



ENVIRONMENTAL REPORTING PRACTICES: AN ANALYSIS OF INDIAN COMPANIES

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ABSTRACT

The present paper is an exploratory study to understand the nature and extent of environmental reporting practices followed by Indian Companies. To examine the disclosure practices regarding the environmental issues, the published annual reports of environmentally sensitive companies in India were collected for the year 2017-2018. Content analysis was applied to analyze the annual reports. An 'Environmental Disclosure Index' listing 25 items of information, classified in to five categories was used to find out the actual disclosure practices in these companies. A sample of fifty manufacturing companies belongs to environmentally sensitive industries like Cement Manufacturing, Paper manufacturing, Petroleum oil and refineries, Pharmaceutical and steel manufacturing industries have been selected for this study. Percentage analysis has been applied to evaluate the environmental reporting practices of companies. The study found that, Indian companies have voluntarily reported many items of information contained in the checklist. The present study provided a general understanding and status of environmental disclosure across diverse sectors. Recent years have witnessed rising concern for environmental issues, which is reflecting in the form of social or sustainability reporting in the annual reports of Indian companies. The Number of organizations that publish environmental reporting is steadily increasing and it has significant effect in decision making process by stakeholders.

KEY WORDS: *Content analysis, Environmental Disclosure Index, Environmental issues. Environmental reporting, Environmentally sensitive Industries.*

1.INTRODUCTION

Sustainable development is rooted in the current economic, social and political conditions as well as building on current financial reporting paradigms. It provides a broad theoretical base on environmental indicators and how it can be operationalized. "Social development" is about maintaining access to basic resources and improving the well-being of every individual in society so they can reach their full potential. The success of society is linked to the well-being of each and every citizen. Environmental protection is the primary concern of the future of humanity. It defines how we should protect ecosystems, air quality, integrity and sustainability of our resources and focusing on the elements that place stress on the environment. Industrialization contributes major part for the economic development and prosperity of a country. It provides employment opportunities and wealth generation while on other hand it leads to environmental deterioration in varied manner: depletion of natural resources, air pollution, water pollution and soil pollution, global warming, climatic changes. Companies are by and large concerned with the means of production rather than the effect of production on the environment. Businesses are regulated to prevent pollution

and to keep their own carbon emissions low. Pressures on companies to reduce pollution have varied over time with societal expectations and attitudes. In India the Ministry of environment has separately issued "ECO-Action 21" (Environmental activity evaluation programme) which enables small businesses to design and operate environmental management programme to carry out conservation activities and to publish environmental reporting with relatively ease.

Environmental awareness among Indian stakeholders gets strengthened with advancement in communication technology. Stakeholders are sensitive about the harmful impacts of industrial activities on environment. Such high propensity of environmental awareness ensures a more cautious approach among Indian corporations to be environmentally responsible. There was a need for a measurement system to assess industry's impact, but current accounting is inadequate for a variety of reasons. There was a need for new holistic accounting which captures corporate environmental impacts. It was debated that companies because of their stewardship function should report their environmental accounting to their stakeholders (Jones, 2010). Our society urgently needs to create a social mechanism by which economic entities can rationally estimate the good

business practices that deliver economic benefits to environment-friendly businesses. Environmental information must be disclosed without impairing the usefulness of environmental reporting. It must meet the information needs of users with guaranteed quality and comparability with previous periods and other enterprises.

2.LITERATURE REVIEW

In Environmental reporting literature, prior research studies have been conducted in many countries on various perspectives of environmental accounting and reporting. Voluntary disclosure theory argued that better environmental performers will communicate with stakeholders using hard or verifiable disclosures which are difficult to mimic by poor environmental performers. On the other hand, socio-political theories suggested that poor environmental performers will use soft or unverifiable disclosures in their attempt to alter their public image, Clarkson et.al (2011). Gupta (2011) revealed in his study that companies are well aware of the facts that environmental issues will affect the business and industry in the near future. The companies in India do not have a proper environmental accounting system to determine the environment related costs, benefits, assets and liabilities. Indian companies fail to provide adequate disclosure on the environment. Chauhan(2005), Pramanik et.al(2007), Mostafa et al(2008), Anand and Srinivasa (2014), Ranga and Garg(2014), have studied the conceptual frame work of environmental reporting practices. They concluded similar views; environmental accounting is about making environmental related costs more transparent with corporate accounting systems and reports. The developing countries like India are facing the twin problem of protecting the environment and promoting economic development. A tradeoff between environmental protection and development is required. The status of environmental reporting in India is in preliminary stage, very few corporations give adequate information regarding environmental issue. In India, level of environmental related disclosures in the corporate annual reports, both financial and Non-financial is not an encouraging level. The proportion of companies disclosing and extent of that disclosure are small and the quantity is low. The relationship between industry membership and the extent of the environmental disclosure has been investigated by many theoretical and empirical studies due to the fact that each sector has some distinctive characteristics that may relate to risks to society, potential growth, employment, competition and government interference (Ahmad et al., 2003). Normally Companies operating in environmentally sensitive industries disclose more environmental information than companies operating in non- environmentally sensitive industries The extent of environmental disclosure in annual reports may differ from industry to industry and the result indicated that company size and industry membership are positively related to the extent of environmental disclosure (Akbas, 2014). Shukla and Vyas(2013) presented the theoretical foundation of environmental accounting and reporting with special reference to industry like ONGC, BPCL. Environmental reports of two Indian Petroleum & Gas company named ONGC and BPCL were studied for three consecutive years 2008, 2009 and 2010. The findings of the study showed that BPCL & ONGC were totally concern about the major issues of environment that directly hamper the environmental performance and they agreed that they should pay their duty with their best by providing full information about

environmental related disclosure. Cowen et.al (1987) analyzed that industry type influenced only energy and community involvement. Kundra (2013) provided an insight in to the scenario of green initiatives in Indian context. Also attempted to check environmental initiatives were industry specific or not. A sample for the study was 50 Nifty companies and the required data collected from companies' websites. An index was prepared with 40 items and content analysis used. The study revealed that, green initiatives were industry specific to some extent, going green was the new trend in the modern business. Companies operating in India were also serious about this issue and are reporting their green practices.

Malarvizhi and Yadhav (2008), examined the general trends in corporate environmental internet reporting practices and to gain an insight into the corporate environmental internet reporting practices of selected companies. It was observed that Indian companies followed diverse reporting practices on the internet viz., stand-alone environmental reporting or reporting along with the Annual/Financial Reports, or Sustainability Reporting. Involvement and commitment of corporate accountants in environmental management appeared to be limited due to lack of regional reporting guidelines. Pahuja (2009) concluded that the level of environment disclosure has significant relationship with industry category. Further, the result of the study supported the hypotheses related to influence of size and profitability. These variables have significant impact on environmental disclosure.

3. OBJECTIVES

The purpose of this paper is to investigate the environmental reporting practice followed by Indian manufacturing companies, specifically environmentally sensitive industries. The present study analyzes the content of corporate environmental disclosures with respect to the following five areas: environmental policies and initiatives, Material consumption, Energy consumption, Total water withdrawal and Emission information.

The study has the following specific objectives.

1. To identify the environmental disclosures and evaluate the status of environmental Reporting practices of Indian Companies.
2. To analyse the category wise environmental disclosure practices on the basis of index.
3. To conduct the comparative analysis of disclosure scores obtained by industries.

4.METHODOLOGY

The study is exploratory in nature. Secondary source of data is used in this research. The main data source of published Annual reports of the company were collected through Google search, for the financial year 1-4-2017 to 31-3-2018. Environmental Disclosure Index (EDI) has been developed after making an extensive survey of literature in accounting and other related fields. This methodology has been used by many researchers to evaluate reporting practices in corporate annual reports, Cowan (2005), Chatterjee and Mir (2008), Malarvizhi and Yadhav (2008), Huang and kung (2010), Sen et. al., (2011), Sonia kundra (2013), Shukla & Vyas (2013), Ullah and Hossain(2013), Yusoff et.al (2013), Ahmad and Harate et.al (2013) and Japee (2015). Environmental disclosure Index has been constructed with 5 major categories and each category contains 5 statements or items related to environment. Totally, there are 25 items included in the environmental disclosure index. The rationale of such grouping

lies in the fact that stakeholders cannot evaluate the environmental performance of a company directly from some individual items ex, energy policy, green building policy, green gas emission etc., hence an attempt has been made to classify all the items of information in to five different categories. As manufacturing companies may be more homogenous in nature, it is possible to construct an index of disclosure suitable to measure the extent of disclosure in their annual reports. Purposive sampling technique was used to select a sample of 50 companies belongs to environmentally sensitive industries. The central pollution control board has recently identified 18 industries as more pollution making to the environment. In order to understand the reporting practices followed by sensitive industries, the present study focused on Cement manufacturing companies, Paper manufacturing companies, Pharmaceutical companies, Oil refineries and Iron and Steel manufacturing companies. Ten companies from each industry has identified and evaluated their annual report. Each item in the EDI has been assigned a score either 0 or 1. If an item is disclosed in the annual report, the item is assigned score 1. In case of non-disclosure, score 0 is given. The score for each annual report is then summed up. The total represents score attained by a given annual report. The maximum applicable score has been computed as 25. In the final step, in scoring process, the actual score attained by a company is divided by company's maximum applicable score. This quotient is

multiplied by 100. The resulting percentage is the company's disclosure percentage. Companies were not penalized if a disclosure item was either quality or quantity. The main purpose was disclosure of an item presented in the annual report or not. Environmental information disclosed in the company's official website has also been considered for evaluating the reporting practices.

5.RESULTS AND DISCUSSION

5.1 Company wise Environmental Disclosure

The disclosure status of company has been presented in the following table. It shows the total score obtained by individual companies and percentage values. There are 25 statements included in the Environmental Disclosure Index (EDI). Total disclosure score column depicts the score obtained by each sample company.

From the table.1 we can understand that the minimum disclosure was 40% reported by Orient paper ltd and the maximum information reported by reliance industries 92% of environmental disclosure. Most of the sample companies have disclosed more than 15 items of information in their annual report. Since the production process and the nature of product are sensitive to the environment, the sample companies are expected to disclose more information to the stakeholders about their environmental performance. The table shows the status of social responsibility and commitment towards environment carried out by the companies in India.

Table : 1 Environmental Disclosure Score –Company Wise.

S.NO	Company Name	Total Score(25)	%
1	ABC Techno labs LTD	18	72
2	ACC Ltd	18	72
3	ADANI GAS LTD	19	76
4	AMBUJ CEMENT	19	76
5	APL APOLLOTUBES LTD	16	64
6	ASTRA ZENECA PHARMA LTD	17	68
7	AUROBINDO PHARMA LTD	20	80
8	BICON LTD	21	84
9	BIRLA CEMENT WORKS LTD	20	80
10	BRAHMPUTRA PETROCHEMICALS PRIVATE LTD	17	68
11	CIPLA LTD	16	64
12	CHENNAI PETROLEUM CORPORATION LTD	15	60
13	CRUX LTD	17	68
14	DABUR INDIA LTD	18	72
15	DCM SHRIRAM LTD	16	64
16	DIVIS LABORATORIES LTD	19	76
17	ESSEL PROPACK LTD	12	48
18	EMAMI PAPER MILLS LTD	18	72
19	GLAXO SMITHKLINE PHARMACEUTICALS LTD	21	84
20	GUJARAT STATE PETRONET LTD	16	64
21	GOODLUCK INDIA LTD	16	64
22	HINDUSTAN PETROLEUM CORP LTD	19	76
23	IND - SWIFT LABORATARIES LTD	20	80
24	INDIAN OIL CORPORATION LTD	21	84
25	INDIA STEEL WORKS LTD	15	60

26	JK PAPER LTD	20	80
27	J K LAKSHMI CEMENT LTD	22	88
28	JINDAL STAINLESS LTD	17	68
29	JINDAL STEEL & POWER LTD	18	72
30	KAJARIA CERAMICS LTD	12	48
31	KAMADHENU LTD	18	72
32	KHUSHAL LTD	13	52
33	MAHARASTRA NATURAL GAS LTD	17	68
34	MANGAL CEMENT LTD	17	68
35	MUKUND LTD	16	64
36	N R AGARWAL INDUSTRIES LTD	17	68
37	ORIENT PAPER & INDUSTRIES LTD	10	40
38	OIL AND NATURAL GAS CORPORATION LTD	21	84
39	PRAKASH INDUSTRIES LTD	17	68
40	RELIANCE INDUSTRIES LTD	23	92
41	STEEL AUTHORITY OF INDIA LTD	22	88
42	SHREE CEMENT LTD	18	72
43	STAR CEMENT LTD	15	60
44	STRIDES PHARMA SCIENCE LTD	21	84
45	TATA STEEL LTD	21	84
46	TIME TECHNOPLAST LTD	16	64
47	TAMILNADU NEWSPRINT & PAPERS LTD	20	80
48	UFLEX LTD	19	76
49	ULTRATECH CEMENT LTD	18	72
50	THE WESTCOAST PAPER MILLS LTD	15	60

Table 1 has given the scores obtained by each sample company out of 25 items in the EDI. In order to sum up the environmental performance of the companies the following

table has been prepared. Same number of disclosure scores obtained by companies have been grouped and presented in the table to get clear insight of the reporting practices.

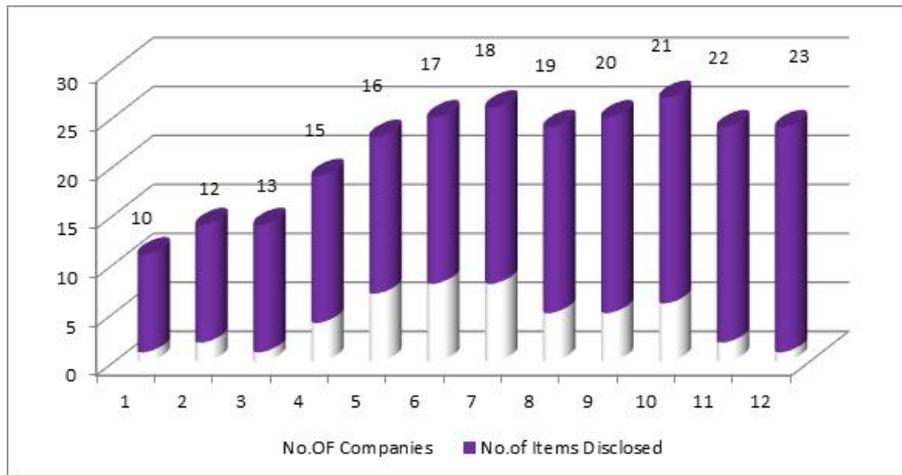
Table: 2 Environmental Disclosure Score -Company wise (Aggregate)

S.NO	Disclosure Score	No. of Companies
1	10	1
2	12	2
3	13	1
4	15	4
5	16	7
6	17	8
7	18	8
8	19	5
9	20	5
10	21	6
11	22	2
12	23	1
Total		50

Table 2 shows that minimum disclosure of 10 items (40%) reported by one company, maximum number of 8 companies have disclosed 17 and 18 items (72%) of information in their annual report. This is a good score obtained by sensitive companies in India, One company has reported almost all the statements in the index, 23 items(92%) have

been presented in the annual report. 20 items(80%) disclosed by 5 sample companies, 21 items (84%) reported by 6 sample companies, and 22 items (88%) of checklist provided by 2 companies. The graphical view is given below.

Fig 1: Environmental Disclosure Score –Company wise (Aggregate)



5.2 Disclosure on Environmental Policies and Initiatives (Category 1)

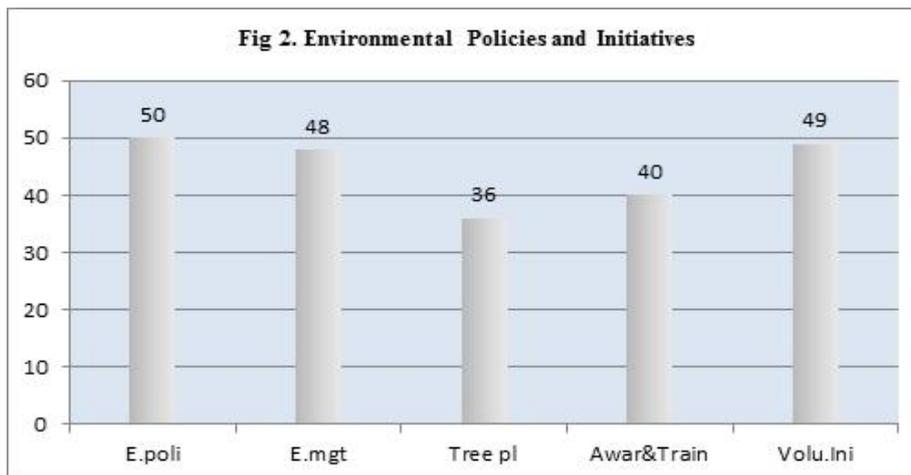
Environmental disclosure index is divided in to five major category and the similar items related to that category have been grouped to evaluate the environmental performance of companies. It is essential to know about whether sample companies are having environmental policies and management

system and they have reported the related information or not. The table given below shows which item of information has been responded by more companies on policies and initiatives.

Table 3 Environment policy and Initiatives

S.No	Items of disclosure	Number of Companies	%
1	Environmental policies & Initiatives	50	100
2	Environmental management system	48	96
3	Plantation/ green belt / supporting forestatn	36	72
4	Awareness & Training	40	80
5	Voluntary Initiatives; web conf, paper redu	49	98

Fig 2. Environmental Policies and Initiatives



Category 1 of the EID includes the following statements. 1) Energy policy, waste reduction policy, GHG emission policy Green building policy and Bio diversity policy, 2) Establishment of environmental management committee and their responsibilities, 3) Tree plantation, 4) Awareness programmes and Training and Reducing paper consumption, green packaging, eco labelling etc., (voluntary Initiatives). The figure explains that all 50 companies have reported about the different type environmental policies like energy policy, green building policy, zero reduction policy etc., 48 companies have

disclosed on environmental management system, 36 companies provided information about tree plantation or green belt, 40 companies have reported about awareness and training activities and 49 sample companies have disclosed about voluntary initiatives like web conferencing and meetings, paper reduction, e- voting method etc.,

5.3 Disclosure on Material Consumption (Category 2)

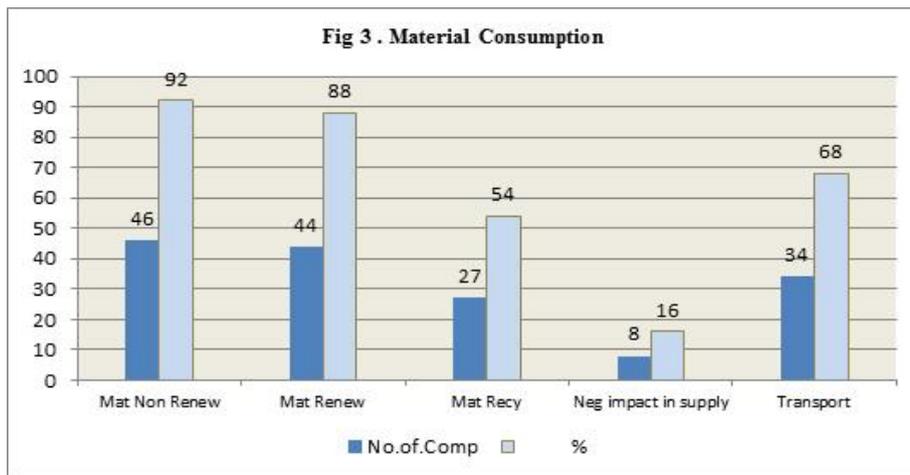
Environmental disclosure Index used in this paper has contained information about material consumption procedure

by the sensitive industries. It is found that 46(92 %) companies have provided information about non-renewable materials used, 44 (88%)companies have disclosed renewable materials used, 27 (54%) companies have reported on the percentage of recycled input materials used to manufacture the organization’s primary products and services ,8 (16%)

companies reported about the significant actual and potential negative environmental impacts identified in the supply chain and 34 (64%) companies disclosed information on transporting products and other goods and materials for the organization’s operations with environmental concern.

Table 4 . Materials Consumption

S.No	Items of disclosure	Number of. Companies	%
1	Material Non Renewable	46	92
2	Material Renewable	44	88
3	Material Recycled	27	54
4	Negative impact on supply chain	8	16
5	Env. impact on Transport	34	64



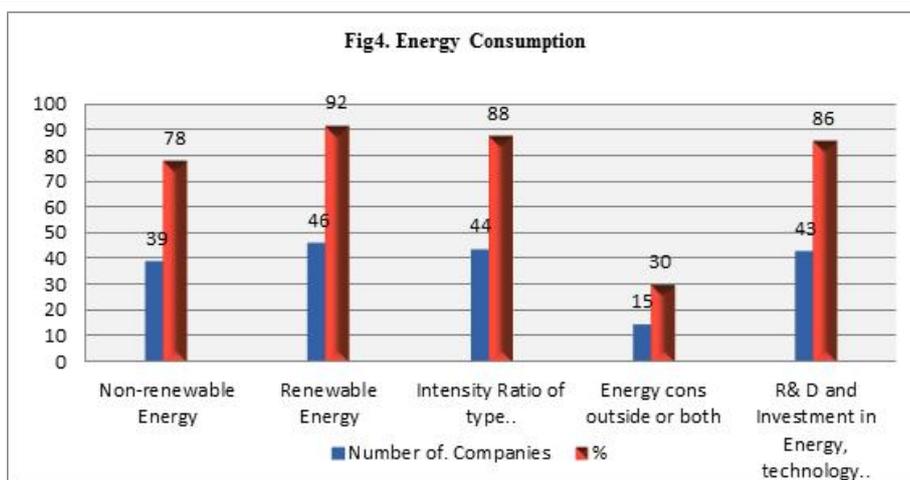
5.4 Disclosure on Energy Consumption (Category 3)

The study analysed the reporting practices on energy consumption and the result showed that 39(78%) companies disclosed about energy consumption from non-renewable sources, 46 (92%)companies have reported on total fuel and energy consumption from renewable fuel sources, 44 companies provided the types of energy included in the intensity ratio: fuel, electricity, heating, cooling, steam, or

all,15 (30%) companies have provided information about whether the ratio uses energy consumed within the organization, outside of it or both and 43(86%) companies have presented the information on expenditure, Research and development and investment on energy consumption. Since conservation of energy details should be given in the annual report by the companies is mandatory, maximum 92 % companies have provided the information about energy consumption in their annual report.

Table 5 Energy Consumption

S.No	Items of disclosure	Number of. Companies	%
1	Non-renewable Energy	39	78
2	Renewable Energy	46	92
3	Intensity Ratio of type..	44	88
4	Energy cons outside or both	15	30
5	R& D and Investment in Energy, technology..	43	86



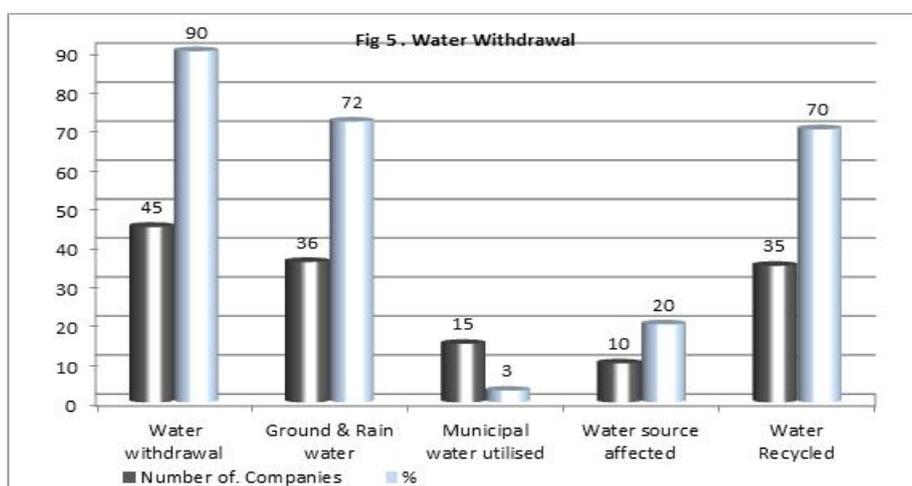
5.5 Disclosure on water withdrawal by sources (category 4)

The fourth category of environmental disclosure index includes the items related with total water withdrawal from different sources. It was found that 45 companies disclosed the total volume of water withdrawn from surface water, wetlands, rivers, lakes, and oceans, 35, 70% companies have given details about ground water and rainwater collected

directly and consumed by the organization. Fifteen companies(30%) reported information on waste water from another organization and municipal water supplies or other water utilities, 10(20%) companies offered about number of water sources significantly affected by withdrawal and 35 (70) companies have made disclosure on total volume of water recycled and reused by the organization.

Table 6: Water withdrawal from sources

S.No	Items of disclosure	Number of Companies	%
1	Water withdrawal	45	90
2	Ground & Rain water	36	72
3	Municipal water utilised	15	30
4	Water source affected	10	20
5	Water Recycled	35	70



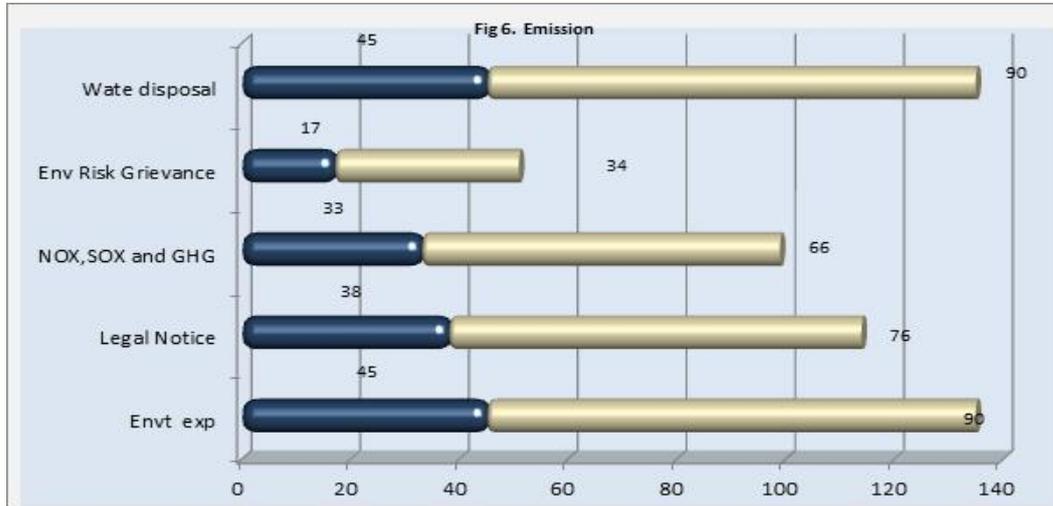
5.6 Disclosure on Emission (Category 5)

In the last category emission related items have included in the EDI. 45 companies i.e., 90 % of sample companies disclosed total environmental protection expenditures, 76 % of companies that is 38(76%) companies given disclosure on legal notices for any non-compliance with laws or regulations,

33(66%) companies provided Greenhouse gas and other significant of air emissions, 16 or 32% of companies reported about environmental risk and grievances filed etc., and finally 45 companies have disclosed information on waste disposal management in the annual report.

Table 7: Emission

S.No	Items of disclosure	Number of. Companies	%
	Total Env't. expenditure	45	90
	Legal Notice/issues	38	76
	NOX,SOX and GHG	33	66
	Env Risk Grievance	16	32
	Waste disposal management	45	90



6.ENVIRONMENTAL DISCLOSURE SCORE COMPARISON

The present study attempted to compare the disclosure score obtained in all five categories by cement industry, paper

industry, Iron & Steel industry, Pharmaceutical industry and petroleum, oil refineries.

Table 8. Environmental disclosure Score - Category wise Comparison

Industry Type	Env. Policy &Initiatives 10*5(50)	Material Consumed (50)	Energy Consumed (50)	Water Withdrawal (50)	Emission (50)	Total
Cement Industry	43	35	38	24	35	175
Iron & Steel	47	31	37	26	35	176
Pharmaceutical	45	36	40	35	35	191
Paper Industry	43	28	35	24	30	163
Petroleum, oil and Refineries	45	29	37	32	42	182

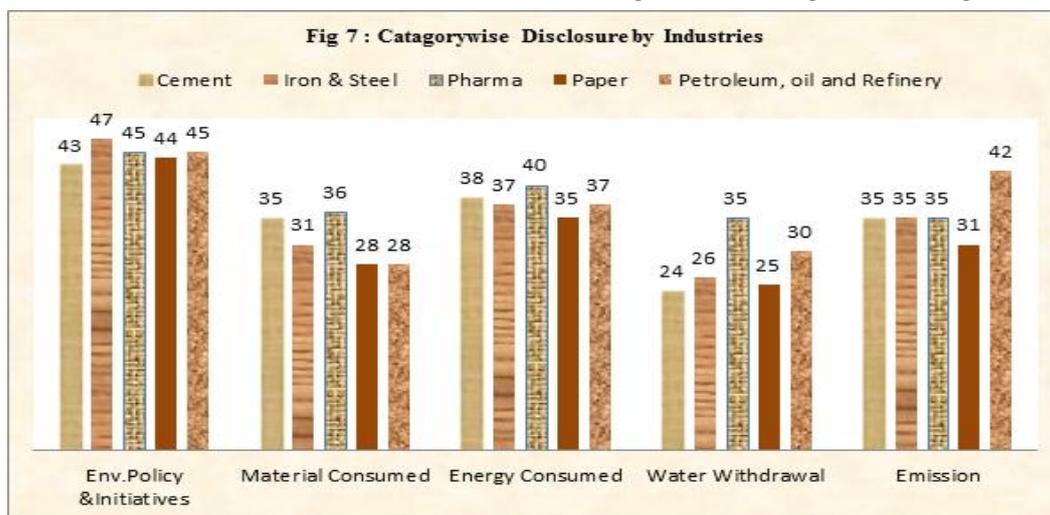
Table 8 presents the total environmental disclosure score obtained by all five industries in all five major categories of EID. All environmentally sensitive industries have given more number of disclosures in the first category, environmental policies and initiatives. In each industry, annual reports of ten companies were analysed and each category has 5 items has to be checked and the total disclosure for each industry is 50 for each category of EDI (10 * 5 = 50). In the case of environmental policies and initiatives, Cement manufacturing companies have scored 43/50, Iron and steel companies scored 47/50, Pharmaceutical companies have provided 45/50 items, paper industry has given information for 43 items and oil and refineries scored 45 items. This means minimum 85% of sample companies have provided details about environmental policies, green building policies, energy policy, plantation and awareness programmes in their annual report. Steel industry has reported maximum number of 47 items, related with environmental policies, green building policies and waste reduction policies and recycling policy etc.,

The second category, material consumption information has been disclosed by pharmaceutical industry 36/50 at the maximum and minimum disclosure (28/50) provided by paper industry. Cement industry reported 35 items 70%, iron and steel industry has given 31 items and oil and refineries has provided 29 items related with material consumption. Energy consumption matters have been disclosed by all industries about 70% to 80 % in their annual report. Paper industry has given 35 items of information, oil and refineries 74 % (37items), Iron and steel also obtained 37 score in energy consumption.

On the subject of water usage from various sources, companies have provided less than 50% of information in the annual report. Cement and paper industry has given 48% ,24 items out of 50, iron and steel 26 items, oil and refineries 32 items and pharmacy companies reported at the maximum of 35 (70%) disclosure. The last category contains emission information or mainly GHG, Nox and Sox, environmental grievances and risk management, legal issues, hazardous and other waste disposal methods and total environmental

expenditure. Concerning emission, 70% of information was reported by cement, iron & steel and pharmaceutical industry. Paper industry has disclosed minimum of 30 item and

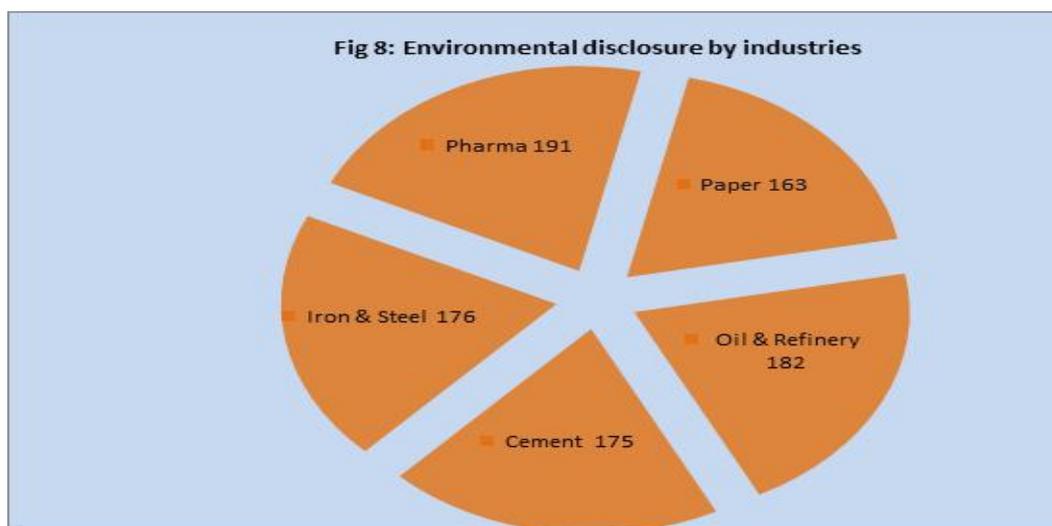
petroleum, oil & refineries presented maximum of 42 items related with emission disclosure. Graphical representation for comparison of all categories has been given below.



7.ENVIRONMENTAL DISCLOSURE BY INDUSTRIES

The total column of the table no. 7 shows the total disclosure score obtained by industries. Pharmaceutical industry has disclosed maximum of 191 (76%) information and minimum disclosure 163 (65%) submitted by paper industry. Steel and Cement industry have disclosed 70% items

of information and Oil and refineries reported 182 items (73%) in the annual report. Following pie diagram explains the environmental reporting practices followed by industries. According to the nature of business or manufacturing products the disclosure level also differs from each other.



CONCLUSION

To sum up, there may be number of features would affect the environmental performance of the company. The present study found that industry type is an important factor affects the environmental reporting practices. It has been proved by the disclosure score obtained by the sensitive companies. Moreover, Indian companies have started to present their environmental concerns to the public through the sustainability activities. In recent years, environmental accounting has become a strong branch accounting. The users of annual reports are interested not only in the economic information but also in the information regarding social activities of the organisation. The concept of disclosure has grown and expanded considerably in diverse ways in response to the evolution of large size business organizations with new technology, the statutory requirements to prevent fraud and

manipulation and to protect the interest of shareholders/ investors. Previous studies also recognized the recent development in the content of annual reports. Chatterjee and Mir (2008), found that most of the Indian companies provides more environmental information on their web sites compared to the information provided in annual reports. The level of environmental disclosure information varies across industries as well as information provided in the annual reports was found to be more qualitative than quantitative, Mitali Sen et.al (2011). The level of environmental disclosure is highly explained by sector and nature of industry to which a company belongs. Moreover, it is significantly affected by environmental performance of a company. Companies that have better environmental performance are expected to provide more environmental information in the annual reports as compared to poor performers. Guidelines regarding disclosure of

environmental information will guide the organization regarding the matter involved in environmental accounting and reporting and also will help in improving the skills of environmental disclosure. The present paper specially provided an insight on the environmental performance of environmentally sensitive industries. Future researches can be undertaken with large sample size inclusive of manufacturing and service sectors. Environmental performance of companies would be studied by collecting data for more than three years. Small sample size and one year data are the limitations in this research paper. Other sectors environmental performance is not evaluated in this study. Check list was constructed with the major items and it can be extended to other environmental matters.

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ANNEXTURES

1. Environmental Disclosure Index.(EDI)

S. NO	Disclosure Items
I	Environmental Policies and Initiatives
1	Energy policy, waste reduction policy, GHG emission policy , Green building policy and Bio diversity policy
2	Establishment of environmental management committee and their responsibilities.
3	Tree plantation or green belt or Forest development /protection
4	Awareness programmes and Training: Web conferencing, Meeting etc.,
5	Reducing paper consumption, green packaging, eco labelling etc.,
II	Materials Consumption
6	Non-renewable materials used.
7	Renewable materials used
8	Report the percentage of recycled input materials used to manufacture the organization's primary products and services
9	Report the significant actual and potential negative environmental impacts identified in the supply chain.
10	Report the significant environmental impacts of transporting products and other goods and materials for the organization's operations..
III	Energy Consumption
11	Report total fuel consumption and energy consumption from non-renewable sources .
12	Report total fuel and energy consumption from renewable fuel sources including fuel types used.
13	Report the types of energy included in the intensity ratio: fuel, electricity, heating, cooling, steam, or all.
14	Report whether the ratio uses energy consumed within the organization, outside of it or both
15	Expenditure on Investment on energy consumption, Technology adoption and research and Development.
IV	Total water withdrawal
16	Report the total volume of water withdrawn from the following sources: Surface water, water from wetlands, rivers, lakes, and oceans .
17	Ground water Rainwater collected directly and stored by the organization.
18	Waste water from another organization Municipal water supplies or other water utilities
19	Report the total number of water sources significantly affected by withdrawal by type:
20	Report the total volume of water recycled and reused by the organization
V	Emission
21	Total Environmental Protection Expenditures and Investments by Type.
22	Where organizations have not identified any non-compliance with laws or regulations.
23	NOX, SOX, Green house gas and other significant air emissions.
24	Report the total number of grievances about environmental impacts filed /environmental risks.
25	Report the waste disposal method: Hazardous waste, liquid,, spills /waste management.