

SECTION 3 || General Issues in Management

A Review on How CPAs Should Be Involved in Environmental Auditing and Reporting for the Core Aim of It

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Abstract

This study aims to review how CPAs should be involved in environmental auditing and reporting (EAR) for the core aim of it. The necessity of the theme came to fill up the lack of papers in international literature in order to underline the key moments and limiting factors of EAR applications by CPAs in managerial and legislative context of the developed and developing countries from the 1970s till the 2000s.

The study is organized under two main topics: 1) to investigate how CPAs (Certified Public Accountants) working for accounting and auditing firms as a member of audit team have been involved in EAR over the years, and 2) to determine how EAR activities of CPAs can be made more effective for the core aims of EAR.

Concerning the first topic, the study deduces that in the period of 1970-1989, EAR focused on legal compliance, and was generally undertaken by external professionals outside both the accounting field and the organization itself; In the period of 1990-the 2000s, EAR has been an integral part of the environmental management system whereby management determines whether the organization's environmental control systems are adequate to ensure compliance with regulatory requirements and internal policies. In this period of time CPAs have been involved in EAR activities, and the role that CPAs can play in EAR has increased because of demands of clients. Concerning the second topic, the study deduces that an aggregate and global environmental reporting, auditing and attestation framework for CPAs should be set to contribute to sustainability, which is the core aim of EAR, by considering the principles on environmental auditing, certification and attestation being mandatory and for all small, medium and large scale industry businesses.

Key words: external environmental auditing and reporting, sustainability auditing.

JEL Classification: M44.

1. Introduction

That the environmental and ethical degenerations in developed and developing countries have continued to increase is one of the most important problems in the world. These problems have materially damaged the economies and nature of these countries and future of the world for years. This degeneration has resulted from the economic activities of the businesses and can (and should) be diminished by means of the social oriented activities of the organizations and businesses. In many developed countries, some organizations have been established in order to make businesses have social consideration for the future of the world. On the other hand, anymore shareholders not only expect their company to generate profits, but also want their company to have a positive impact on society while minimizing any negative effect on the environment. Additionally, recently, managers, market forces, bankers, employees, communities, green groups, legislators, and prospective investors are interesting in both financial and social activities of the organizations.

That a business balances economic interests against social and environmental concerns is called as *sustainability*. Sustainability covers a wide range of difficult issues ranging from pollution to child labor. Because sustainability has moved from the fringes of the business world to the top of

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stakeholders' agenda, external auditors (or CPAs) dealing with financial statements audit have also charged with the responsibility to review social aspects of operations of the businesses, such as environmental, social, and ethical audits over the past decade. Thus, social and legal pressure of stakeholders has moved the external audit profession from auditing of financial statements to sustainability auditing. Indeed, especially in the developed countries, external auditors have issued not only audit opinion related to financial statements of businesses but also opinions related to environmental, ethical, and social compliances of them. But, in general, current EAR activities of CPAs have some uncertainties in application.

This study focuses on the role that CPAs have had in EAR, and qualifications CPAs should have for effective EAR activities. The necessity of the theme came to fill up the lack of papers in international literature in order to underline the key moments and limiting factors of EAR applications by CPAs in managerial and legislative context of the developed and developing countries from the 1970s till the 2000s.

Reminder of this study is organized as follows: Firstly, how EAR has developed and how CPAs have been involved in EAR are investigated historically, by considering initiatives of the social oriented organizations established in the developed countries through years, regulations of the states, and EAR activities of some leading accounting and auditing firms, in order to determine the role that CPAs have had in EAR. Secondly, EAR activities of the auditing firms are investigated in order to determine how CPAs can contribute to environmental protection effectively. Then, the factors which limit effectiveness of EAR in the developed countries and the developing countries where environmental issues for businesses have remained only in legal compliance dimension for years are discussed in order to present suggestions on an effective EAR framework for CPAs.

2. Research methodology

In this study, the historiography research has been mainly used. Previts (1990:136) defines historiography in accounting as a research method which “includes the assembly of techniques, theories and principles associated with historical research. It is a modality of identifying data and sources, of asking questions and building theories based on proofs”. Historiography assumes to present arguments about the existence of heredity and the hypotheses formulated in this approach of the accounting profession.

Within this framework, initiatives of the organizations will be examined in chronological order to find out how CPAs have been involved in EAR over the years. Then, the factors which limit effectiveness of EAR are discussed by analysing EAR applications implemented over the years.

3. From financial statements auditing to the environmental auditing

Financial statements auditing has been realized by external auditors since **1862**. It is seen that financial statements auditing has changed from perspective of the methods of examination (from 100 percent examination to sampling), the objectives of auditing (providing information, fraud detection, internal control, etc.), and the related parties (stakeholders) using audit reports (Güvemli, 2001, pp. 600, 601).

In addition to these changes, some reforms such as assessment of fraud risk factors in auditing, use of information technology, ethical standards, international standards on quality control in the audit profession, the auditor's responsibility to consider fraud in an audit of financial statements have been realized in order to enhance the quality of external auditing.

The functions of external auditors related to financial statements auditing are defined by Institute of Chartered Accountants – UK and Wales (ICAEW) as follows (ICAEW, 2000, pp. 9-10):

- ◆ is appointed by, and has a duty to report to the shareholders;
- ◆ provides an independent opinion on the company's financial statements drawn up to a point in time;

- ◆ reports to the board/board committee those material weaknesses in financial and related internal control systems that come to their attention during their work;
- ◆ has to consider standards for financial reporting and related requirements; and
- ◆ complies with auditing standards issued by the Auditing Practices Board.

These functions of the external auditors can be accepted as a framework for the functions of the external auditors. On the other hand, these functions can be called as *traditional functions* or *classical activities* of external auditors. Because the fundamental changes in auditing functions, such as development of environmental and other social audits, have occurred, auditors have also dealt with issues related to social aspects of organizations since the beginning of the **1990s**, as will be explained.

4. The concept of EAR

That the environmental issues can significantly affect a company's financial position and its long-term financial health has caused a growing interest in the environment within the accounting and external auditing profession.

The International Chamber of Commerce (ICC) defines the "environmental audit" as "*The systematic examination of the interactions between any business operation and its surroundings. This includes all emissions to air, land, and water; legal constraints; the effects on the neighboring community, landscape and ecology; and the public's perception of the operating company in the local area. Environmental audit does not stop at compliance with legislation. Nor is it a 'green-washing' public relations exercise. Rather it is a total strategic approach to the organization's activities.*" (www.acct.tamu.edu).

In order to explain the development process of EAR in businesses, it is needed to answer this question: *How have businesses been conscious of their social responsibilities?* The answer to this question consists of environmental regulations and acts, activities of social oriented organizations and external auditing firms dealing with the environmental issues as will be explained in Part 4.1.2. Thus, it will be possible to find out how CPAs have been involved in EAR through years, and how they can be carry out EAR more effectively.

4.1. The development process of EAR

In the **1860s**, in UK, controls on air pollution from industrial works were first developed and the concept of 'best practicable means' was introduced to control the release of substances harmful to the environment. In the late **1950s**, in US, environmental regulations were enacted at the Federal, state, and local levels to decrease the nation's water and air pollution and in response to public demands. Many older laws have been consolidated into large and wide-ranging acts, such as the U.K. Environmental Protection Act 1990, and The U.S. Environmental Protection Agency (EPA) 1970 (Holland ve Foo, 2003, p. 5).

EPA was established in **1970**. EPA's mission is to protect human health and to safeguard the natural environment – air, water, and land – upon which life depends. Jack Lewis stated "*the official birthday of EPA is December 2, 1970. Like any other birth, EPA's needed progenitors, and a family tree stretching back for years. Surely no factor was more pivotal in the birth of EPA than decades of rampant and highly visible pollution. But pollution alone does not an agency make. Ideas are needed – better yet a whole world view – and many environmental ideas first crystallized in 1962.*" (www.epa.gov).

In **1968**, a group of about thirty persons, including economists, scientists, educators, investors, national and international officers from ten countries, met in Lincei Academy in Rome, in coordination of Dr. Aurelio Peccei. Thus, Rome Club, called as also 'invisible university', had been established. The objectives of Rome Club were to build a consideration between the interactive factors of the world, such as economic, social, natural and political factors (Tosun, 1990, p. 3).

It can be said that these initiatives were the first ones which can make businesses be conscious of their social responsibilities. In the passage of the time, many initiatives encouraging businesses to

tend social oriented activities have been realized by the social oriented and the accounting related organizations. Thus, these initiatives have been both social oriented and related to accounting profession, as explained in following sections.

4.1.1. The period of 1970-1989

The National Environmental Policy Act, signed into law on 1 January **1970**, ushered in an era of activist US government concern for the environment. Numerous federal and state environmental laws have been enacted since then. A collective goal of these laws is air, water, and land clean-up in the USA. Many of these laws require that businesses reduce their negative environmental impacts and take responsibility for prior actions that have caused environmental degradation.

In **1971**, the Securities and Exchange Commission (US-SEC) adopted environmental rules (Regulation S-K, Reg. §229.101-xii, and 303). Thus, publicly held companies have special disclosure requirements when filing registration statements or annual reports with the SEC. The regulations' underlying purpose is to ensure securities purchasers and sellers have access to vital information about a company's environmental liabilities. Item 101 requires companies to disclose the material effects that compliance with federal, state and local environmental laws may have on capital expenditures, earnings, and competitive position of the registrant and its subsidiaries. In preparing the management's discussion and analysis under item 303 of regulation S-K, CPAs need to consider environmental risks' impact on a company's financial position, earnings trend, liquidity and capital expenditure commitments.

In **1972**, the United Nations (UN) General Assembly established the United Nations Environment Programme (UNEP). As Klaus Toepfer, Executive-Director of UNEP, stated (2004, p. 1), a key component of its mandate has been to monitor the world environmental situation.

Governments, industry bodies and accounting professions have also shown a marked increase in the amount of attention being devoted to social and environmental accounting issues, particularly in the area of external reporting. Professional accounting bodies showed an early interest in social accounting, the best example of which was The Corporate Report (issued in **1975** by the Accounting Standards Steering Committee of the Institute of Chartered Accountants in England and Wales). This innovative release, which discussed and emphasised "rights" to information, did not, however, lead to a lot of other efforts or changes by accounting professions and the issue seemed to disappear from the agenda of professional accounting bodies until it was to re-emerge in the 1990s (Deegan, 2002, p. 287).

In the USA, major federal statutes include the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act of **1976** (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act of **1980** (CERCLA). According to this Act, companies are subject to a wide range of federal, state and local environmental laws and regulations. Additionally, the Superfund Amendments and Reauthorization Act of **1986** (SARA) require the clean-up of hazardous waste sites by parties (very broadly defined) responsible for the environmental damage (Freedman and Stagliano, 2002, p. 96).

Despite the disclosure regulations, many firms choose to ignore these rules or to disclose only minimally the extent of their involvement with hazardous waste sites. In an earlier study by Freedman and Stagliano (1995), Superfund disclosures made during **1987** by 193 publicly reporting potentially responsible parties (PRP) companies were analyzed. Forty-four firms made no disclosure of Superfund; 32 others provided only minimal disclosure. During **1989**, in reaction to such non-disclosure, the EPA provided the SEC with a list of those firms that were potentially responsible for the clean-up of Superfund sites and that had not been disclosing this involvement in their financial statements (Marcus, 1989). Apparently, the EPA wanted to spur SEC enforcement of existing disclosure rules (Freedman and Stagliano, 2002, p. 97).

4.1.2. The period of 1990-the 2000s

Since **1990**, the Global Environmental Management Initiative (GEMI) has created tools and provided strategies to help business foster global environmental, healthy and safety (EHS) excellence and economic success. Through the collaborative efforts of its members, GEMI also promotes a

worldwide business ethic for EHS management and sustainable development through example and leadership (www.gemi.org/docs).

In **1990**, the European Environment Agency (EEA) was established by European Economic Community (EEC). EEA's core task is to provide decision-makers with the information needed for making sound and effective policies to protect the environment and support sustainable development (www.eea.eu.int/documents).

In **1990**, the International Institute for Sustainable Development (IISD) was founded. A report by the IISD provides a business perspective on this topic: "*For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today while protecting, sustaining, and enhancing the human and natural resources that will be needed in the future.*" The report goes on to address the strategic decision processes, enhancement of management systems, accountability and stakeholder relations, corporate reporting challenges, supportive public policies, initiatives by standards setters, and management leadership (IISD, 1992, p. 11).

In **1991**, ICC issued "The Business Charter for Sustainable Development". In **1992**, Public Environmental Reporting Initiative (PERI) (USA) issued The PERI Guidelines. In **1992**, GEMI published an Environmental Self Assessment Program (ESAP), which addresses environmental performance at four levels: Compliance, Systems Development and Implementation, Integration into General Business Functions, and Total Quality Approach. ESAP provides helpful ideas for assessing and developing management programs and improving environmental performance. In a **1992** the Institute of Internal Auditors (IIA) Research Foundation study, "The Role of Internal Auditors in Environmental Issues", several fundamental environmental auditing topics were explored, including definition of terms, U.S. and international environmental auditing trends, management practices, and regulations. In **1993**, Confederation of British Industry (CBI) (UK) issued "Introducing Environmental Reporting-Guidelines for Business".

ICAEW (1992) and ICAEW (2000) noted that the auditor's responsibilities already extend to consideration of the impact of environmental issues on financial statements in relation to (Dixon et al., 2004, p. 121):

- ◆ provisions, e.g. for site restoration costs,
- ◆ contingent liabilities, e.g. arising from pending legal action,
- ◆ asset values, e.g. where stocks of goods, or the fixed assets used in producing them, are subject to environmental concern,
- ◆ accounting for capital or revenue expenditure on cleaning up the production process or to meet legal and other standards,
- ◆ product redesign costs,
- ◆ product viability/going concern considerations, e.g. where new regulations impose more stringent criteria for emissions.

In **1993**, The Federation Des Expert Comptables Europeens (The European Federation of Accountants) (FEE)-Environmental Working Party (EWP) has been established. EWP has been active in the areas of sustainability accounting, reporting and assurance, since **1993** (FEE, 2005b). ICAEW (1992) points out that "where environmental factors will impact on a company's policy and activities, and will impose costs on the company, or affect its asset values or liabilities, actual or contingent, the financial consequences need to be accounted for or reported in accordance with existing accounting requirements".

In **1994**, World Industry Council for the Environment (WICE) issued "Environmental Reporting-a Managers Guide." In **1994**, GEMI issued "Environmental Reporting in a Total Quality Management Framework." In **1995**, Fondazione ENI Enrico Mattei (FEEM) (Italy) issued "Company Environmental Reports-Guidelines for Preparation." In **1996**, UNEP issued "Engaging Stakeholders; 2nd International Progress Report on Company Environmental Reporting". In **1996**, ICAEW issued "Environmental Issues in Financial Reporting". In **1996**, European Federation of Financial Analysts' Societies (EFFAS)

issued "Eco-Efficiency and Financial Analyst's Views". In 1996, Deloitte&Touche (Denmark) issued "Assessor's manual for the Analysis and Evaluation of Corporate Environmental Reporting".

The 1996 KPMG international survey of environmental reporting shows that in the 13 major countries surveyed, environmental reporting has become part of the annual corporate reporting process. Nearly three out of four companies include environmental information in the annual report. One in four companies produce separate environmental reports (Holland and Foo, 2003, p. 2).

According to Adams (2004, p. 734), with regard to voluntary reporting standards, there are two significant organisations involved in their development at an international level. These are the Institute of Social and Ethical AccountAbility ISEA (AccountAbility), formed in 1996 and the Global Reporting Initiative (GRI) formed in 1997 to create a common framework for sustainability reporting worldwide. Both are international, multi-stakeholder organisations with greatest influence coming from Western developed nations.

AccountAbility published the AA1000 standard in 1999 (ISEA, 1999). It does not attempt to identify issues to be addressed, but rather focuses on the processes by which companies report on their impacts. This focus is based on the premise that unless, for example, corporate values are embedded, and unless governance systems, data collection systems, reporting mechanisms and audit processes are sound, reporting is unlikely to be representative of performance or reflect stakeholder information needs (Adams, 2004, p. 734). The AA1000 principles have been influenced by the principles of financial accounting, but a key addition is the principle of "inclusivity" referring to the reflection of the aspirations and needs of all stakeholder groups at all stages of the accounting, auditing and reporting process. Stakeholders are defined as "an individual or group of individuals who affect and/or are affected by an organisation and its activities" (ISEA, 1999, p. 22). The organisation's stakeholder groups may include, but are not limited to: owners, trustees, employees (e.g. managers, staff and trade unions), customers, members (e.g. of cooperative, mutual or friendly societies), suppliers and other partners, competitors, government and regulators, the electorate (e.g. for public sector bodies), NGO (non-governmental organizations)/nonprofit organisations, pressure groups and influencers, and local and international communities (ISEA, 1999, p. 32).

AA1000 is designed to encompass the needs and requirements of adopters from all types of organisation. These include (ISEA, 1999, p. 13):

- a) Large and small organisations,
- b) Single site organisations, and multi-site, multinational organisations,
- c) Public, private and non-profit organisations.

The organisation prepares a social and ethical report (written or verbal communication) or reports relating to the process undertaken in a specified period. The report(s) clearly and without bias explains the process and demonstrates how the organisation's performance relates to its values, objectives and targets. It includes information about its performance measured against its key social and ethical performance targets. The organisation provides comparative information for previous period(s) to help stakeholders understand the current performance in the context of prior period trends and in the context of external benchmarks, if available (P9). The organisation arranges and supports the external audit of the process, including the social and ethical report(s). Support is provided to the auditor throughout the planning and accounting processes as appropriate (P10) (ISEA, 1999, p. 29).

In 1997, the Board of EHS Auditor Certifications (BEAC) was established in Florida as a joint venture of IIA and the Environmental Auditing Roundtable (EAR) to provide certification programs for the professional practice of EHS auditing. The BEAC is solely committed to the advancement of the individual EHS auditor and the EHS auditing profession worldwide as demonstrated through the BEAC certification programs and Certified Professional Environmental Auditor (CPEA) professional designations.

The BEAC established a Standards Board in 1998. The Board studied a number of standards issued by other professional organizations from around the world and concluded that the Standards for the Professional Practice of Internal Auditing developed by the IIA and the Standards for the

Professional Practice of Environmental Auditing developed by EAR were thorough and best suited as the references for the development of standards for the BEAC certification programs.

In 1997, Deutsche Institut für Normierung (DIN) issued "Guideline Environmental Reports for the Public." In 1997, Association of Chartered Certified Accountants (ACCA) (UK) issued "Guide to Environment and Energy Reporting and Accounting." In 1997, (UK Government's) Advisory Committee on Business and the Environment (ACBE) issued "Environmental Reporting and the Financial Sector-An Approach to Good Practise." In 1998, EC Eco-Management and Audit Scheme (EMAS) issued "Requirements for the Environmental statement (1998 version). In 1999, Council of FEE approved two discussion papers prepared by the EWP: 1) Towards a Generally Accepted Framework for Environmental Reporting, and 2) Providing Assurance on Environmental Reports (FEE, 1999a). In the discussion paper "Towards A Generally Accepted Framework For Environmental Reporting", it is stated that the Environmental Task Force of the FEE has looked at a number of conceptual frameworks for financial reporting to provide a suitable starting point and in particular the International Accounting Standards Committee (IASC) framework for the Preparation and Presentation of Financial statements has been adopted as a model for this paper. Because, in the view of the Task Force, it is the one conceptual framework to which the phrase "generally accepted" can realistically be applied at the global level (FEE, 1999b, p. 8).

In 1999, the Global Compact (GC) was proposed by UN Secretary-General Kofi Annan at the World Economic Forum. The Global Compact is a broad based initiative to promote responsible Corporate Citizenship in the areas of human rights, labour conditions, and environment. In September 1999, Turnbull report published by the ICAEW working party, chaired by Nigel Turnbull, that was established at the request of the London Stock Exchange.

The Turnbull report, issued by ICAEW in 1999 raised the following question (ICAEW 1999): *'Are the significant internal and external operational, financial, compliance and other risks identified and assessed on an ongoing basis? (significant risks may for example, include those related to market, credit, liquidity, technological, legal, health, safety and environmental reputation and business probity issues).'*

In 2000, this followed the appending of the Combined Code on Corporate Governance to the London Stock Exchange Listing Rules.

The Turnbull report, which takes a risk-based approach to internal control, provides guidance on the implementation of the following Principle and two related Provisions of the Combined Code (ICAEW, 2000, p. 6):

Principle D.2: 'The board should maintain a sound system of internal control to safeguard shareholders' investment and the company's assets'.

Provision D.2.1: 'The directors should, at least annually, conduct a review of the effectiveness of the group's system of internal control and should report to shareholders that they have done so. The review should cover all controls, including financial, operational and compliance controls and risk management'

In 2000, The EWP proposed to change its name into 'Sustainability' Working Party (SWP) in December 2000. Although, in principle, the term 'environment' was covering all elements of 'sustainable development' since the founding in 1993, the Working Party preferred to include social and business ethical topics into its work field. The concept of **People-Planet-Profit** reflects the responsibility of corporations and other institutions towards external stakeholder groups. Accounting, reporting and auditing of 'profit' will be covered by existing FEE working parties in general. The non-financial aspects, however, will be part of the terms of reference of the newly renamed Working Party (FEE, 2000). In 2000, "Towards a Generally Accepted Framework for Environmental Reporting" (which is adopted by GRI in its Sustainability Reporting Guidelines of June 2000) and "Analysis of Responses to FEE Discussion Paper on Providing Assurance on Environmental Reports" (first published in October 1999) were published (FEE, 2000).

In **2001**, Johan Piet, SWP Chairman, stated “FEE’s EWP changed its name to SWP in order to illustrate the extension and gradual shift of activities in the Working Party from EMAS Regulation to the areas of environmental accounting, reporting and audit through to closer involvement in sustainability reporting and the GRI Sustainability Reporting Guidelines” (FEE, 2001).

In October **2001**, an “Update on Sustainability and the Accountancy Profession” was published with the aim of informing the ‘ordinary’ accountant about sustainability issues. The SWP produced comments to the EU Green Paper on Promoting a European Framework for CSR and the Overarching Principles of the GRI Verification Working Group. The Chairman gave a presentation to the ISO TC 207 (environmental management) about the verification of environmental reports by accountancy firms (FEE, 2001).

In **2001**, International Federation of Accountants (IFAC)’s International Auditing Practices Committee (IAPC) worked on an exposure draft (ED) on environmental reporting. In its environmental deliberations, the IAPC has given consideration to significant developments affecting environmental reporting, and in particular the implications of the new “Dow Jones Sustainability Group Index” (SGI) of stocks. This index is applied to industry groups, and the criteria include how well entities are managing environmental issues, human rights, and corporate social responsibility (CSR) (Simnett and Tatum, 2001, p. 1).

In **2002**, GRI is affiliated with the UN through its status as a Collaborating Centre of UNEP. GRI is a new independent, international institution whose mission is to develop, promote, and disseminate globally applicable Sustainability Reporting Guidelines. Sustainability reporting is an organization’s public account of its economic, environmental, and social performance in relation to its operations, products, and services. According to GRI, accountability, governance, and sustainability – three powerful ideas that are playing a pivotal role in shaping how business and other organisations operate in the 21st century. These three ideas also point to the reality that business responsibility extends well beyond the shareholders to people and places both near and distant from a company’s physical facilities such as managers, employees, communities, bankers, market forces, green groups, legislators, and prospective investors (GRI, 2002, p. 1).

In **2002**, The European Commission white paper on CSR ‘Promoting a European Framework for CSR’ was issued. The white paper ‘Modernising Company Law’ published in June **2002** has CSR implications. This paper proposed that: ‘the basic goal for directors should be the success of the company in the collective interest of shareholders, but what directors should also recognise, as the circumstances require, the company’s need to foster relationships with employees, customers and suppliers, its need to maintain its business reputation, and its need to consider the company’s impact on the community and the working environment.’ (vol. 1, Part 2, Para 3.3).

GRI published a study titled “Business Plan 2003-2005” in **2003**. The Business Plan summarises how GRI aims to build on its unique governance, products and processes over the three years. GRI’s mission is to make reporting on economic, environmental and social performance as routine as financial reporting (www.globalreporting.org).

In **2003** Annual Report of FEE, Piet stated “The accountancy profession has been a key partner in the growth of CSR; core accountancy skills have been utilised to meet leading corporations’ demands to broaden their reporting.” (FEE, 2003).

In **2004** Annual Report of FEE, Piet stated “*Europe is at the forefront of sustainability and CSR reporting. FEE’s SWP actively supports the continued development of the reporting infrastructure. Independent assurance is essential to building the credibility of such reporting.*” He also stated “*The objective of the SWP is to support sustainability and CSR. This is achieved by contributing to the development of relevant and reliable management information and on assured external reporting. Accountants support companies and society with their core expertise: the quality of information. The SWP operates in liaison with the Auditing Working Party and the Financial Reporting Policy Group.*” (FEE, 2004).

In **2004**, ICAEW (2004) stated that internal audit can play an important assurance role in an organisation's Governance processes, particularly in the area of risk management and control.

As IFAC stated, environmental, social and sustainability reports, information systems, internal control, corporate governance processes and compliance with grant conditions, contracts and regulations are some of the subjects about which assurance reports are increasingly being demanded. In **2004**, in recognition of this need, IFAC's International Auditing and Assurance Standards Board (IAASB) has issued a revised "**Assurance Framework**" and an ISAE (the International Standard on Assurance Engagements) 3000, *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information*. (New York/January 23, 2004). The Framework defines and describes the elements and objectives of an assurance engagement, and identifies engagements to which International Standards on Auditing (ISAs) and ISAEs apply. It provides a frame of reference for practitioners and others involved with assurance engagements, such as those engaging a practitioner and the intended users of an assurance report. ISAE 3000 establishes basic principles and essential procedures for all assurance engagements other than audits or reviews of historical financial information covered by ISAs (www.ifac.org).

On January 1, **2005**, IFAC issued Handbook of International Auditing, Assurance, And Ethics Pronouncements-2005 Edition.

As stated in **2005** Annual Report of FEE, FEE is to respond to Dutch standard setter Royal NIVRA's call for feedback on its ED on assurance standards relating to sustainability reports. The standards are expected to contribute to the international standard setting process of the IAASB (FEE, 2005).

GEMI becomes a founding partner of the Business Roundtable's (BRT) new sustainable growth initiative called S.E.E. Change (Society, Environment and Economy). On September 21, **2005**, The Business Roundtable launched a sustainable growth initiative encouraging leading U.S. companies to embrace business strategies and projects that measurably improve Society, the Environment and the Economy. S.E.E. Change encourages CEOs of the nation's leading companies to commit to business strategies that combine traditional corporate goals of higher profit and lower cost with a strong commitment to environmental stewardship and social improvement. Roundtable companies will be asked to set challenging goals that contribute to both the bottom line and improvements to the quality of life – now and for future generations (gemi.org/)

As understood from the historical development process of EAR from 1970 to the 2000s, environmental auditing originally focused on legal compliance, and was generally undertaken by external professionals outside both the accounting field and the organization itself. Since the 1990s, environmental auditing has been an integral part of the environmental management system whereby management determines whether the organization's environmental control systems are adequate to ensure compliance with regulatory requirements and internal policies. In this period of time, CPAs have been involved in EAR activities, and the role that CPAs can play in EAR has increased because of demands of clients. This development process is illustrated in Figure 1.

Environmental Auditing and Reporting	
For the purpose of legal compliance by external auditors outside accounting field 1970-1989	For the purposes of environmental management system and sustainability by CPAs and relative specialists 1990-the 2000s
Legal objectives	Managerial and social objectives

Fig. 1. Development of environmental auditing in developed countries

As seen from Figure 1, in examining the role of the environmental auditor, it is understood that environmental auditing has been changing since 1970. As Medley said (1997, p. 595), generally, environmental scientists audited the site and identified whether the organization complied with legislation or

not. As environmental auditing has progressed, there has been a recognition that the role of an environmental auditor extends beyond compliance, to the management controls in place in an organization, and there is a growing pressure by stakeholders for these to be internally reviewed on a regular basis. Now it is possible for organizations to educate, train and use their own internal financial auditors to conduct environmental audits of their facilities as an extension of the annual operational audits.

On the other hand, as it is seen from the worldwide accounting and consulting firms' web pages, environmental auditing in some countries, where worldwide accounting and consulting firms have operated, has now extended beyond the internal auditor to encompass the external auditor within the growing area called "attestation". Historically, attestation has been defined as "*expressing a positive opinion on historical financial statements*", and is the classical activity an auditor might be expected to do. Increasingly, CPAs, who have a methodology in place for conducting attestations, operating in some developed countries have been asked to provide assurance on other representations in addition to financial statements, and provide information other than just the positive opinion.

For example, Coopers&Lybrand have signed off for Sunoco (the Sun Company Inc.) an assertion on the health, environment and safety data collection, compilation and validation process (Medley, 1997, p. 596):

We have conducted a review of the accompanying Sun Company Inc. "Assertion on Health, Environment and Safety Data Collection, Compilation & Validation Process" (the "Assertion") for the year ended December 31, 1993. Our review was conducted in accordance with standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary in the circumstances.

The purpose of the review was a comparison of Sun Company Inc.'s Health Environment and Safety Data Collection, Compilation & Validation Process (the "HES Data Process") with the criteria set forth in the Assertion. A review consists principally of inquiries of company personnel, analytical procedures and consideration of the responses and results in the context of the Assertion. It is substantially less in scope than an examination, the objective of which is the expression of an opinion on the Assertion for the year ended December 31, 1993. Accordingly, we do not express such an opinion.

Based on our review, nothing came to our attention that caused us to believe that the HES Data Process for the year ended December 31, 1993, is not in conformity with the criteria set forth in the accompanying Assertion.

This example indicates that CPAs have been faced challenges in auditing environmental aspects of businesses and conducting attestations since the beginning of 1990s, as also seen from Figure 1. But Auditing's role in this report is limited to determining whether or not the firm's compliance efforts were successful.

The second accounting firm example, dealing with reporting on the economic, environmental, and social dimensions of the business' operations is Pricewaterhouse Coopers (PwC). PwC says, "*clients seek our help on a wide range of sustainability issues related to corporate governance systems; **social, ethical, and environmental** risk management; responsible supply chain practices; and many other areas of concern.*"

PwC has worked closely with leading external organizations to advance the concept of sustainable business. Their three key global relationships are with The World Business Council for Sustainable Development (WBCSD), GRI, and the GC. PwC has been a member of the WBCSD since **2001**, and involved in the GRI since **1998** (www.pwc.com).

As seen from web pages of well-known global accounting firms, they all have provided reporting services on the economic, environmental, and social dimensions of the business' operations since the **1990s**.

A study by Steadman, Green, and Zimmerer in 1995 (as quoted in Dixon et al., 2004, p. 120) indicated that some companies may trust the auditors or CPAs more than any other specialists to ask them advice in business situations. For example, in the US a recent survey found that small business owners consider CPAs the primary source of external advice concerning a variety of business situations. CPAs were chosen by 44.5% of the respondents as the most trusted external advisor far ahead of other, types of business consultants (20%) and attorneys (18%). But, an investigation into the attestation of environmental reports (on 26 companies from FEE member countries) published in Europe has been undertaken by Kamp-Roelands (1995), the results indicated that the majority of audits were carried out by non-accounting firms, the proportion involving accounting firms is 25% of the total (Dixon et al., 2004, p. 122). Consequently, CPAs have opportunity to deal with environmental and social auditing, reporting and attestation.

4.2. The factors which limit effectiveness of EAR

1. Most of regulations request especially public companies to prepare environmental report such as Reg. §229.101-xii. Whereas, there are much more businesses, which have contributed environmental pollution and damaged sustainability, other than public companies. As an evidence of this assertion, the proportion of small and medium scale businesses in all businesses can be given like this; USA – 97,2%, Germany – 99,8%, Japan – 99,4%, England – 96%, Turkey – 98,8%, South Korea – 98,8% (Müftüoğlu, 2002). This means that there are a number of small and medium scale businesses which may have a great potential for pollution. Some of them may be publicly held companies. But majority of them are not. Well, how many businesses like these do prepare an environmental report to disclose its environmental impacts? Especially, in developing countries, approximately none of them don't want to do this voluntarily. Because of this lack point of application, environmental protection consideration of businesses may progress slowly.
2. Do public companies really conscious of why they prepare environmental report? If they prepare this kind of reports as a management masque which serve them to be perceived by investing public as a sensitive company about environmental and social issues, the report never reach its core aims and never be effective for environmental protection.
3. There is no general consensus on the format of environmental reports and their contents.
4. Many of the activities of the Organizations, other than SEC etc., herein focused on voluntary-based reporting. This may cause that many of companies do not attempt to prepare it. As Parkinson (2003) argues (O'Dwyer et al., 2005, p. 3) convincingly that effective pressure from market and civil actors is dependent on a level of corporate transparency that is unlikely to evolve on a voluntary basis, hence, the need for mandatory reporting. In addition, O'Dwyer et al (2005, p. 22) state *"Corporate social disclosure needs to be mandatory, otherwise it's got no teeth. If it's not mandatory then the company that needs to do it won't do it, they won't expend the energy or the resources to put it together ... or they'll just say "you know we had a rough Autumn, we'll get it to you in the Spring", and then Spring comes and they just skip it then. Forcing companies to disclose on their social impacts would have a preventative function [in that] companies would have to perform a lot better especially if false disclosure was met with severe penalties."*
5. There is no consensus on who should realize attestation of the reports.
6. Environmental auditing and reporting in developing countries, such as Turkey has not progressed enough in both public and individual companies. There is no regulations and encouraging activities regarding environmental auditing and reporting. Only some big Turkish companies trading with the EU and the USA companies have had the responsibility of environmental issues since the 1990s, inspite of lack of regulations and encouraging activities. The results of a research conducted by Özbirecikli in 2000 indicated that very few public companies operating in chemical, food and automotive sectors in Turkey have prepared environmental reports annually, with social responsibility consideration consisting quality management systems and ISO 14000 series-environmental management systems (EMS) since the 1990s. For example: TOFAŞ-FIAT has implemented ISO 14001-EMS to train its personnel and prepared annual environmental report since 1997 (Özbirecikli, 2002, pp. 124, 125). Although some parts of the contents of these reports are

similar to framework prepared by FEE in 1999, these reports have not been conducted by a CPA or an independent auditing firm who has a methodology for attestation. Thus, these contemporary auditing concepts have not progressed and, have remained behind the financial auditing function.

5. Discussion

1. GEMI provides strategies and tools helping businesses to foster their EHS excellence. AA1000 established the principles on environmental reporting on EHS excellence of businesses. BEAC provides auditors with certificate to conduct attestation of reports on EHS excellence of businesses. Consequently, these three efforts can be considered as an aggregate and global environmental auditing, reporting and attestation framework, for CPAs who want to deal with EAR, in order to reduce diversification of environmental reporting practice in the developed economies, and provide uniform practice.
2. CPAs can provide a certificate from an authorized organization like BEAC in order to carry out attestation and can participate in environmental audits as a member of environmental audit team with other specialists, such as environmental specialists, engineers and lawyers. This audit team may carry out an independent attestation of environmental report.
3. "Voluntariness" may prevent businesses from dealing with environmental issues. In this context, EAR with attestation must not be voluntary, must be mandatory for all scale industry businesses effecting sustainability.
4. Mandated environmental disclosure may be used by stakeholders to aid in the assessment of a company's environmental performance. This performance includes the potential risk that firms may incur economic costs/losses from not reducing pollution.
5. The environmental and other social issues should be accepted as opportunities for the accounting profession to demonstrate that it is dealing with contemporary issues.
6. The financial auditors should possess the required knowledge, skills and experience needed to carry out successfully environmental audits in order to play a role in environmental audit team. For example: the auditors should possess ability to evaluate the contingent effect of an environmental violation on the financial statements. The auditors also should be able to evaluate the consequences of environmental issues in relation to accounting and auditing practices in the financial statement audit. To do this, accounting education must develop students' intellectual and related ethical maturity.
8. Social and environmental accounting, which challenges much of the traditional approach to accounting education in universities, can be explored and provides a potential opportunity to enhance the ethical and intellectual development of students who want to be accountant.

6. Conclusion

In today's business environment, where change is constant and can be unpredictable, sound systems of risk management and control are critical pre-requisites. If financial, environmental, social, and ethical risks and opportunities are managed effectively, then: 1) the ability to achieve the company's objectives can be enhanced, 2) the volatility of future earnings and cashflows can be reduced, 3) shareholder value is likely to improve, and 4) environmental and ethical issues of the world are likely to reduce.

Capital markets value such attributes and reflect them in lower costs of borrowing and stronger equity pricing. On the other hand, it is possible to be better protected and enhanced shareholder value in those companies that manage risk proactively and effectively, compared to those companies which do not.

All these factors indicate that the businesses should be interested in environmental and social auditing and reporting with attestation by external auditors, and CPAs have opportunity to deal with environmental and social auditing, reporting and attestation. As far as understood from the development process of external audit profession, CPAs have been interested in environmental issues

since the 1990s. It is also seen that guidelines related to environmental, ethical, and social auditing and reporting have been issued to assist CPAs to identify and evaluate environmental issues, and report on them. Because the environmental and other social issues can be accepted as opportunities for the accounting profession to demonstrate that it is dealing with contemporary issues and that the profession can grasp new opportunities and run with modern issues in the future, due regulations and encouraging activities related to environmental, social, and ethical issues should be set in developing countries. On the other hand, diversification of environmental reporting practice in the developed economies should be reduced to provide uniform practice.

It must be recognized that all recent unethical behaviours of some companies consisting of financial, ethical and environmental violations and the activities of the external auditors have indicated that audit is the one of the most important professions in this millennium. As Pentland (2000, p. 307) stated, if we take Michael Power seriously, auditors may be the ones who win out in the end against violators. If the auditors act ethically, while auditing, the assertion of Power may come true.

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