporting or recreational projects; other community involvement disclosures. For details about these entire categories see Appendix 4.1 (detailed checklist of categories of the database).

Following Patten (2002b), two different measures of social disclosure were calculated. First, each information was coded as one of the 4 specific areas of social disclosure discussed or presented on the website and on the annual report. Following William and Pei (1999) each of the four themes of corporate social disclosure involved in this study was further subdivided into a set of broadly discriminating topics (see Appendix 4.1). Any CSD made by Secil in its annual reports or on its web site were firstly classified by theme and then by category. Although we did not find information about all categories, we decided to retain the complete index, as we intend to apply the same instrument to future Secil information analyses. The second measure was a sentence count. For this measure the total number of sentences addressing the social and environmental responsibility issues was calculated. One of the principal characteristics of content analysis is that the data collected should meet tests which suggest that they are "objective", "systematic" and "reliable (Gray *et al.,* 1995b), so numerous pretesting techniques should be conduct to minimize any ambiguity and overlapping of interpretations. The analysis of disclosures for each medium was undertaken just by one researcher, as this is an individual work, but all the work was revised twice. When it is possible, to a better validation of the results, content analysis should be taken by more than one researcher.

4.5. Findings

4.5.1. CSR disclosures on Secil's web page

Our analysis does not simply recognise the existence of such disclosure but also comments on the quality and completeness of the information provided. All the sections of the corporate Secil website were analysed during October 2008. In Appendix 4.3 the structure of Secil's web page is presented for a better understanding.

In Secil's web page analysis some rules were followed:

- Links provided within the website that did not include the same web address as the company, were not analysed (Frost *et al.,* 2005);
- All sections, regarding to sustainably issues or not, were analysed but only the ones regarding to our framework were considered (for example, we exclude from content analysis count method information with regards to Secil Worldwide: Tunisia; Angola and Lebanon);
- Exclude on-line copies of the annual report (Patten and Crampton, 2004) and on-line copies of social and/or environmental reports (Branco and Rodrigues, 2006);
- Links to external press release disclosures were also not followed (Patten and Crampton, 2004);
- Links to company publications such as newsletters or product catalogues were not followed (Branco and Rodrigues, 2006).

Secil's web page content analysis was made in 2 steps. In a first step, we analyse the Highlights section. When we open Secil's web page, the highlights section is the first information that is shown. It is possible to see a list of 20 highlights, and it is also possible to have access to the older highlights, called "news". This is the more updated section of the web page, and almost the only one that is frequently changed – that means, the section where highlights are more frequently added, according to the interview with the institutional communication department director of Secil. So, this section was firstly explored as it allows us to understand what the company wants to give more attention to, as this information is probably more visible to the stakeholders. The information in this section was categorised by issue and the content was read. All the news since 2003 (the older available) were analysed and coded by subject according the 4 themes adopted in this essay. In this step we did not count sentences and only coded by SRD themes as many "news" have just one sentence followed by the expression "For more information click here", where it is possible to access to more information: files or different parts of the page. As we believe that this area discloses what the company believes to be more important, it was our objective to identify the major subjects published.

In a second step, all the links were analysed and the Secil's web page structure was identified. All the content regarding CSR issues, according to the framework used was counted by sentences. This allows us to understand about which topics Secil discloses more and where Secil decides to disclose CSR information.

Highlights

According to Secil's web page analysis (in October 2008), it was possible to find 20 news highlights: 14 from 2008, 3 from 2007, 2 from 2006 and 1 from 2005. From the 20 news, 2 are about financial issues (Annual Report 2007 and a reference to a press release about Secil's investments abroad: acquisition of further holding in a Lebanese cements company), and 18 are about CSR issues. Table 4.1 shows the themes and categories of CSR disclosures.

Environmental Environmental impact - 2 Co-incineration process - 6 (1-2008; 2-2007; 2- 2006; 1-2005) Sustainability - 2	10
Human Resources Employments – 1	1
Products and Costumers	0
Community Involvement Support for the arts and culture – 5 Other community involvement disclosures - 2 Award – 5 Local initiatives – 2	7
TOTAL	**18**

Table 4.1 - Highlights (Secil's web page)

Secil uses the highlights section mainly to disseminate social and environmental information (90%). The top discussed issue is environmental information. A major part of the environmental highlights is on the category of “pollution from business operations”, where we consider all the issues regarding the co-incineration process[42]. From 10 environmental highlights, 6 are about co-incineration; 2 about environmental impact; and 2 about sustainability report. Secil faces a public negative reaction about the co-incineration[43] process. In Portugal, many newspapers and the television cover this question and many organisations are against this process which began in 1995 but that is not “solved” yet. Among the most visible of these conflicts are those related to the construction of sites for the incineration or co-incineration of industrial waste. Even so, it was possible to find much information about co-incineration since Secil wants society to have the right information about it. So in its web site it is possible to have many files to download with different explanations and studies about this issue.
With broad media coverage, the controversies over the decision to turn co-incineration into the main mode of hazardous waste disposal fuelled public debate involving local populations, environmentalist associations, scientists, experts, local governments, national parties represented in parliament and the national government (Branco *et al.*, 2008, p. 141). So it is expectable to find a large amount of information about this issue in the website and also in the annual report.

Detailed analysis of the news about co-incineration allows us to conclude that the company is interested in clarifying and give more information about co-incineration of waste processes. Many of the news provide access to reports, opinions, press releases, and other documents. The company decided to keep, in the highlights section, 5 news prior to 2008 about environmental actions (2 in 2007, 2 in 2006 and 1 in 2005) probably because it feels that this issue continues to arouse questions and needs to be clarified.

Community involvement[44] issues are mostly related to awards promoted by the company. These awards are on engineering or on architecture. There are 5 highlights about awards in 2008, referring to the 2008 and 2007 completions. Only 2 news are

[42] For background information on the co-incineration debate in Portugal, see Branco *et al*. (2008).
[43] Co-incineration is a process of use of industrial waste in the partially replace non-renewable fossil fuels (petroleum coke, coal or fuel oil), which acts as fuel alternative. This process is also called thermal recycling (in Valorizar magazine, Secil, 2006, www.secil.pt).
[44] For more details about community disclosure see Campbell *et al*. (2006).

referring to local initiatives (open doors week and the celebration of Secil's 2008 protocol with Setúbal[45] collectivities).

There is only one highlight regarding human resources which is about Secil's New Talent Program. This program aims to attract new "talent" employees. It refers: "Secil favours the continuous qualification of its employees and privileges developing their talent. Discover what professional opportunities may exist for you through our email carreiras.gruposecil@secil.pt". Table 4.4 allows to conclude that Secil discloses few information about human resources in all of its web page. The same happens with the products and customers theme. These findings suggest that Secil does not use the web page as a medium for disclosing information about human resources and products and costumes.

Table 4.2 gives the details of issues disclosed in the highlights section, showing the titles of the news (the numbers placed before the title refer to the order in which the new appear in the highlights section):

[45] Setúbal is the city where Secil has the biggest plant (Outão plant).

FINANCIAL	3.Annual Report 2007 16. Press Release – Secil invests abroad – Acquisition of further holding in Lebanese cement company
A. ENVIRONMENTAL DISCLOSURE	1. Sustaintability Report 2007 11. Valorizar Magazine To view a summary of our Environmental Impact 12. Environmental Impact Study View our Environmental Impact Study about the co-incineration of hazardous industrial waste in our Secil Outão Plant, 13. Contact directly the ECC of Secil Outão Plant The Environmental Consultative Commission of Secil Outão Plant 14. Sustaintability Report 2006 15. Secil-Outão Environmental Monitoring Committee issues statement on the tests for co-incineration of hazardous industrial waste 17. Results of the co-incineration tests with hazardous industrial waste at the Secil-Outão plant 18. Safe co-incineration 19. Sustainability at Secil Read more about Secil's work in the field of sustainable development, energy and waste management. To view the public declarations made by the company's managers on these issues, 20. Secil-Outão Environmental Monitoring Committee issues statement on the tests for co-incineration of hazardous industrial waste
B. HUMAN RESOURCES DISCLOSURE	8. Secil's New Talent Program
C. PRODUCTS AND COSTUMERS	
D. COMMUNITY INVOLVEMENT DISCLOSURE	2. Regulation for the Architecture Secil Award 2008 4. European Open Doors Week 5. The Celebration of Secil's 2008 Protocol with Setúbal Collectivities 6. 2008 Secil University Awards 7. 2008 Secil Award 9. 2007 Secil Engineering Award 10.2007 Secil University Awards

Table 4.2 – Detail of Secil's web page highlights section

The news has titles such as: safe co-incineration; contact directly the ECC (Environmental Consultative Commission) of Secil Outão Plant; results of the co-incineration tests with hazardous industrial waste at the Secil-Outão plant; environmental impact study (view our environmental impact study about the co-incineration of hazardous industrial waste in our Secil Outão Plant). This shows that Secil has a disclosure strategy oriented directly to the stakeholders in what concerns co-incineration controversy but that it adopts a “mother” behaviour by trying to explain what is and what is not the co-incineration process.

For further details about “old” highlights we analyse the link “news” inside the highlights section. Table 4.3 provides a brief summary of all news[46] (including the highlight already analysed), to check our first conclusions.

	2008	2007	2006	2005	2004	2003	TOTAL	%
Environmental							16	38%
Environmental impact	2	1					3	
Co inceneration	1	2	4	3	1		11	
Sustainability Report	2	0					2	
Human Resouces							**1**	**2%**
Employees	1						1	
Products and Costumers Disclosure						**3**	**3**	**7%**
Community Involvement							**22**	
Award	5	4	1	4	1		15	**52%**
Local iniciatives	2	1	1	1	1	1	7	
TOTAL	**14**	**10**	**6**	**8**	**3**	**4**	**42**	**100%**

Table 4.3 – Highlights and news in Secil’s web page

As we expected many news still continue to be about the co-incineration process (14 news). In 2003 only 4 news were disclosed and in 2008 this number increased to 14. These results are consistent with the idea that this section has acquired importance. Secil believes this space can be a forum to bring news and information to their relevant public[47] and therefore the company uses this space to legitimise its activities.

Moreover, the trend type of information disclosed about the community involvement remains unchanged: in mostly announces the awards promoted by the company and it disseminates the open doors initiative (categorised as local initiatives). Only 2003 is an exception: local initiatives regard the opening of a Secil museum.

All links of Secil web page

After this analysis, in a second step, all of Secil’s web page links were analysed and the structure of Secil’ web page was identified. All the items regarding to CSR, were content analysed using the framework in Appendix 4.1 and using the sentence count method.

[46] 20 news have directly access in highlights section, to see the others 25 is necessary to chose the link “news”.

[47] According to Lindblom (1994, p.19), relevant publics are employees, creditors, shareholders, public interest groups, community activists and the government.

Secil's web page is organized in 8 sections: 1.Who we are; 2.What we do; 3.Where we are; 4.Products and services; 5.Secil awards; 6.Quality; 7.Environmental; and 8. Policies. See Appendix 4.3 for details about Secil web page structure. We cross the different categories with the section where the information appears to understand where Secil decided to disclose CSR.

Themes	Sentences	Averege
ENVIRONMENTAL DISCLOSURE	110	0,70
HUMAN RESOURCES DISCLOSURE	11	0,07
PRODUCTS AND CUSTOMERS DISCLOSURE	11	0,07
COMMUNITY INVOLVEMENT DISCLOSURE	26	0,16
Total	**158**	**1,00**

Table 4.4 - CSR included in Secil's web page

Theme	Top category
ENVIRONMENTAL DISCLOSURE	Prevention or repair of damage to the environment resulting from processing of
HUMAN RESOURCES DISCLOSURE	Employee Health and Safety
PRODUCTS AND CUSTOMERS DISCLOSURE	Product safety
COMMUNITY INVOLVEMENT DISCLOSURE	Support for the arts and culture

Table 4.5 - Most frequent categories for each theme in Secil's web page

Table 4.6 further extends Table 4.4 indicating the content analysis themes and categories, and the web page's sections. As reported in Table 4.4, environmental theme is the most cited issue representing 0.7 of CSR disclosures in Secil's web page followed by community involvement theme (0.16) and at last, human resources (0.7) and products and consumers (0.7).

Themes \ Links	1. Who we are	2. What we do	3. Where we are	4. Products and services	5. Secil awards	6. Quality	7. Environmental	8. Policies	TOTAL
A. ENVIRONMENTAL DISCLOSURE									
1. Environmental policies or company concern for the environment								17	17
2. Environmental management, systems and audit	2		1				9	5	17
3. Pollution from business operations			10					1	11
6. Prevention or repair of damage to the environment resulting from processing of natural resources			1				35		36
7. Conservation of natural resources and recycling activities		1						2	3
8. Sustainability	2							12	14
9. Environmental aesthetics	1								1
10. Conservation of energy in the conduct of business operations:		1							1
12. Environmental other	1		9						10
	6	2	21				44	37	110
B. HUMAN RESOURCES DISCLOSURE									
13. Employee Health and Safety								9	9
20. Employee morale								2	2
								11	11
C. PRODUCTS AND COSTUMERS DISCLOSURE									
23. Product safety		1		4				3	8
24. Product quality				1		2			3
		1		5		2		3	11
D. COMMUNITY INVOLVEMENT DISCLOSURE									
31. Support for the arts and culture					26				26
					26				26
Total									158

Table 4.6 – Content analysis themes and categories and Secil's web page sections

For environmental disclosure (Table 4.6), Secil uses mainly the section "Environmental" and "Polices", followed by "Where we are" section. Although co-incineration issues are referred many times in different sections of the web page, the top discussed category is "Prevention or repair of damage to the environment resulting from processing of natural resources" (Table 4.5). It happened because co-incineration information is mainly in downloads and, according to the rules defined (see Appendix 4.2), a download that provides CSR information is interpreted as one sentence. Information on environmental management systems and on environmental police of the company is also related (17 sentences each). Sustainability issues are disclosed in the "environmental" section (37%) and in the "policies" (45%) section. Other information, although in a smalller amount, is published about conservation of natural resources and recycling activities; environmental aesthetics; conservation of energy in the conduct of business operations; and others. Environmental others category refers to wildlife conservation (3 sentences) and undertaking environmental impact studies to monitor the company's impact on the environmental (15 sentences).

In the section "Where we are", we find 10% of the environmental disclosures, as it have a topic about Environmental Monitoring Board and EMB – Tests and Declarations in Secil-Outão plant. In this section it is possible to find 6 and 5 downloads, respectively. The first file has information about Environmental Monitoring Board in Secil-Outão Plant, on which various public and private organizations from within the Setúbal municipality are represented. Information about the Committee's aims, its regulations and agenda, as well as its rules of procedure and other information on the Environmental Monitoring Board are presented in this file. Others files are about test plan, February 2006; report on tests of co-incineration of standard industrial waste (29 July 2005) and test plan, June 2005; and some declarations: declaration by the Secil-Outão EMB on co-incineration of oil sludge and declaration by the Environmental Monitoring Board.

This shows Secil's concern over being transparent about environmental protection, creating a committee to assess and discuss these issues, presenting both tests and statements about the co-incineration process.

Secil does not use its web page in order to disclose information about human resources or products and customers, as they represent only 7%, each, of all CSR information. The most frequent issue about human resources is "Employee Health and Safety (only one more category was found: "employee morale") and Secil discloses all human resources information in the "policies" section. The web page provides information about communication with employees on management styles and management programmes, which may directly affect the employees. The top discussed issue about products and customers is "product safety" (only one more category was found: "product quality"), and Secil prefers to disclose this kind of information in "products and services" section.

About community involvement information, we expect to find more diversification of issues, as referred in highlights section analysis. In fact, all the information is about "Supports of the arts and culture", and more specifically about awards. All the information appears in Secil's "awards" section and announces Secil's universities awards for architecture and civil engineering. In this section they describe competition rules and present several pictures about the award ceremony in 2006. Although, and according to the rules (Appendix 4.2), pictures were not considered, only the titles on the photos were considered (18 of the 26 sentences refer to the titles on the photos). No more information about community involvement is given. Just in the Highlights section, we find, besides award information, one reference regarding the celebration of Secil's 2008 protocol with Setúbal collectivities and another reference about the European open doors week. In the news section there are four references to the open door week (during 2004 to 2007), but only in the Portuguese version of the web page (the English version doesn't show this information[48]) and about the Maceira's museum (also only in the Portuguese version).

For a more in depth understanding of the context of CSR disclosures in Secil's web page, all the content of the web page was sentence counted (as already explained, the news in the highlights section were excluded from this analysis). Table 4.7 summarises the total of sentences on Secil's web page and the total of sentences about CSR. CSR information represents 44% of the total amount of information on Secil's web page. This means that Secil gives great importance to this kind of disclosure. According to our results, the information in the "secil awards", "quality", "environmental" and "policies" sections is almost all about CSR. Financial theme represents only 11%. Other issues are about the history of the company; worldwide: Tunisia, Angola and Lebanon; history of cement and how it is made.

Links	1. Who we are	2. What we do	3. Where we are	4. Products and services	5. Secil awards	6. Quality	7. Environmental	8. Policies	TOTAL
CSR disclosure	6	3	21	5	26	2	44	51	**158**
Total of sentences	75	65	62	24	27	2	44	59	**358**

Table 4.7 –CSR disclosure and total information on Secil's web page

We conclude therefore that Secil uses its website to disseminate information primarily on environmental issues, followed by community involvement issues. Secil uses different legitimating strategies when communicating with its stakeholders as explored in section 4.5.3.

[48]Some differences were found between the Portuguese and the English version of Secil's web page. The English version has less information than the Portuguese one, and it doesn't have any references to the many downloads that is possible to find in the Portuguese version. There are some possible explanations: they think some information may not be of interest to the people outside Portugal – in fact some aspects are more internal. Or, Secil prefers that people outside Portugal don´t have access to some information – in fact, many files about tests and environmental reporting don't appear and some do appear but in Portuguese, not translated. When we ask about it to the institutional communication department they answer that it is the first explanation that applies.

4.5.2. Comparison between CSR disclosure practices on Secil's web page and Secil's annual report

Secil's Annual report from 2007 was content analysed using the same framework as the web page (see Appendix 4.1). We exclude from our analysis the financial statements[49] and information about other countries where Secil has plants, such as Angola, Lebanon and Tunisia. In our analysis we include the management report and the letter from the president.

According to other studies (Williams and Pei, 1999), we conclude that the dominant nature of disclosure of corporate social details is narrative.

Annual report content analysis allows us to have a clear picture about some of Secil's behaviours. As we expected, Secil cares about their stakeholders and offers direct messages to them:

"The Board of Directors wishes to express its thanks to its clients and workers; to the sole auditor; to the financial institutions which have supported the Group; to the suppliers and, in general, to the partners who have worked with Secil on its various business initiatives. The Board of Directors also wishes to thank the shareholders for the trust they have placed in them, which has been fundamental to effectively conducting the company's affairs with a view to the prime objective of increasing the value of the company" (Annual report, 2007, p. 15).

In 2007, for the first time, the annual report includes a section on "major development in 2007". A large amount of this news is related to CSR issues, but besides this, not many details are provided in the following chapters, except about environmental issues. Some examples are presented:

Human resources – training:

Vocational training programmes start up at the Group's Training Centres at the Secil-Outão, Maceira-Liz and Cibra-Pataias plants, including participation by workers from Secil Lobito[50]. (Annual report, 2007, p. 17)

[49] This information was analysed in detail in paper 2, with regards to the Portuguese environmental accounting regulation.

[50] Secil Lobito is the plant in Angola.

Community involvement – open doors week and cultural and social sponsoring:
"Open doors week" at the Secil-Outão plant, devoted to the theme "Landscape Reclamation and Biodiversity", attracting 400 visitors" (Annual report, 2007, p. 17).

"Secil signs collaboration and funding agreements with a number of cultural sporting and social welfare associations in Setúbal" (Annual report, 2007, p. 17.)

Environmental – biodiversity:
"Secil signs an undertaking to conserve biodiversity in Portugal, as part of an initiative organized by the Nature Conservancy and Biodiversity Institute, with a view to preserving our common heritage through work and projects designed to avoid the decline of species. This includes reforesting the Serra da Arrábida and rehabilitation of the maritime prairies at Portinho da Arrábida" (Annual report, 2007, p. 18).

"Biodiversity management work was launched at the plants, and 2007 also saw the start of the Biomares project, sponsored by Secil, which will involve restoring marine vegetation in the Portinho da Arrábida prairies" (Annual report, 2007, p. 25)

Table 4.8 shows that the range of corporate social disclosures is almost similar in the web page and in the annual report. In the web page it is possible to find 14 different categories and in the annual report it is possible to find 16.

	Annual Report	Web page
A. ENVIRONMENTAL DISCLOSURE		
1. Environmental policies or company concern for the environment	X	X
2. Environmental management, systems and audit	X	X
3. Pollution from business operations	X	X
4. Pollution arising from use of product		
5. Discussion of specific environmental laws and regulations affecting company operations(…)		
6. Prevention or repair of damage to the environment resulting from processing of natural	X	X
7. Conservation of natural resources and recycling activities (e.g. recycling glass, metals, oil		X
8. Sustainability		X
9. Environmental aesthetics		X
10. Conservation of energy in the conduct of business operations	X	X
11. Energy efficiency of products		
12. Environmental other	X	X
B. HUMAN RESOURCES DISCLOSURE		
13. Employee Health and Safety	X	X
14. Employment of minorities or women		
15. Employee training	X	
16. Employee assistance/benefits	X	
17. Employee remuneration	X	
18. Employee profiles	X	
19. Employee share purchase schemes		
20. Employee morale	X	X
21. Industrial relations		
22. Other human resources disclosures		
C. PRODUCTS AND CUSTOMERS DISCLOSURE		
23. Product safety	X	X
24. Product quality		X
25. Disclosing of customer safety practices		
26. Customer complaints/satisfaction		
27. Provision for disabled, aged, and difficult-to-reach customers		
28. Other product and customer disclosures		
D. COMMUNITY INVOLVEMENT DISCLOSURE		
29. Charitable donations and activities		
30. Support for education (e.g. sponsoring educational conferences and seminars (…)	X	
31. Support for the arts and culture (e.g. sponsoring art exhibits)	X	X
32. Support for public health (including aid to medical research)	X	
33. Sponsoring sporting or recreational projects		
34. Other community involvement disclosures		

Table 4.8 – Categories range in Secil's web page and Secil's annual report

As reported in Table 4.9, Secil uses its annual report mainly for two purposes regarding CSR: to offer information about environmental issues (44%) and about human resources (51%). Products and customers have no expression in annual reports. Against what we expected, community involvement theme, has only 3 sentences referring to 3 different issues: support for education; support for arts and culture; and sponsoring sporting or recreational projects. Looking at other Secil's sources such as newsletters, internal documents, conference presentations and newspapers news, we find that Secil is a company with a large range of community initiatives and therefore, we expect to have more details about them in the annual report. The company identifies these initiatives but does not give details about them (but these topics are detailed in the sustainability report).

	Annual Report		webpage	
	2007	%		%
A. ENVIRONMENTAL DISCLOSURE				
1. Environmental policies or company concern for the environment	2		17	
2. Environmental management, systems and audit	2		17	
3. Pollution from business operations	19		11	
6. Prevention or repair of damage to the environment resulting from processing of natural resources	3		36	
7. Conservation of natural resources and recycling activities			3	
8. Sustainability			14	
9. Environmental aesthetics			1	
10. Conservation of energy in the conduct of business operations	2		1	
12. Environmental other	7		10	
TOTAL	**35**	**44%**	**110**	**70%**
B. HUMAN RESOURCES DISCLOSURE				
13. Employee Health and Safety	1		9	
15. Employee training	7			
16. Employee assistance/benefits	9			
17. Employ remuneration	2			
18. Employee profiles	14			
20. Employee morale	7		2	
TOTAL	**40**	**51%**	**11**	**7%**
C. PRODUCTS AND COSTUMERS DISCLOSURE				
23. Product safety	1		8	
24. Product quality			3	
TOTAL	**1**	**1%**	**11**	**7%**
D. COMMUNITY INVOLVEMENT DISCLOSURE				
30. Support for education	1			
31. Support for the arts and culture	1		26	
33. Sponsoring sporting or recreational projects	1			
TOTAL	**3**	**4%**	**26**	**16%**
	79		**158**	

Table 4.9 – Incidence of issues recorded in the Secil's annual report and in the Secil's web page

Secil discloses 35 sentences about environmental issues in the 2007 annual report. 19 sentences are about topic 3: pollution from business operations. Looking at the content we can conclude that almost all this information is about the co-incineration process. However it is possible to note that in Secil's web page, 110 sentences were disclosed about environmental issues. As referred, although co-incineration is not the top issue in the web page, many files are available for download. It is possible that these results for the environmental disclosure information levels in annual report are due to differences in the company's responses to calls for greater environmental disclosure by corporations world-wide. As Secil was involved in a programme of the International Standards Organization's (ISO 14001 Standard), after 2005, and in the Global Reporting Initiative

(GRI), it published its sustainability report according to GRI guidelines for the first time in 2005[51]. These programs, developed largely in the 1990s, encourage greater corporate environmental disclosure. In fact, as Patten and Crampton (2004, p. 50) argues, companies involved in these programs might be expected to exhibit higher levels of environmental disclosure, but the question is: does it means that Secil decide to "move" information from the annual report to the sustainability report?

To assure that the results reported are not being driven by this question, an additional content analysis was conducted. A longitudinal analysis of Secil's annual reports from 1997 to 2007 was conducted, using the same framework (Appendix 4.1). Only the environmental theme was analysed as it is the one that shows more disparity between web page and annual report disclosure and we want to examine the degree of information that was published in the annual reports after the sustainability report was published.

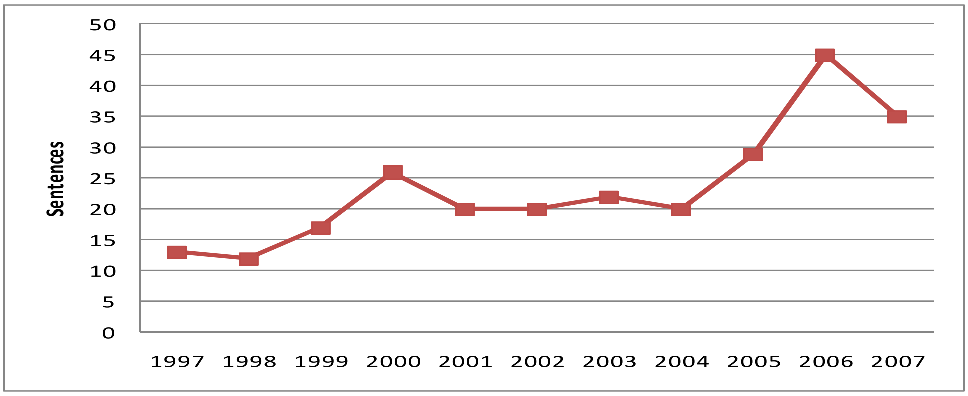

Figure 4.1 – Environmental disclosures included in the annual report of Secil over the period of 1997-2007

Figure 4.1 shows the evolution of environmental disclosure in Secil's annual reports from 1997 to 2007. Since 1997 the tendency of environmental information disclosure in annual report is to grow (except from 2006 to 2007). From 2005 to 2006, contrary to what we except, the environmental information on the annual report is to grow (except from 2006 to 2007). From 2005 to 2006, contrary to what we expected, the

[51] Sustainability report (2005, p. 21) explains that "this document has been drawn up on the basis of the guidelines of the Global Reporting Initiative (GRI, 2002) and the concerns expressed by our major stakeholders. Also taken into account were the indicators recommended by the Cement Sustainability Initiative (CSI), a voluntary initiative implemented by multinational companies operating in the industry with a view to including the sustainability problem into the international cement industry's agenda within the scope of the World Business Council for Sustainable Development (WBCSD)."

environmental information on the annual report grew from 29 sentences to 45 sentences, what leads us to conclude that Secil did not “move” information from the annual report to the sustainability report.

A. ENVIRONMENTAL DISCLOSURE	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total	%
1. Environmental policies or company concern for the environment	2		4	8	4	3	7	8		6	2	**44**	17%
2. Environmental management, systems and audit	3	4	5	3	4	1		1	3	3	2	**29**	11%
3. Pollution from business operations:	7	5	5	8	6	9	3	11	17	21	19	**111**	**43%**
6. Prevention or repair of damage to the environment resulting from processing of natural resources				2	1	1			4		3	**11**	4%
7. Conservation of natural resources and recycling activities												**0**	0%
8. Sustainability							5			5		**10**	4%
9. Environmental aesthetics												**0**	0%
10. Conservation of energy in the conduct of business operations	1	3	3	5	5	5	7		2	3	2	**36**	14%
12. Environmental other						1			3	7	7	**18**	7%
TOTAL	**13**	**12**	**17**	**26**	**20**	**20**	**22**	**20**	**29**	**45**	**35**	**259**	**100%**

Table 4.10 - Environmental disclosures details included in the annual report of Secil over the period of 1997-2007

Table 4.10 further extends Figure 4.1 indicating the categories of environmental disclosures in annual reports. Again category 3: pollution from business operations, offers more total amount of information (111 sentences during all these years). Analysing the content we conclude that almost all this information regards the co-incineration process. This is consistent with previous results and confirms that Secil has a special intention with regards to giving information about this topic.

Comparison between the information disclosed on the Internet with similar information disclosed in the annual reports (Table 4.8) indicates that only human resources issues are more evident in the annual reports than on the Internet, whereas the reverse happens for environmental, products and customers and community involvement information. The difference is much more relevant in these 3 themes of disclosure. As Zéghal and Ahmed (1990), cited by Branco and Rodrigues, (2008), argue the choice of a medium for information disclosure is dependent on the target public for whom the message is intended. Because annual reports are directed at investors and human resources are an important resource, it is natural for investors to be interested in it. On the other hand,
because company web pages are aimed at a broader public, including consumers and general public it is natural for companies to give prominence to community involvement and environmental information. This is consistent with Branco and

Rodrigues (2008, p. 699) conclusions on Portuguese companies: noticeable differences between web pages and annual reports CSR disclosures "are related to the much higher presence of human resources information in annual reports than on the Internet and the higher presence of community involvement information on the Internet than in annual reports". Although they conclude that Portuguese companies attribute greater importance to annual reports as a disclosure media than to the Internet, this is contrary to Secil's case which follows the opinion of Campbell *et al.* (2003, p. 572) that says that the Internet "is possibly the most powerful means of providing targeted information to specific concerned stakeholders as a legitimation strategy. Certainly the Internet web site of a company has the potential to reach a much wider lay and environmentally-concerned audience (than the annual report)". We conclude that Secil uses a legitimation strategy when communicating to the relevant public through not only its web page but also through its annual report.

Our results are also similar to Frost *et al.* (2005, p. 94) who argue that the corporate website appears to provide a more diverse coverage of CSR issues. This may be explained firstly by the fact that the website can provide larger documents which include company policies. Secondly, the website includes an electronic version of both the annual and the sustainability report. Hence users of the website would also have access to these reports and the information in them. Others reasons can be joined as mentioned in chapter 3.

The conclusion that Secil discloses more CSR on its web page than in its annual report, is also consistent with prior studies (Branco and Rodrigues, 2006[52]) which conclude that companies prefer web pages to annual reports as a medium of CSR disclosure.

[52] Although Branco and Rodrigues (2006) conclude that it depends of the theme: environmental and human resources information is more present in annual reports than on the Internet, whereas the reverse happens with products and consumers and community involvement information, although the difference is insignificant in the latter case. Results suggest that the choice of a medium for information disclosure is dependent on the target public for whom the message is intended.

4.5.3. Legitimacy strategies to communicate with stakeholders through the web page and the annual reports

Legitimacy theory suggests that organisations only exist if the society in which they operate allows it to and they must therefore operate within the value system of the society. For Suchman (1995, p. 574), legitimacy is a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions. Legitimacy theory is based on the idea that in order to continue operating successfully, corporations must act within the bounds of what society identifies as socially acceptable behaviour. Suchman's article examines strategies for gaining, maintaining, and repairing legitimacy as forms of legitimacy. Detailed analysis of the news, in Secil's web page, about co-incineration allow us to conclude that the company is interested in clarifying and give more information about co-incineration of waste processes. Probably because it feels that this issue continues to arouse questions and needs to be clarified. Clearly we see here a strategy to restore the public image of Secil[53]. This is consistent with legitimacy theory arguments that claim that companies use environmental disclosure as a means of repairing public policy pressures. And according to Suchman (1995), Secil uses a strategy for repairing legitimacy.

According to Lindblom (1994, p. 12) much of the voluntary social disclosure issued by corporations may be viewed as efforts at legitimation, meaning, efforts to achieve the status of legitimacy. Corporate efforts at legitimation may utilise four alternative strategies[54] or a combination of the four when faced with different legitimation threats, and each of these will have implications for CSD. We aim to use Lindblom (1994) strategies and understand if they affect the CSD disclosure made by Secil. The four strategies, following Lindblom (1994), which a corporation seeking legitimation may adopt, are:

1. Educate and inform the relevant publics about changed performance. Secil offers in both media much information about the co-incineration process: studies by credible

[53] Campbell and Beck (2004) developed a method for testing for website responses to public allegations of specific ethical malpractice. In future research, this question could be explored in Secil's case.

[54] These strategies are referred by other authors as Gray *et al*. (1995a) and Cooper (2003).

organisations explaining what is the co-incineration process and that it is not detrimental for the health; environmental impact studies relating to the emission produced by this process; open doors initiative when many schools are invited to visit the plants and learn about the process. Another Secil initiative with the purpose of giving more information to the stakeholders is the publication of the "Valorizar Magazine"[55]. This magazine is also available for download in Secil's web page. Download can be found in the same link where Secil offers informative articles about their manufacturing process, co-incineration, environmental impact assessments and others. The publication of the sustainability report could also be seen as an strategy to educate and inform the relevant publics, as Secil publish its first environmental and social report in 2000 (when the co-incineration controversy were still in strong debate). According to Thomson and Bebbington (2005, p. 516) organisations started to produce accounts of their social impacts and they assert that these reports display constitutive educational characteristics that educate readers about the organisation they seek to portray and its interaction with its substantive environment.

These are some of the identified Secil's strategies to educate and inform about a situation that may be representative of a failure in an organisation's performance.

2. Seek to change the stakeholders' perception of events. Secil tries with all the informationit provides, to contradict what newspapers and television said about the co-incineration process.

3. Distracting or manipulating the attention away from the issue of concern. Corporation attempts to associate itself with symbols having high legitimate status – this has been used as the explanation for inviting persons of high legitimate status to serve boards of directors. Following this strategy Secil assembled the Environmental Monitoring Committee composed by many environmental associations, ONG's, universities, and others[56]. It was not for the boards of directors but it was a way of

[55] This magazine is sent by post to a big group of stakeholders (information collected from the interview with the institutional communication responsible department, by phone, as already referred. This conversation allows the author to have the opportunity to clarify a group of questions.

[56] The Environmental Monitoring Committee is formed by the following organisations, that have monthly meetings: Associação Empresarial da Região de Setúbal (AERSET); Câmara Municipal de Setúbal; Delegado de Saúde do Concelho de Setúbal; Escola Superior de Tecnologia de Setúbal; Hospital do Sant'Iago Outão; Junta de Freguesia de Nossa Senhora da Anunciada - Junta de Freguesia de S.

having persons and organisations with high legitimate status producing issues statements and studies about the tests for co-incineration of hazardous industrial waste. Other action regarding to this strategy (as Gray *et al.*, 1996, p. 46) is to concentrate on some positive activity. Secil signs collaboration and funding agreements with a number of cultural sporting and social welfare associations in Setúbal. As Campbell *et al.* (2003, p. 572) argue, advertising sports and arts sponsorship have been used to heighten brand awareness and (arguably) to enhance the reputation of the company itself.

Furthermore, Secil celebrated a Protocol with 80 Setúbal Collectivities in 2008 connected with social responsibility. The slogan is "what interests Setubal, interests Secil". According to Lindblom (1994), many times companies celebrate protocols with high legitimate status organisations to legitimate their activities. Secil has faced two important public questions that could affect Setúbal's population: (1) Outão site (the biggest Secil plant) is installed within the limits of the Natural Park of Arrábida. Arraáida is a protected area and therefore, many organisations protest and act against Secil's location since Secil belongs to an environmental sensitive industry; (2) the co-incineration controversy. So the celebration of this protocol with Setúbal's collectivities is another legitimation strategy.

4. Changing expectations about the company.

Secil has been promoting an open doors week since 2003. This can be understood as legitimacy strategy as they want to show the company to society at large by saying that they are transparent. This was the speech of the Secil's sustainability department director in a public conference[57]. As Secil was pointed out as a company that is doing something detrimental for the health, they want to clarify that the co-incineration process is not harmful to the health and they want to let all people see exactly what they are doing. So Secil can change the negative expectations from the relevant public by giving them the opportunity to visit its main plant.

Lourenço; Junta de Freguesia de S. Simão; Liga dos Amigos de Setúbal e Azeitão (LASA); Parque de Campismo do Outão; Parque Natural da Arrábida; *Quercus* – Associação Nacional de Conservação da Natureza; Região de Turismo da Costa Azul; Serviço Municipal de Protecção Civil; Subregião de Setúbal da Administração Regional de Saúde de Lisboa e Vale do Tejo.

57 IIIrd GECAMB – Conference on environmental management and accounting – the Portuguese CSEAR conference, Leiria, Portugal, September 2008.

Identifying and codifying the different Secil's actions in these four strategies, has presented the author with some doubts, but still she tried to be as objective as possible. As Lindblom (1994, p. 17) argue: "at a point of time a corporation may engage in different legitimation strategies with regard to different issues, thereby making generalisations about the resulting CSD for a particular entity difficult. Similarly, these strategies are probably not developmental in any sense, in that one would not expect to see a particular progression from one strategy to another". Cooper (2003, p. 241) adds another difficulty: "if we use this (Lindblom, 1994 strategies) as a structure for Internet reporting, each can be seen as a possible motivation for their reporting. Certainly on environmental issues companies can be seen to be providing information on performance and target improvements for the future." But completes: "however, the voluntary nature of all of the Internet reporting really allows the opportunity for the companies to choose what is given attention and what isn't."

We can conclude that the explaining of CSR disclosures by Secil in its web page and also in its annual report is thus some support for the use of legitimacy theory[58] strategies. According to our analysis it looks like Secil undertook a reactive legitimation strategy in some actions and a proactive one in others.

4.6. Conclusion and final remarks

This study identifies the CSR information disclosed on Secil's web page and compares this information to the annual report CSR disclosure, in order to analyse the use of the Internet and the annual report as medium for communicating CSR information. This study also aims to identify legitimacy strategies, according to Lindblom (1994). A single case study was conducted on a Portuguese large cement company (Secil).

Evidence seems to suggest that Secil uses the Internet as a medium to disclose CSR information. As argued by Ashbaugh *et al*. (1999, p. 242), the variation in the contents of the web sites suggests that companies have different reasons for establishing an

[58] Stakeholder theory can be employed too, although Gray *et al.* (1996, p. 46) suggest that "while stakeholder theory can be used to explain some CSR (Corporate Social Reporting) practice, legitimacy theory can be used to explain a little more." And add that basically, legitimacy theory takes a second variant of stakeholder theory and adds conflict and dissention to the picture. So we consider legitimacy theory a more suitable theoretical framework to Secil strategies.

Internet presence. For example, some companies' web sites are restricted to online commerce (e.g., product promotion and acquisition) while other companies' web sites disclose information to enhance their corporate image (e.g., environmental questions, employment opportunities, philanthropic activities). Secil can be included in the last group as results suggest that it is possible to find a large amount of CSR information on Secil's web page (44% of the total information on Secil's web page is about CSR issues). The highlight's section is the preferred one by the company to give the most important information to their stakeholders and, environmental issues are the top theme either in the highlight section or in the different other sections of the web page.
When comparing to annual reports, our results suggest that Secil discloses more social responsibility information on its web site than in its annual reports. The top discussed issue in both media is the environmental one. Agreeing with Patten and Crampton (2004), our study indicates that corporate web pages appear to be adding at least some additional, and in its majority non-redundant environmental information beyond what is provided in the annual reports. This happened not only to environmental issues, but also to community involvement and products and consumers. Only human resources information is more evident in annual reports than on the Internet. The choice of the medium for information disclosure is dependent on the target public for whom the message is intended. Because annual reports are directed at investors and human resources are an important resource, it is natural for investors to be interested in it (Branco and Rodrigues, 2008). On the other hand, because company web pages are aimed at a broader public, including consumers and general public, it is natural for companies to give prominence to community involvement and environmental information.

An interesting result is related with community involvement theme. Secil only gives details about award initiatives and even though it has much more community involvement initiatives, they are not well documented either in the web page or in the annual report. Some are referred to but not detailed. Contrarly environmental issues and especially co-incineration processes, are well documented.

Although Branco *et al*. (2008) conclude that Secil (contrarly to Cimpor) does not appear to have changed significantly its environmental disclosure practices when faced with the co-incineration controversy, our study concludes that Secil directly addresses this issue both in annual reports and in the web page, giving much information to the stakeholders. We, also, conclude that is thus some support for the use of legitimacy theory[59] strategies to explain CSR disclosures by Secil in its web page and in its annual report, following the four legitimation strategies identified by Lindblom (1994).

4.7. Limitations and future research

This study tries to overcome the limitation of ignoring other possible forms of communication besides the annual report by examining social responsibility disclosure on corporate web sites. However, sustainability reports were not considered, though in paper 4 we take this important source of CSR disclosure into consideration.

As further research, it could be interesting also to do a similar analysis with a large group of companies and not just a single case study because it is necessary to provide a more complete picture of CSR disclosure strategies by Portuguese companies. A study similar to that of Ashbaugh (1999) will be welcomed (but for SRD and not for financial information). Another area of future research that the present study highlights is the media exposure and how the organisation answers to public pressure, as Champbell and Beck (2004) did. Other studies that explore the media exposure are Deegan *et al.*(2002); Bewlwy and Li (1998); and Dejean and Oxibar (2007).

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Appendix 4.1: Checklist of categories of social responsibility disclosure used in this study

The following is a taxonomy of the types of corporate social responsibility disclosure that form the substance of the content analysis of web page and annual reports. The list is intended to represent an exhaustive itemization of information with social importance. Adapted from Hackson and Milne (1996); Deegan, Rankin and Tobin (2002); Branco, Eugénio and Ribeiro (2008); William and Pei (1999); and Gray, Kouhy and Lavers (1995b).

CATEGORIES OF SOCIAL RESPONSIBILITY DISCLOSURE

A. ENVIRONMENTAL DISCLOSURE

1. Environmental policies or company concern for the environment
   - actual statements of policy, statements of formal intentions, commitments and targets;
   - reference to compliance with statutory or regulatory provisions;
   - general statements of the "the company will, the company does" nature;
   - reference to compliance with voluntary codes of best practice, industry codes, charters, voluntary schemes and initiatives, etc.
2. Environmental management, systems and audit
   - environmental management systems (including references to total quality management (TQM), ISO 14000 series, Eco Management and Audit Scheme – EMAS, etc.);
   - reference to environmental review, scoping, audit, assessment including independent attestation.
3. Pollution from business operations:
   - air emission, water discharge, and solid waste disposal information;
   - discussion or mention of the company's pollution control equipment, facilities or processes;
   - statements indicating that the company's operations are non-polluting or that they are in compliance with environmental laws and regulations;
   - statements indicating that pollution from operations has been or will be reduced (e.g. land contamination and remediation);

- statements of past, current or projected capital, operating, and research and development expenditures for pollution control or abatement.

4. Pollution arising from use of product:
   - statements indicating that the company's products are non-polluting or that they are in compliance with environmental laws and regulations;
   - information on the environmental impacts associated with the use of company's products;
   - information on developments related to the environmental impact of company's products, including its packaging, e. g. making containers reusable, biodegradable products/packaging.
5. Discussion of specific environmental laws and regulations affecting company operations and products and of present and potential litigation and penalties related to environmental actions.
6. Prevention or repair of damage to the environment resulting from processing of natural resources, e.g. land reclamation or reforestation;
7. Conservation of natural resources and recycling activities (e.g. recycling glass, metals, oil, water and paper; using recycled paper; efficiently using materials resources in the manufacturing process).
8. Sustainability
   - any mention of sustainability or sustainable development;
   - any reference to future generations, inter- and intra-generational equity, social(eco)-justice, etc.;
   - any mention of plans or attempts to develop systems of accounting for sustainable development, sustainability, full cost accounting, or similar initiatives.
9. Environmental aesthetics:
   - designing facilities harmonious with the environment;
   - contributions in terms of cash or art/sculptures to beautify the environment;
   - restoring historical buildings/structures.
10. Conservation of energy in the conduct of business operations:
    - using energy more efficiently during the manufacturing process;
    - utilising waste materials for energy production;
    - disclosing energy savings resulting from product recycling;

- discussing the company's efforts to reduce energy consumption;
- research aimed at improving energy efficiency of products;
- third party recognition/awards for energy conservation programmes;
- voicing the company's concern about the energy shortage;
- disclosing the company's energy policies.

11. Energy efficiency of products:
    - disclosing increased energy efficiency of products;
    - research aimed at improving energy efficiency of products.
12. Environmental other:
    - references to published environmental reports;
    - undertaking environmental impact studies to monitor the company's impact on the environment;
    - wildlife conservation and protection of the environment (e.g. pest control);
    - environmental awards for the company's environmental record, programmes or policies;
    - public amenity provision;
    - environmental education (e.g. anti-litter campaigns);
    - sponsorship of environmentally related campaigns.
    - CO2

B. HUMAN RESOURCES DISCLOSURE

13. Employee Health and Safety
    - reducing or eliminating pollutants, irritants, or hazards in the work environment;
    - promoting employee safety and physical or mental health;
    - disclosing accident statistics;
    - complying with health and safety standards and regulations;
    - third party recognition/awards related to health and safety;
    - establishing a safety department/committee/policy;
    - conducting research to improve work safety;
    - compensation, litigation or enquiries, related to safety;
    - providing information on industrial action related to health and safety;
    - information/education/training of employees on safety and health related matters;
    - reference to health and safety law and/or inspectorates.

14. Employment of minorities or women

- recruiting or employing ethnic minorities and/or women;
- disclosing percentage or number of minority and/or women employees in the workforce and/or in the various managerial levels;
- employment of youth or local community personnel;
- establishing goals for minority representation in the workforce;
- programmes for the advancement of minorities in the workplace;
- employment of other special interest groups, e.g. the handicapped, ex-convicts or former drug addicts;
- disclosures about internal advancement statistics;
- proposals, plans or initiated actions for equal opportunity, ethnic equality and sexual equality.

15. Employee training

- training employees through in-house programmes;
- giving financial assistance to employees in educational institutions or continuing education courses;
- establishment of trainee centres.

16. Employee assistance/benefits

- providing assistance or guidance to employees who are in the process of retiring or who have been made redundant;
- providing staff accommodation/staff home ownership schemes;
- providing recreational activities/facilities;
- providing scholarships for employees children;
- providing low cost health care for employees.

17. Employee remuneration

- providing amount and/or percentage figures for salaries, wages, pension and social security costs;
- any policies/objectives/reasons for the company's remuneration package/schemes.

18. Employee profiles

- providing the number of employees in the company and/or at each branch/subsidiary;
- providing the occupations/managerial levels involved;

- providing the disposition of staff - where the staff are stationed and the number involved;
- providing statistics on the number of staff, the length of service in the company and their age groups;
- providing per employee statistics, e.g. assets per employee and sales per employee;
- providing information on the qualifications of employees recruited.

19. Employee share purchase schemes
    - providing information on the existence of or amount and value of shares offered to employees under a share purchase scheme or pension programme;
    - providing any other profit sharing schemes.
20. Employee morale
    - providing information on the company/management's relationships with the employees in an effort to improve job satisfaction and employee motivation;
    - providing information on the stability of the workers' jobs and the company's future;
    - expressing appreciation or recognition of the employees;
    - seeking employees opinions and input to planning;
    - providing information on the availability of a separate employee report;
    - third party recognition/awards for effective communication with employees;
    - providing information about communication with employees on management styles and management programmes which may directly affect the employees.
21. Industrial relations
    - reporting on the company's relationship with trade unions and/or workers;
    - reporting on agreements reached for pay and other conditions;
    - reporting on any strikes, industrial actions/activities and the resultant losses in terms of time and productivity;
    - providing information on how industrial action was reduced/negotiated.
22. Other human resources disclosures
    - improvements to the general working conditions - both in the factories and for the office staff;
    - information on the re-organisation of the company/branches which affect the staff in any way;

- the closing down of any part of the organisation, the resultant redundancies created, and any relocation/retraining efforts made by the company to retain staff;
- reporting industrial action associated with a reduction in employees;
- information and statistics on employee turnover;
- information about support for day-care, maternity and paternity leave;
- verified incidences of non compliance with child labour laws;
- third party recognition/awards for child labour practices.

C. PRODUCTS AND COSTUMERS DISCLOSURE

23. Product safety
    - Disclosing that products meet applicable safety standards;
    - Making products safer for consumers;
    - Conducting research on the safety of company's products;
    - Disclosing improved or more sanitary procedures in the processing and preparation of products;
    - Information on the safety of the company's products.
24. Product quality
    - Third party recognition/awards for the quality of the company's products;
    - Verifiable information that the quality of the company's product has increased (e.g. ISO 9000);
25. Disclosing of customer safety practices;
26. Customer complaints/satisfaction;
27. Provision for disabled, aged, and difficult-to-reach customers;
28. Other product and customer disclosures.

D. COMMUNITY INVOLVEMENT DISCLOSURE

29. Charitable donations and activities:
    - donations of cash, products or employee services to support community activities, events, organisations;
    - programs to encourage employee volunteer efforts in the community;
    - aid to disaster victims.
30. Support for education (e.g. sponsoring educational conferences and seminars, funding scholarship programmes or activities);

31. Support for the arts and culture (e.g. sponsoring art exhibits);

32. Support for public health (including aid to medical research);

33. Sponsoring sporting or recreational projects;

34. Other community involvement disclosures:

- summer or part-time employment of students or disabled;
- opening the public facilities to the public.

Appendix 4.2: Decision rules for social responsibility disclosures

Adapted with changes from Hackson and Milne (1996) and Branco, Eugénio and Ribeiro (2008).

1. The disclosure cannot be part of the business (e. g., waste disposal or environmental technology).
2. Discussion of directors' activities is not to be included as discussion on employees.
3. All sponsorship activity is to be included no matter how much it is advertising.
4. All disclosures must specifically relate to the company and its actions. General background information about an action was not considered.
5. One sentence can only have one possible classification.
6. Tables (monetary and non-monetary) that provide information that is on the checklist should be interpreted as one line equals one sentence and classified accordingly. Headings to tables are also classified.
7. Graphs are classified as the heading equalling one sentence, and each bar on a bar graph/point on a line graph/segment of a pie graph, is classified as one sentence of disclosure.
8. Downloads that provide information that is on the checklist should be interpreted as one download equals one sentence.
9. Innovations in products or services should not be included unless they are beyond what is necessary to compete in the marketplace or attract business.
10. Innovations in products or services should not be included unless they specifically benefit the customer (e.g. through safety) or the community or environment (e.g. through recyclable packaging), while also being beyond what is necessary to compete in the marketplace or attract business.
11. Any disclosure that is repeated shall be recorded as a social responsibility disclosure sentence just once.
12. Discussions relating to the quality of goods and services will not be a social responsibility disclosure unless it contains notice of a verifiable change in quality, e.g. accreditation to the International Standards Organisation ISO 9000 quality series standard.
13. Pictures were not considered.

Appendix 4.3- Secil's web page structure (October, 2008)

Note: the numbers were used by the author just for a better understanding of the different levels of the links (numbers do not appear in Secil's web page)

0. Highlights

1.Who we are

1.1.Vision

1.2.The company

1.3.History

2.What we do

2.1.Cement

2.1.1.The History of Cement

2.1.2. How Cement is made

2.2.Construction Materials

2.3.Environmental Industry

3.Where we are

3.1. Secil-Outão

3.1.1. Environmental Monitoring Board

3.1.2. EMB – Tests and Declarations

3.2.Maceira-Liz

3.3. Cibra-Pataias

3.3.1. Environmental Monitoring Board

3.4.Sales Depots

3.5. Secil Worldwide

3.5.1. Tunisia

3.5.2 . Angola

3.5.3. Lebanon

4.Products and services

4.1.Our Products

4.2.Technical Assistance

4.3.Catalogue

4.4.Laboratory

4.5.Health and Safety

5.Secil awards

5.1.Secil Awards

Chapter 5 (paper 4)

Sustainability strategies of Secil company: extending the applicability of legitimacy theory

Abstract

This study aims to identify the legitimacy strategies employed by our case study company (Secil - one of the largest Portuguese cement companies) to defend and downplay its sustainability performance and activities related to media pressure. To achieve these aims, different data sources were analysed, such as sustainability reports, media articles, press-releases and other material produced by the company. Interviews were also conducted with “sustainability accounting and reporting related” Secil professionals.

This paper underlines legitimacy theory, originating from the notion of a “social contract” between organizations and society. Findings indicate that Secil used repair strategies according to Suchman (1995) to legitimate its actions. It also supports the argument that sustainability disclosures remain a powerful legitimacy tool.

Contributions to the sustainability literature are provided and this study adds to the scarce research on environmental and social responsibility disclosure by Portuguese companies.

Keywords
Sustainability, Case study, Portugal, Media pressure, Interviews, Sustainability reports, Legitimacy theory.

5.1. Introduction

"Accountants must understand their own ethical position as well as their definition of the environment. This understanding can help them extend accounting practice to meet current social needs and maintain professional legitimacy."

Mathews and Reynolds (2001, p. 79)

Recent years have witnessed the increasing prominence of expressions such as sustainability or sustainable development, which have become important issues within the political and organisational agenda. Undoubtedly, the publication of the Brundtland Report in 1987 and the subsequent Summits of Rio and Johannesburg supported by the United Nations have helped to bring about the development of a shared consciousness about the need to reflect deeply on the ways society can contribute to social welfare without threatening survival of the earth (Moneva *et al.*, 2006, p. 123).

Sustainable development (hereafter SD) is currently a powerful global counter-narrative to contemporary western lifestyles and forms of governing societies (Russell and Thomson, 2008). In fact, some decades ago, under the traditional businesses approach, ecological and social issues were ignored in management objectives because they were not visible or did not have a significant financial impact. After the Brundtland Report, sustainable development was a concept implemented by corporations and business organizations. Some companies are considering embracing SD or sustainability at a strategic level, as they see clear synergies between value creation and attempts to contribute to SD (Moneva *et al.*, 2006). Sustainable development is constructed as a win-win concept, which allows society to enjoy economic growth, environmental protection and social improvements with no trade-offs or radical restructurings in the social order (Laine, 2005).

Social and environmental accounting and reporting (hereafter SEAR) plays a relevant role in this context to analyse sustainability performance of the organizations and has been a relevant subject in the academic literature (Gray *et al.,* 1996). Some authors give special attention to accounting for sustainable development such as Bebbinton (2001); Gray and Bebbington (2001); Lamberton (2005); Adams and Frost (2008) and Gray

(2002). Research linking accounting to the emerging concept of sustainability surfaced in the early 1990s and has received continuing attention in academic and professional accounting literature. Sustainability accounting draws its social dimension from the evolving definition of sustainability, which includes the goal of intergenerational equity, usually interpreted as the elimination of poverty (Lamberton, 2005)[60].

While noting that the literature surrounding the concept of SD is vast and diverse, what is most pertinent for the purposes of this paper is that SD encompasses a concern for human activity and the social, environmental and economic outcomes of those activities within the context of particular societies. SD, therefore, encompasses a great deal more than a concern for the 'environment' and poses questions which go to the heart of how current systems operate, including business and accounting systems (Bebbginton and Gray, 2006). Still, it is necessary to point out the importance of understanding the different concepts. As argued by Bebbginton (2001, p. 143), SD has been considered within the accounting literature in the context of SEAR as both areas consider the same range of issues, namely the social and environmental impacts of corporate activity.

This study aims to identify the legitimacy strategies employed by one of the largest Portuguese cement companies to defend and downplay its sustainability performance and activities related to media pressure. Secil operates in an environmentally sensitive industry where management is constantly exposed to ethical and social issues. The company also faces media pressure regarding to two major controversies: co-incineration and the Outão plant location.

Following the more recent stream of qualitative studies (Larrinaga and Bebbington, 2001; Larrinaga *et al.* 2001; Adams, 2002; Deegan and Blomquist, 2006; O'Dwyer, 2003, 2005; Cho, 2009) we have based our study on a case study. Secil company was selected for at least two reasons. Firstly, Secil constantly faces ethical and social issues as it operates within an environmentally sensitive industry. Secondly, Secil has faced

[60] Lamberton's (2005) study consolidates the various approaches into a sustainability accounting framework. This paper views the development of sustainability accounting through the lens of the traditional financial accounting model. And conclude that sustainability accounting in theory and in practice, exhibits some of the attributes of the traditional financial accounting model. Although much work is required for sustainability accounting practice to achieve the rigor and integrity defined by the list of financial reporting qualitative attributes.

public pressure as it has been involved in the co-incineration process and because its main plant is placed in the limits of a Natural Park (Arrábida). Therefore Secil's image and reputation was threatened. Legitimacy theory, originating from the notion of a 'social contract' between organizations and society, is used. According to the legitimacy theory, a company's performance is legitimate when it is judged to be fair and worthy of support, that is, when it is socially accepted. Legitimacy gaps arise when societal expectations of the firm's behaviour differ from societal perceptions of its behaviour. In these circumstances society could revoke the organization's 'contract' to continue its operations (Deegan, 2002). This paper underlines legitimacy theory, identifying the legitimacy strategies adopted by Secil, as an answer to the media pressure. To achieve this propose firstly we evaluate the public pressure by analysing media articles referring to environmental and social issues regarding Secil. This allows us to identify the extent of public concerns and the topics referred by the media. Secondly, sustainability reports were analysed in order to identify Secil sustainability discloses practices and semi-structured interviews were conducted to complement the case analysis. Finally repair legitimacy strategies were identified defined according to Suchman (1995).

The aggregate findings of the analysis support the legitimacy argument. They provide additional evidence that corporations use sustainability disclosure as a tool for responding to corporate crises (see Patten, 1992; Branco *et al.,* 2008) or to social pressure driven by negative media coverage (Brown and Deegan, 1998; Dejean and Oxibar, 2007; Garcia and Larrinaga, 2003). Although, in this case, there is also some positive media coverage as co-incineration is a legal process. This is a situation in which companies are placed in the spotlight and see their legitimacy threatened not because they have done something detrimental to the environment but because the potential for detrimental environmental impacts resulting from their activities became the focus of the public and media attention.

The paper adds to the scarce research on sustainability disclosure and practices by companies by providing new empirical data and by answering to different calls for the development of research in this field, see namely Gray (2002), Thomson and Bebbington (2005), Parker (2005) and Adams and Larrinaga (2007). The Commission of the European Communities (2006) also proposed actions to promote further take-up of Corporate Social Responsibility (hereafter CSR) practices and points out that there is a need for more interdisciplinary research on CSR (p. 7)[61]. Laine (2005) reports on the recent calls to move beyond descriptive research towards studies which would create a more qualitative understanding of what the reports are actually saying and what companies are doing. This paper also aims to answer to this call by studying Secil's case and its sustainability reporting processes. In addition, it contributes to understand the companies' behaviours when face to legitimacy gaps and how they act to restore their legitimacy.

This paper is organized as follow: section 2 introduces the different meanings attached to the term "sustainability" and "sustainable development". Section 3 provides a discussion on managing corporate legitimacy, situates the paper within the legitimacy framework, and offers a description of corporate legitimation strategies. Section 4 describes our empirical data and research methods adopted. In section 5 we present and analyse the evidence gathered from our analysis of media articles, sustainability reports and interviews. Legitimacy strategies adopted by Secil are explained in section 6. Finally, some concluding remarks are made and potential future research avenues are suggested.

5.2. Sustainable development and reporting: What do we know?

As our purpose is to identify sustainability Secil's strategies we first explore some prior literature research about sustainability development topic and what it means.

Sustainable development is constructed as a win-win concept, which allows society to enjoy economic growth, environmental protection and social improvements with no trade-offs or radical restructurings in the social order (Laine, 2005, p. 395).

[61] The Commission of the European Communities (2006), besides other aspects, refers to education in further promoting CSR, as we also have responsibility as educators/ teachers/ researchers. This document defends education for CSR to become a mainstream business practice. The right knowledge and skills need to be developed among future entrepreneurs, business leaders, company managers and employees. CSR is also a lifelong learning issue. The Commission invites business schools, universities and other education institutions to incorporate CSR into education, as a cross-cutting issue, in particular into the curricula of future managers and graduate students" (p. 7).

Sustainable development (SD) is currently a powerful global counter-narrative to contemporary western lifestyles and forms of governing societies. Although sustainable development has formed part of the publicly stated ideals of many individuals, businesses, NGOs and governments; there was (and still is) significant confusion and contestation over its meaning and implementation (Russell and Thomson, 2008, Bebbington and Gray, 2001; Moneva *et al.,* 2006; Bebbington, 2001; Laine, 2005; Husillos *et al*. 2008). There are authors that use SD or sustainability interchangeably (Moneva *et al.,* 2006). Other authors, such as Bebbington and Gray (2001) note that sustainability could be considered a state, and SD a process by which human activity moves towards sustainability. In this study the term is used interchangeably.

The concept of SD is used to motivate various political, legal and economic initiatives which seek to resolve the social, environmental and economic problematic which, as occupants of our planet, we currently face. At the same time, it is clear that the phrase SD has been used to mean different things to different people in different contexts (Bebbington, 2001, p. 129). Bebbington's paper discusses the language and meanings of SD and she argues that there is a need to be quite clear about what the concept may or may not entail in order to better understand the rhetoric around the term. Her essay seeks to move towards just that[62]. Moneva *et al*. (2006, p. 123) have a similar opinion: "the only thing about sustainability that academics seem to agree upon is that there is no clear meaning or definition and this is part of the problem and part of the attraction for policy-makers and lobbying groups. Sustainability can be made to mean what one would like it to mean." They give a different example from company reports with different perceptions about SD.

To clarify this concept, Bebbginton and Gray (2006), go to the history and say that while the idea of SD has a long history, it is usual to date back the arrival of the concept to the public and to the public policy consciousness to 1988 when the Brundtland Report was published. The Brundtland Report was the outcome of a process which

[62] See Bebbinton (2001), for more details about the origins of sustainability debate; how the term SD has come to be used within accounting, business and SD literature. Laine (2005) therefore aims to shed more light on how the concept of sustainable development is used in the business context by analysing how it is constructed in the disclosures of Finnish listed companies.

sought to identify the critical problems which faced the world and to propose a solution to these problems. Although it is possible to find many definitions of SD in the academic literature and in institutional documents, the most widely accepted is the one proposed in the Brundtland Report: "*Development that meets the needs of the present without compromising the ability of future generations to meet their own needs"*. This definition under specifies SD to a considerable degree and there is a vast and diverse literature which seeks to suggests how the Brundtland Report definition of SD may be operationalised (Bebbginton and Gray, 2006).

In Secil's 2007 sustainability Report (p. 13) we can find a similar definition: "Sustainable development: *Development that satisfies present needs, without compromising the capacity of future generations to satisfy their own needs"*. In the interviews, when questioned about what they understand by SD, interviewees almost always answer with a similar definition to that of Brundtland. What this probably means is that this definition is simple, easy to memorize,and understandable for the majority of people.

SD places the economic life of the organization at the centre of the debate and calls for a fundamental rethink of how society organises and conducts itself. It combines social, environmental and economic concerns. Gray and Bebbington (2001), make us think about some questions in order to identify sustainability: 1. Sustainability for what? 2. Sustainability for whom? 3. Sustainability in what way? 4. Sustainability for how long? 5. Sustainability at what level of resolution? These questions are important when we talk about SD and can help in having a more clear idea about what sustainability could mean to the organizations (for more details about this topic read chapter 14 from Gray and Bebbington, 2001)

Laine (2005, p. 402) adds some ideas introducing different meanings attached to the term 'sustainable development' in the disclosures. Firstly, sustainable development and further economic growth are constructed as compatible and mutually reinforcing and, thus, sustainable development is represented as a way to solve social and environmental problems without limiting growth. This first idea follow the Brundland SD concept already mentioned. Secondly, contributing to sustainable development is constructed as being something that all responsible business actors will do voluntarily. Interview findings allow us to agree with this idea. Thirdly, instead of the usual complexity, in the disclosures sustainable development is reduced to a simple process, to which one can contribute by following certain principles.

Kok *et al.* (2001, p. 286) cited by Snider *et al.* (2003, p. 175) add that the CSR, in a sustainability view, describes the relationship between business and the larger society. Viewpoints have varied over time and occasionally are even oppositional. Milton Friedman, also cited by Snider *et al.* (2003, p. 176), asking questions such as "Should companies take responsibility for social issues?". He argued that the only social responsibility of business is to increase profits by legal means. Consequently, the use of organisational resources for the larger good, such as donating to charities, is detrimental to firms since it may decrease profitability or increase product prices or both (Snider et al., 2003, p. 176). Even though it is not the purpose of this paper, to discuss this question, we were surprise to conclude that none of the interviewees has doubts about companies' social responsibility. For them it is completely natural that companies do that. In Secil's case, 3 of them remember the social actions of Secil in the 1960's decade, like building schools and social and recreative sports facilities for the employee's families. And they refer many other social actions.

It is important that companies communicate how they integrate sustainability concepts in their decisions and inform the stakeholders about their sustainability projects/ actions. Thus recent emphasis has been put on the integration of ethical, social, environmental and economic, or sustainability issues within corporate reports. This has been referred to as "triple bottom line", or "sustainability" reporting. The movement towards integrating these issues in reporting is evidenced by the publication of more comprehensive corporate sustainability reports supported by guidelines such as those of the Global Reporting Initiative (Adams and Frost, 2008, p. 288) [63].

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[63] Adams and Frost (2008) examine the process of developing key performance indicators (KPIs) for measuring sustainability performance and the way in which sustainability KPIs are used in decision-making, planning and performance management. The findings indicate that the organisations are integrating environmental indicators, and increasingly also social indicators, into strategic planning, performance measurement and decision-making including risk management. However, the sustainability issues on which our sample is focused and the management operations on which they impact vary considerably. This has implications for the development of practice, voluntary guidelines and legislation.

With regard to voluntary reporting stands, there are two significant organizations involved in their development at an international level. There are the Institute of Social and Ethical AccountAbility (AccountAbility), formed in 1996; and the Global Reporting Initiative (hereafter GRI) formed in 1997. Both are international, multi-stakeholder organizations with greatest influence from Western developed nations (Adams, 2004, p. 735). Secil follows the latter guidelines (GRI) in its sustainability report. Thus, we briefly describe this process.

The Global Reporting Initiative (hereafter GRI) describes itself as a multi-stakeholder process and independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines. Its guidelines are for voluntary use by organizations for reporting on the economic, environmental, and social dimensions of their activities, products, and services based on reporting principles (KPMG, 2005, p. 43). Some organizations, such as BCSD Portugal has made strong contributions in encouraging the publication of sustainability reports from Portuguese companies. Secil is a BSCD associate.

Many researchers agree that the GRI is the most relevant institution in the sustainability reporting context (Thomson and Bebbington, 2005; Moneva *et al.*, 2006; Bebbginton and Gray, 2006; Adams, 2004). Some studies look carefully into these guidelines and assess the company's disclosure according to them (Adams, 2004; Moneva *et al.,* 2006 and Lamberton, 2005). Nowadays, more than 920 reporters from 34 countries are publishing a sustainability report based on GRI sustainability guidelines[64] (for more details about this sustainability reporting process see G3 GRI Sustainability reporting guidelines, 2006).

This process reply on reporting principles for defining quality, such as reliability; clarity; timeliness; accuracy; comparability and balance (GRI, 2006, p. 13), although there remains concern about the limited adoption of an integrated reporting, the completeness and credibility of these reports (Adams, 2004) and the motives of

[64] These data were extracted from the data base available in GRI web page, in March 2009 (www.globalreporting.org). In this data base we could find 19 registed Portuguese companies. Although more than 19 Portuguese companies already published a sustainability report, according to BCSD and KPMG studies.

managers in preparing them (O'Dwyer, 2003; Adams and Frost, 2008). Some findings about these questions with regard to Secil company are given in section 5.5.

5.3. Managing corporate legitimacy – Theoretical framework

Over the years, social scientists have offered a number of definitions of legitimacy, with varying degrees of specificity. In one of the earliest genuinely organisational treatments, Maurer (1971, p. 361) gave legitimacy a hierarchical, explicitly evaluative cast, asserting that "legitimation is the process whereby an organization justifies to a peer or superordinate system its right to exist" (cited by Suchman, 1995, p. 573).

For Suchman (1995, p. 574), legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions. Legitimacy theory is based on the idea that in order to continue operating successfully, corporations must act within the bounds of what society identifies as socially acceptable behaviour. Lindblom (1994) says that organisational legitimacy is a concept which has the potential to add insight into the nature of social disclosure provided by corporations and into the nature of the use of such disclosures by the public.

Legitimacy theory continues to be extensively referenced, developed and tested throughout a vast number of SEA empirical studies[65] to explain corporate decisions related to social and environmental disclosures (see for example Patten, 2002; Deegan and Rankin, 1996; Neu *et al.,* 1998; Deegan *et al.*, 2002; Patten and Crampton, 2004; Cho and Patten, 2007; Cho 2009; Branco *et al.*, 2008). However Guthrie and Parker (1989) failed to confirm legitimacy theory as the primary explanation for corporate social disclosure.

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[65] Although legitimacy theory is used by many authors and might provide useful insights, Deegan (2002, p. 298) argues that it can still be considered to be an under-developed theory and point different "gaps" in the literature which embraces legitimacy theory. We consider that different theories can be used to explain corporate social disclosure by companies but probably all have gaps: to overtake this question some studies uses the combination of more than one theory (Buhn, 1998; Rahaman *et al.,* 2004; Cooper, 2003).

According to the legitimacy theory, a company's performance is legitimate when it is judged to be fair and worthy of support, that is, when it is socially accepted. Legitimacy gaps arise when societal expectations of the firm's behaviour differ from societal perceptions of its behaviour. In these circumstances society could revoke the organization's "contract" to continue its operations (Deegan, 2002). A process of legitimation may be engaged in by a company either to gain or to extend legitimacy, to maintain its level of current legitimacy, or to repair or to defend its lost or threatened legitimacy (O'Donovan, 2002, p. 349). Legitimacy requires a reputation that must be retained, that is, it requires a company to convince its relevant publics that its activities are congruent with their values therefore, companies are supposed not only to have activities which are congruent with social values but also to communicate that their activities are congruent with such values (Branco *et al.,* 2008, p. 138). Deegan (2002, p. 296), argues that where managers perceive that organization's operations are not commensurate with the "social contract" then, pursuant to legitimacy theory, remedial strategies are predicted (that is what happened with Secil). Because the theory is based on perceptions, any remedial strategies implemented by managers, to have effect on external parties, must be accompanied by disclosure. That is, information must be necessary to change perceptions.

When society is not convinced that an organisation is operating in an acceptable or legitimate manner, then society will effectively revoke the organization's "contract" to continue its operations (Deegan, 2002, p. 293). A legitimacy gap exists when there is an incongruence between a corporation's actions and the society's perceptions of what these actions should be (O'Donovan, 2002). Issues such as industrial conflict, social and environmental incidents, fraudulent or unethical management behaviour may threaten corporate legitimacy. If a company is seen to lack legitimacy then, at best, profits are short-term. For example, consumers can reduce or stop the demand for its products; the supply of resources being used, such as financial capital and labour, can be limited, and legal restrictions on its operations may result (Deegan, 2002; Branco *et al.,* 2008). The penalties for the lack of legitimacy may be economic, legal or of social nature (Dowling and Pfeffer, 1975, p. 122). Because of the perceived detriments to the corporation, which in an extreme situation could be a threat to the survival of the corporation, the corporation may a wish to evaluate its legitimacy status and communicate that status to the relevant publics or they may engage in legitimation efforts (Lindblom, 1994, p. 4). The purpose of this case study is to shed light on the sustainability legitimation strategies employed by Secil to defend and downplay its activities when a legitimacy gaps appeared from media pressure.

Some particular papers have been regularly quoted within the literature about legitimation tactics/ techniques chosen by the organization to gain, maintain and repair their loss of legitimacy and they were also very important to our study. These paper are: Suchman (1995); Lindblom (1994); Dowling and Pfeffer (1975); Deegan (2002); and O'Donovan (2002). Legitimation strategies were defined according to them, focusing in Suchman (1995) strategies.

Suchman (1995) examines strategies for gaining, maintaining and repairing legitimacy. He identifies the challenges and the strategies of these 3 forms of legitimacy management. He argues that not all legitimation attempts meet equal success although he examines some ways in which such efforts may go awry (for more details see Suchman, 1995, p. 586 and following).

It is acknowledged that legitimacy is conferred by outsiders to the corporation, but may be controlled by the corporation itself. It is posited that once legitimacy is threatened, a corporation will embark in a process of legitimation targeted primarily at those groups perceived to be its "conferring publics", those who have the necessary stakeholder attributes to confer or withdraw legitimacy (O'Donovan, 2002, p. 347). Terms such as relevant publics (Buhr, 1998; Lindblom, 1994; Neu *et al.,* 1998), constituents and social actors have been used to describe stakeholders who may be potentially influential in determining an organisation's legitimacy.

Following O'Donovan (2002, p. 348), if a corporation consciously changes its activities, one would assume that managers would be aware of possible effects on legitimacy caused by these changes. In some circumstances, however, identifying the status of one's legitimacy can be difficult because a corporation could loss legitimacy even though it does not change its activities. This may happen because: (1) of a change in the composition of its conferring publics; (2) its conferring publics' values alter because of: evolving social awareness; regulatory or institutional pressures; media influences;

interest group pressures; corporate crises. In Secil case we can recognize all the items in (2). In this context we aim to identify the purpose of the strategies used to legitimacy threats: gain, maintain or repair according to Suchman (1995).

5.4 Research Method

5.4.1. Case Study

A single case study methodology for the empirical research is employed. This follows a number of calls for the use of case study research in the social and environmental accounting literature (Parker, 2005). Other studies use this methodology but with different purposes, such as Deegan *et al.* (2002); Larrinaga (1999); O'Dwyer (2005); Jones (2003); Lamberti and Lettieri (2008); Adams (2004); Unerman (2000); Rahaman *et al.* (2004); Lamberton (2000); Ball (2005); Adams and Kuasirikun (2000); Moerman and Laan (2005) and Larrinaga and Bebbington (2001). For details about these studies see paper 1 and 2.

Case study consists of a detailed investigation, often with data collected over a period of time, of a phenomenon, within their context. The aim is to provide an analysis of the context and processes which illuminates the theoretical issues being studied. The phenomenon is not isolated from its context but it is of interest precisely because the aim is to understand how behaviour and/ or processes are influenced by, and influence context (Hartley, 2004, p. 323). Yin (2003, p. 13) describes a case study as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident." This research followed some of the steps suggested by Ryan *et al.* (1992) and Yin (2003) when conducting case studies. They are: 1. developing a research design; 2. preparing to collect data; 3. collecting evidence; 4. assessing evidence; 5. identifying and explaining patterns. Some steps were not followed in a sequential order, but in an interactive way. The main steps adopted throughout this investigation are described below.

For our case study Secil company was selected. Secil was founded in 1918 and is today one of Portugal's leading cement producers. With an annual output of about 4 million tons of cement, it meets more than 35% of the country's demand for cement. Secil heads a corporate group with operations in Portugal, Spain, France, Tunisia, Angola, Lebanon and Cape Verde. The scope of this study is the 3 cement production plants in Portugal that represent 69% of the volume of sales of the group. These 3 plants function independently according to Secil's sustainability reports, webpage and other documents. Secil employs a total of 690 workers in these 3 plants.

This company was selected for at least three reasons. Firstly, we consider Secil a good company for a case study as it had faced some public exposure and have to react positively to preserve their image near the consumers, the stakeholders and the public in general. Secondly, it has been widely recognised for being socially responsible towards the environmental and the local community. Thirdly, we had the possibility to make a research protocol with the administration and have access to different sources of data over a period of two decades.

In this study we aim to examine the sustainability strategies of Secil to do so Secil sustainability reporting practices were analysed. Therefore, we present an overview of the sustainability reporting practices in Portugal. Stand alone reporting in Portugal has been a voluntary practice in that it has not been mandated by law. Whilst legislation is unlikely to lead to increased accountability[66] in Portugal, the duty to account for social and environmental impacts is being increasingly considered and captured by legislators around the word (Adams, 2004).[67]Commentaries on Portuguese sustainability report practices may be found in some studies from different consultant organizations such as KPMG (2005; 2008a; 2008b), Heidrick and Struggles (2008), Delloite (2003), SDC (2008) or in the academic literature (we just find Robers and Koeplin, 2007). Though it is possible to find other studies referring to the Portuguese context in environmental accounting and disclosures (Branco *et al.,* 2008; Ferreira, 2004; Monteiro and Guzmán, 2005; Monteiro, 2006); social responsibility (Branco and Rodrigues, 2008, Branco and

[66] Accountability can be defined as the right to receive information and the duty to supply it. Thus, accountability involves the responsibility to undertake certain actions and the responsibility to provide an account of those actions. The core of accounting for social and environmental factors, which involves the communication of information concerning the impact of an entity and its activities on society lies in this broad conception of accounting" (Moneva et al., 2006, p. 126).
[67] KPMG (2005) present a summary of mandatory requirements in different countries. This list could be very useful to understand what different country seems as mandatory.

Rodrigues, 2006; Branco and Rodrigues, 2005; Branco, 2006); and environmental policy (Cabugueira, 2004).

Some studies have been published about this topic mainly in 2008, what lets us conclude that this issue are in the centre of the debates. They allow us a better understanding of the Portuguese reality and benchmarking with other countries. KPMG (2008b) was designed to examine corporate responsibility reporting trends in the world's largest companies. Portugal joined this study for the first time in 2008. The results show a significant increase in reporting from the Portuguese companies compared to 2006, when a similar study was performed by KPMG but only for Portugal. At that time, Portuguese companies issued either a sustainability report or a chapter in the annual report, a much lower number than today. This increase in reporting is a result of the growing awareness of, and commitment to, sustainability issues among Portuguese companies (KPMG, 2008b, p.89).

More conclusions are presented about the Portuguese case: "since 2005 there has been a significant increase in reporting among the N100 companies operating in Portugal. The leading sectors include companies with high environmental impact, with more than 50 percent of companies reporting information about performance on sustainability issues. (...) Half of the 61 N100 companies that report do not only issue a separate corporate responsibility report. Integrating information into annual reports is often a preferred option due to a lack of resources for reporting and the perception among companies that the effort is not worth the cost of issuing a separate report. Nevertheless, reporting is still considered relevant to these companies. Few corporate responsibility reports in Portugal contain third party comments. This is consistent with the low percentage of reporting companies that have their report externally assured. Although report assurance in Portugal is increasing, companies need to understand the benefits of this process. (KPMG, 2008b, p.89/90).

Another KPMG (2008a) study was called "Risks and opportunities of sustainability development". This study's objective was to identify the degree of maturity of the "sustainable consciousness" by the listed companies, in order to confirm how prepared companies are to include issues such as ethics, environmental and social issues in their business processes. The results confirm that companies are aligned with international trends with regards to the definition of a strategy and targets for sustainable development.

Collecting the data

The first step was to get a general overview of the structure and functioning of the organization (Hartley, 2004). Adams and Laing (2000) defend that it is useful to begin an investigation by gaining an overview of the industry in which the company operates, which might entail studying, for example, the industry's financial and/or social performance and other specific issues relevant to the investigation which affect that industry. Sites about cement industry were accessed such as www.cembureau.be (the European Cement Association); www.aecops.pt (construction companies association); www.atic.pt (ATIC). In a second step, some general company background information was collected (Buhr, 1998). We used a research protocol with the company (a copy of the protocol can be found in Appendix 5.1). It allows us to have free access to different sources, such as advertising material, annual reports from 1994 to 2007; brochures; media information from newspapers, radio and television; press releases; promotional videos; presentations at conferences; different numbers of "Valorizar" (a magazine published by Secil); and different internal documents. Many of these materials were offered by the directors of the institutional communication department; the sustainability department and from the financial department. Secil's webpage was also accessed. At the same time we looked for corporate social, ethical and environmental performance information. According to Adams and Laing (2000), the easiest place to start is with the material which the company itself makes available, remembering of course the corporate concern for the image with stakeholders. In their opinion, corporate publications include the annual report, the web site, newsletters, environmental, health and safety reports, press releases, CD ROMs and videos. For details on web pages about how to find different information, when we are researching a company with regard to ethical and social issues, see Adams and Laing (2000). Unfortunately Secil is not available in any of these suggested web pages.

The case study requires that the researchers prepare a detailed study of an organisation using a variety of evidence (Larrinaga and Bebbington, 2001). For this study we focused on 3 main data sources: media articles from "Expresso" newspaper from the period of 1998 to 2008; sustainability reports from 2005 to 2007; and semi-structured interviews. Such triangulation ensures the validity and reliability of qualitative research (Yin, 2003). This is a descriptive case study[68] (Ryan *et al.,* 1992). The next sections provide, in detail the methodological approaches that were used.

5.4.2. Media exposure analysis

Various proxies for the public information level have been used in the previous studies, including news media coverage (Bewley and Li, 2000; Dejean and Oxibar, 2007; Deegan *et al.,* 2002; Garcia and Larrinaga, 2003). Deegan *et al.* (2002), argue that societal pressure and community concern are measured by the number of relevant articles in the print media. Following this argument, Bewley and Li (2000) defend that the number of news articles published reflects the extent of the public knowledge about firms' social responsibility exposure. So, in order to have results about the community concern regarding to the social responsibility of Secil, we analysed the article about Secil published in a Portuguese newspaper. This allows us to obtain some sense of how the organization was perceived externally and to identify Secil's legitimacy gaps. The aarticles were obtained from the Expresso newspaper (one of the best Portuguese newspapers with large circulation in the last decades). It includes articles on economic, social and political issues. It also adequately the media attention given to the issues analysed in this study and the public concern with these same issues. It has also been assumed that the *Expresso* newspaper used in the analysis has the same ability to impact community expectations as other Portuguese newspapers[69].

The search period is between January 1998 and August 2008. The beggining date was the earliest date from which the newspaper text/ articles are accessed on *On-line Expresso* version[70]. The final date refers to when we conclude our analysis: October

[68] Our final collection of data, which incorporates original documents, our own notes, videos, audio cassettes, reports of interviews, were kept in a well-organized database so that it can subsequently be easily retrieved, and accessed when providing references for our conclusions and to future research.

[69] According to the report of the APCT (Associação Portuguesa para o Controlo de Tiragens e Circulação) the *Expresso* newspaper recorded, between January and December 2008, an average paid circulation from 119,876 copies per issue, or 1.3% more than in 2007. This number represents almost three times the competitor sold by *Sol* newspaper that reduced its sales by 4.2% in 2008. (www.jornalbriefing.iol.pt/noticia.php?id=1045775&div_id=3421 acessed on 13/04/2009).

[70] *On-line Expresso version* is accessed in www.expresso.pt. It was not possible to have access to a "complete" data base as other studies do (with different newspapers and different companies). For example, Brown and Deegan (1998), in selecting print media articles associated with environmental issues, used of a CD-Rom index. That index provides easy access to an Australian business database, the

2008 (August was the last month accessible at that time). Following Garcia and Larrinaga (2003), a search was carried out, using the name of the company “Secil”, as a keyword. It is very unlikely that a Portuguese article dealing with Secil issues will not include this word. Subsequently, the search results were carefully examined to exclude articles that did not specifically relate to Secil company and to social responsibility issues. In a first steep we also collected financial issues articles. They were read to have a greater picture about public concerns of Secil and were excluded only in step 4. Repeated articles were also, excluded. From the initial sample of 559 articles, a final sample of 53 articles was identified, as described in Table 5.1.

1.Articles about Secil published in *Expresso* newspaper (from January 1998 to August 2008)	559
2.Less news not specifically related to Secil; to environmental; social and financial issues; or repeated (first step)	(369)
3.Less repeated news (second step)	(40)
4.Less financial news	(97)
5.Final sample	53

Table 5.1 – Identification of the articles’ sample

An excel data base was constructed with the purpose of categorising all the articles referring to Secil by: “number of edition”, “date”, “theme”, “categories”, “subject”, “article’s title”, “main paragraph” and “classification” (favourable, unfavourable and other). “Number of edition” was an important topic because in the second step (3) it helps the author to exclude the repeated news. “Date” is needed to compare the published articles with the legitimacy gaps. “Themes” were recorded according with mainstream CSR literature (Gray *et al.,*1995; Garcia and Larrinaga (2003); Branco *et al*., 2008): (1) environmental (2) human resources, (3) products and consumers, and (4) community involvement. In a first step, the “financial” theme was also considered in order to provide a better understanding of the company and to complete its picture, as

ABI Inform (ABIX). The index provides a guide to published information from a wide cross section of business, finance and trade resources by indexing approximately 85 newspapers and journals. Garcia and Larrinaga (2003) also obtained media articles from the records of the BARATZ database, which includes all articles on economic, social and political issues published by 33 Spanish periodicals and journals since 1981. Bewley and Li (2000) explain that a Canadian Business and Current Affairs (CBCA) database was carried out to identify all news articles that relate to environmental matters for each sample firm.

recommended by case study methodology (Yin, 2003). Following selection of the articles, the abstract of each article is examined for information concerning any of the themes. Relevant articles are then examined and coded according to our data base (provided in the Appendix 5.2 for the environmental theme). Regarding some of the articles, the full text was read. “Categories” were recorded according to the content analysis’ instrument used in paper 3, but only few were used, as the articles were about similar topics. “Subject” helps the author to identify the news regarding to the same topic, this is important to identify topics of legitimacy gaps. “Article’s title” and “main paragraph” were extremely important to remember exactly the content of the news. Following Deegan *et al.* (2002), no explicit consideration was given to whether the respective articles were on the front page, the back page, or in the middle of the newspaper, and further, no explicit consideration was given to the size of the headline, or the size of the article. “Qualify” articles in favourable, unfavourable and other, helps the author to understand the quality of the news published. For this classification we followed the definitions of Deegan *et al.* (2002): each print media article is categorised as “unfavourable” when the content indicates that the operations/strategies/performance of Secil are detrimental to, or not in harmony with, the social environment; “favourable” when the content indicates that the operations/strategies/performance of Secil are beneficial to, or in harmony with, the social environment; “other” when the content does not indicate that operations/strategies/performance of Secil are beneficial or detrimental to the social environment. The definitions applicable to the categories of “unfavourable”; “favourable” or “other” articles are similar to the “good”, “bad” or “neutral” news definitions chosen by Gray *et al.* (1995) and to the “positive” and “negative” news definitions chosen by Brown and Deegan (1998). This classification allows us to understand if public information is unfavourable or favourable to Secil regarding the different issues. When they are unfavourable, it could probably be connected to legitimacy threats that Secil faced. Anyway we need to analyse the content before taking any conclusion.

5.4.3. Sustainability report analysis

Secil sustainability reports were analysed in order to identify Secil sustainability disclosures practices and to understand how Secil answers to societal pressure. With the purpose to conclude what legitimacy strategies were used by the company. To get these results we follow Laine's (2005) method with the necessary adaptations to our purpose. Language may nowadays be understood as taking part in the social construction of reality. Language is here distinguished as "a practice not only representing the world, but of signifying the world, constituting and constructing the world in meaning. Together with social context and social practice language forms discourses, which constitute both objects of knowledge and objects of identity. These objects of knowledge are, for example, concepts used by social actors to discuss and understand reality. Discourses affect our conceptualisation of reality and thereby influence our actions in society" (Laine, 2005, p. 400).

In the context of this study, the sustainability language is assessed in order to understand what the company means by sustainability practices and how they expose the information. The corporate disclosures are seen as a medium in which social reality is constructed. As Laine (2005, p. 400) assert, it may be possible to link the disclosures to attempts by the companies to legitimate their actions in society: by constructing sustainable development in a certain way, business can affect the way sustainable development is understood in the social reality.

Following Laine (2005), at the first stage, the 2007 sustainability report was examined with the search-function of the Adobe Acrobat Reader by looking for phrases about (1) social responsibility and (2) legitimacy gaps, according to Table 5.2. Social responsibility allows us to understand sustainability disclosures practices as we choose words such as: environmental; employees; community; social; responsibility; sustainability and sustainable development. Legitimacy gaps allow us to understand how Secil faces the co-incineration and the Arrábida controversies, that means what kind of communication strategies Secil follows in order to restore its legitimacy.

	Phrases
Social Responsibility	Environmental
	Employees
	Community
	Social
	Responsibility
	Sustainability
	Sustainable development
Legitimacy gaps	Co-incineration
	Arrábida

Table 5.2 - Phrases from the 2007 Secil's Sustainability report

The parts of the reports containing any of these phrases were then read through in order to get a clearer picture of whether they referred to sustainable development or not. Analysing the data was an iterative process, which was conducted in numerous phases both during and after the collection of data. The texts were read numerous times. Initially, the focus of the study was on the phrases level, concentrating on how many times these phrases occurred, and then on how and what the company decided to disclose. Secil's sustainability reports from 2005 to 2007 were read but we concentrate our focus in the 2007 report. It means that the major presented findings refer to the 2007 report as it is the most recent reporting year at the time of data collection.
It was possible to distinguish several themes through which sustainable development seems to be constructed and to conclude about Secil's disclosure practices. Finally, these findings were used to conclude about the legitimacy strategies used by Secil.

5.4.4. Interviews

Interviews are one of the most important sources of case study information (Yin, 2003) and are becoming an important method in SEAR[71]. As Deegan and Blomquist (2006, p. 354) contend, the best way to gather information is to ask the relevant people directly, rather than to use other forms of secondary data.

[71] Studies such as Joshi *et al.* (2001); Deegan and Blomquist (2006); Herbohn (2005); O'Dwyer (2003, 2005); Wilmshurst and Frost (2000); Ogden and Clarke (2005); O'Donovan (2002); Adams and Frost (2008); Ball and Seal (2005); Husillos *et al.* (*2008*); Larrinaga *et al. (2001);* Rahaman *et al.* (2004); Lodhia (2003); O´Dwyer *et al. (*2005); Kuasirikum (2005); Bartolomeo *et al.* (2000) and Boume and Kamp-Roelands (2000) use interviews to collect data.

Interviews were conducted during March 2009. A total number of 8 interviews with "sustainability accounting and reporting –related" professionals was carried out (we interviewed all the possible participants at Secil). The interviewees were managers and technicians that belong to the accounting, communication, environmental and sustainability departments. Table 5.3 provides details on the interviewees' roles.

	Date	Occupations	Work place	Duration
I1	04-Mar	Accounting and Taxes director	C. Services (Lisbon)	27m
I2	13-Mar	Institutional comunication director	C. Services (Lisbon)	41m
I3	16-Mar	Environmental and sustainability responsable	Outão plant	30m
I4	16-Mar	Accounting department chief	Outão plant	34m
I5	16-Mar	Sustainabilty department (SPIE)	Outão plant	37m
I6	16-Mar	Sustainabilty department Director (SPIE)	Outão plant	43 m
I7	16-Mar	Environmental Director	Outão plant	26m
I8	16-Mar	Industrial development technical (CTEC)	Outão Plant	38m

Table 5.3 - Details of interviewees' roles

All the interviewees allowed the conversation to be recorded without any objection, note that in Herbohn, 2005; Deegan and Blomquist (2006); O'Dwyer (2003); Husillos *et al.,* (2008); Adams (2002). In some studies interviewees do not allow recording, such as for Kuasirikun (2005). The interviews were transcribed for analysis purposes. Transcriptions were carefully checked against the tape recordings and corrections made where necessary. All the interviews were conducted by the researcher. Because it is an individual work, it was not possible to take the following advantage referred by Ball and Seal (2005, p. 457): in most cases, interviews were carried out by two researchers, this method ensured that a record, as accurate as possible, was kept of the interview, and helped to maintain a balance in the questioning.

Similar to Herbohn (2005), the first two interviews followed a cascading process, where an interviewee provided the name and contact details of other people who would be useful to interview. There were no refusals to the request for an interview. The length of the interviews ranged from 27 min to 43 min, with an average length of 35 min. Prior to the interview, the sustainability reports, annual reports and other sources from Secil were analysed to explore the approach of Secil to sustainable development; the language it employed; the target audience of the report; and how Secil faced negative information/ public pressure.

The interviews were semi-structured meaning that the interviewer has a number of pre-selected questions. As King (2004, p. 15), the qualitative research interview is not based on a formal schedule of questions to be asked word-for-word in a set order. Instead, it generally uses an interview guide, listing topics which the interviewer should attempt to cover in the course of the interview, and suggesting probes which, may be used to follow-up responses and elicit greater detail from participants. An interview guide was elaborated divided in two main groups of questions: (1) about Secil's sustainability disclosure practices and (2) how the key players perceived Secil's legitimacy. The themes were chosen to assist in addressing our study purposes. We have analysed our results according to these themes. We have identified each interviewee by a letter, according to Table 5.3. In order to check the suitability of the interview guide at capturing the various informations about these two topics, we made a test interview. As a result, some small changes were made to the composition and order of the questions. The final version of the interview guide is shown in the Appendix 5.4 (in Portuguese language as all interviews were conducted in Portuguese)

Following Kuasirikum (2005), the interviews started with a brief introduction about the interviewer, and particularly the purpose of the interview. Subsequently, each interviewee was asked to introduce her/himself in terms of their jobs, their responsibilities regarding to sustainable issues, and how long they had been in the job. Following O'Dwyer (2003, p. 530), it was stressed that it was the interviewees' opinion that was being sought, rather than a quest for "right" or "wrong" answers to the questions, and that no prior "technical" knowledge of any kind was either assumed or required. All interviewees work directly with sustainability issues, and so most of them addressed the questions covered in the interview guide without need for much direction. Interviewees were able to provide additional explanation when they believed it was necessary, allowing us to have better conclusions about the sustainability disclosure process and legitimacy strategies employed.

The flow model recommended by Miles and Huberman (1994) was used for this study for data analysis. They suggest that qualitative data analysis consisting of three linked sub-processes of data reduction, data display and conclusion drawing/ verification. The analysis process loosely followed three sub-processes as others studies do (for example O'Dwyer, 2003; Herbohn, 2005; Husillos *et al.,* 2008). The steps involved in data reduction and data display allowed conclusions that are outlined in next section. Miles and Huberman (1994, p. 10) explain that data reduction refers to the process of selecting, focusing, simplify, abstracting, and transforming the data that appear in written-up field notes or transcription. Data display refers to the organized, compressed assembly of information that permits conclusion drawing and action. The third stream of analysis is conclusion drawing and verification that exactly refers to the conclusions of the analyst proceeds.

5.5. Findings and discussion

In a first step, assed of the public pressure is made by analysing media articles referring to environmental and social issues regarding Secil, to identify the extent of public concerns and the topics referred by media. O'Donovan (2002) says that legitimacy gaps exist when there is incongruence between a corporation's actions and the society's perceptions of what these actions should be. Secil's legitimacy gaps are identified. In a second step, sustainability reports and semi-structured interviews were analysed in order to identify Secil's sustainability disclosure practices and conclude about the strategies employed by Secil to defend and downplay its sustainability performance and activities related to the legitimacy gaps.

5.5.1. Public concerns and media exposure

Media articles from the newspaper *Expresso* were examined. Summary aggregated totals over the 11-year period from 1998-2008 are displayed in Table 5.4 for each theme: environment; community involvement; human resources; and products and customers. The last two receiving minimal attention. The issues that attracted the most media attention were the "environmental", which account for 53 percent of the total CSR disclosures, followed by the "community involvement" (42 percent).

Theme	Total media articles	Favourable media articles	Unfavourable media articles	Other media articles
Environmental	28	16	11	1
Community involvement	22	21	1	0
Human Resources	2	0	2	0
Product and Customers	1	1	0	0
	53	**38**	**14**	**1**

Table 5.4 - Total of CSR articles by general themes and classification

Theme	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Total
Environmental	5	8	4	1	0	0	3	2	1	3	1	**28**
Community involvement	2	6	3	0	0	2	0	3	4	2	0	**22**
Human Resources	0	0	2	0	0	0	0	0	0	0	0	**2**
Product and Customers	0	1	0	0	0	0	0	0	0	0	0	**1**
Total	**7**	**15**	**9**	**1**	**0**	**2**	**3**	**5**	**5**	**5**	**1**	**53**

Table 5.5 - Total of CSR articles by general themes and year

Table 5.5 further extends Table 5.4, giving the details about the year of the publication. Tables 5.6 and 5.7 add the subject and the classification to Table 5.5. These results let us conclude that the subjects that attract most media attention are: co-incineration (accounts for 82 percent of the total environmental articles) and awards (accounts for 86 percent of the total community involvement articles). Contrary to what we expected in the beginning, the majority of articles about environmental issues are favourable (what is in accordance with to the interviews' arguments). Nevertheless, 11 articles are unfavourable. We consider as favourable articles the ones that said that co-incineration is beneficial and unfavourable the ones against the co-incineration process. From these results and from other information that we collected, we conclude that co-incineration was an event that causes a legitimacy gap for Secil. In this case, Secil is placed under the spotlight and sees its legitimacy threatened not because it has done something detrimental to the environment but because the potential for detrimental environmental impacts resulting from its activities became the focus of the public and media attention (Branco *et al*, 2008, p. 136). As argued by the company, "the co-incineration of hazardous industrial wastes (HIW) is a process that has been widely used in industrialised countries, especially in Europe, for more than 20 years, not only being legal under Community law, but also a practice that is recommended by the Stockholm Convention for the disposal of HIW" (Sustainability Report, 2007, p. 93). In Appendix 5.5 we include an *Expresso* news with the chronology of the co-incineration controversy with all its progress and setbacks. This question was object of strong criticism and protest since 1998. In the period of 1998-2000 several initiatives turned this conflict into one of the main issues in both national and local political debate. Television reports, radio programs and many news were published about this topic (for more details about the co-incineration debate in Portugal see Branco *et al*., 2008). The more “problematic” years for this question coincide with Table 5.5 results referring to the date of published *Expresso* articles.

Other different subjects about the environmental theme appear as: Outão plant location; environmental investments; CO2; and environmental management systems. Only the first subject (Outão plant location) has an unfavourable article. The main Secil plant is located in Outão (near Setúbal city) and has the particularity of being installed within the limits of the Natural Park of Arrábida. This is an issue that negatively affects Secil when it comes to public concern. In *Expresso* we just find one article about this subject, published between 1998 and 2008, but from interviews and from other consulted sources, we can conclude that this is another legitimacy gap that Secil faced (and still faces), as populations do not agree with the plant location. As environmental articles are the most important to our study since they reflect the media pressure on the co-incineration controversy and the Outão plant location, in Appendix 5.2 we join the data base constructed with *Expresso* articles (as explained in the methods section). Only the environmental theme is presented in this appendix, as an example.

From the analysis reported in Table 5.4 we observe that the community involvement theme was the second predominant issue in *Expresso* articles. 22 articles were published and according to Table 5.5 and 5.6, the majority was about awards initiatives (19 articles). The others are about Secil Maceira museum; local development in Setúbal; and Lebanon army support. Only one article is unfavourable (about awards and referring to an occasional problem with the attribution of one award), all the others are favourable. Community involvement issues are not connected with any legitimacy gap.

We only found two articles about the human resources theme. They were published in 2000 and were classified as unfavourable because they are about employees’ strike. This strike was an occasional event and therefore it is not connected with any legitimacy gap.

Products and customers theme only has one article pertaining to a recognition from the American Supplier Institute – “good news”. No legitimacy gap was found regarding this theme.

Theme	Subject	1998		1999		2000		2001		2002		2003	
		F	U	F	U	F	U	F	U	F	U	F	U
Environmental	Co-incineration	3	2	5	2	2	2						
	Outão plant localization								1				
	Environmental investments												
	CO2												
	Environmental management systems			1									
	Total												
Community involvement	Awards	2		3	1	3		0		0		2	
	Museum			1									
	Local development			1									
	Support for Lebanon												
	Total												
Human Resources	Strikes	0		0		0	2	0		0		0	
Product and Customers	American Supplier Institute recognition	0		1		0		0		0		0	
	Total	**5**	**2**	**12**	**3**	**5**	**4**	**0**	**1**	**0**	**0**	**2**	**0**

Table 5.6 – Social and environmental articles about Secil included in *Expresso* newspaper over the period 1998-2003, with quantity and quality details

Theme	Subject	2004		2005		2006			2007		2008		Total
		F	U	F	U	F	U	N	F	U	F	U	
Environmental	Co-incineration			1				1		2	1		21
	Outão plant localization												1
	Environmental investments	1		1									2
	CO2								1				1
	Environmental management systems												1
	Total												**26**
Community involvement	Awards	0		3		3			2		0		19
	Museum												1
	Local development												1
	Support for Lebanon					1							1
	Total												**22**
Human Resources	Strikes	0		0		0			0		0		**2**
Product and Customers	American Supplier Institute recognition	0		0		0			0		0		**1**
	Total	**1**	**0**	**5**	**0**	**4**	**0**	**1**	**3**	**2**	**1**	**0**	

Table 5.7 – Social and environmental articles about Secil included in *Expresso* newspaper over the period 2004-2008, with quantity and quality details

The analysis of newspaper articles relating to Secil allows us to obtain some sense of how the organization was perceived externally and to identify the Secil’s legitimacy gaps: the co-incineration and the Outão plant location.

5.5.2. Sustainability reporting practices

In this section sustainability reports and semi-structured interviews are analysed in order to identify Secil's sustainability disclosure practices and conclude about the strategies employed by Secil to defend and downplay its sustainability performance and activities related to the legitimacy gaps.

5.5.2.1. Secil's Sustainability report

Secil produced its first environmental and social report in 2000 and has since continued to produce one every year. The first report has 47 pages, only available in Portuguese and in hard copy. In 2002 it was available also in CD ROM. In 2005 this report continues available in hard copy and was also available in the webpage. For the first time it was called by "Sustainability report" and "it appears as a natural evolution of the environmental and social report that the company has published for several years together with its annual report and accounts" (Sustainability Report, 2005, p. 21).

In 2007 (the most recent reporting year at the time of data collection) they published what they call: "the third edition of Secil group sustainability report". This report covers the cement plants operating in Portugal: Outão, Maceira and Pataias and has a great graphic improvement and much content was added. The number of pages increased when compared to the ones of years before (Figure 5.1.).

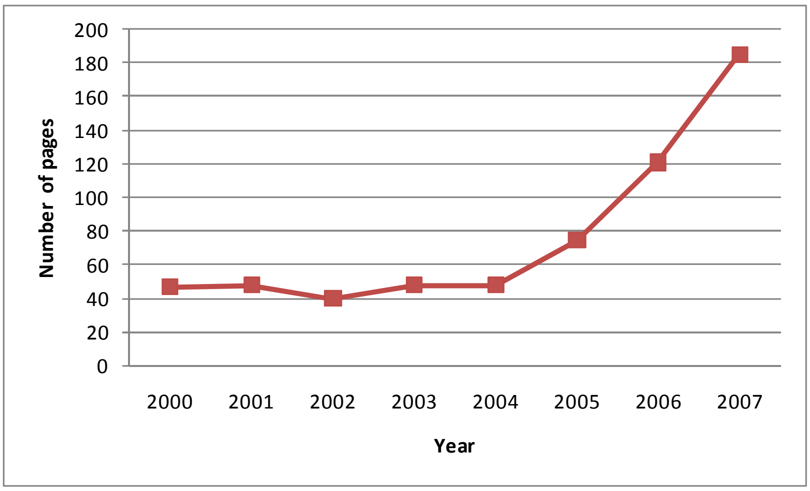

Figure 5.1 – Number of total pages of Secil's sustainability reports over the period of 2000-2007

Secil explains the meaning of SR 2007: "with this report Secil intends to take responsibility for economic, environmental and social issues, and to disclose, in a clear and transparent manner, its activity and its contribution towards sustainable development. Preparing a sustainability report means, in practical terms, measuring, disclosing and being accountable for the performance of the organisation, with the objective of sustainable development" (Sustainability Report, 2007, p. 137). Sustainable development concept is given in p.13 as: development that satisfies present needs, without compromising the capacity of future generations to satisfy their own needs. They agree that the concept of sustainability and corporate responsibility is very broad, so it is important that the report contains a clear definition. In fact, throughout the report, there are several definitions that might raise doubts to readers such as: carbon dioxide (CO_2); energy efficiency; greenhouse gases; biomass; alternative fuels; fossil fuels; co-incineration; etc.

In 2007, Secil has sought to adhere to the directives of the Global Reporting Initiative (GRI), although at a beginner's level (level C)[72]. They justify this initiative with stakeholder's expectations: "our concern to increase the degree of details of the performance indicators reported and to address the main concerns and expectations manifested by our stakeholders" (Sustainability Report, 2007, p.6). Although GRI identify benefits in externally auditing the sustainability report, Secil choose not to audit it until now.

Secil considers the dialogue with their stakeholders a fundamental question. They define and identify their stakeholders: "Stakeholders: also called interested parts or participants, they refer to all those involved in a particular process, for example, customers, staff, investors, suppliers, community, etc. The success of the company involves the participation of its stakeholders and therefore it is necessary to ensure that their expectations and needs are known and considered but the company" (Sustainability Report, 2007, p. 7). And list them: "our stakeholders are all the individuals and groups that influence or are influenced by our activity. We list here the ones considered to be the most relevant, namely, our shareholders, customers, suppliers, employees and local communities" (Sustainability Report, 2007, p. 20). The following

[72] In 2005 they already follow GRI guidelines but with a lower index of compliance. So, 2007 appears as the first year they follow this guidelines and they use G3 (2006 GRI guidelines version).

sustainability report pages detailed the relation with each one of these stakeholders. The initiatives with the stakeholders are important to the purpose of our study as they could explain Secil strategies to gain, maintain or repair its legitimacy.

For the first time, questionnaire was included at the end, in order to have feed-back from the stakeholders. Thomson and Bebbington (2005, p. 523), argue that the main mechanism by which organisations seem to hope to generate dialogue on the basis of the reports themselves is the inclusion of some sort of mechanisms for feedback, typically a tear off feedback form, as Secil's one (see Appendix 5.5). Secil's report follows Thomson and Bebbington (2005) characteristics: these forms are usually fairly small, they cover a very small set of questions or solicit feedback of a very general nature.

Going through the whole report, it is easy to find different Secil's social or environmental initiatives. Table 5.8 allows us to conclude about witch topics Secil decided to disclose more in the sustainability report. In Table 5.8 we observe that environmental issues are more emphasised than the others. Employees and community involvement (considered as community and social – "social" is almost all regarding to community initiatives in this report) have similar emphasis. In order to conclude about the use of the expressions "sustainable development" and "sustainability", these phrases were also counted. These expressions are used by the company frequently. This analysis allows us to better understand sustainability disclosures practices and to identify how the discourse was build and how phrases were used. Co-incineration and Arrábida findings will be discussed in section 5.6.

	Phrases	
Social Responsibility	Environmental	135
	Employees	94
	Community	40
	Social	55
	Responsibility	21
	Sustainability	54
	Sustainable development	15
Legitimacy gaps	Co-incineration	25
	Arrábida	15

Table 5.8- Secil's 2007 Sustainability report phrases

Many environmental and social initiatives are reported by Secil in order to achieve its mission and vision: *Our mission: In the Secil Group, we work to provide high quality solutions and services in the area of the manufacture of cement and construction materials, in a manner that is compatible with* ***sustainable development****, and so as to generate added value for the shareholders, customers, employees and other interested parties. Our vision: The Secil Group seeks to be an international group in the manufacture of cement and construction materials that is a point of reference in terms of quality and costs, being highly profitable and an example* ***in social and environmental*** *behaviour.* (RS, 2007, p. 30)

They report about different commitments to external initiatives such as a biodiversity project, implementation of environmental management systems (all the three Secil plants are certificated by ISO 14011 and by EMAS), and others. Employees' initiatives are also well described, like training and education. Initiatives with the community, such as active work with associations and schools. Curiously none are referred in any newspaper article (or webpage or annual report – according to paper 3 findings'). Many references appear associated to the climate responsibility. But Secil aims to explain that to meet the challenge of climate change, it has been developing a set of measures to reduce the emissions of CO_2[73].

Words as "faithful" and "transparent" appear at the beginning of the sustainability report in green, in the message from the Chairman: "Secil is enthusiastic about this new edition of its sustainability report presented here, in which we give a faithful and transparent accounting of the economic, environmental and social development of the company (...)" (RS, 2007, p. 10).

In order to have an internal organisation dealing with the sustainability question, Secil changed its governance model. As reported in page 32: "the Secil Group, although it is not listed on the stock exchange, has sought to consistently apply the best governance practices, with the objective of ensuring appropriate risk-control mechanisms associated

[73] This is a current topic that has been the subject of several studies as Bebbington and Larrinaga (2008).

with its status as a company that has assumed major responsibilities before all its stakeholders in the society where it is located. Specifically, in order to guarantee the endogenisation of the concept of sustainability in the performance of its activities, Secil has been undergoing a gradual evolution in its organisational model, begun in 2006". Two new departments regarding sustainability issues were created: Sustainability, Programmes and External Initiatives (SPIE) and Corporate Technical Centre (CTEC). SPIE includes, in its functions, the promotion of strategic actions in the domain of sustainability and all the gathering and processing of information on environmental matters to be included in the Sustainability Report. In the area of the environment, SPIE is charged with determining the levels of carbon dioxide (CO_2) emissions from Secil's plants, under the European Union Emission Trading Scheme, and accompanying the corresponding verifications. CTEC was created as an inter-plant structure, for the purpose of uniting efforts, analysing the various realities, and through benchmarking, applying the best of what is being done in the various companies of the Group. The centre's strategy is based on three vectors: profitability, growth and sustainability. One of the activity areas is providing help in improving the performance of the operational units, including the environmental and social aspects. Some of the interviewees work in these departments (see Table 5.3)

Almost all the information is positive, but Secil recognises its environmental negative impact. Also in the message from the chairman they refer as the objective of this report: "guaranteeing that all the interested parties have access to the important and pertinent information on the negative impacts and the benefits generated in our business activity" (RS, 2007, p. 10). They assume that cement production implies the existence of potential environmental impacts throughout the whole manufacturing process. These are the changes in climate, the consumption of non-renewable natural resources and the degradation of the habitats of flora and fauna (and as a result, the visual impact). Figure 5.2 details these and other impacts. But they justify themselves:
"Secil has come a long way in the management and minimisation of its environmental impacts, finding new business opportunities that aim to create value for the company and its stakeholders. Under its environmental management system, SECIL seeks to address all the aspects and environmental impacts (...), finding solutions to minimise them" (Sustainability Report, 2007, p. 24).

	ENVIRONMENTAL ASPECT	POTENTIAL ENVIRONMENTAL IMPACT
MAIN ASPECTS/ ENVRIONMENTAL IMPACTS	Consumption of natural raw materials[6] (extracted from quarries)	**Visual Impact (associated with the operation of quarries)**
		Consumption of natural resources (non-renewable[7])
		Degradation of habitats[8] of flora and fauna
		Nuisance (vibrations caused by the explosives)
	Consumption of energy	**Consumption of non-renewable natural resources**
		Indirect impacts associated with the production of electricity
	Consumption of secondary materials	**Reuse of residual materials from other industrial sectors (with a resulting decrease in the consumption of non-renewable natural resources – positive impact)**
	CO_2 Emissions	**Contribution to the greenhouse effect (climate change)**
OTHER ASPECTS/ ENVIRONMENTAL IMPACTS	Consumption of water	Reduction of underground reserves
	Fixed Emissions	Degradation of the global air quality (possible contribution to acid rain[9])
	Diffused Emissions	Degradation of the local air quality
	Waste output	Impacts resulting from the temporary storage of waste
		Impacts resulting from the final disposal
	Noise emission to the exterior	Disturbing the surrounding neighbourhoods
	Waste water output	Potential contamination of the soil and water resources
	Packaging and shipping of products	Production of packaging wastes (direct impact)
		Increase in traffic (indirect impact)

Source: Secil Sustainability Report 2007, p. 25

Figure 5.2 – Environmental aspects and potential environmental impacts from Secil

Besides environmental impacts they also recognize some negative social impacts: *"Being conscious of the impacts from the company's activity, especially on the surrounding communities, one of the company's first objectives is to interact with the local stakeholders at the right time, in an orderly, proactive and transparent fashion, contributing to their wellbeing and to their economic and social development. Structures were therefore created that allow us to learn about their expectations (p. 96) and accordingly put in place various initiatives that allow us to address those expectations."* (Sustainability Report, 2007, p. 26)

But it is also true that Secil has been taking many initiatives that have the intention to "restore" the negative impacts in the environmental and biodiversity project and the reflorесting. Social impacts regarding to the Outão plant location are probably more difficult to restore (unless they change their plant location, what is probably not in their mind).

5.5.2.2. Interviewees responses about sustainability reporting

Interviews provided the means of acquiring relevant information for this study. In acquiring this information we were particularly interested, in this section, in finding out about aspects of reporting processes and others with attitudes and views of key players in that process, such as (see interview guide in Appendix 5.3):

1. Who decided to publish a sustainability report and the reasons why Secil started to report?
2. Who manages the content? There were organisational changes required for its publication? Sustainability information is integrated in decision - making?
3. The introduction of GRI Guidelines improved the performance of the company?
4. What information is most relevant and appropriate to include in this report? And what advantages or disadvantages can they perceive in this kind of disclosure?
5. Who is the relevant public? Who receives this report? How many answers to the questionnaire attached in the 2007 sustainability report, did Secil receive?
6. The sustainability report should be audited? By which authority?
7. What is your concept of sustainable development?

In data analysis process, as explained in the methods section, we linked three sub-processes of data reduction, data display and conclusion drawing/ verification. In this section we present summarized ideas. Interviewees will be identified from I1 to I8 according to Table 5.3.

1. All the interviewees point the board of directors as the decision maker. Curiously, they also said that the administration had always cared about sustainability issues and pointed out different situations that reflected the administration care since the 60s, as Secil is an old company. They also agree that Secil decided to publish a sustainability report with the purposes of communicating with stakeholders and explain exactly what they have been doing in this field. The objective is to inform the relevant publics about their sustainability actions. I6 argue that:

> Secil already did many things, but they simply not report them.

Others also mentioned public pressure as a reason for Secil to begin reporting their sustainability actions. Some clearly shared that the public concerns regarding the corporate impacts, especially to the co-incineration controversy “forced” the company to disclose more.

I5 adds:

> It is a question of transparency, and obtaining confidence of the population as we entered in the natural park. It is important to show that we do everything to minimize our environmental impact; show our concern with the communities, with employees (...)

The view of I2 was:

> This is a political question, it is necessary to give performance information to the stakeholders (…) Secil makes everything it has to do, in order to comply with all the normative issues, and so no reason exists to not publish sustainability information (…). These reports only come as a way to publish what has actually happened. There was already compliance with the standards and the initiatives already occurred.

I6 gives us some details about the views on reporting for the future. A difference will be the frequency of reporting. Secil decided not to publish sustainability reports every year but began to disclose every two years. I2 also explains that:

> The sustainability reports are a long trend. There is no need to systematically report the same. This has costs. It is not so much the costs of its publication but the structural costs. The trend in other companies is also this. It is more balanced and coherent to publish it every two years.

2. Secil uses the experts in the subject areas to collect, produce and write their sustainability report. All the interviewees (I1 to I8) were involved in writing the 2007 sustainability report. The sustainability department director (I6) decides about the content and then a final draft is revised by the board of directors who gave the last opinion.

There were some different opinions about organisational changes required by this publication. Some interviewees said no changes occur (I1 and I2, probably because they work in central services) but others refer some internal changes in the organisational structure, namely the creation of two new departments: SPIE and CTEC. These departments have functions directly connected with sustainability disclosures and actions (beside others).

I6, who participates in many meetings of the board of directors, declares that many sustainability information is integrated in the decision making process and explains how it is done. He travels much to other countries (mainly European countries) to participate in sustainability meetings in order to get new business opportunities for the Group and, especially to find out about sustainability issues that may arise with the foreseeable approval of new legislation or with new regulations in the cement manufacturing sector. He collects all this information to present in the board of directors meeting. This information is very welcome and they use it for the decision-making. I6 emphasises the board of director's intentions of ensuring the continuous sustainable development actions and the adoption of a solid environmental and safety policy.

Almost all the interviewees agree with this point of view, although some do not have a complete idea on how the decision process is made.

3. Despite the perceived interest in using an international model of sustainability guidelines, the interviewees were clearly all very "shy" in admitting performance improvements connected with the adoption of GRI guidelines in the production of the sustainability reports. But, they all refer the benefits in having an international standard structure of reporting and a possibility to feel directed in the different sustainability issues. I5 provides some insight into the reasons for this:

> The GRI adoption is just an orientation question. We already have all the information required, we already comply with everything that is suggested there. They (GRI) don't make us change anything (...)

But assume that:

> They (GRI guidelines) alerted us to the dialogue with the stakeholders. We realize the necessity to improve this question, to know what they exactly think. (...) We have some ideas to implement that such as providing meetings with civil society, inviting ONG's such as Quercus, Natural Park, different Setúbal associations (...)

I1 and I4 did not answer to this question, as they work in accounting departments, and therefore they only prepare some information but are not directly involved in the organization of the text of the sustainability report. They assume an incomplete knowledge about these guidelines.

4. All of the interviewees pointed that the sustainability report should include social, environmental and economic information. Almost all mention that the emphasis given to each topic should be the same. But I5 argues that it is natural that the quantity of the information disclosed is not the same, because it depends on the activity. For example, in her opinion, in Secil's case, it is natural to have more environmental information than social or economic because Secil belongs to an environmentally sensitive industry sector.

No interviewee finds any disadvantage in this kind of disclosure, but I5 argues:

> I see no disadvantage except the time it consumes. Actually I spend much time with the preparation of this document because I have to look at the information several times, very carefully so that everything is right.

They identify some benefits such as the possibility to communicate all the initiatives in the social and environmental areas, which contributes to a better understanding of the corporate Secil activities and can reduce criticisms and clarify public perception of Secil's activity and production process. Other benefits were identified such as better internal systems to organize information and better decision making taking into account sustainability issues; minimises risks (of unforeseen issues for example). Others repeat some ideas already focused on question 1.

I3 adds:

> It forced us to look to the sustainability issues again, and sometimes from a different point of view, so internally it is a powerful instrument.

5. I2 is the best informed director about who receives sustainability reports, as the communication department was the responsible for sending it to external entities and I2 is the director of the institutional communication department. I2 gives us a complete picture of all the entities that receive the sustainability report:

> The sustainability report is available on the web page, we give it to some visitors of our factories, we send an email to all public sector connected with decisions in this area, to the associated companies from BCSD and from COTEC (Business agency for innovation); to the university partners, to the monitoring committee members of our factories; to the partner associations; to the most important suppliers and customers; to the business partners such as banks, insurance companies, etc; and all our staff.

Students (I5) and local community (I3) were also identified as relevant publics.

I3 refers that:

> It is available for eveyone that wants to read it. But it is a document in which the "ordinary person" is not interested. If the "ordinary mortals" were interested in it, it should be a small and simple document, with more specific subjects. With that purposes we have for example the Valorizar magazine that is distributed with the region newspaper, door to door in Setúbal, and also an edition has been distributed in the *Expresso* newspaper.

This takes us to the traditional accounting concept of understandable information, which means that: "financial reports are not designed for the benefit of experts alone. They should be accessible to the non-professional investor who is informed about business and economic matters and willing to spend time analysing them" (Sutton, 2004, p. 7). The same must be true to sustainability reports.

Secil makes its sustainability report available to employees (many of them said they receive it by intranet). As I2 explains, the publication of the sustainability reports is announced through media such as the intranet and copies are available for collection. I3 said that a variety of other media are used to communicate environmental and social information such as the internet webpage; brochures covering specific issues as the "Valorizar magazine"; press conferences such as 3rd Gecamb2008 where Secil talked about its biodiversity project, through the voices of I6 and I8; press releases (in the webpage it is possible to find 3 about: the results from the Environmental Monitoring commission meeting (12/01/2005); tests and co-incineration process (1/10/2005); and the Secil internationalization process, referring to the acquisition of most of the capital of a Lebanese cement company (05/02/2007)); CD-ROMs; videos to explain special projects or initiatives, and others. I8 adds public meetings with local communities, in particular with local schools. As reported in Table 5.3, I3 to I8 work in the Outão plant that is based close to Setúbal communities where these local initiatives occurred.

I5 is responsible for receiving the answers to the questionnaire attached in the 2007 sustainability report (see Appendix 5.6). Sadly she said that only few answers arrived[74]:

> I would like to have readable opinions about "my" work. I am sorry that people do not respond. So far we received only one response and from an internal person.

And pointed out some possible reasons for this:

> In principle no one will read the entire report, then some think it does not concern them, others do not need to view every year (eg students) and therefore have no advantage in giving suggestions. But I think it is an excellent internal tool and at least I try to motivate my colleagues to give me feed-back.

I2 adds:

> The response rate is residual. I believe that when we will count the answers we will just find a few dozens. Giving feed-back of sustainability reports is not an international trend, and even less in Portugal.

A number of possible reasons could be identified to explain the lack of reflective response to these accounts, according to Thomson and Bebbington (2005). Report

[74] All the evidence which exists, suggests that very few individuals provide feedback on these feedback forms (Thomson and Bebbington, 2005), so Secil is not an isolated case. Anyway, it could be interesting that Secil disclosed the number of feedback forms received, the nature of the comments or any response to the comments responded to. To increase the pattern of low returns Secil could follow the example given by a reporter who promises to donate money to a local environmental charity for each feedback form received. From disclosures of the amount of money donated, it appears that this reporter receives more feedback that the usual low level (Thomson and Bebbington, 2005, p. 523).

audiences are either by nature, habit or have been educated to be accepting of what they read or to read SERs passively and as a result do not feel the need to respond to the reports. This would be problematic if one is seeking a dialogical process.

6. There were some different opinions with respect to sustainability report verification. Accounting and communication managers have the opinion that the verification of the sustainability report will be very useful by giving credibility to the information. They suggest that financial auditors, NGO and stakeholders should be involved in this process. Although people from the environmental and sustainability departments argue that it is not an important process as much of the information included in the sustainability report was already verified (for example, environmental information from environmental management systems auditors). And declare that some social information is quite difficult to verify. This brings an interesting debate for the future about how and who should audit sustainability information. This debate is still open in Portugal (Portuguese companies nowadays adopt different solutions mainly divided between the financial auditor and NGO's sustainability consultants). This could be an interesting question to explore in future research.

In the 2005 report they explain: despite the fact that this first report has not been verified by an external entity, much of the data presented has already been audited within the scope of other procedures (the economic data, within the scope of the audit performed on the 2005 annual report and accounts and the environmental data for 2001 to 2004, in the validation of the environmental declarations of the cement factories for the purpose of registration with EMAS). But in the 2007 report, no information about a verification process is mentioned.

7. In the interviews when questioned about what they understand by SD, interviewees almost always answer with a definition similar to the concept published in the sustainability report: sustainable development is the development that satisfies present needs, without compromising the capacity of future generations to satisfy their own needs (which is similar to Brundtland's SD concept).

But some give more details about this concept, for example I6:

> Defining SD is like trying to define "good sense"! It involves many variables. But fundamentally is connected with two things: sustainability as a concept and sustainability as set of mechanisms and

instruments. First the respect we need to have regarding others, like we do regarding our sons (...), second a number of mechanisms and tools appeared with the purpose of helping the society and companies to reflect upon this concept daily. This is the great challenge faced, to live the SD every day internally, within organizations.

5.5.2.3. Interviewees responses about Secil's legitimacy

In this section we were particularly interested in acquiring information about how the key players in sustainability perceived the organization's legitimacy. According to interview guide (in Appendix 5.3) some topics are:

1. Has the legitimacy of Secil ever been threatened? If yes, which attitudes different stakeholders take?
2. Was there any situation where Secil was within the law and the relevant public did not accept? Or a situation welcomed by the public but that the law prevented?
3. Does the company have the intention to follow the expectations of the public?
4. Does Secil have the objective of communicating the change of methods, policies, targets in its social and environmental disclosure? What is the main objective when disclosing information? Is it to: inform, educate or manipulate the relevant public's opinion?
5. Does the company contribute to social causes? Which ones and what reasons lead Secil to contribute and participate in charity projects?
6. Is it important for you to work in a company with legitimacy?

In addressing the above topics, in a general way, interviewees have more difficulty to answer to some questions. Many of them give short answers.

1. Except for one, all the interviews claimed to recognise co-incineration process as a threat to Secil legitimacy. Arrábida question (the location of the main plant near the Natural Park of Arrábida) was referred just by some of them.

I4 clearly replied to a group of questions regarding this issue:

> The case of the co-incineration was the most alarming question we had. The company responded very well, without alarmism by bringing some "peace of mind" to the staff because there was a stream outside saying that the company would close. This psychologically affected many people. On the other hand when we said that we worked for Secil, people were not nice to us.
> The company had a staff meeting and called for calm. The company took a leading role in this phase. Over time people were quieting their minds. It was a political issue and many changed their

mind and wanted to come and see our factories. (...) The establishment of the monitoring committee was very important. (...) The company felt very attacked. (...)

Externally, without participating in the show off, the company was closer to the media and tried to explain and was available for those who wanted to come and visit the factory. I think it was a very positive and important step. Secil had nothing to hide.
It was very important the support of some suppliers and customers that were involved and spoke at meetings of the City Council.

About the Arrábida question, I4 said:

We have a gift of nature and love working here (in the hills). It is clear that progress is made at the expense of something ... But the company has done a remarkable job of reforesting and creating nurseries of plants to re-enter the mountain. This is a remarkable work that has been little appreciated by the population. But the company has already won awards for the landscape recovery.

So, an interesting answer from the company was to make an employee's meeting to explain exactly what had happened and make them understand that co-incineration was not an illegal process and that Secil would not close its doors!

I6 also said that the shareholders, in the beginning, had a "peaceful attitude": we are not doing anything wrong so we do not need to do anything. But then, they realised that the public pressure was too important and that they had to act. They realized that the controversy had begun to get bigger than they thought. They had to react trying to inform and explain that the process was not wrong or illegal. They began an information campaign in different media: television, radio, brochures, environmental and social report, press releases, environmental impact studies, etc. They had to do it as a response to public pressure. Internally, as already mentioned, they provided an employee's meeting where the board of directors explained exactly what has happened and tranquilized the employees. – "Secil will not close the doors. We are here to do everything that is necessary."

2. Interviewees admit that co-incineration is a situation where Secil was within the law and the relevant public did not accept. All the interviewees have that perception. We realize that in general employees are well informed about the process and strongly defend Secil hardly. This is undoubtedly a strong point of Secil. No situation is mentioned as welcomed by the public but prevented by the law.

3. All the interviewees agreed that the company tries to follow the expectations of the public. Some answer with a “yes, I think so”.

4. The opinion was divided in two groups: some think that the main objective of Secil with sustainability disclosures is to inform, whereas other say that it is to educate. But all denied that the objective was manipulating the relevant publics.

5. All interviewees immediately said “yes, Secil participates in social projects”. But not all can detail and precise exactly in what projects, in particular the interviewees from the accounting department.

6. All the interviewees agreed that it is important for them to work in a company with legitimacy. And it was clear that they are happy to work in Secil. One said with pride that the company has a low turnover rate of staff.

5.6.Legitimacy strategies adopted by Secil

Managers use corporate reporting to celebrate corporate achievements in order to present favourable images of the corporation and thereby enhance the legitimacy with its activities (Ogden and Clarke, 2005; Neu et al., 1998; Burh, 1998; Deegan, 2002). Legitimacy has long been recognised as an important organizational resource. However, securing legitimacy for organizational activities is far from straightforward, and frequently becomes problematic. Acquiring and mainting legitimacy is a chronic difficulty for most organisations, regardless of how widely supported they have been in the past (Ogden and Clarke, 2005, p. 313). Secil faces this situation as maintaining its legitimacy becomes problematic and difficult. These difficulties may arrive for many reasons, but as Neu *et al*. (1998, p. 265) argues: “contradictions invariably exist between the organizational actives used to generate profits in a competitive global economy and other social values”. And adds: “the intersection of fractionalized social values, well-organized and vocal interest groups, and the necessity to operate in a competitive global economy has made organizational legitimacy increasingly important yet more difficult to attain” (p. 266).

Throughout our study we note the Secil's difficulty to attain its organizational legitimacy. Secil had to act when faced with legitimacy threats, as we conclude from the interviews findings and sustainability reports (and others sustainability materials) analysis. Interviews with managers and technicians involved in the preparation of the sustainability report (and other sustainability information) confirmed that what was communicated in the sustainability report (and other material) was seen as strategically important. It reflects how the company wished to present itself. Suchman (1995) provides a rich framework for analysing managers' pursuit of legitimacy as it differentiates between three activities: gaining, maintaining and repairing legitimacy.

More than just evaluating Secil's communication strategies we also aim to evaluate Secil's legitimacy activities. The company adopted different strategies when faced with co-incineration controversy and the Outão plant location. From our study we conclude that the different strategies adopted have the main focus on "repairing legitimacy strategies" (although it is also possible to identify some gain and main strategies used by Secil). Suchman (1995, p. 597) argues that repairing legitimacy, while resembling the task of gaining legitimacy is distinct in that it "generally represents a *reactive* response to an *unforeseen crisis* of meaning" (emphasis on the original). In fact, Secil could not imagine the controversy that the co-incineration would generate. Secil felt the necessity to explain exactly what had happened to the stakeholders, having a reactive response, in order to repair its legitimacy.

Suchman (1995) alerted to the "retraction cascade" and "negative contagion" that may drive in this situation. In fact Secil was aware of that and acted as Suchman (1995, p. 597) suggests: "the delegitimated organization must first address the immediate disruption, before initiating more global legitimation activities. In particular, organizations must construct a sort of "firewall" between audience assessments of specific past actions and audience assessments of general ongoing essences".

Suchman (1995, p.600) presents a table that locates the foregoing legitimation strategies. He crosses the pragmatic-moral and cognitive trichotomy with correspondence to the acquisition-maintenance and repair trichotomy. From our study we conclude that Secil in a major way, uses legitimacy "repair strategies" to defend and downplay its sustainability performance and activities related to media pressure in order to "remediate" its public image. This is consistent with Deegan (2002, p. 296) that argues that where managers perceive that organization's operations are not commensurate with the "social contract" then, remedial strategies are predicted. Because the theory is based on perceptions, any remedial strategies implemented by managers, to have effect on external parties, must be accompanied by disclosure. That is, information must be necessary to change perceptions. Suchman (1995) point out the repair legitimacy strategies as follow: (1) General: normative; restructure; don't panic; (2) Pragmatic: deny; create monitors; (3) Moral: excuse/ justify; disassociate – replace personnel, revise practices, reconfigure; (4) Cognitive: explain. Below we identify for Secil's case some of these "repair" legitimation strategies that the company, in attempts to repair legitimacy, used to avoid negative or desirable qualities being attributed to them.

Don't Panic

Suchman (1995, p. 599) defend that "managers facing a legitimacy crisis should avoid panic. Although this injunction may sound facetious, it is not. (...) legitimacy repair also resembles legitimacy maintenance in that both require a light touch and a sensitivity to environmental reactions. (...) Delegitimated organizations that seek too frantically to reestablish legitimacy may dull the very tools that, if used with patience and restraint, might save them".

Secil acted with patience, with a light touch and with sensitivity to environmental reactions. This is reported by I4 (see 6.2.3. section) when the board of directors made an appointment with all employees to tranquilize and explain them that they will protect their interest and do everything that is possible to solve the co-incineration controversy question. Employees were in panic. I1 adds that when she saw on the television the population protest, she first panicked and then was surprise. She also referred to the very coherent attitude from the administration. Other sessions were held for clarification to avoid panic among employees. This attitude from the administration was very important to repair Secil's legitimacy with the employees.

Create monitors

One type of restructuring, that play particularly large roles in this regard, is the creation of “monitors and watchdogs” that allows the organiszation to "post a bond" against future recidivism by, for example, inviting government regulation (Suchman, 1995, p. 598). Secil created an environmental monitoring committe on which various public and private organizations from within the Setúbal municipality were represented, such as environmental NGO’s; local government, universities and others. Information about the Committee’s aims, its regulations and agenda, as well as its rules of procedure and other information were available at Secil’s webpage (www.secil.pt). In the sustainability report an explanation of this process and its aims are given in “Addressing the expectations of the stakeholders” section:

“Secil voluntarily began a process of consulting interested parties through the setting up of Environmental Monitoring Committees (CAAs) at its manufacturing plants, the aim of which is to bring the Company closer to the community surrounding the plants; provide more and better information on its industrial and environmental activities; assess the levels of compliance with the environmental requirements; improve its performance; and build up the confidence of the citizens in the Company” (Sustainability Report, 2007, p. 96/97).

The underline is our, to emphasize the importance of this expression. It is clearly a repair legitimacy strategy, as the company wants to increase citizens’ confidence. It is aware that the confidence was shaken. They also explain the intension of being transparent they want to give and the independence of this process:

“The CAAs meet regularly to analyse the information made available by the company on its performance, also allowing other entities to ask questions on environment, health and safety issues that the citizens would like to see answered.The committees are autonomous in their functions, and their members have full access 24h a day to the plants. Secil provides financial resources for the hiring of specialised companies that provide them with technical support and consultancy services, thereby guaranteeing an effective independence in their activities” (Sustainability Report, 2007, p. 97).

Next, they detail the major subjects discussed in 2007, in the CAAs in the three plants: Maceira-Liz Plant; Cibra-Pataias plant and Outão Plant. They assume that the large basic question discussed in the CAA at Outão was the reuse of hazardous industrial wastes (co-incineration process).

In the “strategic goals for 2006-2010” section (SR, 2007, p. 157), the action: “consultations with the interested parties and transparency in the exercising the business activity, through the creation of Environmental Monitoring Committees at the Plants”, have 100% of degree of compliance.

Justify

Secil does not use “deny” or “excuse” strategies as they know they are not doing anything wrong. They do not feel “guilty”. Managers may attempt, instead, to justify the disruption, redefining means and ends retrospectively, in order to make the disruptive events appear consonant with the prevailing moral and cognitive beliefs. In Secil’s case, the use of “justifications” usually consisted of explaining initiatives that Secil cared for to have a better understanding of their impacts and to minimize them. In section 5.5. it is mentioned that Secil recognizes its negative environmental impacts and it is noted how they try to minimize them. They justify the co-incineration process as they believe it is a good thing:

“This important step means a strong enhancement in the sustainability of the Cibra-Pataias plant, mainly through reduction of energy costs and CO_2 Emissions” (Sustainability Report, 2007, p. 80).

And show that many people already recognize that:

“About 62% of the population recognises that the plant at Outão has made an effort to reduce the environmental impacts of its activity. It is probable that actions of greater openness of the plant to the public, such as the open house week, have contributed to that, as well as dialogues with the public, of which we mention in this regard the flyers sent out in the media and the work done by the Environmental Monitoring Committee” (Sustainability Report, 2007, p.80).

And present different studies with similar conclusions such as:

“The emissions from Secil do not affect humans nor plants and animals of the Arrábida hills, as is shown in the assessment of risk for human health and ecology” (Sustainability Report, 2007, p.99)

A justification for the main plant location is also given. They said that Secil already existed in that place before the creation of the Natural Park (as p. 86 and I4 arguments).

Probably because of that, Secil does not feel guilty, either, in this issue, as they already were there and already did studies of landscape restoration before: the first studies of landscape restoration in the Outão quarries were made in 1965, about a decade before the creation of the Arrábida Nature Park .

Disassociate

Ogden and Clarke (2005, p. 332) argues that a common form of dissociation occurs where an organization seeks to distance itself from undesirable events. For example by initiating change in personnel which may serve, at least symbolically, to distance the organization "from bad" influences. As explained by I1, in Secil the board of directors has had almost no changes over time. But Suchman (1995) argues that disassociate strategy could also have been accompanied by review the practices or reconfigure actions. In Secil's case, we can recognise some review of the practices and actions actions such as the improvement of sustainability organizational structure in order to optimise the process of collecting and processing data, making the system more robust and expedite, as explained before. The production of the sustainability report that, as explained by I3, led the company to a review the sustainability practices ("when we have to write what we do, we think more about it") could also be pointed as revise practices. Adoption of the GRI Guidelines in producing its sustainability report, can also be pointed out as a review of the Secil's practices. They clearly said that the purpose was satisfying the stakeholder's expectations and that the GRI guidelines introduction was just a way to organize the information but they also assume that they learn much with the process (for example about the need to improve stakeholders dialogue as I5 said). We conclude that Secil also review its communication to employees practices, as they began to be closer to employees by having meetings and training about "all the good things" that Secil does, as reported by different interviews.

Explain

Managers should explain the disruptive events in a way that preserves an otherwise supportive worldview. Probably this is the most used strategy by Secil to repair legitimation. From the interviews and from the other analysed sources we conclude that one of the most important objectives of Secil, was to explain what is the co-incineration process and what the company is doing, because it is not an illegal process.

In a brochure published by Secil about co-incineration they emphasise this setence: “Often, what affects the environment is the lack of information.” Secil wants to disclose this message and contribute to the end of “lack of information”.

Many references appear in the sustainability report (see Table 5.8) regarding to legitimacy gaps. It is easy to find paragraphs explaining what the process is, that it is legal and that it is used in many countries, and also explain its advantages, such as:

“The co-incineration of hazardous industrial wastes (HIW) is a process that has been widely used in industrialised countries, especially in Europe, for more than 20 years, not only being legal under Community law, but also a practice that is recommended by the Stockholm Convention for the disposal of HIW” (Sustainability Report, 2007, p. 93).

In different initiatives Secil has the intention of explaining this process. For example they notice that a delegation of people from the Humanitarian Association of the Volunteer Fire Department of Águas de Moura (Palmela), visited the Secil-Outão Plant:

“Information was provided on the running of the Plant, with special <u>attention given on the co-incineration process</u> and on the safety of the premises (…), the delegation expressed their satisfaction with what they had seen, and said they considered Secil to be a good example of environmental responsibility and commitment to safety” (Sustainability Report, 2007, p. 132).

This is one of many examples that clearly shows the legitimation strategy adopted by Secil. On one hand they explain the co-incineration process, and on the other hand they repair Secil’s legitimacy by showing that people that come and see what they do, conclude that Secil is a good example of environmental responsibility.

Regarding the Arrábida issue, the company shows the some behaviour: explains what they are doing to minimize the environmental impact in the Natural Park of Arrábida. They notice initiatives such as: the participation of Secil, as a sponsor, in the Life-Biomares Project for the restoration of the marine prairies at Arrábida; in the development of studies to assess the feasibility of revitalising the marine environment of Arrábida through the creation of artificial reefs; the Biomares project with the aim of restoring the biodiversity of the area of the Arrábida Marine Park and implementing various actions of environmental management. People visiting can obtain information about these initiatives and they can also visit to the nurseries. With regards to co-incineration issues and Arrábida issues, Secil also uses “explain” as a repair legitimacy strategy.

There are Secil’s actions that could be referred in more than one repair legitimacy strategy. This section just organizes a set of ideas already explored in previous sections in order to codifying then according to Suchman (1995).

5.7. Conclusions and future research

This study aims to identify the legitimacy strategies employed by one of the largest Portuguese cement companies (Secil) to defend and downplay its sustainability performance and activities related to media pressure. Secil operates in an environmentally sensitive industry where management is constantly exposed to ethical and social issues. The company also faces media pressure regarding to two major controversies: co-incineration and the Outão plant location.

To achieve these aims, different data sources were analysed, such as sustainability reports, media articles, press-releases and other material produced by the company. Interviews were also conducted with “sustainability accounting and reporting related” Secil professionals.

Our review of prior research suggested that sustainable development appears to have no common understanding either on the definition or on the possible measures needed to be taken in order to achieve it. Different authors have been contributing to this debate and some attempts seem to clarify it. In Secil’s 2007 sustainability report a similar definition to the Brundtland report is given and interviewees also follow this concept when questioned about what they mean by SD. Yet, some try to complete this concept and talk about the difficulty to internalise this concept within the organisations.

Secil already publishes its sustainability issues since 2000 but only in 2005 it began to adopt some orientations from GRI guidelines. Besides the sustainability report, Secil uses many other materials to communicate its interest in defending the environmental and social issues. Their discourse is mainly “we do this, we do that..” but they also declare that Secil´s activities have negative environmental impacts that they try to minimise. In a general way, employees are proud to work in this company and they are well informed about the controversy questions that the company has faced over the last years.

From the evaluation of the public pressure by analysing media articles in “Expresso” newspaper, we conclude that the most focused topics mention the co-incineration process. Not all the news about this issue are negative. There is also some positive media coverage as co-incineration is a legal process. This is a situation in which companies are placed in the spotlight and see their legitimacy threatened not because they have done something detrimental to the environment but because the potential for detrimental environmental impacts resulting from their activities became the focus of the public and media attention. Therefore, the co-incineration process, the media articles and the interviews allow us to conclude that the Outão plant location is also a topic that threatened Secil’s legitimacy. Following Suchman (1995) legitimacy strategies, we could conclude that Secil adopts different repair legitimacy strategies in an attempts to repair its legitimacy and uses them to avoid negative or desirable qualities being attributed to the company.

Strategies of “don’t panic”; “create monitors”; “justify”; “disassociate” and “explain”; were indentified in Secil’s action after the mentioned controversies. In fact, Secil follows a group of actions to respond to the company “crisis” and to the social pressure driven by media coverage. They act internally and externally. Internally, for example, they avoid panic by having a meeting with all employees to tranquilise and explain to them that Secil will protect their interest and do everything that is possible to solve the co-incineration controversy question. This attitude from the administration was very important to repair Secil’s legitimacy with the employees. To increase stakeholders confidence Secil created an environmental monitoring committee on which various public and private organisations from within the Setúbal municipality were represented, such as environmental NGO’s, local government, universities and others. This reflects Secil’s intention of being transparent and restore its image of “hiding something”, as co-incineration was seen by some people. Justifying what they are doing was another legitimacy strategy. We can easily find in the sustainability report and in others materials, the explanation about the initiatives carried out by Secil in order to allow for a better understanding of their impacts and the way used to minimise them. A justification for the main plant location is also given. They said that Secil already existed in that place before the creation of the Natural Park. Some "disassociate strategies" were also adopted by Secil, such as improving sustainability; the adoption of the GRI Guidelines in producing its sustainability report; improving their communication practices towards the employees.

Probably this most used strategy by Secil to repair legitimacy. From the interviews and from the sustainability report, as well as from other analysed sources, we conclude that one of the most important objectives of Secil, was to explain what is the co-incineration process and what the company is doing, because it is not an illegal process. All these conclusions support the argument that sustainability strategies remain a powerful legitimacy tool.

In future research it will be interesting to extend the interviews to the different Secil stakeholders (and not just the employees) in order to obtain a view "outside" of the organization on how they perceive Secil's responses to these legitimacy threats. Also probably stakeholder theory framework could be explored together with legitimacy theory. Discourse analysis could also be explored in future research as it might provide more insights about companies' legitimacy strategies.

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Appendix 5.1 - Research protocol with Secil Company

Leiria, 21 de Junho de 2007

Dear Mrs Jim Mintern (Accounting Responsible of Secil Group)

I am a doctoral student in Management, specialization in accounting, in the ISCTE Business Scholl (Instituto de Ciências do Trabalho e da Empresa), in Lisbon. I am developing my PhD project in the Social and Environmental accounting topic, (topic that I already studied in my Master). The present study aims to analyse and evaluate the social and environmental disclosures practices. The main objectives are:

1. Analyse international publication about social and environmental accounting, to understand what disclosure practices are in other countries;
2. Make a case study of a Portuguese company, which is present in different markets with the objective of understanding which is its disclosure practices in Portugal and in the other different countries;
3. Analyse the case study from the legitimacy theory perspective.

Data collection will be made using two different methodologies: content analysis of the annual reports, environmental/sustainable reports and other company's documents, relevant to this topic. In a second steep I aim to do semi-structured interviews to the financial and environmental department directors and employees.

Secil is an ideal company for what I want to do, as it has a good environmental protection policy and has different social initiatives. Moreover, it is present in Angola, and I have a special interest in studying an African country.

That is why, I would like to ask for the possibility of making my case study, to my PhD program about your company, Secil. I think it could be interesting for the two sides as I will give you all the information produced and all the conclusions about the study. Obviously, confidential questions will be respected.

I look forward for your reply and I am totally available to give you more details about this project.

Sincerely,
Teresa Eugénio

PhD student in Accounting (ISCTE Business School)
Supervisors: Prof. Ana Isabel Morais e Isabel Lourenço

Note: This research protocol was submitted to Secil based on the original Ph.D.project, which later changed.

Appendix 5.2 – *Expresso* newspaper articles on the environmental theme

Expresso Newspaper news about Secil company (from January 1998 to August 2008)

Number	Edition	Day	Month	Year	Theme	Category	Subject	Articles's Title	Main paragraph	Favourable/ Unfavourable/ Neutral
1	1348	29	8	1998	Environmental	3. polution from business operation	co-inceneração	Alhandra e Leiria são hipótese	O ESTUDO de impacte ambiental para a escolha das duas cimenteiras que irão - a partir de meados do próximo ano - queimar cerca de 100 mil toneladas de resíduos industriais, grande parte dos quais tóxicos e perigosos, não detecta quaisquer inconvenientes ambientais para nenhuma das quatro cimenteiras alvo de análise: Maceira-Liz e Outão, da Secil, Souselas e	Favourable
2	1352	26	9	1998	Environmental	3. polution from business operation	co-incineração	Arrábida e Alhandra escolhidas	A SCORECO - a empresa criada pela Secil, Cimpor e pelo Grupo Suez-Lyonnaise des Eaux - está a pressionar para que a selecção das cimenteiras para a queima. Se depender das cimenteiras, a decisão sobre os dois locais para incineração de lixos está tomada n181--> A SCORECO - a empresa criada pela Secil, Cimpor e	Favourable
3	1355	10	10	1998	Environmental	3. polution from business operation	co-incineração	Resíduos perigosos aumentam	A empresa, que irá instalar sistemas de co-incineração em duas cimenteiras da Secil e Cimpor, bem como uma unidade de pré-tratamento no Barreiro,	Unfavorable
4	1365	24	12	1998	Environmental	3. polution from business operation	co-incineração	Resíduos em terra queimada	A ministra irá na próxima semana autorizar a queima de cerca de 16 mil toneladas de resíduos perigosos em duas das quatro cimenteiras da Secil e da Cimpor	Favourable
5	1366	31	12	1998	Environmental	3. polution from business operation	co-incineração		Às onze da noite de segunda-feira, em frente da fábrica cimenteira da **Secil** em Maceira, no concelho de Leiria, discutia-se luta armada e «directos» da SIC	Unfavorable
6	1368	16	1	1999	Environmental	3. polution from business operation	co-incineração	Governo esconde estudo contra opção de Souselas	O problema do financiamento. Entretanto, o Ministério do Ambiente está a tentar garantir um financiamento de 4,2 milhões de contos para a Secil e a Cimpor.	Favourable
7	1368	16	1	1999	Environmental	3. polution from business operation	co-incineração	O peso de uma cimenteira	A história da cimenteira de Maceira, actualmente pertencente ao grupo **Secil**, confunde-se com a da própria freguesia onde está situada, ao ponto de lhe ter	Favourable
8	1369	23	1	1999	Environmental	3. polution from business operation	co-incineração	Cimento de co-incineração aumenta doenças da pele	Ao invés, em França, a Scori (a empresa estrangeira que com a **Secil** ea Cimpor formam a Scoreco) realizou testes semelhantes entre 1985 e 1992 - de modo	Unfavorable
9	1374	27	2	1999	Environmental	3. polution from business operation	co-incineração	Parlamento não atrapalha co-incineração	A decisão parlamentar poucas modificações introduzirá na estratégia gizada pela Scoreco, empresa que tem a seu cargo a co-incineração nas cimenteiras da Secil	Favourable
10	1378	27	3	1999	Environmental	3. polution from business operation	co-incineração	Queima na cimenteira	O EXPRESSO apurou que o Ministério da Agricultura está a estudar uma proposta da Scoreco – a empresa de resíduos industriais ligada à Secil e à Cimpor	Favourable
11	1407	16	10	1999	Environmental	3. polution from business operation	co-incineração		Adiada a queima da carne com dioxinas A QUEIMA das seis toneladas de carne e outros produtos alimentares com dioxinas na cimenteira da Secil, na Arrábida	Unfavorable
12	1408	23	10	1999	Environmental	3. polution from business operation	co-incineração	Carne com dioxinas à procura de incineradora	De seis toneladas de massas de carne e patés cujo prazo de validade alegadamente tinha expirado, a hipótese da sua queima na cimenteira da Secil da Arrábida	Favourable
13	1408	23	10	1999	Environmental	2. Environmental management, systems and audit	Sistemas de gestão ambiental	Atraso na certificação ambiental afecta Portugal	A primeira empresa nacional a conseguir, no ano passado, este certificado ambiental internacional foi a fábrica da Secil na Arrábida	Favourable
14	1421	22	1	2000	Environmental	3. polution from business operation	co-incineração	Queima de pneus provoca níveis perigosos de dioxinas	Este especialista diz que «basta verificar a polémica e os efeitos nefastos da queima de pneus na cimenteira da Secil em Maceira (em média, cerca de 5 mil	Unfavorable

Number	Edition	Day	Month	Year	Theme	Category	Subject	Articles's Title	Main paragraph	Favourable/ Unfavourable/ Neutral
15	1422	22	1	2000	Environmental	3. polution from business operation	co-incineração	Farinha com BSE difícil de queimar	Com efeito, desde o início do ano passado, a Scoreco - a empresa ligada à Secil e Cimpor - tinha estado a efectuar estudos a pedido do Ministério da	Favourable
16	1440	3	6	2000	Environmental	3. polution from business operation	co-incineração	Sócrates testa co-incineração	O avanço da co-incineração em Portugal está apenas dependente dos resultados dos testes que vão ocorrer até ao fim do ano. «Os testes vão funcionar como tira-teimas», disse ao EXPRESSO o ministro do Ambiente,	Favourable
17	1447	22	7	2000	Environmental	3. polution from business operation	co-incineração		Recolheu mais de dez mil assinaturas num abaixo-assinado, já entregue no Ministério do Ambiente, contra a co-incineração na cimenteira da Secil, no Outão	Unfavorable
18	1471	6	1	2001	Environmental	6. Prevention or repair of damage to the environment resulting from processing of natural resources	Localização da fábrica do Outão	Campanha de Rosas sem flores	Foi assim quarta-feira, em Setúbal, onde Fernando Rosas aproveitou uma visita à cimenteira da Secil para denunciar a «destruição da serra da Arrábida» e ...	Unfavorable
19	1653	3	7	2004	Environmental	6. Prevention or repair of damage to the environment resulting from processing of natural resources	investimento ambiental		Secil investe no ambiente, A **SECIL** quer investir, até 2005, €22 milhões na requalificação ambiental da sua fábrica de cimento	Favourable
20	1678	24	12	2004	Environmental	3. polution from business operation	co-incineração		Experiência de co-incineração de resíduos industriais banais (não perigosos) - entre os quais pneus e farinhas da BSE - na cimenteira da Secil, no Outão	Unfavorable
21	1679	31	12	2004	Environmental	3. polution from business operation	co-incineração	Co-incineração por esclarecer	Cimenteira **Secil**, no Outão (Arrábida): as emissões produzidas pela queima de pneus inteiros podem ser piores que as da queima de resíduos	Unfavorable
22	1685	12	2	2005	Environmental	3. polution from business operation	co-incineração		Co-incineração de farinhas da BSE, O MINISTÉRIO da Agricultura deu luz verde à co-incineraçãode 25 mil toneladas de farinhas da BSE na Secil do Outão	Favourable
23	1706	9	7	2005	Environmental	6. Prevention or repair of damage to the environment resulting from processing of natural resources	investimento ambiental		A CIMENTEIRA **Secil** já gastou 28 milhões de euros no desmantelamento de estruturas fabris e recuperação ambiental na sua fábrica do Outão, na serra da	Favourable
24	1779	1	12	2006	Environmental	3. polution from business operation	co-incineração		Souselas. Idêntica decisão tomada pelo tribunal de Setúbal em relação à Secil foi anulada esta semana. O Governo vai recorrer. ...	Other
25	1787	27	1	2007	Environmental	3. polution from business operation	co-incineração		travada pelos tribunais IMPASSE O Tribunal Administrativo e Fiscal de Almada suspendeu a queima de resíduos perigosos na cimenteira da Secil no Outão,	Unfavorable
26	1797	6	4	2007	Environmental	3. polution from business operation	co-incineração		Os testes de co-incineração de RIP iniciados na **Secil** do Outão também estão suspensos por ordem do Tribunal de Setúbal, com base numa providência	Unfavorable
27	1798	14	4	2007	Environmental	3. polution from business operation	CO2	A Secil não se compara à Cimpor	A obrigação de reduzir as emissões de dióxido de carbono (CO2) provenientes da produção de cimento é a principal restrição para o desenvolvimento da indústria. Apresenta soluções e como a Secil tenta ultrapassar o problema.	Favourable
28	1840	2	2	2008	Environmental	3. polution from business operation	co-incineração	O triunfo da co-incineração	Suspenso por decisão judicial, em Janeiro de 2007, na sequência da contestação das autarquias de Setúbal, Palmela e Sesimbra e da Quercus, o processo só agora é retomado após o Supremo Tribunal Administrativo (STA) ter indeferido um novo pedido de providência cautelar, colocado pelos municípios, contra a forma de tratamento dos resíduos na cimenteira.	Favourable

Appendix 5.3 - Semi-structured interview guide

Entrevistas – Março 2009

PhD - Teresa Eugénio

1.Explicar os objectivos da entrevista

Phd, compreender a divulgação de informação ambiental e social pela Secil no relatório de sustentabilidade; perceber a percepção dos colaboradores sobre a legitimidade da organização.

2.Duração aproximada de 30m. Gravar? (preferencial)

Nome:____

Função:____

Ligação às matérias sociais e ambientais:______________________________

Data__________ Hora de Inicio:____________ Hora de fim:______________

QUESTÕES

1. Relatório de Sustentabilidade

1. De quem partiu a iniciativa de o publicar?
2. Quais os motivos que estiveram na base da decisão da sua produção e publicação?
3. Quem gere os seus conteúdos? Houve mudanças organizacionais exigidas pela sua publicação?
4. Que informação considera mais relevante e pertinente a incluir neste relatório? (ênfase nos aspectos ambientais? RH? Ligação à comunidade? Produtos e consumidores?)
5. Que vantagens/ desvantagens (dificuldades) vê neste tipo de divulgação?
6. Quem considera ser o publico relevante do relatório de sustentabilidade? Quem o recebe?
7. Qual a taxa de respostas ao questionário anexo ao relatório de sustentabilidade?
8. Seria importante o relatório de sustentabilidade ser auditado? Qual a entidade competente?
9. Considera que a introdução da GRI melhorou a performance da empresa?
10. Qual o seu conceito de desenvolvimento sustentável?

1.Legitimidade

11. Já alguma vez sentiu que a legitimidade da Secil foi atacada?

12. Como reagiram os diferentes Stakeholders? Tiveram todos a mesma reacção?

13. Houve alguma situação em que a Secil estava dentro da lei e que o publico *relevante* não aceitou? Ou alguma situação bem aceite pelo público mas que a legislação impedia?

14. Desde que faz parte dos quadros da Secil sentiu que ocorreram mudanças de valores que levassem à alteração da postura da empresa? Em que situação/decisão?

15. A empresa tenta acompanhar as expectativas do público?

16. Existe o objectivo de comunicar a alteração de métodos, políticas, metas da empresa pela informação social e ambiental divulgada? Qual o objectivo principal da divulgação da informação? O objectivo é informar? Educar? Manipular a opinião do público relevante?

17. A empresa contribui para causas sociais? Quais? Que motivos levam a Secil a contribuir e participar nestes "projectos de caridade"?

18. Conhece a legislação social/ ambiental a que a Secil está sujeita?

19. Considera importante que a empresa onde trabalha seja considerada uma empresa com legitimidade?

Muito obrigada pela sua disponibilidade!

Legitimidade – é uma percepção generalizada que as acções de uma entidade são apropriadas com o sistema social de normas, valores, crenças e definições (Suchman, 1995, p. 574) da sociedade em que esta inserida.

Appendix 5.4 - *Expresso* news with the chronology of co-incineration (Edition 1840, 2/02/2008)

EXPRESSO - O triunfo da co-incineração

... Forno 9 da cimenteira da **Secil**, no Outão,que esta semana começou a funcionar alimentado por resíduos industriais perigosos da Petrogal. **...**

O triunfo da co-incineração

Os hidrocarbonetos depositados no fundo dos reservatórios da refinaria da Petrogal, em Leça da Palmeira, serviram esta semana para relançar o processo de co-incineração de resíduos perigosos na cimenteira da Secil, no Outão. Suspenso por decisão judicial, em Janeiro de 2007, na sequência da contestação das autarquias de Setúbal, Palmela e Sesimbra e da Quercus, o processo só agora é retomado após o Supremo Tribunal Administrativo (STA) ter indeferido um novo pedido de providência cautelar, colocado pelos municípios, contra a forma de tratamento dos resíduos na cimenteira.

Alfredo Candeira, director de unidade fabril da Secil, considera que o nó da questão reside na "desconfiança" e " politização" do processo: "Não temos nenhum problema em que os ambientalista e autarcas visitem a fábrica para poderem verificar que tudo é feito no respeito pelas normas de segurança".

A Quercus tem outra opinião. Considerando a decisão do tribunal como "lamentável", solicitou ao ministro do Ambiente, Nunes Correia, esclarecimentos sobre a origem e as quantidades de resíduos perigosos a utilizar na co-incineração e teme atrasos na entrada em funcionamento dos Centros Integrados de Recuperação, Valorização e Eliminação de Resíduos Perigosos (Cirver). A associação ambientalista acusa a cimenteira de não ter uma "política de transparência credível" e recusa voltar à Comissão Ambiental da Secil, que abandonou em 2006.

Na manhã de terça-feira, o forno 9, da unidade fabril, foi alvo das atenções dos técnicos da cimenteira; preparavam-se para observar, na sala de controlo, o comportamento da introdução de lamas oleosas no processo de queima no forno onde se produz clinquer. O cimento normal é formado por cerca de 96% de clinquer e 4% de gesso.

"As lamas oleosas substituem em parte o fuel que alimenta o forno onde as temperaturas de cozedura do clinquer podem ir até aos 2000 graus centígrados", explica Alfredo Candeira, realçando este tipo de resíduos só podem entrar até ao máximo de 40% do valor calorífico.

José Manuel Palma, consultor da Secil e ex-presidente da Quercus, afirma que a utilização destes resíduos perigosos é corrente nas cimenteiras da Europa e que as fábricas espanholas de Huelva e Sevilha aceitam estes resíduos produzidos em Portugal.

Relativamente aos gases libertados pelas chaminés dos fornos, José Manuel Palma, coordenador de um Estudo de Impacto Ambiental (EIA) sobre a co-incineração na Secil de Outão, feito pela empresa, afirma: "Este trabalho foi feito de forma voluntária e revela que as emissões de dioxinas e furanos estão 10 mil vezes inferiores aos valores típicos em áreas urbanas".

Contudo, o consultor da Secil, apesar de garantir que "a fábrica de Outão é no mundo aquela que mais medições faz níveis de dioxinas e metais pesados", e do EIA revelar que "não existe qualquer risco para a saúde pública mesmo nos piores cenários", não faria da cimenteira a sua casa, assumindo assim a paternidade de uma afirmação feita no Estudo de Impacto Ambiental: "O nosso país é caracterizado por uma profunda desconfiança nas actividades industriais".

Texto de Mário de Carvalho
Fotos de José Ventura

25 ANOS EM BUSCA DE SOLUÇÃO

1983
Carlos Pimenta lança os primeiros estudos integrados sobre a produção de resíduos perigosos no país.
1990
Macário Correia lança um concurso para a construção de uma incineradora de resíduos industriais perigosos (RIP) em Sines. Protestos locais deslocam o projecto para Estarreja, onde é igualmente rejeitado.
1997
José Sócrates assina com a Cimpor e Secil um memorando para a co-incineração dos RIP.
1998
Elisa Ferreira escolhe Maceira e Souselas para avançar com a co-incineração, provocando a contestação das populações.
1999
António Guterres anuncia a criação da Comissão Científica Independente (CCI) para analisar o processo.
2000
A CCI dá parecer favorável à co-incineração no Outão e Souselas.
2001
As cimenteiras fazem testes.
2002
O Governo de Durão Barroso suspende o processo.
2003
O ministro Amílcar Theias lança como alternativa os CIRVER.
2005
O Governo socialista de Sócrates anuncia a retoma da co-incineração.
2006
Cimenteiras suspendem testes para a co-incineração por decisão judicial.
2008
Souselas e Outão retomam o processo por decisão do Supremo Tribunal de Justiça.

TONELADAS E TEMPERATURAS

52

mil toneladas é a capacidade anual de co-incineração de resíduos perigosos

1450

é a temperatura a partir da qual se forma o clinquer obtido por combustão de carvão, fuelóleo e gás natural ou alternativos como resíduos industrias perigosos e pneus

Appendix 5.5 – Secil sustainability report feedback form

Your opinion is our motivation. Help us improve!

We are counting on your opinion so we can continue to improve our work. We would appreciate it if you would give your evaluation of this report and send it to us. We will take your opinion into account in the preparation of future reports. **Thank you!**

Send your opinion to: E-mail: outao@secil.pt; Fax nº: 265 234 629 or SECIL – Companhia Geral de Cal e Cimento.
Eng. José Bravo Ferreira, Director do Departamento de Sustentabilidade, Programas e Iniciativas Externas
Fábrica Secil-Outão – Apartado 71, 2901-864 Setúbal

1. Your opinions about the topics in the report.
Use the classification from the following table:

	Very Good	Good	Average	Poor	Very Poor
1 - Clarity	A	B	C	D	E
2 - Usefulness	A	B	C	D	E
3 - Interest	A	B	C	D	E
4 - Graphics	A	B	C	D	E

Chapter/Topic	Classification				Observations
	1	2	3	4	
(example) Chap IV – topic 2	B	C	A	B	It would be interesting to mention the economic advantages of using alternative fuels

2. Overall, how would you classify this report?

Very Good ☐ Good ☐ Medium ☐ Poor ☐ Very Poor ☐

3. Would you agree that SECIL's activity is sustainable?

Fully agree ☐ Agree ☐ Wouldn't agree or disagree ☐ Disagree ☐ Disagree completely ☐

4. Have you seen the previous sustainability reports by SECIL?

Yes ☐ No ☐

If not, skip to question 6.

5. How would you classify this report in comparison with previous ones?

Much better ☐ Better ☐ Similar ☐ Worse ☐ Much worse ☐

6. Have you seen sustainability reports from other companies?

Yes ☐ No ☐

If not, skip to question 8.

7. How would you classify this report in comparison with others?

Much better ☐ Better ☐ Similar ☐ Worse ☐ Much worse ☐

8. Criticisms and Suggestions

____

____

9. List the main positive and negative aspects of this Report.

____

____

AGE: ________ **GENDER:** ☐ **Male** ☐ **Female** **PROFESSION:** ________________

AREA OF RESIDENCE: ________ **LEVEL OF EDUCATION:** ☐ **Pre-secondary** ☐ **Secondary** ☐ **Higher education**

Chapter 6

Conclusions

6.1. Overview of the research

This thesis is the result of an intensive, in-depth case study of a Portuguese cement company, which besides working in an environmental sensitive industry has been recognised for being socially responsible. Neverless, it has been exposed to media pressure when the co-incineration controversy began in Portugal. An interpretative theoretical form of analysis, using legitimacy theory, and all the conclusions, hope to contribute to improve the understanding of the importance of social and environmental accounting (hereafter SEA), and how it must change disclosure practices in companies.

The different models developed are designed to permit the exploration of SEA practices in order to understand different perspectives: regulation impact; media disclosure preferred; and sustainability practices as an answer to public pressure.

This investigation contributes to answer to different previously identified gaps. It adds to the scarce research on social and environmental responsibility disclosure by companies and provides to contribute to the SEA literature. It contributes to the development of legitimacy theory in different ways such as analysing mandatory environmental information; provide new empirical data about legitimacy communication strategies; and legitimacy repair strategies employed by the companies. It answers to different calls in the literature to analyse what companies are actually saying in their disclosures allowing us not only to identify the amount of corporate social responsibility (hereafter CSR) disclosure made by a company but also what kind of information this company decides to disclose in each media: web page and annual reports and sustainability reports. Exploring the companies' sustainability dimension, the approach of paper 4 responds to recent calls in social accounting made by Gray (2002), Thomson and Bebbington (2005), Parker (2005); Commission of the European Communities (2006) and Adams and Larrinaga-Gonzalez (2007) for further enrichment of the data collected from this field. Detailed conclusions are provided in each paper according to the purposes of each one.

6.2. Limitations and future research

This research has several limitations that can be viewed as opportunities for future research. The first limitation is related to its being an intensive single case study. As a result, the findings can provide little basis for generalisation, although this is not the aim of a case study (Yin, 2003; Ryan *et al*., 1992). This research is not trying to generalise, but to offer one set of insights into possible patterns of "social and environmental accounting disclosures practices". Future research should attempt to replicate this study in different organisational settings.

Others limitations may be identified: there might be content analysis issues associated with the level of subjectivity involved in the coding process; the analysis of any trend in the evolution of the importance of social and environmental accounting disclosure or the comparison with practices in others countries is not attempted. In view of these limitations, examples of extensions to the empirical studies are the use of more refined content analysis methods and the comparison of SEAD practices by Portuguese companies with its foreign counterparts, taking into account factors such as culture, politics, economy and society. Other limitation of the research concerns the semi-structured interviews. It will be interesting to have more than 8 interviewees as it will allow us to have a more complete picture of Secil, but only 8 people work directly in sustainability disclosure process. Specific limitations of each paper are identified in each one.

6.3.Some inner thoughts

Doing this kind of work, is sometime is a hard job…

I remember, in the beginning of my research, when I went to CSEAR (Centre for Social and Environmental Research) in Scotland, for 2 months, and Rob Gray told me that I should research with "passion". In fact, this advice was precious. Now I know that this is one of the biggest secrets for not giving up during all the problems and difficulties that can come across in a process like this one. I have been lucky for being able to choose a topic that I'm in love with: sustainability; environmental and social accounting; social responsibility. As I believe in a better world and as I believe that society has a big responsibility towards this planet, as well as each person as. So I believe that the more we talk about these issues, the more we research in this topic, the more we go to the companies and see what they are doing and speak with people, probably the more we are making them to think about this question.

I remember a story that I heard for the first time in 2005, from a Brazilian colleague:
There was a big fire in the forest. A small and little bird, when it realised that, began to go to the river and to bring water in his small beak and put the water into the fire. And it repeated this job as fast as it could without stopping. Seeing that, a friend asks him: "What are you doing? Don't you realise that your beak is so small and the fire is so big?" Looking at his friend, the little bird bravely said: I'm just doing my part.

With this work I have the purpose to do a small piece of my part!

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