

## Present Status of Corporate Environmental Accounting (CEA) in Bangladesh: A Study Based on Some Selected Textile Companies

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### Abstract

**This paper is aimed to analysis the present status of CEA of private sector textile mills of Bangladesh. For the study a sample of 25% of population has been taken.** Environment has become a crucial factor in today's ecological, social and economical set up. **Managers who can influence decisions regarding environment express the view that more environmental accounting work is needed, but very little such work is done.** A semi-structured questionnaire was prepared and followed direct interview method to know the relevant information. **Managers are positive about environmental issues. This paper revealed different problems for not adopting CEA in full swing.**

**Key Words:** Environment, Corporate Environmental Accounting(CEA), Corporate Environmental Accounting in Bangladesh.

### Introduction

In recent years there has been increased community attention toward the identification of approaches to deal more effectively with environmental concerns (Wilmshurt, Frost; 2000). Environment has become a crucial factor in today's ecological, social and economical set up. As a result the business houses, the inseparable part of the society, are hold responsible for ensuring a sustainable environment as their activities exerts tension over environmental structure. From this viewpoint, a new dimension of Accounting has been derived which is known as Environmental Accounting (EA). EA is a broad-based term that refers to the incorporation of environmental costs and information into accounting practices. At micro-level, Corporations are increasingly aware of environmental aspects which may be beneficial to the business or adverse environmental implications to its business activities, products or services. Steele and Powell (2002) define environmental accounting as the identification, allocation and analysis of material streams and their related money flows by using accounting systems to provide insight in environmental impacts and associated financial effects. More precisely, environmental accounting provides firms with truer costs of their products and processes, thus leading to better business decisions and sustained profitability over the entire life cycle of the product or services. Though the developed countries are responsible for environment pollution and climate change mostly but Bangladesh is the most suffered country for these. Out of many reasons industrial emissions are the prime to damage the environment. Bangladesh is a developing country and its industrialization is a going process. All the developing countries including Bangladesh should aware about environment for future. At present Bangladesh showed its conciousness to the world community through demanding compensation from the developed countries. In this connection, the authors tried to point out the present status of CEA in Bangladesh.

### Statement of the problem

EA is a broad-based term that refers to the incorporation of environmental costs and information into accounting practices. Naturally environmental accounting system includes both national and business accounting and deals with both the financial and non-financial information (Schaltegger, 1997). This paper has considered environmental accounting for corporate levels and CEA includes Accounting for pollution preventive measures. Since this paper considered Textile companies, so it covered the activities or steps taken by the companies to prevent water pollution, noise pollution, air pollution and accounting for those. In fact the result showed the status of CEA in Bangladeshi companies.

### Objectives of the Study

The main objective of this paper is to find out the present status of CEA in Bangladeshi companies. To attain the main goal, the following sub-objectives are set up. These are;

To know the opinions of executives about the term CEA
To know the pressure to cope up with CEA
To know the present condition of CEA
To know the limitations of establishment of CEA

### **Rationale of the study**

Businesses don't operate in a vacuum. They require resources to manufacture products or render services; they operate in an environment from which they draw their resources and workforces and that environment and community may be affected by their activities. Corporate environmental accounting is one of the tools that can be used by business to address these challenges. The traditional accounting system puts no emphasis on the environmental costs of an organization's operation. An assessment of the relative importance of environment related costs and cost drivers of different processes and product lines can help an organization to determine whether or not the cost allocation bases being used are appropriate for those costs (Sulaiman & Ahmad, 2006). Thus integrating environmental accounting into mainstream corporate accounting is essential. Though it's a common phenomenon for the first world country to adjust environmental cost into the traditional accounting and reporting as well but Bangladeshi companies still far behind from the adoption of environmental accounting. Bose (2006) analyzed 11 Petrobangla companies for examining their environmental status. The nature of information was qualitative and descriptive, and they did not provide information on waste generation, conservation of energy etc. Rahman and Muttakin (2005) showed only 4% of 125 companies disclosed environmental information in a descriptive way scattered in their annual reports. They also mentioned that there was not any standard framework for environmental reporting and valuation. In the same way Shil & Iqbal (2005), Bala & Yusuf (2003), Hossain (2002), Belal (2000), Imam (1999) stated that Bangladeshi corporations were very little concerned with the environmental costs quantification and information disclosure. From the above prior research findings, it is clear that no companies of Bangladesh practice the environmental accounting in a uniform way. In addition to that geographically Bangladesh is the most vulnerable country due to the climate change impact. As a result this is the right time for Bangladeshi corporations to give emphasis on the environmental issues for the next generations survive.

### **Literature review**

Many researches have been conducted on environmental accounting in developed countries. Michael Jones (2010) developed a theoretical model that has eight premises. New relationship between industry and environment is one of them. There is a need for a measurement system to assess industry's impact but current accounting is inadequate for a variety of reasons e.g. monetary dependence, capitalist orientation, business focus, reliance on neo-classical economics, numerical quantification and technical accounting practices. P. De Beer and F. Friend (2006) mentioned that environmental accounting assists in expressing environmental and social liabilities as environmental costs. The EEGECOST model developed in South Africa will provide African industries with the framework for corporate evaluation of alternative investments, projects, processes and it identifies records and allocates internal and external costs. Christine Jasch (2003) stated that Environmental Management Accounting (EMA) represents a combined approach that provides for the transition of data from financial accounting, cost accounting and mass balances to increase material efficiency, reduce environmental impacts, risks and reduce costs of environmental protection. EMA is defined as 'techniques for quantifying environmental expenditures or costs as a basis for better controlling.' Peter Bartelmus (1999) showed that green accounting is helpful for sustainable economic growth in Philippines.

In Bangladesh no unique model for environmental accounting is developed. A few research studies were conducted on Bangladeshi corporations on corporate social disclosure (CED). Belal (1999) found that 90 percent of the companies studied made some environmental disclosures. Imam (2000) conducted a study on CSR practices and it found that only 22.5 percent on environmental disclosure. Belal (2001) pointed out that CSR practices in Bangladesh is greatly influenced by social, political, cultural, legal, economic and technological factors. He (2001) further added that the creditability of information disclosed is questionable because of absence of independent verification. The reasons for non-disclosure stated by him are lack of statutory requirements, the presence of very few organized social groups and less social awareness, an under-developed corporate culture and relatively new capital market. Hossain et al (2006) reported that a very few companies in Bangladesh are making efforts to provide social or environmental information on a voluntary basis, which are mostly qualitative in nature. The degree of CSED level is the lowest and the significant number of the lowest ranking companies suffered losses during the study period. This study revealed that the nature of the company (Industry), presence of debentures in annual report (Debenture) and net profit margin are mainly related with the significant level of CSED (Hossain, 2006). A study conducted for examining environmental reporting status on Petrobangla companies showed that the nature of information was qualitative and didn't take any attempt for quantification (Bose, 2006). The main reason is lack of legal requirements. Another important issue is pointed out by Rahman and Muttakin (2005) that absence of standard environmental reporting framework. Belal (2007) further stated the problems of non-disclosure on environmental issues such as lack of legal requirements, lack of resources, lack of knowledge, poor performance and bad publicity. A few studies conducted on merely to show the disclosure level (Shil & Iqbal, 2005; Bala & Yusuf, 2003; Imam, 2000). From the above review a check list

of reasons for non-disclosure has been established (Table-1 in Appendix-1). But nobody mentioned the necessity of usage of environmental accounting as a decision making tools internally and after that it will possible to disclose their performance towards environment. This is why this paper has given an emphasis on present ideas, concepts, condition and limitations of environmental accounting in corporate level.

### Research Methodology

This is an exploratory type research. This paper has used two types of data and information- primary and secondary. For the purpose of collecting primary data, the authors selected ten textile companies purposively. All the companies were located in Chittagong and were export oriented. In case of the present research two executives drawn from each of the four functional areas, viz; production, marketing, administration and finance of the 10 samples have been interviewed. Thus the total respondents becomes 80. But very few of them were responded significantly. Maximum respondents avoided the matter due to lack of knowledge, complexity, and insincerity and found no interest on the topic. A semi-structured questionnaire was prepared and followed direct interview method to know the relevant information. No statistical tools were used to analyze the situation due to insufficient data, rather emphasize on the majorities opinions.

For secondary data, desk study has been taken place. A rigorous literature was reviewed to know the concepts, ideas and techniques of the topic. The authors covered all the relevant books, journals, theses, articles, seminar papers, magazines, daily newspapers and different websites.

### Scope and limitations of the study

The study has been undertaken on the textile industry of Bangladesh. The textile industry comprises with spinning mills, Fabric manufacturing mills, and Dyeing, Printing, Finishing. These mills in the private sector are members of the Bangladesh Textile Mills Association (BTMA). There are more than 1000 mills under the BTMA. (Source: BTMA, Annual report 2010-11). These memberships are comprised with both general members and associate members. Basically, some of the general members are listed on the stock markets. There are 29 mills are listed on the Dhaka Stock Exchange (DSE) (Source: [http://www.dsebd.org/by\\_industry\\_listing1.php](http://www.dsebd.org/by_industry_listing1.php)) and 24 mills are listed on Chittagong Stock Exchange (CSE) (Source: [http://www.cse.com.bd/company\\_by\\_industry.php](http://www.cse.com.bd/company_by_industry.php)).

As the corporate offices of the listed textile mills are situated outside of Chittagong so the authors tend to study the Chittagongian mills as it helpful to the authors to conduct with the concerned authorities. The authors selected 10 general members out of 40 general members in Chittagong region. The chosen samples (10 out of 40) were about 25% of the population.

The main limitation of the study was to communicate with the targeted persons. The respondents were very busy with their own tasks and they didn't get much time for it. Some respondents excused because of their own shake. Top of the companies were not interested to talk any negative issues due to their image problem. In fact time constraint was another big problem.

### Findings of the study

1. The first objective was to know the opinions of stakeholders' concepts about CEA. About 65 respondents delivered their ideas about CEA. It was an open-ended question. The result was a combination of internal and external activities relating to environment. The specific areas mentioned by the stakeholders' are as follows:

Stakeholders' concepts about CEA	Numbers of respondent (total 65)	Weight (Out of 65)
Waste management,	65	100%
Waste water management,	65	100%
Green House Gas (GHG) management,	32	49.23%
Air emission,	43	66.15%
Air emission control equipment,	12	18.46%
Source of air emission control equipment,	15	23.08%
Ozone depletion substances,	09	13.85%
Energy consumption,	51	78.46%
land use,	34	52.31%
Bio-diversity,	22	33.85%
Formal Environmental policy,	25	38.46%
Adoption of ISO-14001,	27	41.54%
Environment monitoring system,	47	72.31%
Environment emergency protocol, and	07	10.76%
Noise pollution.	18	27.69%

Source: Done by the authors

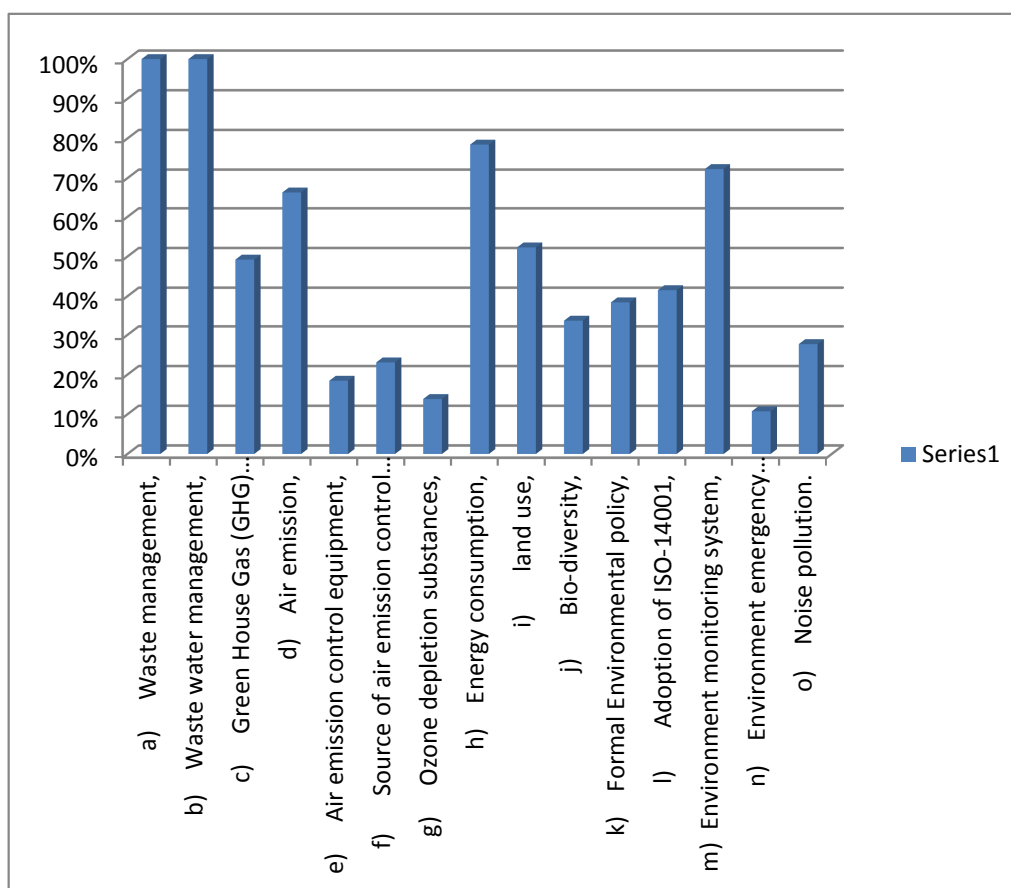


Figure 1: Stakeholders' concepts about CEA

Considering more than 50% opinions CEA includes waste management, waste water management, air emissions, energy consumption, land use, environment monitoring system.

Some respondents included some CSR activities as CEA such as tree plantation, pure drinking water supply, free treatment for human beings and arrangement of treatment for other species, donation for cyclone affected areas etc.

2. The second objective was to find out whether they had any pressure from outside or not. About 45 respondents expressed their opinions about the pressure. The result was affirmative and more pressure created groups are as follows:

Opinions about the pressure group	Numbers of respondent (total 45)	Weight (Out of 45)
a) Foreign buyer especially western countries buyers	45	100%
b) Government organizations like ministry of environment, department of environment,	45	100%
c) International social organizations like WHO, UNESCO, British Association of Social Works etc.	23	51.11%
d) Local NGOs	17	37.78%
e) Civil society	11	24.44%
f) Local affected people	11	24.44%
g) Academic researchers and	10	22.22%
h) Media (electronic and printed)	40	88.89%

Source: Done by the authors

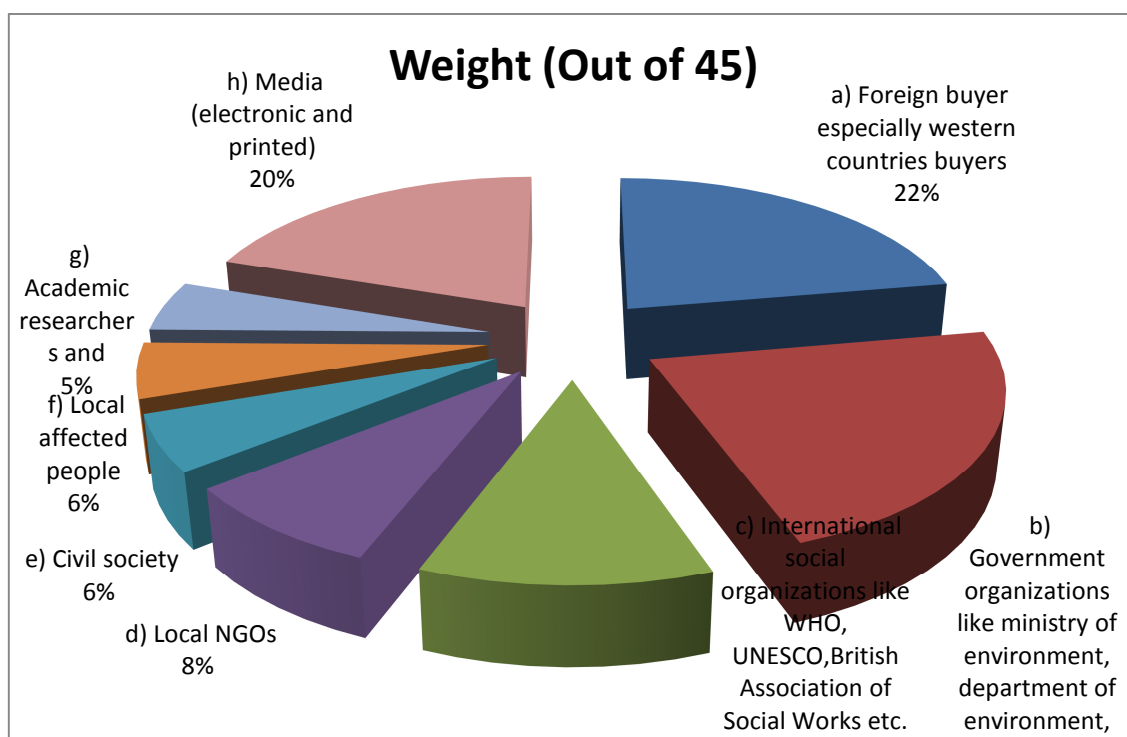


Figure 2: Opinions about the pressure group

From the above table and graph, it is clear that the companies felt pressure from different sides especially from foreign buyers, government authority and electronic and printed media.

3. Respondents knew about CEA, and the organizations felt pressure to adopt those environmental activities as well but what they have done regarding those issues. These are as follows:

Various environmental activities	Actual picture
a) Effluent Treatment plant (ETP) for waste water management,	Available in every sample company
b) Equipment for controlling air emission and noise pollution.	Not available. But they collect certificate from Department of environment.
c) Separate department for maintaining environmental activities	Not available.
d) Separate books of accounts for keeping environment related transactions	Very little. Specifically for ETP related books are maintained separately.
e) Monitoring system	Very poor considering workers condition in factory.
f) Training arrangements for employees	Insufficient. In some cases, employee has to develop of their own cost.
g) Waste management and treatment for workers	Waste management is satisfactory but workers' conditions are very poor.
h) CSR activities regarding environment	Very poor but recognize it as very important.

Source: Done by the authors

4. Since the sample companies' activities regarding environment are not in a satisfactory level, so the hindrance behind this are tried to disclose. About 60 respondents expressed their opinions about the hindrances. The hindrances expressed by the respondents are presented below with the numbers of respondents and as well as their weights:

Barriers behind unsatisfactory environmental activities	Numbers of respondent(total 60)	Weight (Out of 60)
a) Financing constraints	60	100%
b) High maintenance costs	54	90.00%
c) Absence of direct benefits	35	58.34%
d) Reduction of profit due to increase in revenue costs	45	75.00%
e) Lack of qualified employees and unskilled workers	55	91.67%
f) Absence of standard framework of CEA	58	96.67%
g) Unwillingness of owners	48	80.00%
h) Unavailability of pollution preventive local equipments	35	58.34%
i) Flexibility of government rules regarding CEA	40	66.67%
j) Problem of Small and Medium size enterprises	30	50.00%
k) Infrastructural problem	60	100%
l) Fuel and electricity problem and	55	91.67%
m) Unemployment problem	25	41.67%

Source: Done by the authors

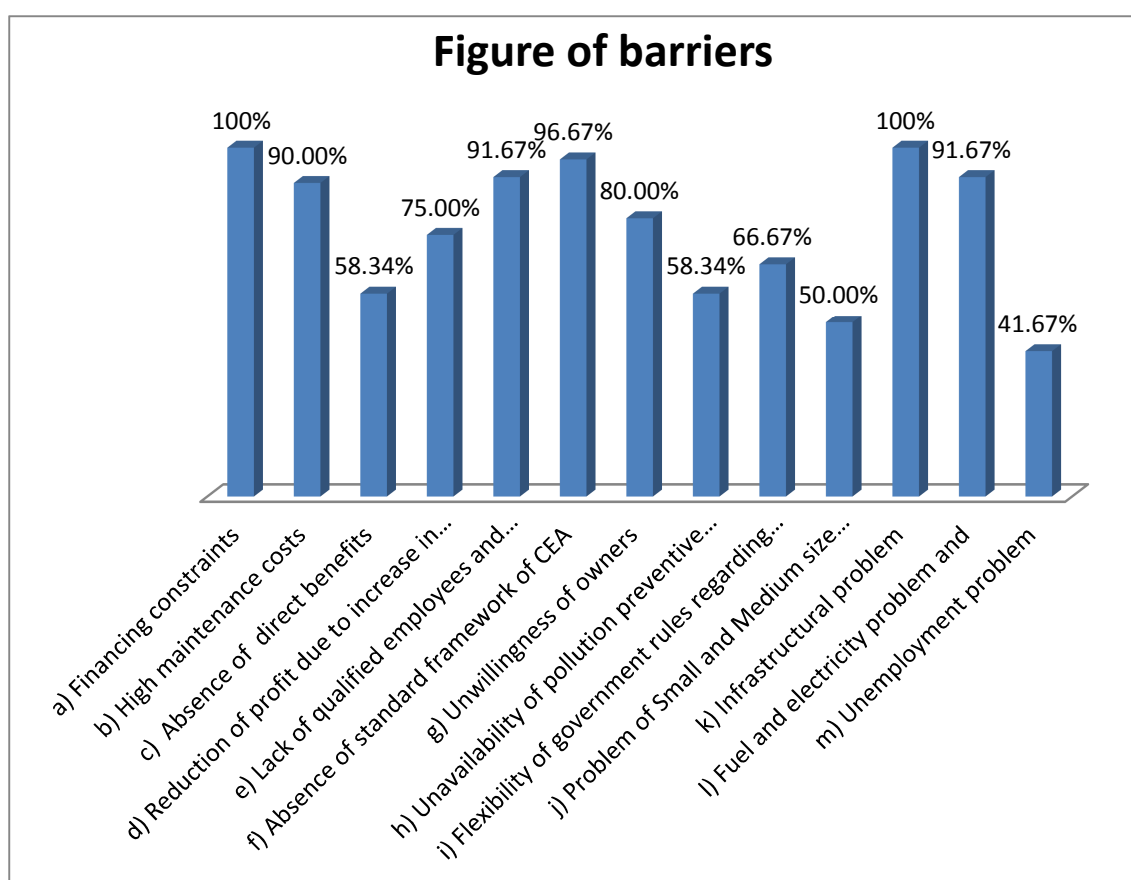


Figure 3: Barriers behind unsatisfactory environmental activities



From the above table and graph, it is clear that **the companies** felt hindrances from different sides, **most importantly from** financing constraints, absence of standard framework of CEA,infrastructural problem,fuel and electricity problem lack of qualified employees and unskilled workers and high maintenance costs.

**Moreover,they mentioned that more important challenges they faced rather than environmental issues to continue their business.**

### Conclusion

Environmental issues are top most discussed topic in the present world. Not only the first world but also the third world countries are concerned about environmental factors. The harmful effect of environmental pollution limits no boundary. Bangladesh suffers from the problem of developed countries environment pollution activities due to geographical location. At present Bangladesh demands compensation from the developed countries and disburses budget towards environment saving projects. This paper identified lots of problems faced by the companies regarding environment and it mentioned infrastructural, energy, and unskilled workers and employees. All the responsible concerns of the government should declare package to overcome the problems and to encourage the companies to establish corporate environmental accounting. Though it is not possible for government to resolve all problems but can create opportunity to develop human resources and infrastructural development. Since the owners are not shown any direct benefits over its costs so further research can be conducted to open out the short term and long term advantages of maintaining such activities.

### Appendix

**Table-1**

<b>Name of the reasons for non-disclosure</b>
1.Social, Political, cultural, Legal, Economic and Technological factors
2. Absence of independent verification
3. Lack of statutory requirements
4. Absence of organized social group
5. Under-developed corporate culture
6. Newly established capital market
7. Loss of company
8. Nature of the Industry
9. Presence of Debenture in annual report
10. Absence of standard reporting framework
11. Lack of resources
12. Poor performance and bad publicity

**Table-2**

<b>Name of the sample companies</b>
KDS Textile Mills Ltd.
Regent Textile Mills Ltd.
Saad Musa Fabrics Ltd.
Sunman Spinning Mills Ltd.
Hasnat Textile Industry
PHP Spinning Mills Ltd.
AK Khan Penfabric Company Ltd.
A&A Textiles Ltd.
Pahartali Textile & Hosiery Mills.
The Chittagong Textile Mills Ltd.

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