

Are Toppers Transparent?

A Study of Environmental Disclosure Practices in Indian Corporate Sector

***Dr. Bhagaban Das**

Department of Business Management
Fakir Mohan University, Vyasa Vihar-756019
Balasore, Orissa. India

Abstract

Environmental reporting is a recently developed research area, which would be classified under social responsibility accounting. Environmental issues being, an important area of corporate social responsibility had been widely advocated in literature continuously. However, most of these studies are embedded in the economic and organizational perspectives of Europe and United States of America. Hardly few studies have looked at environmental reporting aspects in developed countries like India. Under this backdrop, this study by looking at the directors report section in the annual reports of the 24 sample companies selected at random identifies the volume and veracity of environmental disclosures and its associations with size of assets in Indian corporate sector by using content analysis, correlation and simple regression.

Key Words: Environmental reporting, quality, extent, Indian Companies.

1. Introduction

For centuries business in India was done without consideration for the environment. The environmental issues and concerns have been viewed as a constraint to business. But at present the Indian companies have faced strong international competition, especially after the opening of the Indian economy in the early 1990s, as international competitors tried to establish their footholds in India. These international firms are disclosing non-financial information including environmental ones leading to an enhanced expectation from Indian companies to act responsibly towards the environment and be accountable to the society beyond the traditional role of providing financial account (referred to as 'bottom

line' perspectives by Elkington, 1997) to the shareholders. Hence, to improve corporate image concerning socially responsible behaviour, it is expected that an increasing number of Indian companies will report their environmental performance and social issues. However, most of the available literature in regard to environmental performance reporting has concentrated on developed countries and little attention has been given to the state of environmental reporting of developing countries (Ahmed and Sulaiman, 2004; Thompson and Zakaria, 2004; Nafez and Kamal, 2000) including India, which has a population of more than one billion.

Environmental reporting is a recently developed research area, which would be classified under social responsibility accounting. Environmental reporting being, an important area of corporate social responsibility had been widely advocated in literature by *Carson (1962)*, *Indian International Center (1966)*, *Bowman (1975)*, *Davis (1976)*, *Beesley et. al. (1978)*, *Fred Luthens (1980)*, *Davis (1983)*, *Goodin (1983)*, *Mathews (1987)*, *Ryle (1988)*, *Archibugi (1989)*, *Katyal (1989)*, *Kirkpatrick (1990)*, *Weisner (1990)*, *Institute of Business Ethics (1990)*, *Dan (1991)*, *Plant et. al. (1991)*, *Hansell (1991)*, *Carson et al. (1991)*, *Davis (1991)*, *Sullivan (1992)*, *Wicks (1992)*, *Hopfenbeck (1993)*, *Shrivastava (1993)*, among others. However, most of these studies are embedded in the economic and organizational perspectives of Europe and United States of America. Hardly few studies have looked at environmental reporting aspects in developed countries like India.

Under this backdrop, this study aims to address this gap by conducting an investigative study on environmental reporting practices of 24 Indian companies and its relationship with asset size. The analysis of the study is restricted only to Directors Report section in annual reports. In other words, the objective of this paper is to ascertain the nature and extent of environmental disclosure practices by top Indian corporates and to find the relationship if any between environmental reporting and their asset-size. It has been divided in to four sections. The first section introduces and defines the environmental reporting. The second reviews some earlier work on environmental disclosure practices by corporate sector and identifies important leanings and limitations. The third section discusses the regulatory framework of India relevant to environmental reporting. The

fourth section deals with methodology adopted and the fourth section summarises the findings leading to interpretations and conclusions.

Conceptualization of Environmental Reporting

Environmental Reporting means incorporations of environmental issues into the annual reports of corporate bodies. It denotes voluntary and involuntary disclosures of corporate entities on the impact of its activities on environment. It covers the preparation and provision of information, by management, for use of multiple stakeholders (both internal and external) on the environmental status and the performance of their company or organization.

- a) Environmental Reporting can be defined as an umbrella term that describes the various means by which companies disclose information on their environmental activities. (Brophy & Starkey, 1996).
- b) Environmental reporting is a mechanism used by companies across all sectors of the economy to communicate environmental initiatives and performance to stakeholders. Customers, financial institutions, investors, insurers, regulators, community groups, employees, environmental activists, trading partners and other interested parties are asking companies for more detailed, information about their environmental performance.

2. Literature Review

This section provides some examples of the available literature on environmental reporting. For better understanding of the findings and recommendations, we classify the literature into two groups; (i) Environmental issues and their disclosure in the corporate annual reports; and (ii) Environmental Disclosure in the Annual Reports of Corporate India

(i) Environmental Issues and their Disclosure in the Corporate Annual Reports

Environmental issues being, an important area of corporate social responsibility had been widely advocated in literature continuously by Carson (1962), Indian International Center (1966), Bowman (1975), Davis (1976), Beesley et al (1978), Fred Luthens (1980),

Davis (1983), Goodin (1983), Mathews (1987), Ryle (1988), Archibugi (1989), Katyal (1989), Kirkpatrick (1990), Weisner (1990), Institute of Business Ethics (1990), Dan (1991), Plant et. al. (1991), Hansell (1991), Carson et al. (1991), Davis(1991), Sullivan (1992), Wicks (1992), Hopfenbeck (1993), Shrivastava (1993), among others.

Environmental disclosures in the corporate annual report assume that the organisations are socially conscious and are ready to discharge such social obligations for the well being of the society. Numerous proposals had been made over years by accountants and researchers to develop methods to measure and report on conservation of, environment [*Beam and Fertig (1971), Abt (1971, 1972, 1974, 1975), I'' Marlin (1973), Brummet (1973), Linowes (1973), Nikolai (1976), Dierkes et. al (1977), Burke (1980), Preston (1981), Kelly (1981), — Owen (1981), Denuyl (1984), Guthrie and Mathews (1985), Gray et. at. (1987), Sinha (1988), Jaggi (1989), Lickiss (1991), Owen (1992), I Spellerberg (1992), and Ing (1992)*

Several attempts had also been made from 1970s, to develop a normative theory of accounting and reporting for conservation of environment as an area of social reporting'[viz. *Churchil (1974), Seidler Iand Seidler (1975), Estes (1976), Ramanathan (1976), CICA (1978), Johnson (1979), Tinker and Lowe (1980), De Fillippi (1982), Lal, Jawahar (1984), MacIntosh (1985), Gambling (1985), Gray et. at. (1986), Owen et al. (1987), Turner (1988), Guthrie and Parker (1989), Gray (1990), Owen (1990), Someya (1991), Chattopadhyay (1991), Bernsterin (1992), Owen (1992), Gray (1992), Owen (1993)]*. Efforts are also being made in some universities to develop framework for analysis of corporate social responsibility accounting and reporting, where environment is considered as an area (*Porwal-1993*).

Further, the form and content of corporate disclosures on conservation of environment and its measurements had been the subject of series of public hearings and pronouncements by the Security Exchange Commission (SEC-USA) and some major Accounting Association in different countries of the world. In the USA, from 1971 to 1973, the SEC had issued a number of releases (SEC 1971, 1973) concerning environmental disclosures. It involved a great deal of research work in this direction. The American Accounting Association (AAA) Committee on Environmental Effects of

Organization Behaviour (AAA-1973) had proposed narrative disclosure, in footnotes to the audited financial statement of information concerning environmental issues.

Another Committee was formed by the AAA (AAA-1974) for measurement of social cost to the business where environment is one of the areas of social activities. The National Association of Accountants (NAA-1974) committee on accounting for corporate social performance (1974) in its efforts to resolve the issue had proposed four major areas of social performance, one of which was 'physical resources and environmental contribution'. Activities directed towards preservation of environment, conservation of scarce resource, disposal of solid wastes etc. are considered in this area. In United Kingdom (UK) the 'Corporate Report' (1975), published by the Accounting Standard Steering Committee (ASSC-1975) of the Institute of Chartered Accountants in England and Wales (ICAEW) and the 1977 green paper 'the Future of Company Report' (HMSOCMND 6888-1977) had drawn attention to the concept of social-responsibility reporting (where environment protection is an issue) and made an attempt to move in that direction. In Canada, the Stamp Report (1980) published by the Canadian Institute of Chartered Accountants (CICA-1980) had discussed the broader accountability concept where the ranges of users were also broader. The accounting bodies of some other countries also make efforts in varying degrees.

The increase in social pressure for conservation of environment in the 1960s, environmental disclosures have become gradually popular throughout the world. In spite of difficulties in measuring and reporting environmental effectiveness, a number of companies have been trying in their own way, to develop suitable methods for meaningfully informing people more about what they have done so far on the issue vis-à-vis their social responsibilities

Developments are also taking place in the Federal Republic of Germany, Netherlands, Sweden, Spain, Japan and some other countries. The Australian Companies are disclosing social responsibility information in the areas of environment, energy, human resources, products, and community involvement so the idea of conservation of environment is

gaining ground fast all over the world. A piece of legislation has been framed in connection with social accounts in France, where conservation of environment is considered as an area. But the only European country with any specific disclosure requirements in the area of environmental impact information is Norway. The Enterprise Act was amended in 1989 to require corporations to include, in the board of directors' report, information on emission levels, Contamination and details of measures both planned and actually performed by the corporation with the objective of cleaning up the environment.

From the above discussion, it is evident that the environmental issues and their disclosure in the corporate annual reports are considered by the academicians, researchers, professional managers, accountants and professional bodies as a basic common agenda of the business from about mid of this century. Discussions on the issue from various angles have been started from 1960s and they are still going on. The demand for better deal from the business community is also slowly building up and the concept of conservation of environment is being accepted by some of the enlightened business corporation. This has led to a state where companies are trying to prepare report on conservation of environment separately or trying to add a dimension to their financial reporting in this direction and this is gaining popularity amongst the companies around the globe. This increasing trend in the number of report on conservation of environment, however, is not indicative of the quality of such report as most of the companies produce the same in a descriptive manner.

(ii) Environmental Disclosure in the Annual Reports of Corporate India

India is one of the leading developing countries in the world. Here also, increasing public awareness regarding 'Conservation of Environment' is compelling a modern corporation to redefine its functions. In tune with this current thinking, though no commonly used normative approach has been developed in India, no government directives or legal compulsion, there has been a humble beginning of reporting on social issues in general and more particularly that on environmental information by some progressive companies in India both in public and private sector to provide their information on conservation of environment in published annual reports and/or through separate means of disclosure.

Since the 1970s, a number of studies have been carried out concerning the corporate social disclosure in general to examine the levels and types of social information provided in the annual reports. *Maxwell and Mason (1970), Lesson (1977), Rey and Dierkes (1978), Trotman (1981), Brooks (1986) Porwal and Shrama (1991), Roberts (1992)* etc. have all examined the extent to which companies produce social information of which environmental information is a part. However, specific studies relating to environmental disclosure in the annual reports are not many. Prominent, among the studies conducted in India and abroad, are of Norman Pope (1971); Williams et al. (1972), Spicer (1978), Ingram and Frazier (1980), Sengupta (1988), Roberts (1992), Harte Lewis and Owen (1991), Eresi (1996) etc. These have ranged from surveys of frequencies and types of pollution disclosures to discursive case studies of such practice. This study aims to examine the Indian practice in respect of environmental disclosure in the corporate annual reports. For this purpose, we have selected 24 companies, representing manufacturing, trading, and construction industries.

3. The regulatory framework of India relevant to environmental reporting

India's first task after the parliamentary elections in 1998 was to prescribe a National Agenda for Governance that included a comprehensive national policy to balance economic development and environmental protection. The concern for the environment has been further stimulated due to economic liberalisation and deregulation in India, attaching further significance to production, manufacturing and services. India's existing policy framework concerning environmental protection is outlined in three documents, that is, the National Conservation Strategy on Environment & Development of 1992, the Policy Statement for Abatement of Pollution of 1992, and the National Forest Policy of 1988. The National Conservation Strategy imparts the basis for the integration of environmental considerations in the policies and programs of different sectors. It stresses sustainable lifestyles and proper management and conservation of resources. The Pollution Abatement Policy emphasises the prevention of pollution at the source. It promotes the development and application of the best available technical solutions. The policy embodies an approach by which polluters are held financially accountable for the pollution they generate and accentuates the protection of heavily polluted areas and river

regions. The forest policy emphasises the maintenance of the environment through the preservation and restoration of India's ecology. The policy seeks to significantly increase the forest acreage in the country (Prabhu, 1998/99).

The governments of India are promoting more and more regulations to protect the environment and the community in general. In order to control emissions from production processes, air quality regulations lay down stringent equipment specifications that are required to be implemented by the polluting industries. To minimise the global environmental problems, India has made the production and abatement technology mandatory (Chakrabarti and Mitra, 2005).

The regulatory framework governing corporate disclosure in India includes the Companies Act 1956 and the Securities and Exchange Board of India (Amendment) Act 2002. The Companies Act 1956 has been amended several times, and is now known as the Companies (Amendment)/(Second Amendment) Act 2002. The Companies Act includes detailed provisions concerning the preparation of annual accounts and reporting. The annual accounts of companies are prepared in accordance with Section 211 and Schedule VI to the Companies Act 1956. The Companies Act mandates the preparation of annual accounts of companies in accordance with the accounting standards issued by the Institute of Chartered Accountants of India (ICAI) (Chatterjee, 2005). There is no requirement under either the Indian Companies Act or Accounting Standards (ASs) to disclose environmental information.

The Securities and Exchange Board of India (SEBI) Act 1992 has led to the establishment of a Board, to protect the interests of investors in securities, facilitate the development of the securities market, regulate the market of securities, and to provide for the incidents or matters in relation to that. The structure of the Securities and Exchange Commission (SEC) of the US guides the formation of SEBI. The stock exchange regulation of accounting in India is not very dominant till now (Banerjee, 2002). There are 23 stock exchanges in India. Each of them has different listing requirements, concerning issued and subscribed equity capital (Chatterjee, 2005). However, there is no requirement from these stock exchanges to disclose environmental information.

As evidenced from the above discussion, Indian companies are not bound by any regulations to provide their environmental performance information in their annual reports. Therefore, any information on the environment provided by Indian companies is voluntary.

4. Methodology and Data Base

The paper is based on a survey of Annual Reports of 24 companies, which are supposed to make a disclosure regarding the total energy consumption and energy consumption per unit of production as per the Companies (Disclosure of Particulars in the report of Board of Directors) Rules 1988,

In the first stage the top 50 Indian companies were identified from the *Business Asia* 500 list 2006. This list provides details regarding market capitalization, sales, sales growth and other financial information as on April 2006. These companies represent almost 35 percent of the total market capitalization. Out of these, the companies operating in the Banking, Media, Telecommunications and IT sector are not considered because they do not fall in the list of industries provided by the Companies (Disclosure of Particulars in the report of Board of Directors) Rules, 1988.

The data collected are not limited to the financial statements only. The annual report, more particularly director's report is used for collecting the data in addition to financial reports. Basically the data are obtained from two major sources. The first source takes account of the company's home page from which the annual reports are downloaded and second source include *indiainfoline* website. From these sources documents of 24 companies in the top 50 were obtained. The sample contained 16 sectors of industry, which are regrouped into 6 on the basis of certain common characteristics in order to select at least 3 companies from each group (Table-1).

Table-1 : Industry and Companies in the sample	
<i>Industry</i>	<i>No. of companies</i>
Pharmaceuticals, Beverages, Food, & Tobacco	5
Petro Chemicals, Oil Refineries & Chemicals	4
Aluminium & Steel	3
FMCG	6
Automobiles	3
Metals & Mines	3
Total	24

Basically, two types of data: (a) physical environment and (b) social environment are collected. Natural assets and created physical surroundings are considered as physical environment; whereas human resources, economic situations, political and public policy environment, cultural and community involvement and any other information relating to society are considered as social environment in this study. *Nikam and Wickramarachchi* (2002) have used this classification in a study of environmental reporting by Srilankan companies.

After gathering the data, 'Content Analysis' method was followed for systematic investigation of both physical and social environmental disclosures. 'Content Analysis is a method of codifying the text/content of a piece of writing into various groups or categories depending upon selected criteria' (*Krippendorf 1980*). It was used by experts like; *Buzby* (1974), *Blacconiera and Dennis* (1994), *Wallace and Mora* (1994), *Pizzey* (1998), *Alli and Mohaamed* (2002), and others in their research studies for environmental disclosure analysis in the corporate segment.

Content analysis requires a unit to measure or method of measurement of the contents. Literature survey shows different units of measurement. The numbers of words, sentences, paragraphs, and pages have been used to measure the volume and veracity of environment disclosures. The merits and demerits of each of these units of measurement

have been questioned in literature (*Grey et al.1995; Milene and Adler 1999; Unerman (2000)*). Pages, for instance, have been criticized on the ground that they do not consider size and category of the typescript as well as space left for borders/margins. In the similar way, words carry no meaning unless those are a part of a sentence. For this reason, none of these are found suitable for this study. Rather number of lines has been used as the measuring unit of environmental disclosure as they can be easily counted and involves less judgment. *Choi (1998)* in Korea, *Belal (1999)* in Bangladesh and *Raman (2007)* in India have also used number of sentences to measure the volume of corporate disclosures in their respective countries.

Content analysis also involves identification of categories into which chunk of contents could be classified. For this purpose, we have identified four major themes:

- (i) *Physical Environment*: it includes plantation, pollution control, preservation of natural resources and forests including energy conservation.
- (ii) *Human Resources*: this includes social information directed towards the well being of employees like; training and development, working conditions, promotion policies, provision for job enrichment and employee benefits.
- (iii) *Community Involvement*: it covers information like education, sponsoring sports, cultural activities, helping the poor, health and safety and also charity
- (iv) *Product and Consumers*: it reflects the concerns of a company for generating and maintaining customer satisfaction regarding the product.
- (v) These are evaluated on the basis of: (a) Qualitative, quantitative or declarative statements and (b) Good, bad, or neutral statements.

Moreover, correlation coefficient, and simple regression techniques are used to examine the relationship between the total assets values (considered as the independent variable) and disclosure of environmental information (considered as the dependent variable) for selected sample companies.

5. Information Analysis

Incidence of Corporate Environment Disclosure

Table-2 summarizes the frequencies and percentages of environmental disclosure practices in Indian corporate sector along with the distribution among different industrial groups. From the table it is evident that, while the environmental disclosures in sectors like; (a) pharmaceuticals, beverages, food & tobacco (b) oil refineries, petro-chemicals, & chemicals (c) aluminum, & steel (d) metals & mines are 100 percent; it is only 66.7% in automobile segment. However, it is a good indication that about 92 percent of samples have made a disclosure of at least one sentence regarding environment in their annual reports.

Table-2: Incidence of Corporate Environment Disclosure			
Industries	Total No Companies	No of Companies with disclosure*	% of Companies with disclosure
Pharmaceuticals, Beverages, Food, & Tobacco	5	5	100.0
Oil Refineries ,Petro Chemicals, & Chemicals	4	4	100.0
Aluminium & Steel	3	3	100.0
FMCG	6	5	83.3
Automobiles	3	2	66.7
Metals & Mines	3	3	100.0
Total	24	22	91.7

* At least one line for the year under review.

Pattern of Environmental Disclosure by Themes

Table-3 shows the nature and pattern of environmental disclosures by themes for sample companies. From the table it is quite apparent that two themes; disclosure of Human resources and Product & Consumers are most popular that get the maximum mention in

annual reports of sample size. While the percentage of companies disclosing Human Resources theme in their annual reports is 83.3; that for Product & Consumers stood at 79.2. In spite of extraordinary importance attached to this, not more than 54 per cent of the samples made it a point to mention their involvement in community activities like education, sponsoring sports, cultural activities, helping the poor, health and safety and also charity.

Physical environment which includes steps taken for pollution control, preservation of natural resources, forests and energy conservation is the least popular theme among the sample companies. Only 33.3 per cent of sample size liked to mention it in their annual reports. It might be due to the fact that our sample consists less than 41 percent of 'environmentally polluting' companies such as; oil refineries, petro chemicals, aluminum, steel, metals, mines etc. As a matter of fact, these types of companies face the toughest social and environmental issues and receive criticisms from the environmental activists regarding pollution of the environment. Therefore they often figure first to mention environment issues in their annual reports. Table-4 gives an idea about the cross-sectional environmental disclosures by sample companies on the basis of themes and industries.

Table-3 Pattern Of Environmental Disclosure By Themes		
Themes	Number of Companies with disclosure*	% of Companies with disclosures
Physical Environment	8	33.3
Human Resources	20	83.3
Community Involvement	13	54.2
Product and Consumers	19	79.2

* At least one line for the year under review

Cross-Sectional Environmental Disclosure by Industry/ Theme

From the table-4 it is clear that Pharmaceuticals, Beverages, and Food, Tobacco, and Automobiles industries do not mention even one sentence regarding physical environment in their annual reports. In the absence of any specific guide lines from the

Government regarding environmental disclosure practices, these companies might have neglected this aspect of corporate social responsibility. On the other hand, environment polluted companies like, petro chemicals, oil refineries, chemicals, metals and mines constitute about 62.5 percent of total sample size disclosing physical environment. As far as the other themes are concerned, all industrial segments mentioned their involvement in community building activities and more than 23 percent of companies both in pharmaceuticals, beverages, food, and tobacco group as well as in Automobiles group too disclose the same. Again all most all industrial segments have mentioned regarding their human resource, product and consumers themes in their annual reports. However, utmost disclosure is observed in pharmaceuticals group on the subject of product development and consumers' care (26.3%) and that for human resources is found in FMCG, pharmaceuticals, petro-chemicals and oil refineries groups (20%).

Table-4:

Cross-Sectional Environmental Disclosure by Industry/ Theme

Industry	Physical Environment*	Human Resources*	Community Involvement*	Product and Consumers*
Pharmaceuticals, Beverages, Food, & Tobacco	00.0	20.0	23.1	26.3
Petro Chemicals, Oil Refineries & Chemicals	37.5	20.0	15.4	21.1
Aluminium & Steel	25.0	15.0	15.4	10.5
FMCG	12.5	20.0	23.1	21.1
Automobiles	00.0	10.0	07.7	10.5
Metals & Mines	25.0	15.0	15.4	10.5
Total	100.0	100.0	100.0	100.0

* At least one line for the year under review.

Nature and Volume of Disclosures

Table-4 provides some interesting results regarding corporate environmental disclosure practices in Indian corporate sector. For instance, although close to 83.3 percent of the companies made a mention about human resources (table-3), hardly 29.1 percent sentences are allotted to this theme. Product development and consumers' care captures the maximum share with 37.4 percent of sentences followed by community involvement with 24.1 percent of sentences and physical environment only 9.4 percent.

Another attention-grabbing feature of this table is that total qualitative disclosure of environment consists 49.1 percent, declarative statements 25.6 percent and only 25.3 percents of total number of sentences is quantified. This is in line with observations in other studies, (for example Deegan and Gordan. 1996, p.187), which have indicated that 'environmental reporting is typically qualitative in form and predominantly of a self-laudatory nature'. Again percentage of declarative statements is human resources theme is quite high (12.2 percent) as compared to other themes. Similarly, in terms quantitative disclosures, product and consumers development leads to all other themes. It is of 12.2 percent of total number of quantitative sentences used for disclosing environment. It might be due to the fact that the Indian companies so far have not faced any pressure from the stakeholders like in other countries as well as they are not legally bound to formally report CSR activities; hence they are not adhering to the global reporting initiatives. They have restricted themselves to only qualitative and generic statements of intent, affirming their commitments towards a clean and healthy environment. Even MNCs in India have paid only lip service to the subject of environment management. The information provided through environmental disclosure could provide good and as well bad news. But according to the findings of some researchers (like, Nikam and Wickramarachi, 2002:407) companies are reluctant to provide bad news. It is also established in our study. Table-4 provides the fact that in environmental disclosures of sample companies, only 3.9 percent of total number of sentences are having bad news, where as good news consists of about 74 percent and percentage of neutral sentences is 22.2 only. The companies in India fear that negative environmental disclosures might result into fall in their value. Therefore they only disclose the positive environmental

information that too when demanded and not as a regular disclosure practice. It seems that companies have disclosed bad news of physical environment due to legal compulsion and that for community development to hide their failure of expected achievements or to disclose the success of management under adverse national and international surroundings. The percentage of neutral sentences in human resources theme (11.9 percent) and sentences carrying good news in product and consumers theme (31.2) is quite substantial.

Table-5: Nature and Volume of Disclosures by Themes								
Themes	Total number of sentences in percentage				Total number of sentences in percentage			
	Quantitative	Qualitative	Declarative	Total	Good news	Bad news	Neutral	Total
Physical Environment	2.4	5.1	1.9	9.4	5.6	1.3	2.5	9.4
Human Resources	4.5	12.4	12.2	29.1	17.2	0.0	11.9	29.1
Community Involvement	6.2	10.7	7.2	24.1	19.9	2.6	1.6	24.1
Product and Consumers	12.2	20.9	4.3	37.4	31.2	0.0	6.2	37.4
Total	25.3	49.1	25.6	100	73.9	3.9	22.2	100

5. Environmental disclosure and Assets Size

The performances and characteristics of companies vary from one to another. The researchers such as Buzby (1974), Satnga (1974), Jawahar Lal (1985), Owusu-Anash (1998) and others have identified a positive co-relationship between certain characteristics of company and disclosure in their annual reports. In this section, the total value of assets is selected as the company characteristic in order to test its relationship with the disclosure of environmental information in the annual reports.

There are several reasons to assume a positive relationship between the total value of assets and the disclosure of environmental information. The larger companies have required resources to accumulate and disseminate the environmental information in comparison to smaller companies. Smaller companies may not have the strength to face the competitors in pursuing the policy of full disclosure. Further large sized companies are generally subject to attention of environmental activists and those may provide more information regarding environment to get public and government confidence.

The correlation coefficient between the mean values of environmental disclosure and the total assets is calculated and found to be 0.94. The correlation coefficient for seven degrees of freedom at the probability values (P- values) of 0.01 is 0.798. Since this is less than the value of correlation coefficient ($0.94 > 0.798$), the relationship between the environmental disclosure and value of assets is statistically significant at 1 % level.

The simple regression model is applied to examine the relationship between above two sets of variables. The table-6 presents its summary results. In simple regression test, t-value for the regression coefficient of assets is stood at 6.69 at 0.0005 probabilities (P-value). The F-value of analysis of variance is 44.81. These figures also indicate a high level of positive correlation between asset size and disclosure of environmental information in annual reports. The value of R square is 0.86, which indicate that 86 percent of the variance of disclosure is explained by asset size under simple regression test.

Table-6: Simple Regression between Environmental Disclosure and Assets Values	
<i>Statistics</i>	<i>Value of Assets</i>
Intercept	109.38
Coefficient (Independent variable)	0.0002
t-Value	6.69
P-Value	0.0005
F-Value	44.81
Coefficient Of Determination	0.88
Adjusted R Square	0.86
Standard Error	477.77
Number of observations	8

Thus it can be concluded that the relationship between asset size and the environmental disclosure is positive and highly statistically significant in annual reports of companies in India.

6. Conclusion

Environmental reporting is a recently developed research area, which can be classified under corporate social responsibility. The environmental information which is voluntarily provided in annual reports could be classified into physical and social. Again social environment can be categorized as human, customer care and community development. Some researchers are of view that an environmental disclosure in annual reports is very significant. This study though indicative suggests that most of the companies in India do disclose some aspects of their environment. However, nature and the extent of such disclosure are varied with large emphasis on human resources development followed by product development and customer care. Disclosure regarding physical environment and community involvement are given relatively less space in the annual reports.

Environmental reporting across the industries also indicates a wide variation in terms of emphasis on themes and average number sentences devoted to them. Petro chemicals, oil refineries and chemicals, for example, give more information regarding their physical environment as compared to others; where as pharmaceuticals, beverages, food, and

tobacco industries allots more space to disclosure of product development and customers satisfaction.

The information provided by through environmental disclosure could provide good news as well as bad news. But from this study, the magnitude of disclosure bad news is far below the magnitude of disclosure of good news in annual reports of companies. It gives the impression that companies are reluctant to disclose information regarding bad news.

It is also established in the study that large sized companies provide more information regarding environment to get public and government confidence in contrast to small sized ones.

7. Suggestions

Considering the inferences that have been drawn by studying the annual reports, it may be suggested that a corporate environmental report may be made mandatory to be drawn up with the same level of importance as financial reports.

The design of such environmental report should ideally reflect the three dimensions of sustainability: economic, environmental, and social. The stewardship (regulation, implementation and control) of such sustainability report be entrusted to a global and independent institution. It may be anticipated that such institutions would support a precautionary approach to environmental challenges. The aim of the reporting would be to ensure that corporates undertake initiative to promote greater environmental responsibility by introducing and promoting environment friendly technology.

8. Limitation of the Study

The study has some limitations of its own. First, the study is made on the basis of very small sample size. A large sample covering both large and small companies may provide more dependable results. Second, the evidence gathered is from one part of the annual reports viz. the director's report. The other sections of the annual report may have other disclosures regarding environment. Third, the information presented by the companies was un-audited and non-specific. No judgment could be made as to the extent to which the companies presented a complete picture of their corporate activities. As a consequence, the percentage given may be a generous estimate of the true extent of

corporate environmental disclosure. Four, the study does not include Banking, Media, Telecommunications and IT companies. The generalization is, therefore, limited to manufacturing, trading, and construction concerns only. Five, the sample companies surveyed represents only 35 percent of market capitalization. A more elaborative study covering companies that would make up 90percent or more of the total market capitalization would further distill the results.

Nevertheless, the results of the study based on this sample would give an approximation of the extent of environmental disclosures in annual reports in the Indian corporate sector.

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