

Corporate Environmental Reporting

Review of Policy Action in Europe

IIIEE Report
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Executive Summary

This study is initiated as a review of policy action aimed at regulating corporate environmental reports (CERs) in Europe with the view of giving guidance on the 'feasibility' of a mandatory scheme for corporate environmental reports in Japan. The scope includes a review of the latest developments in CERs, and an examination of selected mandatory reporting schemes within Europe.

From the onset it was important to highlight the distinction between environmental reporting and corporate environmental reports (CERs) as forms of environmental reporting. Mandatory environmental reporting has existed for sometime. An example of this is the USA Toxic Release Inventory (TRI). Currently, most CERs are the result of voluntary disclosure, and in the case of EMAS, companies are required to prepare an environmental statement annually, which should be designed for the public. However mandatory schemes to regulate and encourage the disclosure of environmental information along the lines of CERs and EMAS environmental statement are rare.

In Europe, countries such as Denmark and The Netherlands have recently introduced mandatory reporting by corporations to the general public and the government. Some other countries are introducing demands on companies to disclose selected environmental information in annual reports, stimulated by the recent European Commission's recommendations of 30 May 2001 to member states to take appropriate action to promote the disclosure of environmental issues in the annual accounts and directors' reports of companies.

Four schemes -the Danish, Dutch, Norwegian and Swedish - were selected for review. They do not necessarily represent schemes for mandatory CERs but have various elements of a CERs framework; mostly designed to improve public access to corporate environmental information.

The schemes are analysed from a number of perspectives including the legal framework, administration and enforcement, scope, verification and audit requirements, and rules on content. The conclusions that can be drawn from this analysis are limited to the design of the schemes. There is little that can be said about the efficiency or effectiveness of these schemes within the scope of this report. However it would be interesting to evaluate the schemes on economic efficiency and effectiveness.

We notice significant variation among the four schemes in the legal approach taken to institute mandatory requirements for environmental reporting. This variation in approach signals different objectives in terms of the content and target companies, and subsequently it impacts the administration and enforcement of the schemes.

The target companies in nearly all schemes are those subject to an environmental permitting process or fall under activities covered by national environmental laws. The only exception to this is the Norwegian scheme, which requires all companies to report on environmental issues in the annual accounts. The law in The Netherlands restricted the obligation to companies in sectors and of a size that have the largest environmental impact (around 250 companies).

All schemes seem to set rules on content. Some are more detailed than others. On a generic level the categories of disclosure covers both a management statement, and quantitative data on emissions and waste. Some schemes do require information about environmental impacts of products, e.g. the Danish and Norwegian schemes. Regarding verification, schemes set under the environmental law framework (Danish and Dutch) stipulate the need for verification but fall short from implementing this obligation.

Overall it is difficult to conclude about the effectiveness and efficiency of these schemes. This requires examining the schemes in terms of stated objectives and realized ones. A relevant question in this context

is whether any of these schemes represent the most efficient choice to create the desired changes in corporate environmental behaviour or improve public access to environmental information.

The action for increasing the number of reporting companies and improving the quality of reports perhaps rests not on direct regulation only but also on indirect and demand stimulatory measures. An illustration of this is the recent changes in pension fund regulations in many European countries. These changes require pension fund managers to declare to what extent they consider environmental and social issues in their investment decisions. This is expected to increase the pressure on companies to improve their environmental disclosure practices through demand pressure.

In our conclusion about corporate public environmental reporting and the regulatory scene in Europe, we support the cautionary remark by (Skillius & Wennberg, 1998) about the danger of patchwork of unrelated national regulations that would force for example multinationals to develop data-gathering structures for their mandatory national and voluntary corporate environmental reporting. This would be very costly and probably also inefficient. One way to avoid this is for national governments and businesses to support international efforts on global standards such as the Global Reporting Initiative (GRI).

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1. Introduction

1.1 Objectives

This report is a review of policies and measures adopted by selected European governments in the area of promoting and enhancing the quality of corporate environmental reports. It is intended to give an overview of role of governments in enhancing the use, spread and quality of public corporate environmental reports. The triggering question for this review was: What is the possible role for regulatory agencies in increasing the number of reporting companies, improve the quality of reports, and enhance the credibility of reports?

1.2 Scope

The spread and use of corporate environmental reports known as CERs was mainly driven by voluntary action on the part of companies and from a substantial contribution from non-governmental organizations and professional bodies. Mandatory disclosure of specific environmental information for governments and for licensing purposes existed long before the phenomena of CERs. This report focuses on governmental action to increase the number and enhance the quality of environmental reports for the public. Three issues were identified as relevant to understanding the evolution of governmental role in public corporate environmental reporting. This report addresses these issues under the following headings:

- Current trends in corporate environmental reporting & reports
- The state of debate/discussion on third party verification of environmental reports
- Regulatory schemes in the area of public corporate environmental reporting

1.3 Structure of the Report

The sections of the report follow the scope defined above.

Chapter 2 provides a brief introduction to current developments and trends shaping corporate environmental reports.

Chapter 3 is a review of the latest development in verification and other quality schemes and awards to encourage consistency and quality in CERs.

Chapter 4 is a review of regulatory schemes, focusing on country specific direct and indirect measures that may influence the publishing and use of corporate environmental reports.

Chapter 5 provides concluding remarks on the experience of selected European countries in regulating corporate environmental reporting and outlook on future trends.

1.4 Methodology

This is a desktop research review. This review is based on synthesis of published materials and secondary resources. Developments in corporate environmental reporting are periodically reviewed by a number of European and international surveys. We relied on these surveys to synthesize our views in chapters 3 and

4. For regulatory schemes we reviewed the original legal documents related to these schemes in English. In cases where we could not locate an official translation, we quoted non-official documents and translation.

2. Trends in Corporate Environmental Reports¹

2.1 Introduction

We think it is necessary to view corporate environmental reports (CERs) in the context of a wider discussion on corporate disclosure and public reporting. Companies under various regulatory regimes in the USA and Europe for example have been required for many years to report to public authorities about certain aspects of environment, health and safety issues related to their activities. Toxic Release Inventory (US) and Freedom of Access to environmental information (EU) are examples of mandatory environmental disclosure schemes. Thus in this report we make a distinction between environmental reporting and corporate environmental reports (CERs).

Environmental reporting can be defined as an umbrella term that describes the various means by which companies disclose information on their environmental activities. This should not be confused with **corporate environmental reports (CERs)**, which represent only one form of environmental reporting. CERs are publicly available, stand-alone reports issued voluntarily by companies on their environmental activities (Brophy & Starkey, 1996).

From the viewpoint of the degree of involvement of public authorities, environmental reporting can be categorised into these types of disclosure:

- **Mandatory disclosure:** Examples are the Toxic Release Inventory (TRI) in the US, and the Pollutant Release and Transfer Registers (PRTR) in some European countries, for example the UK.
- **Voluntary disclosure:** Examples are the annual environmental statement issued under the Eco-Management and Audit Scheme (EMAS), and any environmental information a company voluntarily makes available to the public such as in the form of CERs.

Mandatory schemes such as the TRI and the PRTR can provide a powerful incentive for companies to reduce their toxic releases. Simply by making toxic release information accessible to any interested party, encourages companies to take pollution prevention measures (OECD, 1996). Currently, most CERs are the result of voluntary disclosure, and in the case of EMAS, companies are required to prepare an environmental statement annually, which should be designed for the public.

As seen, mandatory schemes to regulate and encourage the disclosure of environmental information for the public along the lines of CERs and EMAS environmental statement are rare. However it is expected – at least at the European level - that there will be more mandatory schemes for corporate disclosure of environmental information in annual accounts and reports of companies. This trend is stimulated by the recent European Commission's recommendations of 30 May 2001 to member states to take appropriate action to promote the disclosure of environmental issues in the annual accounts and annual reports of companies (Commission, 2001).

¹ This section is largely taken from: Skillius, Å. & Wennberg, U. 1998. Continuity, Credibility, and Comparability: Key challenges for corporate environmental measurement and communication. Paper presented at the Continuity, Credibility and Comparability, Eze, France. Published as IIIEE communication 1993:3.

2.2 Developments in Corporate Environmental Reports

The first international survey of public corporate environmental reporting was published in 1993, titled, *Coming Clean - Corporate Environmental Reporting, Opening up for Sustainable Development*. One key feature of the study was a five-stage reporting model, running from so-called “green glossies” at Stage 1, through to sustainable development reporting at Stage 5 (DTTI, IISD, & SustainAbility, 1993). This was one of the first attempts to develop taxonomy of reporting.

The second international progress report on company environmental reporting, *Engaging Stakeholders*, was published by SustainAbility in 1997. The report is a result of a research programme supported by the United Nations Environment Program (UNEP) and sixteen international companies from Australia, Belgium, Denmark, France, Germany, Sweden, Switzerland, the UK and US.

Among the key findings in *Engaging Stakeholders*, the following trends were highlighted:

- A new and growing focus on verification, environmental benchmarking, performance indicators, full cost accounting and the implications of sustainability.
- Demands for environmental performance data are increasingly coming from market users (e.g., customers, financial stakeholders).
- Corporate environmental reports (CERs) are increasingly being used to monitor, benchmark and rank companies.
- An increasing demand for mandatory - rather than voluntary - reporting.
- Leading report-makers see the social dimension of reporting as a critical new area (SustainAbility & UNEP, 1997).

An international survey carried out by IIIEE on behalf of KPMG Environmental Advisors in 1996 (KPMG, 1997) showed that environmental reporting is spreading rapidly. The results varied between countries and industries, but the main trend was clear. More and more companies are publishing environmental reports and the quality of the reports has also improved. The “green glossies” have now almost disappeared due to stakeholder demands for quantifiable data, and most CERs represent a serious commitment by the company to monitor and improve environmental performance.

In September 1999 the results of the KPMG International Survey of Environmental Reporting 1999 were published. The survey showed that environmental reporting rose significantly in all the European countries examined, especially in countries with mandatory reporting rules (Denmark 29% in 1999 compared to 8% in 1996) and a high uptake of EMAS (Germany 36% in 1999 compared to 28% in 1996). The survey also showed that in complete contrast with the European trend, the proportion of top American firms issuing environmental reports fell from 44% in 1996 to 30% today (KPMG, 1999). The results of the KPMG international survey of 1999 as well as the main findings in three different timings are summarized in *Box 1* and *Table 1* respectively.

Box 1: Results of KPMG International Survey of Environmental Reporting 1999

- A substantial increase in the number of top companies world-wide producing an annual environmental report, from 13% of companies in 1993 to 24% in 1999, as well as improved quality of reports.
- In contrast to the European trend, the proportion of top American firms issuing environmental reports fell from 44% in 1996 to 30% in 1999.
- The scope of verification is still varied, and is a long way from a standard which readers rely on to guarantee the reliability of the reported data and information.
- There is a convergence of administrative and environmental registration systems in major companies, combining the framework and methodology of the financial controllers with the knowledge and expertise of environmental staff.
- Companies are now working towards a balance between financial, environmental and social/ethical performance and are starting to report in all three areas.

Source: (KPMG 1999)

Table 1: Main findings of KPMG Environmental Reporting Surveys, 1993-1999.

| | 1993 | 1996 | 1999 |
|--|-------------|-------------|-------------|
| No of companies surveyed | 810 | 1300 | 1100 |
| Response rate | 85% | 69% | 98% |
| No. with CER | 105 | 220 | 269 |
| % of those surveyed | 13% | 15% | 24% |
| % externally verified out of those that publish CER | - | 15% | 18% |
| Sustainable development covered | - | 12% | 36% |
| Top 250 companies with CER | - | - | 35% |
| Top 250 'polluting' companies with CER | - | - | 44% |
| % of 1100 surveyed companies with environmental information in other corporate reports | - | - | 47% |
| Progress with targets | - | 26% | 53% |

Source: (KPMG, 1999)

The most up to date survey, which was released by CSR Network Limited (2001), shed additional light on voluntary reporting trends. Among these trends is a growing convergence of environmental and social reporting issues on the corporate agenda and rapid uptake of the internet as a medium of choice for performance reporting. However the interest remains low (less than 13 %) for external verification of reports.

Recently there have been several attempts to create global registry and electronic information exchanges for corporate reports. Notable among these is the cooperative project between the German Federal Environmental Agency (Umweltbundesamt-UBA) and the London-based Next Step Consulting to create a comprehensive archive. The partners in this are building an archive of published environmental and sustainability reports from all over the world, which will be accessible to the public at UBA's library in Berlin. The number of reports now stands at approximately 2,400 (B&E, 2001). Detailed statistics of number of reports per country and business sector can be accessed through the URL: www.corporate-register.com.

In may 2002 a new online service will start to make it possible for the public to download an environmental report or order a hard copy for several companies. This service will be part of The International Corporate Environmental Reporting Site (www.enviroreporting.com). Companies who join this service will have the possibility to generate statistics about the type of stakeholders that ordered their reports.

2.3 Developments in Format, Style & Content

A number of guidelines for reporting have been published since the beginning of the nineties. The Public Environmental Reporting Initiative (PERI) in North America is one of the best known. Another established format of environmental reporting in North America is the one promoted by the Coalition for Environmentally Responsible Economies (CERES). Dozens of other organisations and governmental agencies have developed recommendations, standards or guidelines for environmental reporting. A more comprehensive inventory of reporting guidelines can be found on the *International Corporate Environmental Reporting Site* (www.enviroreporting.com).

Generally, guidelines tend to be in the form of checklists for the content of environmental reports, including both qualitative and quantitative information and both monetary and non-monetary data. Areas addressed in many of the available guidelines include:

- organisational profile;
- environmental policy;
- environmental management;
- legislative compliance;
- emissions;
- resource efficiency;
- life cycle perspective of product impacts;
- environmental liabilities & costs; and
- stakeholder relations.

With so many available guidelines in circulation, there is little consensus, leading to confusion over what guidelines should be used. It is precisely this reason why the Global Reporting Initiative was launched.

The Global Reporting Initiative (GRI) is an international, multi-stakeholder effort to create a common framework for voluntary reporting on economic, environmental and social impacts of organizational-level activity. The GRI committee released the first sustainability reporting guidelines in June 2000. Currently the guidelines are undergoing revision based on feedback from participant companies. According to GRI list, currently there are at least 84 companies globally using the guidelines for sustainability reporting (GRI, 2001).

Considering that the GRI offers a broad framework for format and style of reporting only, a number of protocols have been released addressing specific content in the reports. These protocols are intended to help companies address and develop metrics for specific indicators such as eco-efficiency, green house gases, financially relevant environmental information or industry specific indicators. The next sections provide summary of key developments in content related issues.

2.3.1 Reporting on GHG

To develop standards for GHG accounting and reporting, an initiative was launched under the umbrella of the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI) The Greenhouse Gas Protocol Initiative (GHG Protocol). The initiative brings together broad international coalition of businesses, non-governmental organizations (NGOs), government and inter-governmental organizations and leading experts on greenhouse gas emissions to develop internationally accepted accounting and reporting standards and promotes their use in companies and other organizations. The Initiative released the first edition of a protocol on standard for accounting and reporting of GHG emissions. The Protocol will allow business to report on their reductions of greenhouse gas emissions in a way, which is consistent with international financial reporting standards. Several corporations such as Dow Chemical, Ford Motor Company, General Motors, Volkswagen and IBM have already tested the instrument (WBCSD & WRI, 2001).

2.3.2 Reporting on Eco-efficiency

The World Business Council for Sustainable Development (WBCSD) launched an Eco-efficiency Metrics project, which resulted in the publication of a metrics report in June 2000 (Verfaillie & Bidwell, 2000). In this eco-efficiency project, a number of principles are recommended for the development of performance indicators.

The project classifies indicators into three categories;

- I: product/service **value**;
- II: environmental influences in product/service **creation**;
- III: environmental influences in product/service **use**.

The working group focused on generating a set of **generally applicable indicators** that can be used by all businesses and provides a globally accepted description and measurement method for them. The generally applicable indicators for (I) **product/service value** includes quantity of goods/services produced or provided to customers and net sale; (II) **environmental influence in product/service creation includes** energy consumption, materials consumption, water consumption, Greenhouse gas (GHG) emissions, and Ozone depleting (ODS) emissions. The working group argued that there are no generally applicable indicators for the **environmental influence of product/service use**. All indicators in this group are considered to be business specific.

WBCSD recommends that all companies collect and report data on the generally applicable indicators, but cautions that these indicators alone will not necessarily represent the eco-efficiency performance of a company. They will need to be combined with appropriate business specific indicators and meaningful eco-efficiency ratios to provide a company's eco-efficiency profile (Verfaillie et al., 2000).

2.3.3 Environmental Issues in Financial Accounting & Reporting

Considerable debate has taken place among the international bodies on the recognition, classification and quantification of environmentally induced costs, risk and liabilities. A number of recommendations were put forward in the 1990s by standardization and professional bodies such as the Financial Accounting Standard Board (FASB), Fédération des Experts Compatibles Européens (FEE) and the International Accounting Standards Committee (IASC). There are still considerable contradictions among the various recommendations and management still has a large element of discretion when deciding which environmental issues to recognize, how to measure these and what to disclose (Schalteger & Burritt, 2000).

2.4 Concluding Remarks

Since the last KPMG international survey of 1999, it is difficult to make empirical conclusions about developments in CERs beyond the global 100. However a few observations can be made about trends in CERs.

2.4.1 Integration

We can expect convergence of various reporting requirements on the environmental, social and economic issues. This convergence is facilitated by increased number of companies adopting integrated information management systems. With increased interest in social issues the scope of environmental reports is widening to include social, environmental and economic factors. Most guidelines now are shifting in the use of taxonomy from environmental reporting to sustainability, social responsibility or 'triple bottom line' reporting.

2.4.2 Standard Format

The Global Reporting Initiative (GRI) is expected to continue to drive the development in format and style thus building an international consensus for a standard reporting framework. At the same time recent country-specific initiatives to publish guidelines (UK, Germany and Denmark) of environmental and sustainability reporting and the ISO decision to pursue ISO standards for reporting can be seen as counter productive to the efforts of GRI.

2.4.3 Content

On the content side there is still considerable room for development. More focus will be given to sector specific indicators. This is reflected in the current focus of GRI working groups on sector specific issues. The greatest challenge is still in finding common grounds for social performance categories and indicators.

2.4.4 Medium

More recently, technological advances and the continued increase in Internet access have led to a surge in the use of the Web as a reporting medium (both for stand-alone reports and as an extension of hard-copy publications.)

Additionally the demand from the users side (particularly social responsible investing analysts) for consistency in format and the need to benchmark reports led to the development of information exchanges and common platforms for reporting. Companies have the option through membership to supply performance related data to any of these exchanges. The information is then presented to the public in a standard and easily accessible format. There are 4-5 attempts in Europe to establish such reporting platforms but so far none have the critical mass of companies to attract considerable traffic.

2.4.5 User Expectations

Recent pension fund reform legislations (e.g. in the UK, Germany and Belgium) put the obligation on fund managers to disclose to what extent they consider social and environmental issues in their investment analysis of companies. These reforms with the growth of the socially responsible investing market and ethical indices (e.g. UK FTSE4Good Index & Dow Jones Sustainability Group Index) are considered the key drivers for public environmental and social reporting from the demand side.

At the same time the view from companies on the demand side is mixed. In the latest evaluation of the Danish Green Accounts scheme, most companies complained that they hardly received any request or feedback from the general public for their published green accounts. Similarly our own experience with companies point in the same direction².

In a recent assessment of Swedish companies' experiences with various environmental management tools, most companies engaged with eco-labels and CERs indicated that they have experienced little improvements in their environmental performance as a result of these initiatives. Companies that have implemented EMAS are the only ones to indicate positive impacts on their environmental performance.

2.4.6 Regulations

Within Europe, several countries have passed legislation aimed at increasing environmental reporting – including The Netherlands, Denmark, Norway and Sweden. The experience of these countries with mandatory reporting is further examined in Ch 4. The relevant point to mention here is that there is considerable objection on the part of business leaders for any legislation on reporting. The argument from business leaders and some practitioners in the field is that environmental and social reporting is still in a development phase and needs considerable innovations. Any attempt to legislate now would stifle innovations.

² In a recent conversation with the environmental manager of a Swedish utility company, the manager bitterly complained that the company has decided not to publish a hard-copy environmental report any more because they think that the demand for it is not there. They will switch to Internet based reporting as an alternative medium and reduce the amount of information published.

3. The View on Verification

With the growth of corporate environmental reports there has also been the concern about the quality, credibility and reliability of the information presented in CERs and if this information is a fair and complete representation of company's environmental and social impacts. To enhance the credibility of their CERs, some companies choose to have their reports externally verified. However the process and methods of verifying non-financial information is far from being an established science. In the European context there was a substantive discussion during the 90s by various parties engaged in the reporting scene including environmental consultants, accountancy bodies and NGOs on issues such as: qualifications and credibility of verifiers, methodological issues, relevance and importance of a verification statement, scope and costs. The accountancy bodies seem to have advanced the discussion the farthest with a stream of guidelines and position statements on verifications.

As a way of defining it, verification refers to any independent assessment as to the quality, accuracy and completeness of a company's report and can include audits, reviews, attestations or other forms of assurance (BSR, 2001). However it has to be recognized that this assessment is about the quality of the environmental report itself and it is questionable as to whether it assesses the company's actual environmental and social performance.

In this section we provide a brief summary of the latest developments as advanced by the accountancy bodies, some of the key challenges from a methodological view, future outlook on adopting verification and key players.

3.1 *The role of professional and accountancy bodies*

A rapidly growing number of organizations have begun to offer environmental and social verification services, all with varying qualifications. In the case of verification of environmental reports, the qualifications of the verifier are of vital importance. The verifiers for EMAS statements, for example, need to be accredited. In order for verification to add credibility to environmental reports, the verifiers themselves must be credible. The same type of qualification requirements that exist within the financial auditing profession started to appear for auditors of environmental reports, since it is in the interest of both the verifiers and their clients to ensure a certain standard in the profession.

Professional accounting bodies such as the Association of Chartered Certified Accountants (ACCA), the Canadian Institute of Certified Accountants, the European Federation of Accountants and the Institute of Certified Accountants have been involved in the development of guidelines for the verification of both environmental and social reports (BSR, 2001).

The Fédération des Experts Compatibles Européens (FEE) is the representative organization of the accountancy profession in Europe. FEE issued a discussion paper on *Providing Assurance on Environmental Reports* with a follow up summary of responses to the discussion paper. Prior to the publication of this discussion paper, FEE finalised a Europe-wide survey of verifiers' statements in 1996. FEE found that an expert statement could add value to corporate and site environmental reports, but that current reporting is too varied for it to add value from a user perspective. One of FEE's main recommendations was that, given the absence of generally accepted guidelines on how to perform an audit of an environmental report, or how to report, expert statements should contain a description of the scope of the audit and the audit objectives. The report also suggests contents for the expert statement on an environmental report though it does not rule out the possibility of an "expectation gap" (FEE, 1999). An expectation gap occurs when the expectations of the users as to the uses to which corporate reports can be put, and the degree of reliance that can be placed upon them, exceed the expectations of the auditors responsible for delivering an independent opinion on such reports.

3.2 Verification and Verifiers

The demand side for verification is below expectations. Contrary to the expectations of various experts predicting that companies would opt for verification as means to gain credibility, the adoption has been slow. In the KPMG survey (1999), it was reported that only 18% of companies surveyed choose to have their reports verified by an external party. Only in industries where the public distrust of companies is high, verification was more common. According to the same survey companies in the chemicals and synthetics, oil and gas, and the utilities sectors are leading the way in the field of verification. The explanation for this is that the public pressure on these sectors is generally higher than for sectors that are perceived to have a lower environmental impact (KPMG 1999).

On the choice of verifier, the KPMG survey reports that the majority of companies tend to choose the large well known accounting and/or consulting firms to independently verify their environmental reports. The majority (56%) of verification statements were signed by business advisory firms. Though the large accountancy firms believe and say that they can do the whole verification job, environmental specialists argue that it must be a mixed team of environmental specialists and accounting professionals. In these cases the report or the statement itself often refers to the use of “team approach” to verification, involving both audit and environmental expertise in the verification team. In KPMG survey, 33 % of statements were signed by larger (environmental) consulting firms while 12 % were signed by firms that offer certification/registration and consultancy services.

In the following table we provide a list of key organizations involved in the verifications of CERs and their contribution.

Table 2: Consultants and Professional Bodies Involved in CERs Verification

| Institution | Function | Contribution |
|---|---|---|
| <p>FASB Financial Accounting Standards Board US-based independent body and the designated organization in the private sector for establishing standards of financial accounting and reporting</p> | <p>The mission of the Financial Accounting Standards Board is to establish and improve standards of financial accounting and reporting for the guidance and education of the public, including issuers, auditors, and users of financial information.</p> | <p>1. Aug. 17, 2001 Discussion paper on Disclosure of Information about intangible assets not recognized in financial statements. 2. 2001 Enhancing Voluntary Disclosure: Produced a report as part of the Business Reporting Research Project on insights into enhancing voluntary reporting outside of financial statements. (refers to EHS reporting as one example of information on management strategy).</p> |
| <p>FEE The Fédération des Experts Compatibles Européens is the representative organization for the accountancy profession in Europe</p> | <p>Setting Standards and Guidelines</p> | <p>Issued discussion paper for internal and external consultation on “Providing assurance on Environmental Reports”</p> |

| Institution | Function | Contribution |
|---|---|--|
| GRI Global Reporting Initiative | NGO: Multi-stakeholder working groups bringing consensus into the standards of environmental and social reporting | Established a working group to consider the whole issue of verification from who needs it to what parties can make it best happen. |
| IDW German Institute of Accountant | Professional Association | Developed draft guidelines for the verifications of environmental reports “Generally accepted standards for the examination of environmental reports” |
| DT KPMG PwC Arthur Andersen ADL Ernst & young | Business Advisory | Provide CERs audit & verification services |
| ERM DHV Environment & Infrastructure Sustainability EAQA | Environmental consulting | Provide CERs audit & verification services |
| Norske Veritas Lloyds Danish Standards Association | Certification / registration firms | Provide CERs audit & verification services |

3.3 Other quality schemes (AWARDS)

A number of social and environmental reporting awards have been launched since 1990. These include the UK Environmental Reporting Awards, set up by the Association of Chartered Certified Accountants (ACCA) in 1991. There are award schemes in many other countries such as in Sweden, Denmark, Norway and the Netherlands. The first European Environmental Reporting Awards were presented in May 1997, sponsored by professional accounting organisations in the UK, Denmark and the Netherlands. Since then several other countries have joined the scheme. With the recent focus on social reporting, ACCA and the Institute of Social and Ethical Accountability launched the first Social Reporting Award Scheme in May 2000. A more comprehensive list of award schemes can be found at the *International Environmental Reporting* site, www.enviroreporting.com.

In addition to award schemes, there are yearly ratings/rankings of published environmental reports, for example in Germany by IÖW, and in the Nordic countries by Deloitte & Touche. UNEP/SustainAbility and *Tomorrow* magazine also rate/rank and benchmark corporate environmental reports regularly.

The aim of the awards schemes and rating/ranking of environmental reports is to reward innovation and commitment to reporting, while promoting best practices. It can encourage innovation and leadership

and reward companies for their efforts. Interesting to point out that part of the description of best practice for these awards is a level of independent verification (BSR, 2001).

Each of the award schemes and rating/ranking organisations have set up their own list of criteria for what constitutes a good environmental report and how each criteria should be weighted. The award schemes have a significant effect on how the contents of environmental reports evolve, as they indicate what is considered to be best practice in environmental reporting. This means that the criteria for rating and ranking reports also act as guidelines for environmental reporting.

However, since an environmental report can have many different audiences with different needs, it is impossible to use the results of such ratings for assessing how good the reports are. Stakeholder needs vary; for example, environmental liabilities are more interesting for the financial sector, while customers might be more interested in information about environmental management practices and product stewardship. To understand different needs and interests, it is essential to communicate with stakeholders as an additional means to assessing if environmental reports have achieved their purpose (Skillius et al., 1998).

These awards and ratings often get much attention from the media, and in this way they promote a wider adoption of environmental reporting. But, unfortunately, they are often misinterpreted as a rating/ranking of the environmental performance and/or environmental management of the companies, rather than only a ranking of quality of environmental reports themselves. In any case, winning an award for the best environmental report has had a very positive impact on the image of the companies concerned. This is not surprising since the main use made by various stakeholders of the corporate environmental reports today is often as an indicator that the company takes environmental issues seriously and is open to dialogue with its stakeholders. The credibility of the environmental programme of any company thus increases with a good environmental report, and decreases when an environmental report is not available or is of inferior quality.

4. Environmental Reporting and the Role of Governments

In the European and North American context, governmental involvement in corporate environmental reporting dates back to earlier obligations on companies to disclose specific emissions or use of toxic materials in the context of citizen's right to know or freedom of access to information. An example of this is the EU Council Directive 90/313/EEC (*Freedom of Access to Environmental Information*, 1990), which requires all public authorities with responsibilities for the environment including some public companies to make environmental information available to the public upon request (Skillius et al., 1998).

Most mandatory reporting schemes however were designed with the obligations on companies to report to public authorities under various licensing regimes. Mandatory public reporting of environmental information is currently limited to a few countries, while mandatory reporting to the authorities is more widespread.

The increased demand for corporate environmental information from non-governmental actors stimulated the demand for voluntary reporting such as in the form of CERs. SustainAbility in *Engaging Stakeholders* concludes: *Because of the 'free rider' syndrome, where reporting companies are disadvantaged in comparison with some non-reporting companies, national and international government agencies are likely to come under growing pressure to review the need for regulated reporting requirements for key industry sectors* (SustainAbility et al., 1997). However our opinion is that any new governmental scheme focusing solely on CERs could perhaps be seen as redundant within the multitude of obligations on companies to disclose under various licensing regimes.

One of the key supporting arguments for mandatory public reporting perhaps rests in the need for streamlining and harmonizing the reporting process to satisfy multiple stakeholders and objectives. The following points summarize main views in support of mandatory environmental reporting by corporations in general (to both the general public and authorities):

- United Nations Environmental Programme is of the view that mandatory reporting obligations play a crucial role in promoting cleaner production and ensuring corporate accountability (UNEP & SustainAbility, 1994).
- Governments will continue to examine how to implement the recommendations contained in Agenda 21, particularly the part concerning *Environmentally Sound Management of Toxic Chemicals* (Chapter 19).
- Since many of the environmental problems are of a global nature, there is a need to create international registers of pollution. Mandatory environmental reporting system is a cost-effective way for the individual states to collect the necessary information.
- Also, there is a need for a regulation which indicates how to deal with environmental issues in financial reporting, since regulation is obviously a prerequisite for inclusion of these issues in the financial statements.

Because CERs are still evolving, there is the fear that mandatory regulation might put a limit to innovations in this field. An answer to this offered by (SustainAbility & UNEP, 1998) is that mandatory reporting of core environmental performance indicators does not exclude continued experimentation and development of corporate environmental reports in the direction of sustainability reporting. Companies will continue to produce and improve their environmental reports for the same reasons even when there are mandatory reporting requirements to comply with. In fact, as is suggested by the updated SustainAbility model for environmental reporting, without minimum mandatory reporting frameworks, sustainability reporting might not be possible (SustainAbility et al., 1998).

4.1 Mandatory Schemes in Environmental Reporting

4.1.1 OECD

The OECD published a guidance manual for governments regarding Pollutant Release and Transfer Registers (PRTRs) in 1996. There are already various national PRTRs that exist in many of the European countries (in the UK and France for example). A PRTR system usually calls for firms to report periodically on their releases and transfers of a variety of substances considered *high risk*. The information is made publicly accessible bearing in mind legitimate needs for business confidentiality. The results provide comparative quantitative information among reporters and have stimulated investors and other stakeholders to ask questions of firms whose performance is significantly below normal for their sector and demand improvement (OECD, 1996).

A PRTR thus provides a powerful incentive for reporters to cut releases and transfers. Corporate and environmental groups alike have said that PRTRs have had a stronger impact than many regulatory programmes even though a PRTR sets no mandatory improvement goals. Simply by making pollutant release and transfer information accessible by the public encourages firms to take pollution prevention actions (OECD, 1996).

4.1.2 The USA

In the USA there is the Emergency Planning & Community Right-To-Know Act (EPCRA) that established the Toxic Release Inventory (TRI), which requires all companies with more than 10 full time employees to submit data on their use, manufacture and/or emissions of approximately 600 different toxic chemicals to the Environmental Protection Agency (EPA). Around 20 000 manufacturing facilities and 200 federal facilities submit reports each year. This data is compiled and processed by the authorities and then made available to the general public over the Internet and through other channels. TRI is meant to be a public "report card" for the industrial community, creating a powerful motivation for toxic use reduction. This annual accounting of the nation's management of industrial toxic chemical wastes is a valuable source of information for concerned individuals and communities. Citizens can use TRI to evaluate local facilities through comparisons, determine how toxic chemicals are used, and, with other information, evaluate potential health risks for their community. Organisations can use TRI information as a starting point for constructive dialogue with manufacturing businesses in the area (Skillius et al., 1998).

4.1.3 EU

At the European level there is the EU Directive on Freedom of Access to Environmental Information (90/313/EEC), under which all public authorities with responsibilities for the environment must make environmental information available to any person who requests it.

The need for a European wide Pollutant Release and Transfer Register has long been discussed, but there is no definite plans or proposals for such a register at this time. The Council Directive 96/61/EC of 24 September 1996 concerning Integrated Pollution Prevention and Control (IPPC) contains some elements of a European wide PRTR, since it requires all installations belonging to the categories of industrial activities referred to in the directive to supply the competent authority with data required for checking compliance with the permit. The competent authority must in turn make this data available to the public and supply data to an inventory of the principal emissions and sources responsible to be published every three years by the Commission.

In an attempt to focus on reporting for the public by companies the EC further commissioned a study about corporate environmental reporting and accounting. The study (carried out by University of Sunderland, UK) surveys the annual/financial reports of a large number of companies (mainly EU) with a view to identify best practice and to evaluate the relevance and comparability of environmental

information that is disclosed. The study also recommends ways of improving reliability, comparability and usefulness of the disclosures (Jones, 1999).

A Commission Recommendation followed the study in May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies (Commission, 2001). The Commission Recommendations are expected to drive actions at the state level in environmental reporting. The recommendation asks member states to take action for inclusion of environmental information in company's annual accounts. Among the first countries to respond to this recommendation is Sweden with the issuance of *Miljöinformation i förvaltningsberättelsen* under law of accounts requiring companies to report on emissions and state significant environmental impacts in annual accounts.

4.1.4 European States

Within Europe, several countries have passed legislation aimed at increasing environmental reporting – including the Netherlands, Denmark, Norway and Sweden.

In Sweden companies operating on permits have to report back to the authorities on their environmental performance in relation to government regulation (SNFS 1993:1, MS57). From 1999 under law of accounts certain companies must report on emissions and state significant environmental impacts in annual accounts.

In Denmark from the fiscal year 1996, more than 3000 companies have to produce “Green accounts” under an amendment to the Environmental Protection Act. Similarly in the Netherlands, Legislation making environmental reporting mandatory for certain categories of companies has been introduced in 1999 as an extension of the Environmental Management Act of 1993. The Danish and Dutch regulations state clear objectives for reporting to both the authorities and the public.

In Norway the Norwegian Companies Act and the Law of Accounts state that the company must report whether it pollutes the environment and what actions and/or plans have been taken to prevent this. Companies with operating permits also have to perform self-controls and report back to the authorities on their environmental performance.

In Flemish Belgium, all organizations subject to environmental permitting are required to submit annual environmental report to the authorities (Department of Environment Permits). The report should contain data on annual emissions, waste substances, noise and a non-technical summary. Data related to emissions to air and discharges to water are accessible to the public (VMM, 1999).

Following the Commission's recommendation of May 2001, France just recently introduced new rules for disclosure of environmental information in annual accounts. From this year all publicly-quoted firms in France will be required to include data on environmental and social impacts in their annual financial reports. Regarding environmental impacts, companies will have to provide figures for consumption of raw materials, water and energy as well as polluting discharges considered to “seriously threaten” the environment (EnvironmentDaily, 2002).

Table 3 lists the various mandatory schemes mentioned above with brief description of the schemes. The mandatory schemes mentioned in the four European countries (Denmark, The Netherlands, Norway and Sweden) are further analysed in section 4.3.

Table 3: Mandatory Environmental Reporting Schemes in Europe

| Scheme | Introduced by | Country | Description |
|---|--|---|--|
| Freedom of Access to Environmental Information 1990 | EU Council Directive 90/313/EEC | European Union | <ul style="list-style-type: none"> Requires all public authorities with responsibilities for the environment to make environmental information available upon request. Information available to public. |
| IPPC Directive Article 19 1996. | The EU Council Directive 96/61/EC. | Pilot scheme proposed on EU level for 2002. | <ul style="list-style-type: none"> A European PRTR system. Information to Commission during pilot phase and then to public. |
| Disclosure of environmental issues in the annual accounts 2001 | Commission Recommendations of 30 May 2001 2001/453/EC | European Union | <ul style="list-style-type: none"> The Commission's recommendations of 30 May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies to member states to take appropriate measures to promote the application of this recommendation and notify the commission of measures taken. Direct impact on reporting: the commission encourages member states to take direct measures at national level. |
| Pollutant Release and Transfer Register (PRTR) of 1996. | OECD | for example in the UK. | <ul style="list-style-type: none"> Companies have to report periodically on toxic release transfers. Information available to public. |
| Miljoreport 1993 | Under Swedish Environmental Code (SNFS 1993:1) | Sweden | <ul style="list-style-type: none"> Companies operating on permits have to report to authorities regarding emissions. Information for authorities only |
| Miljöinformation I förvaltningsberättelsen 1999 Environmental information in the law of accounts | Under Law of Accounts | Sweden | <ul style="list-style-type: none"> Companies must report on emissions and state significant impact. Information available to public. |
| Annual Environmental | Under VMM | Belgium (Flemish) | <ul style="list-style-type: none"> Companies with permits must |

| Scheme | Introduced by | Country | Description |
|---|--|-------------|--|
| Report 1999 | Flemish Environmental Authority | | <p>report discharges to air, water and waste</p> <ul style="list-style-type: none"> Selected info is available to the public |
| Green Accounts 1996 | Under the Environmental Protection Act. | Denmark | <ul style="list-style-type: none"> Certain companies have to report on environmental impact. Information is available to the public. |
| Environmental Reporting Decree 1999 | Under an extension of the Environmental Management Act. | Netherlands | <ul style="list-style-type: none"> Certain categories of industry have to produce two environmental reports one to the public and one to the authorities Information is available to the public. |
| Decree 2002 – 221 February 2002 | Established under the Commercial Enterprises Law | France | <ul style="list-style-type: none"> All publicly quoted companies will be required to include data on environmental and social impacts in their annual financial reports Information is available to the public |
| Companies Act and the Law of Accounts. 1999 | Under Act of Parliament to extend the law of accounts | Norway | <ul style="list-style-type: none"> Companies must report on emissions and impacts and any preventative plans. Information is available to the public. |

4.2 Other Policy Actions Impacting CERs

In addition to mandatory schemes some European governments have taken various measures to stimulate and encourage corporate environmental reporting. The following subsections illustrate examples of public action in this area in selected countries.

4.2.1 Awards Scheme in UK

The UK has adopted a non-prescriptive approach to environmental reporting, so formats and quality of information tend to vary. However several schemes were encouraged to stimulate reporting among them the national Environmental Reporting Awards scheme organized by ACCA, the *Business in the Environment (BiE) Index of Corporate Environmental Engagement* and the encouragement from the Department of Environment, Food and Rural Affairs (DEFRA). The government has also challenged non-reporting companies listed in the FTSE 350 (UK Stock Market) to report by the end of 2001, and may become more prescriptive if this challenge is not met. The first indication of change of policy is the release by DEFRA of the first UK guidelines on reporting in October 2001 to encourage companies to measure and report key environmental impacts.

4.2.2 Standards in Germany

In 1997, the German Standardization Body (Deutsche Institut Fur Normierung) issued DIN 33922 "Leitfaden für Umweltberichte": guidelines for environmental reports for the public. Also similar to the UK, the government in Germany tried to stimulate and encourage environmental reports through issuing of guidelines and sponsoring of awards and ranking of German environmental reports.

The Ecological Economics Research Institute (IÖW) and the industry association (future e.V.) have regularly assessed the quality of German environmental reports since 1994. The German Federal Foundation for the Environment (DBU) supported this work. The assessment covered contents such as information on material and energy flow, lay our and clarity. The results of the ranking for the year 2000, as well as detailed analyses can be found on the Internet under www.ranking-umweltberichte.de.

The core results show that 44% of the largest German companies provide reports on the activities of the whole group concerning environmental issues, and this trend is increasing. The quality of voluntary environmental reporting is also improving. However very few German companies appear to consider the possibility that environmental reports could be interesting for investors, business partners, and clients within industry according to the ranking. The reason for this view is echoed in the statement by Annette Alpers, project leader future e.V.³:

There is hardly one environmental report that manages to combine environmental issues in an intelligent way with business chances and market developments. On the whole, the environmental understanding of many German companies only concerns their technical equipment and sites and this is reflected in the reports.

4.2.3 Indirect Measures

There are other regulatory schemes external to the reporting field that seem to have a spill over effect on corporate reporting. For example the recent pension fund reform laws in the UK and Germany, which require pension fund managers to state to what extent the fund manager considers environmental and social concerns in the investment analysis, are expected to drive more companies to publish environmental reports.

In Table 4 we list governmental actions and indirect regulatory measures stimulating more reports and better quality of CERs.

Table 4: Governmental Schemes in Support of Corporate Environmental Reporting

| Scheme | Introduced by | Country | Description |
|--|---|---------|--|
| DEFRA environmental reporting guidelines 2001 | The Department of Environment, Forestry and Rural Affairs | UK | Produced guidelines to encourage companies to measure and report key environmental impacts common to all companies Encourage reporting by the top 350 companies in UK |
| UK Pension Act 2000 Amendment to the Pensions Act 1995 | Under The Occupational Pensions Regulatory Authority | UK | Requires the trustees of occupational pension schemes to disclose their policy on socially responsible investments in their Statement of Investment Principles (SIP) ... |

³ The industry association and one of the partners in the ranking exercise

| Scheme | Introduced by | Country | Description |
|--|--|---------|--|
| | Secretary of State. | | disclosure of the extent (if at all) to which social, environment or ethical considerations are taken into account by pension fund managers Indirect impact in reporting by stimulating the use market for CERs ⁴ |
| Company law Review 2001 In the status of recommendations pending review | Under Department of Trade & Industry | UK | Companies should be required to produce an Operating Financial review each year that outlines <i>'the performance and direction of the business, including ... wider relationships, risk and opportunities and social and environmental impacts where these are relevant to an understanding of the performance of the business'</i> Direct impact on reporting: possibly could lead to direct regulation of environmental and social reporting in annual company accounts available to the public. |
| Ranking of Environmental and Social Reports | Sponsored By The German Federal Foundation for the Environment (DBU) | Germany | DBU sponsors projects to conduct annual review and ranking of top German companies' environmental reporting Indirect impact on reporting by: Enhancing reporting and producing guidelines and shaming non-reporters For year 2000 ranking see http://www.ranking-umweltberichte.de/press_e.html |
| Pension Reform May 2001 Valid in year 2002 | Reform of the state pension system: Amendment of Old-age Provision Act (AvmG) "The provider must declare in writing, whether and how ecological, ethical and social needs have been considered in the investment of pension contributions" | Germany | The new law, which becomes valid in 2002 requires investment companies, which offer occupational or private pension funds, to obtain a certification from the government in order to be able to profit from tax reductions. This certification is linked to annual reporting on social and environmental criteria used for the selection of investments within the pension funds. (EuroNature.com) Indirect impact on reporting by: Stimulating better disclosure practices |

⁴ For an assessment of the expected impact of the regulation on the disclosure practices of companies see report by UK SRI form report <http://www.uksif.org/publications/reprt-2000-10/text1-intmeth.shtml#intro>

| Scheme | Introduced by | Country | Description |
|-------------------------------------|--|---------|---|
| | contributions". Amendment of the Insurance Act "The pension fund trustee must inform its beneficiaries in writing as to whether and how ecological, ethical and social needs have been considered in the investment of pension contributions." | | of companies via pressure from pension fund investors |
| Pension Reform | | France | Similar regulation to UK & Germany is forthcoming |
| Pension Reform | | Belgium | Similar regulation to UK & Germany is forthcoming |
| Social Reporting Guidelines 2002 | The Danish Government has decided to develop guidelines for voluntary reporting of corporate social responsibility as part of the newly passed law on annual corporate reporting. | Denmark | Funding for development of Corporate Social Responsibility Reporting guidelines. A Consortium of KPMG, Copenhagen Business School and Oxford Research has been assigned to develop these guidelines. |

4.3 Detailed Review of Selected Mandatory Reporting Schemes

In this section we provide detailed review of selected reporting schemes from Denmark, Netherlands, Sweden and Norway. These mandatory reporting schemes represent a spectrum of regulatory measures in corporate environmental reporting in general. It is relevant to point out that these measures do not necessarily promote nor specify a format similar to voluntary CERs.

4.3.1 The Danish Green Accounts⁵

4.3.1.1 Background

Denmark was the first country to adopt legislation on public environmental reporting. Starting with the fiscal year 1996, companies with significant environmental impacts are now required to publish a so-called "Green account". Following a three-year transition period the number of reports (currently around 1200) is expected to increase and new guidelines are expected following an evaluation of the quality of the reports by the government.

⁵ Information extracted from the Danish EPA website: EPA, D.; Green Accounting in Denmark; <http://www.mst.dk/activi/07000000.doc>; 23 Nov., 2001.

4.3.1.2 The Legal Framework

The Green Accounts was introduced in an amendment to the Environmental Protection Act in June 14 1995, titled Act No. 403. The Environmental Protection Act is amended in section 35 as follow:

"35a.-(1) The Minister for Environment and Energy can lay down rules on the duty of listed activities periodically to prepare green accounts. The statement of accounts shall indicate the significant consumption of energy, water and raw material and the type and quantity of pollutants [...] forming part of the production process, which are discharged from the enterprise to air, water and soil or form part of products and waste."

Act No.403 of June 14 1995

In pursuant to the amendments, the Ministry for Environment and Energy issued statutory order No. 975, of December 15, 1995, laying down detailed provisions for Green Accounts. The provisions specify the categories of companies subject to the regulations, specifications for the statement of green accounts and detailed rules on submission, exemptions and penalties for failing to comply with the requirements.

4.3.1.3 The Scope

The duty to submit green accounts cover a range of specially polluting companies under the group of "Chapter five companies" as listed in the Environmental Protection Act. Today, about 1,200 companies are under this duty, while about 200 companies have taken the opportunity to file accounts voluntarily. 1998 saw the publication of 1,032 sets of accounts, 173 of which were voluntary.

The statement of accounts can be drawn for enterprises, plants or activities as specified in section 35 of the Environmental Protection Act⁶. Exception is given to companies or sites with EMAS registration⁷.

4.3.1.4 Administration & Enforcement

The green account management was designed so that the accounts could be published under the existing system of public access to financial accounts. The Danish Commerce and Companies Agency is in charge of the administrative aspects of collecting and publishing the accounts. The Danish EPA supervises the other aspects, including the quality requirements posed for the contents of the accounts.

4.3.1.5 Penalty & Fines

Companies can be liable to fines in the case of failure to comply with orders for provision of information according to the specifics of the regulation.

"15.-(1) Where the management responsible for the company fails to submit green accounts due, or where green accounts are submitted without the elements specified in section 10 above, so that the company's green accounts cannot be accepted for publication, the Danish Commerce and Companies Agency may use the remedy of compulsory weekly or monthly fines, upon which distress may be levied under the Act."

⁶ The statement of green accounts specified in subsection (1) shall cover the company as it is or will be described in the overall environmental approval of the company, with the activities, sites and fixtures which the local or regional council, in its capacity of environmental authority, considers as a listed unit of activities according to Part 5 of the Environmental Protection Act. Statutory Order No 975-Part I, Item 3(2)

⁷ A company registered under the Community scheme in pursuance of Council Regulation no. 1836 of June 29, 1993 allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme, may discharge the duty to submit green accounts by submitting the annual environmental statement validated by the accredited verifier to the Danish Commerce and Companies Agency. Statutory Order No 975-Part I, Item 4 (1)

4.3.1.6 Rules on Content

The order on green accounts specifies mandatory information in three main sections: introductory statement, management report and environmental data.

Typical information and statements in the accounts include:

- **Introductory Statements** Company name, sector, supervisory authority, main activities, significant side activities, licensed aspects, environmental authority
Short description of significant resources and environmental parameters.
- **Management Report** Explanation of significant deviation from last year's accounts
Explanation of choice of environmental data
Information about employee involvement
Health and Safety related to pollutants in the production processes
Information on external auditing (this can be both mandatory and voluntary)
- **Environmental Data** Energy, Water and Raw Material consumption
Information about pollutants (to air, water and soil) including data on contents of products
Information about noise, dust and odours

It is interesting to point out that many companies volunteered information beyond the mandatory list such as environmental policy and objectives and negative environmental impacts.

4.3.1.7 Evaluation of the Scheme

In January 1999, the Danish EPA decided to launch an external evaluation of the green accounts filed by 550 Danish companies. The aim was to establish a well-functioning basis for a dialogue on the future of green accounts.

Most green accounts fulfil legislative requirements, but have been in low demand. Companies preparing green accounts have generally achieved positive results, seen from an environmental, structural or financial standpoint. More details about the evaluation can be found in **Box 2**.

Box 2: *Evaluation of Green Accounts in Denmark*

The evaluation shows that five out of six sets of accounts essentially contain the basic data required by the act. Every sixth set of accounts shows high quality measured on all reference points, i.e. mandatory content, essential environmental data and layout. About 50% of the

accounts are of sufficient quality measured on the three reference points. Every third set of accounts shows actual quality defects either in the mandatory contents or in relation to environmental data, or because the accounting is incomprehensible. The accounting quality was found to improve significantly from the first year a company files accounts to the second. Almost 50% of the analysed accounts represented the company's first green accounts.

Professional users are aware of the accounts; they rely on them to a wide extent and use them to a certain extent. The public, i.e. neighbours to polluting companies and general consumers, are familiar with the concept of green accounts. Many people know where they can obtain a set of accounts, but their actual knowledge of the accounts is relatively poor, and they have considerably less confidence in the accounts and the process generating them than other stakeholders have. 10% of neighbours and general consumers have seen a set of green accounts.

In the companies' experience, interest in the green accounts has been quite low. 50% of all companies have mailed less than 10 sets of green accounts. Three out of four companies have received no response to their accounts. Companies having spent substantial resources on their accounts also register a disappointingly poor demand. However, the companies' general impression is that interest is growing.

As a main rule, the companies committed to preparing green accounts have achieved positive results in the area of the environment, corporate structures or finances or some combination of the areas. 40% of all companies have achieved environmental improvements. This is especially true for energy, water, raw materials consumption and waste. Many companies have initiated activities targeted at cleaner technology, and every fifth at environmental pollutants. 50% of the companies have involved employees in preparing the accounts - 60% of them with positive results.

The evaluation indicates that companies perform the same work twice by filing the green accounts and, e.g., the own-control reporting the companies make directly to the supervisory authorities. In future, there is a potential risk of additional double reporting and double work in areas such as employee involvement and health and safety conditions as well as reporting of environmental data, environmental reports and publication related to, for instance, international regulations and agreements.

Source: (EPA, 2000)

4.3.2 The Environmental Reporting Decree in the Netherlands⁸

4.3.2.1 Background

The environmental reporting decree in the Netherlands is unique in the sense that it clearly specifies the duty on selected companies to produce two types of report, one for the authorities and one for the general public. The government report is produced for provincial and licensing authorities and tends to be more quantitative. The public report is intended for all stakeholders and it takes the form of CERs. The Environmental Reporting Decree entered into force in Jan. 1999. It affected 250 establishments. Additionally about 150 companies publish a voluntary public environmental report. Also several other companies who signed one of the voluntary environmental agreements (environmental covenants) have to

⁸ Information extracted from: The Ministry of Housing Spatial Planning & the Environment; Environmental Reporting Decree; http://www.infomil.nl/overg/reglg/mlvsl/wetge/wmeng/_txt.htm; Nov. 27, 2001.

make an environmental report for the government with the same format as the mandatory environmental report.

The decree stipulates detailed rules on content of reports such as description of the reporting year; the nature of the establishments and its activities; the adverse effects on the environment caused by the establishment; and the technical, administrative and organizational measures taken by the establishment in order to protect the environment.

The decree also sets the obligation for external verification of the published reports. However this requirement is not implemented in the current testing phase of the regulation (Van der Molen, 2001).

4.3.2.2 The Legal Framework

The Environmental Management Act (EMA) was extended by an Act of Parliament dated 10 April 1997 to incorporate a new title: 12.1 entitled 'Environmental Reporting'. This title (sections 12.1 to 12.10 of the Environmental Management Act) establishes a regime by which establishments licensed by the province and which have a substantial environmental impact can be required to produce each year an environmental report for the authorities (government report) and an environmental report for the general public (public report). Reporting companies are required to make the public report available to any person for inspection; equally, any person will be able to request a copy of that report (Section 12.7, subsection one, Environmental Management Act).

4.3.2.3 The Scope

Some 300 provincial companies will be designated reporting companies by virtue of the criterion 'serious adverse effects on the environment.' Companies subject to this criterion are specified in an annex to the decree. Mostly these are companies subject to the issuance of a provincial license to operate under the Environmental Management Act.

The mandatory reporting decree is on site level⁹. The governmental report is related to the environmental permit of the site and has to be produced on a format of the government. In case a company has more than one site, the company can combine the public reports to one single report (Van der Molen, 2001).

4.3.2.4 Administration & Enforcement

The Act requires that the company send two copies of the report both to the province (the administrative body which granted the licence under the Environmental Management Act) and to the regional department of Rijkswaterstaat (Directorate-General for Public Works and Water Management) or the water board which granted the licence under the Pollution of Surface Waters Act (PSWA)¹⁰. The province forwards one copy to the regional environment inspector. The water quality management agency forwards one copy to the RIZA (Institute for Inland Water Management and Wastewater Treatment).

4.3.2.5 Penalties & Fines

⁹ Section 12.1, subsection two, of the EMA provides that the requirement to produce an environmental report shall apply to categories of cases, to be designated by order in council, where establishments may have serious adverse effects on the environment and for which the Provincial Executive is the competent licensing authority. The Minister of Housing, Spatial Planning and the Environment, *Explanatory Memorandum*, <http://www.infomil.nl/overg/index.htm> [20 Feb. 2002]

¹⁰ Section 12.8, subsection one

Failure to comply with the decree constitutes an offence under specific sections of the Economic Offences Act. The licensing authority is empowered to enforce the decree and impose fines¹¹.

4.3.2.6 Rules on Content

The decree specifies categories of information to be included in the public report.

The information requirement include:

- a. The nature of the establishment and the activities and processes in the establishment
- b. The adverse effects on the environment caused by the establishment including a summary of relevant quantitative data
- c. The technical, organizational and administrative measures taken by the facilities installed in respect of the establishment in order to protect the environment
- d. Information on the main changes that have taken place in the reporting year in relation to the previous reporting year
- e. Developments that may reasonably be expected in the next reporting year

The environmental report has to be formulated concisely and in a manner that is intelligible for the general public. Additionally, the decree also does not rule out the obligation to report on environmental measures taken in respect of products.

The Netherlands Society for Nature and Environment “Stichting Natuur en Milieu” and the Dutch Employers Organisation (VNO-NCW) published a small brochure giving guidance for companies for writing the public report.

4.3.2.7 Evaluation of the Scheme

The scheme is still under testing. There will be an assessment of the experience in year 2002. According to a member of the evaluation committee it is expected that the verification obligations will be enforced in the second phase of implementation (Van der Molen, 2001).

4.3.3 The Norwegian Law of Accounts¹²

4.3.3.1 Background

The Norwegian law of Accounts puts the demand for environmental information in the directors' report. This is a different route to regulating environmental reporting than the Danish and Dutch experience. In the Norwegian case, the reporting requirements are put forward under the Law of Accounts, which

¹¹ “Failure to comply with the following obligations constitutes an offence under Section 1a, at 2, of the Economic Offences Act: the obligation to produce a government report; the obligation to produce a government report the content of which complies with the rules set by or pursuant to this Decree; the obligation to submit the government report to the competent authority no later than the 1 April of the year following the reporting year, and the obligation to allow any person to inspect the government report, to provide a copy at cost price and to publicise these possibilities [...] Failure to comply with the obligations arising from this Decree may give rise to the imposition of a performance bond as an administrative sanction”. The Minister of Housing, Spatial Planning and the Environment, *Explanatory Memorandum*, <http://www.infomil.nl/overg/index.htm> [20 Feb. 2002]

¹² The information is extracted from unofficial translation of the law posted on the enviroreporting portal. URL: www.enviroreporting.com (sited 10/02/2002)

regulates corporate financial disclosures and responsibilities to shareholders, while the Danish scheme was introduced under the environmental protection act.

The Accounting Act specifies several detailed demands about information on the environment that is to be answered in the Directors Report. Several enterprises are producing environmental reports to the public that are either published as separate printed reports or as part of the enterprises annual report. There is no legal obligation to produce such environmental reports. The intention with this law is to give a basis for analysis of the activities of the enterprise in an environmental context, and to give a picture of the environmental obligations and its possibilities of development. It should be possible to understand from the account which ambitions and targets the enterprise has set, and what environmental limitations are expected from authorities, customers and suppliers.

Information shall be given about circumstances of the activities, including its raw material and products that may lead to a significant impact on the environment. Further information shall be given about which environmental impacts the different conditions of the enterprise contribute towards, and what initiatives are implemented or are planned to prevent or reduce negative environmental effects.

4.3.3.2 The Legal Framework

The law was introduced in an extension to the Norwegian Accounting Act in 1998 and for it to be effective in the beginning of 1999. The amendment is related partly to the Directors' Report (§ 3.3), which is a component of the annual report. The insertion states:

Information about conditions which may affect the external environment, an account must be given of matters relating to the enterprise, including its resource used in production and products, which contributes to an impact on the external environment and of the measures which have been implemented or are being planned to prevent or reduce negative impacts on the environment.

4.3.3.3 Scope

Our understanding is that there are no exemptions to this law. All companies regulated under the Accounting Act are required to comply with this, including small enterprises. This amounts to all companies in Norway. The environmental information is to be covered in the directors and CEO statement of the annual account; referred to as Directors Report.

4.3.3.4 Administration & Enforcement

The Ministry of Finance administers the law of accounts. However annual accounts are submitted to the national register of company information (Brønnøysund).

4.3.3.5 Penalties & Fines

There are no penalties imposed for not complying with this requirement.

4.3.3.6 Rules on Content

The Act specifies several detailed demands for information on the environment to be answered in the Directors Report. The information should give a basis for analysis of the activities of the enterprise in an environmental context, and to give a picture of the environmental obligations and its possibilities of development. The statement on content resembles the EMAS environmental statement.

The act specifies the following aspects that may be of importance:

- **Management Report**

Information shall be given about circumstances of the activities, hereunder its raw material and products, which may lead to significant impacts on the environment.

Information shall be given about which environmental impacts the different conditions of the enterprise contribute, and what initiatives are implemented or are planned to prevent or reduce these impacts.

It should be possible to understand from the account the ambitions and targets the enterprise has set, and what environmental limitations are expected from authorities, customers and suppliers.
- **Environmental Data**

Type and amount of energy and raw material consumed

Type and amount of pollution emitted, noise levels, dust and vibrations

Type and amount of waste generated or belonging to the enterprise, i.e. deposited residues, open or closed deposits, sediments in rivers, lakes or the sea etc.

Risk of accidents

Environmental load stemming from transport.
- **Product Related**

For enterprises manufacturing material/products, the following aspects are central/ of importance:

 - a) type and amount of toxic chemicals in the products
 - b) type and amount of waste expected at end of life
 - c) environmental load from the use of the products, hereunder necessary use of other products as gasoline for cars

4.3.3.7 Evaluation of the Scheme

Currently we are not able to locate specific information on evaluation of the scheme. However we note that there has been wide criticism of this regulation particularly from Norwegian industry. The confederation of Norwegian Business and Industry (NHO) argues that green reporting requirement should be adjusted and moved from the directors' report to a place somewhere else in the annual report.

4.3.4 The Swedish Law of Accounts¹³

4.3.4.1 Background

The scheme under the Swedish law of accounts is similar to the Norwegian one. The scheme was introduced in 1999 as an extension to the Law of Accounts (1995:1554). The scheme sets rules for companies to report in annual reports on the enterprise's effects on surrounding environment. The

¹³ The information under this section is extracted from the Swedish Legal Portal (in Swedish) URL: www.notisum.se. The translation is unofficial.

scheme sets rules for reporting if and why the enterprise is listed under the environmental code and how dependent the enterprise is on the activity that makes it listed. Prior to this extension, the accounting law stipulates according to general rules of information that environmental information be given when there is a significant impact on the economic performance of the enterprise. The new extension required companies subject to the environmental code (1998:808) to disclose the conditions of their environmental license and related emissions and impacts.

4.3.4.2 Legal Framework

The scheme is introduced under an Act of Parliament dated 1 January 1999 to extend the Law of Accounts (1995:1554) and incorporate a new part to chapter 6, paragraph 1. *(The text is available in Swedish only.)*

4.3.4.3 Scope

The law covers all companies that are obliged to report and seek permit according to the Swedish Environmental Code (1998:808). This covers almost 10 000 companies. The enterprise is only required to report on the environmental effects of its activities in Sweden.

4.3.4.4 Administration & Enforcement

The enforcement of the scheme rests within the patent and registration office, which is the agency administering the law of accounts. We have no information as to how the quality of the information is being assessed.

4.3.4.5 Penalties & Fines

Companies can be subject to fines for failure to report (it was not clear to us from the translation how the fines are imposed and by which authority.)

4.3.4.6 Rules on Content

The scheme set rules for 'listed' companies to report on the following:

1. The enterprise's impacts on the surrounding environment including the effects from the production processes. The enterprise needs to state where these impacts are mainly (e.g. water, emissions to air, noise, waste)
2. Whether the impacts have direct or indirect influence on the financial performance or future performance of the enterprise
3. Why the enterprise is subject to the environmental code (listed) and how dependent it is on the activity that makes it listed
4. Under which orders within the environmental code it falls under and if there are significant permits that need to be renewed or revised within the coming year

4.3.4.7 Evaluation of the Scheme

Currently, we are not able to locate information on the evaluation of the scheme.

4.4 Analysis & Conclusions

Table 5 provides a detailed and comparative view of the previously mentioned mandatory schemes. The schemes are analysed from a number of angles including: legal framework, administration and enforcement, scope, verification and audit requirements, and rules on content. The conclusions that can be drawn from this analysis are limited to the design of the schemes. There is little that can be said about the efficiency or effectiveness of these schemes within the scope of this report. However it would be interesting to evaluate the schemes on economic efficiency and effectiveness¹⁴.

4.4.1 Legal Framework

We notice significant variation among the four schemes in the legal approach taken to institute mandatory reporting. The schemes in The Netherlands and Denmark were introduced under the environmental legislations (Environmental Protection Act in Denmark and Environmental Management Act in the Netherlands), while the Swedish and Norwegian schemes were introduced under the company laws and law of accounts. We stipulate that this variation in approach signals different objectives in terms of the content and target companies, and subsequently the administration of the scheme. What is the appropriate legal framework under which environmental reporting can be regulated is open to further analysis. The issue of corporate disclosure traditionally has been dealt with under company laws and laws of accounts, especially in relation to financial disclosure. Perhaps this leads to the conclusion that the competency in regulating corporate disclosures rests within the companies' agencies. On the other hand there is the argument that these agencies traditionally focused on financial issues and lack the competency to interpret environmental information. The Danish scheme stands out in this context where the scheme is developed by the Environmental Protection Agency but the administration of accounts is passed on to the Danish Commerce and Companies Agency.

4.4.2 Administration and Enforcement

Again, we refer to the Danish approach in terms of administration as the one that stands out. The scheme relies on the information system of the Danish Commerce and Companies Agency for publication of the accounts. At the same time the environmental supervisory authorities and environmental protection agency review the accounts. The scheme in The Netherlands is administered via licensing authorities however there seems to be a centralized database where the information is shared among the various agencies involved in monitoring and enforcement.

4.4.3 Scope

The scope in nearly all schemes is restricted to companies subject to environmental permitting or fall under activities covered by the environmental law. The only exception to this is the Norwegian scheme, which requires all companies to report on environmental issues in the annual accounts. The law in The Netherlands restricted the obligation to a group of large companies (around 250 enterprises), which are selected on the basis of a special review.

4.4.4 Rules on Content

All schemes seem to set rules on content. Some are more detailed than others. On a generic level the categories seem to cover both management statement, and quantitative data on emissions and waste. A few are requiring information about environmental impacts of products (e.g. Danish and Norwegian). The Danish, Dutch and Norwegian schemes require information on changes that have taken place in

¹⁴ The crucial question is if these schemes have been successful in meeting the stated objectives or have resulted in an increase in the quality and quantity of CERs. Unfortunately we can't answer these questions with the current data. Most of these schemes are relatively young and many have not yet past the testing stage.

relations to previous years. Notable among the schemes in relation to content is the Swedish one, which requires the enterprise to state whether the environmental impacts have a direct or indirect influence on the financial performance.

4.4.5 Verification and audit requirement

Schemes set under the environmental law legal framework (Danish and Dutch) stipulate the need for verification but fall short of implementing this obligation. This is understandable considering that there are no clear guidelines on verification as of yet. The schemes set under law of accounts (Norwegian and Swedish) seems to rely on the internal audit and control procedure as means of attesting to the quality of the reports.

Table 5: Mandatory Environmental Reporting Schemes in Selected European Countries

| | Denmark | Netherlands | Norway | Sweden |
|--|---|---|---|--|
| Scheme | Green Accounts | Environmental Reporting | Environmental Information in Directors statement in annual reports | Environmental Information in Annual Report |
| Legal Framework | <p>1. Act NO403 Of June 14, 1995</p> <p>Amending the Environmental Protection Act</p> <p>2. Detailed rules in the Statutory order from the Ministry of the Environment and Energy NO. 975 OF December 13, 1995.</p> | <p>Act of Parliament dated 10 April 1997 to extend the Environmental Management Act and incorporate a new Title 12.1 entitled 'Environmental Reporting.'</p> <p>2. Environmental Reporting Decree, enforce from 1 Jan. 1999.</p> | The Norwegian Accounting Act (1.1.1999) – section Directors report | Act of Parliament dated 1 January 1999 to extend the Law of Account (1995:1554) and incorporate a new part to Ch. 6 (Directors Report / Annual Report) (Förvaltningsberättelse) |
| Description | The scheme sets rules for listed companies to prepare annual green accounts. The statement of accounts shall indicate the significant consumption of energy, water and raw materials and the type and quantity of pollutants, forming part of the production process, which are discharged from the enterprise to air, water and soil or form part of the products and waste. | Establishes a regime by which establishments licensed by the province and which have a substantial environmental impact can be required to produce each year an environmental report for the authorities (government report) and an environmental report for the general public (public report) | Information about conditions which may affect external environment An account must be given of matters relating to the enterprise, including its resource used in production and products, which contributes to an impact on the external environment and of the measures which have been implemented or are being planned to prevent or reduce negative impacts on the environment | The scheme sets rules for companies obliged to report and seek permit according to the Environmental code to report the enterprise's effects on the surrounding environment caused by its production processes and whether the effects have direct or indirect significance to its financial development in the annual report. |
| Detailed Rules: Specific guidelines on information content & format | Yes (subsection 5 of the statutory order) | Yes for the government report (Annex 2 of the decree) | The Accounting Act specifies several detailed demands about information on environment that intended to be answered in the Directors Report | Yes The Accounting Act details demands about what type of information |

| | Denmark | Netherlands | Norway | Sweden |
|--|---|--|--|---|
| | | For the public report it will be free-format | (Annual Report) | |
| Scope: Affected Companies | <p>All companies fall under the approval obligation of the Environmental Protection Act</p> <p>Number of companies under this category = 3000, currently 1200 are reporting</p> <p>Reporting is at site level</p> | <p>Establishment of license under the Environmental Management Act.</p> <p>Currently 250 companies will be designated reporting companies</p> <p>Reporting is at site level</p> | <p>All companies under <i>companies law</i></p> <p>Reporting is at company level</p> | <p>All companies that are obliged to report and seek permits according to Ch9, pg. 6 of The Swedish Environmental Code.</p> <p>Currently affects some 10, 000 enterprises</p> <p>Reporting is at company and site levels. Companies with operations outside Sweden need not to report about these sites</p> |
| To whom the accounts are submitted? | <p>1. Local Supervising authority</p> <p>2. Danish Commerce and Companies Agency</p> <p>Public can access the reports</p> | <p>The act requires the company to send two copies of the government report both to the province administrative body granting the license, and to the regional department of public works and water management. The company is also required to make the public report available to any person for inspection; equally any person will be able to request a copy of that report.</p> | <p>Accounts are submitted to the national register of company data, administered under the Ministry of Finance.</p> <p>Public can access this register</p> | <p>Registration Authorities: patent & registreringsverket (PRV9)</p> <p>Public can access this information through the authorities</p> |
| Verification / audit requirements | <p>No obligation for a third party audit however the rules state that in case there is an internal or external audit, the name and auditor's declaration shall be</p> | <p>The decree stipulates that there should be an independent verification of the report but it has not been implemented</p> | <p>Annual reports need to be audited however this does not apply to information in the directors report</p> | <p>Annual reports need to be audited.</p> |

| | Denmark | Netherlands | Norway | Sweden |
|---------------------------------------|--|---|---|---|
| | stated in the accounts | | | |
| Administration and Enforcement | The Danish Commerce and Companies Agency administer the acceptance and publication of accounts on its information system. Local supervisory authorities or the Environmental Protection can decide whether the accounts can be published or not. | Companies are obliged submit the government report to the licensing authority. Coordinating competent authority will administer a centralized database where the information is shared among the various agencies involved in monitoring and enforcement. | Accounts are submitted to the national register of company data, administered under the Ministry of Finance | Accounts are submitted to the Patent and Registration office (PRV). |
| Exemptions | If the company is implementing EMAS, the annual environmental statement can be considered a substitute if validated by an accredited auditor | If the company issues an annual environmental statement based on EMAS, the company is exempted from making a public report. | No Exemption. All companies registered in Norway shall try to include environmental information in the annual reports | Exemption is given to sites outside Sweden. |
| Fines | Yes | Yes Failure to comply with the obligations arising from this decree may give rise to the imposition of a performance bond as an administrative sanction | None | Yes |
| Evaluation | Following a transition period of three years, the number of reporting companies is expected to increase from 1200 to 3000. New guidelines are also being introduced. | The scheme is to be evaluated after 3 years of operation (2002) | In an unofficial evaluation conducted by GRIP [www.grip.no], they conclude that the performance of large companies in regard to this requirement has been very poor. However the law is expected to be | NA |

| | Denmark | Netherlands | Norway | Sweden |
|--|----------------|--------------------|----------------------|---------------|
| | | | revised in year 2002 | |

5. Concluding Remarks

In the late 1990s there has been a strong enthusiasm for regulating corporate environmental reporting to the public. This was evident from the various surveys of CERs expecting a move by national governments and international organizations to mandate rules for disclosure of certain environmental information. This interest in regulation was mainly driven by two conditions. The first condition resulted from the lack of comparability and credibility in existing reporting practices due to various and sometimes confusing reporting guidelines. The second condition is the 'free rider' syndrome in which there was the perception that reporting companies are disadvantaged in comparison with some non-reporting companies.

The first experiment in regulating public environmental reporting in Europe is the Danish green accounts. Though it was mainly designed to bring order to corporate environmental reporting for regulatory agencies, it stated clearly the objective of making this information easily accessible and understandable for the public. The recent evaluation of the green accounts scheme concludes positive results, seen from an environmental, structural and financial standpoint. According to the evaluation 40% of all companies implemented the green accounts rules have achieved environmental improvement. It also states that many companies have initiated activities targeted at cleaner technology. On the other hand, seen from the need to meet public demand for environmental information, the green accounts show discouraging signs. In the companies' experience, interest in the green accounts has been quite low. 50% of all companies have mailed less than 10 sets of green accounts, and three out of four companies have received no response to their accounts. What this illustrates is that CERs are still supply driven and stakeholders still don't know what to do with them or assess the quality of the reports. From stakeholders view, CERs so far have signalled that perhaps reporting companies are better than non-reporting companies.

The environmental reporting decree in The Netherlands is the first in Europe to outline rules for separate public reporting along the lines of CERs. The scheme is still in an early stage to assess the impacts of the regulation on corporate environmental behaviour or public perception. An interesting exception to the rules in the Dutch and Danish schemes relates to the EMAS annual statement. A company producing an annual environmental statement in accordance with voluntary EMAS scheme is not required to comply with the public reporting requirements of the environmental reporting decree (Netherlands) or green accounts (Denmark). What this signals is that voluntary schemes such as EMAS can provide credible framework for public reporting.

Other mandatory reporting schemes in Europe like the Norwegian and Swedish fell short of a set of comprehensive rules for public environmental reporting along the lines of CERs. These schemes set rules for disclosure of selected environmental information in annual accounts, and particularly whether the environmental impacts of the company have direct or indirect implications on the financial performance. These schemes are in line with commission recommendation of May 2001 on the recognition, measurement and disclosure of environmental issues in the annual accounts and annual reports of companies. Our view is that these schemes seem to be more in tune with current trend for the integration of environmental reporting with economic reporting. Furthermore they respond better to relevant needs of stakeholders that might particularly need to assess how environmental issues drive overall performance. On the other hand it is still premature to assess if the approach taken by the Norwegian and Swedish actually resulted in changes in corporate environmental behaviour.

The issue of credibility in environmental reporting is still in the grey zone. So far few of the users of CERs seem to have relied on verification statements to increase their confidence in CERs. The problem still rests in the lack of standards on verification practice, approach and methodology; lack of qualified verifiers; and lack of a standard reporting framework. Confidence seems to be highest in EMAS environmental statements because of a clearly defined scope and qualified external auditors.

Overall it is difficult to conclude about the effectiveness and efficiency of these schemes. This requires examining the schemes in terms of stated objectives and realized ones. Additionally an important question is if any of these schemes represent the most efficient choice to create the desired change in corporate environmental behaviour or improve public access to environmental information. The industry point of view is that stakeholders (demand side) still don't know how to interpret environmental information in CERs.

The task for improving the number of reporting companies and the quality of reports perhaps rests not on direct regulation but on indirect and demand stimulatory measures. An illustration of this is the recent change in pension fund regulation in many European countries. These changes require pension fund managers to declare to what extent they consider environmental and social issues in their investment decisions. This is expected to increase the pressure on companies to improve their environmental disclosure practices.

As a final remark about corporate public environmental reporting and the regulatory scene in Europe, we support the cautionary remark by (Skillius et al., 1998) about the danger of patchwork of unrelated national regulations that would force for example multinationals to develop data-gathering structures for their mandatory national and voluntary corporate environmental reporting. This would be very costly and probably also inefficient. One way to avoid this is for national governments and businesses to support international efforts on global standards such as the Global Reporting Initiative (GRI).

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7. Laws & Regulations

Denmark

Consolidated Environmental Protection Act, No. 698, 1998

Statutory Order from the Ministry of Environment and Energy, No. 975, 1995

Amendment to the Environmental Protection Act, Act No. 403, 1995

Netherlands

Amendment to the Environmental Management Act, Title 12.1-12.2, 1997

Environmental Reporting Decree, Articles 1-9, 1998

Sweden

Law of Accounts (1995:1554), Ch 6 ph 9, Extended by Act of Parliament, 1 Jan 1999 [Unofficial Translation]

Norway

Amendment to the Accounting Act, Ch 3.3, 1998 [Unofficial Translation]

