CHAPTER – 8

FINDINGS AND RECOMMENDATIONS
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8.1 INTRODUCTION

It is increasingly realized that the human race stands at the crossroads in choosing the options it has in the areas of environment and development. The industrial countries, having enjoyed more than their share of development, have achieved a decent standard of living. This has given to the earth pollution and eco-degradation as a result of affluence and underlying greed. Because of rapid and indiscriminate industrialization all over the globe during the last few decades, the most precious heritage of man that is the natural environment has come in danger. With rapid industrialization, the deterioration of the earth’s natural resources has increased. It has caused major environmental problems which threaten not only survival of plants, animal and people but also of the infinitely complex natural systems of the earth. The greenhouse effect, acid rain, ozone depletion, drought and nuclear winter pose the greatest threat to the very existence and survival of human beings, flora and fauna around the globe. It has now become clear that such patterns of development, life styles and quality of life is unsustainable. On the contrary, the developing countries are still struggling for minimum levels of sustenance. The developing countries need abundant material growth to fulfill the basic needs of their people, but they cannot afford to repeat the mistakes of the industrialised countries. Before we reach a point of no return, we must take tangible steps and follow a road that leads to sustainability. If sustainable development has to be translated into action, some basic rethinking is needed and minimum agenda adopted. Hence, concern for protection of environment has gained momentum. While most development decisions used to be based on economic profitability in the past, today it is realized that investments in environmental conservation and pollution control measures enhance the productivity in the long run, rather than being a stumbling block in the path of development. In short, to sustain economic growth and development, policies, regulations and incentives need to be established that will induce environmentally rational behavior among people and industry. Present study is an effort to find out progress made in this
field and making some suggestions for future improvement. Analysis in the present study is done broadly examining the following issues.

- History of environmental reporting.
- Different theories related to environmental reporting.
- Drivers and Barriers of the environmental reporting.
- Different International Accounting Standards having direct or indirect bearing on environmental reporting.
- Regulatory framework of environmental reporting in different countries of the world.
- Regulatory framework of environmental reporting in India including National Environmental Policy, Companies Act 2013, Business Responsibility report 2012, DPE guidelines on CSR Sustainability 2013, SEBI committee on Corporate Governance 2003, Environmental Audit Report under Environmental Protection Act 1986, RBI rules etc. are studied.
- Voluntary environmental reporting guidelines given by various international bodies including United Nations Environmental Programme (UNEP), Eco-Management Audit Scheme (EMAS), BS 8555, ISO 14000, DEFRA, Global Reporting Initiatives (GRI), World Business Council for Sustainable Development (WBCSD) and United Nations Global Compact (UNGC) and its implementation status in India.
- Voluntary corporate social responsibility guidelines issued by Ministry of Corporate Affairs for Indian Corporate Sector.
- Item-wise environmental disclosures in annual reports.
- Year-wise environmental disclosures in annual reports.
- Sector-wise environmental disclosures in annual reports.
- Relation between various attributes of the company and environmental disclosures.
8.2 FINDINGS OF THE STUDY

8.2.1 REGULATORY FRAMEWORK OF ENVIRONMENTAL REPORTING

1. For harmonizing accounting policies at international level, the International Accounting Standards Committee (IASC) was established in 1973. IASC issued different accounting standards between 1973 and 2000. In 2001 IASC was replaced by another body known as International Accounting Standards Board (IASB). IASB adopted all the standards issued by IASC but decided that all the future standards issued by it will be termed as International Financial Reporting Standards (IFRS). Though IASC and IASB have issued a number of accounting standards related to different aspects of accounting but there is no exclusive international standard which particularly deals with reporting of environmental matters in the annual reports of companies.

2. Different IAS/IFRS such as IAS 1 dealing with Presentation of Financial Statements, IAS 8 dealing with Accounting Policies and Change in Accounting Estimates, IAS 10 dealing with Events after the Reporting Period, IAS 16 dealing with Property and Equipment, IAS 20 dealing with Accounting for Government Grants and Disclosure of Government Assistance, IAS 36 dealing with Impairment of Assets, IAS 37 dealing with Provisions and Contingent Liabilities, IAS 38 dealing with Intangible Assets, IFRS 3 dealing with Business Combinations, IFRS 6 dealing with Exploration and Evaluation of Mineral Resources and IFRS 8 dealing with Operating Segments have some direct or indirect references to environmental accounting and reporting.

3. As far as environmental reporting practices are concerned, these practices are generally voluntary in nature in most of the countries such as US, Canada, Australia, UK, New Zealand etc. But, in some European countries, such as France, Germany, Holland, Sweden and Belgium etc., there are some laws governing such disclosure practices. Denmark was the first country to make environmental disclosures mandatory.

4. National Environment Policy formulated in 2006 is a guide to the Government of India not only in designing environmental regulations but also in bringing certain environmental reforms. The NEP’s key objectives include conservation
of critical environmental resources, intra-generational equity, livelihood security for poor, integration of environment in economic and social development, efficiency in environment resource use, environmental governance, and enhancement of resources for environmental conservation.

5. Under section 134(3) of the Companies Act 1956, companies are required to include prescribed information in respect of (i) conservation of energy, and (ii) technology absorption in the Directors Report section of their annual report.

6. Under the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules 1988, every Company is required to disclose particulars relating to –
   (a) Energy conservation measures taken;
   (b) Additional investments and proposals, if any, being implemented for conservation of energy;
   (c) Impact of the measures at (a) and (b) above, for reduction of energy consumption and consequent impact on the cost of production of goods;
   (d) Total energy consumption and energy consumption per unit of production as per Form A.

7. According to schedule VII of Companies Act, companies must incorporate all activities related to environment in their Corporate Social Responsibility Policy.

8. According to section 135 of Companies Act 2013, every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more, shall ensure that it spends at least two percent of its average net profits of last three years on activities related to social responsibility. In case company fails to do so, they must report the reasons for not spending such amount.

9. Securities and Exchange Board of India (SEBI) made it compulsory for the top 100 companies (in terms of market capitalization) of India to prepare and submit Business Responsibility Reports, describing measures taken by them for the benefit of society, environment and economy. This report is to be prepared according to the principles enunciated in the ‘National Voluntary
Guidelines on Social, Environmental and Economic Responsibilities of Business’ framed by the Ministry of Corporate Affairs.

10. Environment (Protection) Act 1986, makes it compulsory for all relevant organisations to submit ‘Environmental Audit Report’ in the prescribed format to State Pollution Control Board (SPCB).

11. In 2007, RBI issued a notice to all commercial banks in the country asking them to follow concepts of corporate social responsibility (CSR) and sustainable development.

12. Under DPE Guidelines on CSR and Sustainability, 2013, a Memorandum of Understanding is entered between Central Public Sector Enterprises (CPSEs) and Government Ministries. Under this memorandum targets are defined for Central Public Sector Enterprises and a fix percentage of revenue is earmarked for social and sustainable development.

8.2.2 VOLUNTARY FRAMEWORK OF ENVIRONMENTAL REPORTING


2. The Eco-Management and Audit Scheme popularly known as EMAS is a scheme of voluntary environmental disclosures developed by European Union in July 1993. Initially, these guidelines were meant only for industrial undertaking. The revised guidelines which came into effect in 2001, not only allowed registration of industrial undertaking under EMAS but brought other business firms and local authorities under the ambit of EMAS. The EMAS Regulations were revised for the second time in 2009. It has been observed that none of the companies covered in the sample are preparing environmental report according to EMAS guidelines.
3. In 1992, first Earth Summit was held in Rio-de-Janerio, which aimed at developing mechanism for making the earth safer. As a result, the need was felt for some environmental management system (EMS). In response to this, International Organization for Standardization (ISO) came with ISO 14000 series of standards in 1996, which deals with Environment Management System (EMS). ISO 14001 is the most popular standard of environment management in the world. It is very comprehensive standard and can be implemented by any type of organization whether public or private, large or small, manufacturing or service. It is found that 23 companies (46%) out of the sample companies under the study, are certified with ISO 14001. In comparison to other voluntary initiatives covered under the study, ISO 14001 has got highest number of companies which have adopted this standard.

4. The Global Reporting Initiative (GRI) was established in 1997 by Coalition for Environmentally Responsible Economies (CERES), in partnership with United Nations Environment Programme (UNEP). The first version of reporting guidelines was issued by GRI in the year 2000. The second version of guidelines, that is, G2 was issued in 2002 at the World Summit on Sustainable Development in Johannesburg. GRI got major boost when it issued third generation of guidelines popularly known as G3 in 2006. Fourth set of GRI guidelines known as G4 was issued in 2013. GRI guidelines serve as generally accepted framework not only for reporting economic performance of the organization but also environmental and social performance of the organization. Out of sample companies under the study, 21 companies (42%) are preparing environmental report according to GRI guidelines.

5. UK Department for Environment, Food and Rural Affairs (DEFRA) in 2001 issued a report dealing with guidelines related to reporting of environmental emissions. Guidelines were revised to make it more comprehensive in 2006, 2009 and in 2013 as well. Latest guidelines are applicable to all the manufacturing companies irrespective of their size or product which they manufacture. Out of sample companies under the study, no company is preparing environmental report according to DEFRA guidelines.

6. World Business Council for Sustainable Development (WBCSD) was created with the merger of ‘Business Council for Sustainable Development’ and
‘World Industry Council for the Environment’ in 1995. The main concern of the WBCSD is to promote sustainable development by working on the issues like conservation of energy, promotion of ecosystem and biodiversity, minimization of emission levels, water conservation and proper utilization of energy. As per figures released by WBCSD in 2013 nearly 300 multinational companies were associated with it. It has been found that only 9 companies (18%) covered in the study are preparing environmental report according to WBCSD guidelines.

7. United Nations Global Compact is a programme launched by United Nations with the objective of promoting sustainable and socially responsible practices among businesses. This programme was announced by United Nations Secretary-General Kofi Annan on January 31, 1999 and was launched in July, 2000. United Nations Global Compact is one of the important framework for sustainable development with nearly 10,000 companies spread over 130 countries having been registered under this programme by the end of 2013. Among the companies covered under study, only 16 companies (32%) are preparing environmental report according to UNGC guidelines.

8. The Ministry of Corporate Affairs issued the National Voluntary Guidelines on Social, Environmental & Economic Responsibilities of Business (ESG Guidelines) in 2011. The Guidelines take into account the learning from various international and national good practices, norms and frameworks, and provide a distinctively 'Indian' approach. The guidelines contain 9 core elements related to Ethics, Transparency and Accountability; sustainable goods and services; well being of all employees; responsiveness towards all stakeholders; human rights; restoring the environment; social responsibility; inclusive growth and equitable development; providing value to customers in responsible manner. It is observed that only 11 companies (22%) are preparing environmental report according to GRI guidelines.
8.2.3 ENVIRONMENTAL REPORTING PRACTICES OF INDIAN CORPORATES

1. Highest disclosure items in the reporting index are Material Usage and Energy Consumption (100% disclosure). This is due to the fact that disclosure of these items is mandatory under Companies Act.

2. Out of remaining items the disclosure of which is voluntary, highest disclosure item is Eco-efficiency and Clean Technology with 50.4% disclosure, Global Operating Standard with 48.8% disclosure, Environment Management System with 45.6% disclosure, Top Management Statement with 44.8% disclosure and Awards with 42.8% disclosure. It shows that companies are giving more emphasis on incorporating technologies which are more eco-friendly. Besides this, companies are also implementing environment management system and adopting global standards for environmental management. Even, top managements of the companies are becoming aware about environmental issues and making statement in annual reports regarding this.

3. Least disclosed item in the index is Environmental Cost Accounting with nil disclosure. It shows that though companies are becoming environmental conscious but still recording and measurement of environmental pollution in monetary terms is not popular. Though a few companies have given some information on environment in monetary terms but comprehensive environmental cost accounts are still missing. It proves that environmental accounting is not popular among companies as yet.

4. Other least disclosed items in the index are Noise and Odours with 3.6% disclosure, Product Stewardship with 4.4% disclosure, Transportation with 5.2% disclosure and Packaging with 5.6% disclosure. Thus, companies are not focusing on allied activities, such as packaging and transportation etc.

5. Out of five sub-indexes in the study, Management and Policies Index covering ten items is having a mean disclosure of 21% to 32.4% over the period of study. The disclosure of this index has thus, gradually improved over the period of five years. It shows that company managements are slowly becoming more environmental friendly.
6. Second sub-index, that is Input and Output index covering fifteen items has mean disclosure in the range of 26.93% to 35.33% over the period of study. Thus, disclosure of this index is also gradually increasing over the period and this is highest disclosed index of the study. One of the main reasons of higher disclosure in this index is that it contains two mandatory disclosure items, that is material usage and energy consumption, which are having 100% disclosure.

7. Third sub-index is Finance Index based on five items. It covers items, such as environmental spending, environmental liabilities, environmental cost accounting etc. The mean disclosure in this index varied from 5.6% to 6.4% over a period of five years. Moreover, the level of disclosure in this index is having lot of variation like mean score increasing in one year and decreasing in another year. In fact it is the least disclosed index in the study. It proves that companies are still not giving much information on environment in monetary terms, that is, disclosures are still descriptive in nature.

8. Fourth sub-index, that is, Sustainable Development Index based on four items is having mean disclosure of 15.5% to 24% over the period of study. The mean values have shown an increasing trend over the period.

9. Fifth sub-index in Reporting is Report design and Accessibility Index covering only one item. Mean disclosure in this index varied from 12% to 20% over the period of study. It shows that only a few companies are preparing separate environmental reports.

10. Overall index of disclosure is based on thirty five items. The mean disclosure of this index varied from 20.68% to 28.4%, over the study period. The mean disclosure in this index has been increasing at very slow rate over the study period of study, which means that companies are becoming more environmentally responsible over the period of time but at a very slow pace.

11. The highest disclosure of Management Policies and System index has been by Cement sector, that is, 46.2%. Thus, it may be concluded that, top management of cement companies is showing more interest in environmental disclosures as compared to other sectors covered in the study.

12. The highest disclosure of Input and Output index is by Oil and Gas sector, that is, 44.27%. It shows that companies in the Oil and Gas sector are giving more stress on disclosure of environmental inputs and outputs.
13. The highest disclosure of Finance Index has been again by Cement sector that is, 18.8%. It implies that cement companies are giving more information in monetary terms as well, than other companies under the study.

14. The highest disclosure of Sustainability Index has been by Oil and Gas sector with a mean of 28.5%. It proves that Oil and Gas companies are giving more stress on development of sustainable measures than other companies in the index.

15. The highest disclosure in Report Design and Accessibility Index is in Cement sector that is 28%. It implies that practice of producing stand-alone corporate environmental reports is highest in Cement sector.

16. Highest overall disclosures on environmental information are in cement sector with a mean of 36.63%, closely followed by Oil and Gas sector with a mean of 35.26%. Other sectors under the study are far behind with FMCG sector having mean disclosure score of 20.92%, Pharmaceutical sector with a mean of 15.77% and Textile sector with a mean of 13.37%.

17. Company-wise analysis shows that, Ambuja Cements Limited has 1st rank in disclosures with mean value at 64.57%, whereas ACC Limited with a mean disclosure of 63.43% and Shree Cement Limited with mean disclosure of 62.86% stand at second and third position. Thus, top three ranked companies belong to Cement Sector. Out of five top companies in the disclosure index, four again belong to cement sector. However, among the top ten companies in order of disclosures, four companies belongs to cement sector and four belong to oil and gas sector.

18. Five companies having least disclosure are United Spirits Limited (FMCG sector), Sun Pharmaceutical Limited and Wockhardt Limited (Pharmaceutical sector), Koutons Retails India Limited and Provogue India Limited (Textile sector), with each having a mean disclosure score of 5.71%. However, these companies are disclosing mandatory items which include material use and energy consumption only.
8.2.4 COMPANY ATTRIBUTES AND ENVIRONMENTAL DISCLOSURES

1. It has been found in the study that environmental disclosures are positively correlated with age of the company. In the study, companies are divided into three categories according to their age, that is, short age companies, medium age companies and long age companies. The mean disclosure score of short age companies is 17%, whereas mean disclosure is 26.08% in case of medium age companies and 28.34% in case of long age companies. So, with the age of company, disclosure level has shown an increasing trend. Results of ANOVA and Post-Hoc test conform that there is significant differences in environmental disclosures among short age, medium age and long age companies.

2. Environmental disclosures are negatively correlated with leverage (Debt Equity Ratio) of the company. In the study, companies were divided into three categories, that is, companies with low leverage, companies with medium leverage and companies with high leverage. It has been found that companies with low leverage are having a mean disclosure of 30.43%, while companies with medium leverage are having a disclosure of 22.76% and those with high leverage are having a disclosure of 19.23%. It shows that disclosure is low by companies with high leverage and vice versa. Results of ANOVA and Post-Hoc test highlights that there are significant differences in disclosures by companies with low leverage, medium leverage and high leverage.

3. There is no clear relation between profitability of companies (represented by return on equity) and level of environmental disclosures by them. Results show, that low profit companies are having lesser disclosures, while companies with medium profits are disclosing maximum followed by high profit companies. While low profit companies have a mean disclosure of 16.51%, medium profit companies are having mean disclosure of 28.73% followed by high profit companies (24.48%). Results of ANOVA and Post-Hoc test show that there are significant differences between various companies based upon their profitability with regard to environmental disclosures made by them.
4. There is a significant positive relation between size of the company and level of environmental disclosures made by them. The mean disclosure for small companies stand at 15.3% which is followed by medium companies (22.04%) and large companies (35.25%). It shows that as size increases, disclosures also increase. Results of ANOVA and Post-Hoc test confirm the existence of significant differences in environmental disclosures by small medium and large size companies.

5. The quality of disclosure is significantly better in case of the public sector companies than private sector companies. The private sector companies have a mean disclosure of 22.45% while public sector companies have mean score of 34.58%.

8.3 RESULTS OF HYPOTHESIS TESTING

8.3.1 ITEM-WISE DISCLOSURE HYPOTHESIS

H_{01} – There is no significant difference in disclosure practices represented by Total Reporting Index over a period of time.

Null hypothesis accepted. The value of ‘p’ in ANOVA test is 0.2753 which is insignificant. So, there is no significant difference in environmental disclosure practices represented by Total Reporting Index over a period of time. Results of Post-Hoc test show that there is significant difference in mean disclosure of 2007-08 and 2011-12 only.

Total reporting index comprised of five sub-index, namely Management Policies and System Index, Input and Output Index, Financial Disclosure Index, Sustainable Development Index, Report Design and Accessibility Index. Following are the results of environmental disclosure practices of these five Indexes.

Disclosures of Management Policies and Reporting Index show that the value of ‘p’ in ANOVA test is 0.2691 which is insignificant. So it can be concluded that there is no significant difference in Management Policies and Systems Index disclosure over a period of time. However, the results of Post-Hoc test show that there is significant difference in mean disclosure of 2007-08 and 2011-12 only.
Disclosures of Input and Output index show that the value of ‘p’ in ANOVA test is 0.2061 which is insignificant. So, there is no significant difference in Input and Output Index disclosure over a period of time. Results of Post-Hoc test show that there is significant difference in mean disclosure of 2007-08 and 2011-12 only.

Disclosure of Finance Index shows that the value of ‘p’ in ANOVA test is 0.9937 which is very insignificant. So, there is no significant difference in Finance Index disclosure over a period of time. Even the results of Post-Hoc test confirmed the finding and show that there is no significant relation between the mean of Finance Index over a period of time.

The results of Sustainable Development Index show that the value of ‘p’ in ANOVA test is 0.29 which is insignificant. So, there is no significant difference in Sustainable Development Index disclosure over a period of time. Even the results of Post-Hoc test confirmed the finding and show that there is no significant relation between the mean of Sustainable Development Index over a period of time.

Disclosures of Report Design and Accessibility Index show that value of ‘p’ in ANOVA test is 0.8425 which is insignificant. So, there is no significant difference in Report Design and Accessibility Index disclosure over a period of time. Even the results of Post-Hoc test confirmed the finding and show that there is no significant relation between the mean of Report Design and Accessibility Index over a period of time.

8.3.2 INTRA-SECTOR COMPARISON HYPOTHESIS

H\textsubscript{02} – There is no significant change in disclosure practices within Cement sectors over a period of time.

Null hypothesis accepted. The value of ‘p’ in ANOVA test is 0.9611 which is insignificant. So, there is no significant difference in environmental disclosure practices represented by Total Reporting Index in the cement sector over a period of time.

H\textsubscript{03} – There is no significant change in disclosure practices within FMCG sectors over a period of time.

Null hypothesis accepted. The value of ‘p’ in ANOVA test is 0.8803 which is insignificant. So, there is no significant difference in environmental disclosure
practices represented by Total Reporting Index in the FMCG sector over a period of time.

\( H_{04} \) – There is no significant change in disclosure practices within Oil and Gas sectors over a period of time.

**Null hypothesis accepted.** The value of ‘p’ in ANOVA test is 0.2232 which is insignificant. So, there is no significant difference in environmental disclosure practices represented by Total Reporting Index in the Oil and Gas sector over a period of time.

\( H_{05} \) – There is no significant change in disclosure practices within Pharmaceutical sectors over a period of time.

**Null hypothesis accepted.** The value of ‘p’ in ANOVA test is 0.6034 which is insignificant. So, there is no significant difference in environmental disclosure practices represented by Total Reporting Index in the Pharmaceutical sector over a period of time.

\( H_{06} \) – There is no significant change in disclosure practices within Textile sectors over a period of time.

**Null hypothesis accepted.** The value of ‘p’ in ANOVA test is 0.8557 which is insignificant. So, there is no significant difference in environmental disclosure practices represented by Total Reporting Index in the Textile sector over a period of time.

### 8.3.3 INTER-SECTOR COMPARISON HYPOTHESIS

\( H_{07} \) – There is no significant difference in disclosure practices of various sectors.

**Null hypothesis rejected.** The value of ‘p’ in ANOVA test is 0.000 which is significant at 1% level. So, there is significant difference in environmental reporting practices of various sectors. Results of Post-Hoc test show that there is significant difference in reporting practices of cement and FMCG sector, cement and pharmaceutical sector, cement and textile sector, FMCG and textile sector, oil and pharmaceutical sector, oil and textile sector. However there is no significant difference in reporting practices of cement and oil sector, pharmaceutical and FMCG sector and pharmaceutical and textile sector.
8.3.4 COMPANY ATTRIBUTES AND ENVIRONMENTAL DISCLOSURE HYPOTHESIS

H₀₀₈: There is no significant relationship between age of the company and environmental disclosures.

Null hypothesis rejected. The results of multiple step-wise regression show that age of the firm is part of final model predicting the environmental reporting equation and the value is significant at 1% level. Age is not only significant in total reporting index but also in Management Policies and System Index, and Sustainable Development Index.

H₀₀₉: There is no significant relationship between size of the company and environmental disclosures.

Null hypothesis rejected. The results of multiple step-wise regression show that size of the firm is part of final model predicting the environmental reporting equation and the value is significant at 1% level. Size is not only significant in total reporting index but also in Management Policies and System Index, Input and Output Index, Sustainable Development Index and Report Design and Accessibility Index.

H₀₁₀: There is no significant relationship between profitability (Return on Capital Employed) of the firm and environmental disclosures.

Null hypothesis rejected. The results of multiple step-wise regression show that profitability of the firm is part of final model predicting the environmental reporting equation and the value is significant at 1% level. Profitability is not only significant in total reporting index but also in Management Policies and System Index and Input and Output Index.

H₀₁₁: There is no significant relationship between leverage of the company and environmental disclosures.

Null hypothesis accepted. The results of multiple step-wise regression show that leverage of the firm is part of final model predicting the environmental reporting equation. So, we can say that leverage of the firm is not significantly related to environmental disclosures made by the firm.

H₀₁₂ There is no significant relationship between Environmental Disclosures and Nature of Ownership.
**Null hypothesis rejected.** Environmental disclosure score in private sector is 22.449% while mean score in public sector companies is 34.572%. It shows that disclosure level in public sector companies is very high in comparison to private sector companies. The value of ‘t’ is 5.744 which is significant at 1% level. It means that there is significant difference in disclosure practices of public sector companies and private sector companies.

### 8.4 SUGGESTIONS

A clean environment is a social responsibility for all of us. One of the very important conferences in human history in Rio-de-Janeiro was a new basis for the relationship between mankind and nature. Conference represents the beginning of the start of the race to save our planet and the awareness about our environmental problems. The convention and treaties signed by world leaders at the summit, stress the importance of the sustainable development and the need to convert the concept into practicalities. In many countries, the environmental concerns have become corporate doctrine and companies are adopting various ways for reuse and recycling of materials and wastage. Most of the developed countries have regulations and norms related to environment. Indian industry finds itself competing in the world market. International requirements are stringent. A product which is not seen to be ‘environmental friendly’ will not be accepted in the world market. This could affect Indian exports to advanced countries. Thus in India, we have to establish more competitive industries, which are capable of maintaining global operating standards. In India, the twelfth five year plan has emphasized the need for sound environmental management which includes environmental planning, protection, monitoring, assessment, research, education and conservation as major guiding factors for national development. Different legislative measures have also been taken from time to time. But the question is whether these legislative measures have been effectively implemented to achieve the objectives of environmental protection, preservation and control or not. This requires sincerity on the part of not only companies but also stakeholders. Based upon the analysis carried on in the study, the following suggestions can be made for improvement in environmental reporting.
1. Textile and Pharmaceutical, two very important and environmental sensitive sectors under study have a mean score of 13.37% and 15.77%, which is very low. So, government and other regulatory authorities must give more attention towards these sectors. Some framework must be developed for these sectors in order to ensure higher level of disclosures.

2. One item of environmental disclosure, that is, Management Responsibility and Accountability requiring the existence of separate department or specific person dealing with environmental matters in the organization, has a disclosure score of 15.6%. It means that only a few companies have appointed a specific person or established a separate department for dealing with environmental matters. So, companies must establish a separate department for environmental protection.

3. Environmental cost accounting is a technique which measures and records the environmental performance of a company. At international level, many concerns are preparing separate environmental cost accounts. But in India, no company is involved in preparation of environmental cost accounts. So, there is a need to popularize preparation of environmental cost accounts.

4. Environmental audit is one important tool for measuring environmental impact assessment. It shows what company is contributing towards the environment and what harm it is causing to the environment. Study shows that disclosure on environmental audit is just 17.6%, which means not many companies are going for environmental audit. So, efforts must be made by regulatory bodies to promote environmental audit among the companies.

5. Research and Development can play an important role in saving the environment. By developing new technology and new methods of production, companies can not only reduce cost but could also reduce the level of emission. So, research and development expenditure is not only beneficial for company but also for the country as well. Study shows that disclosure of environmental research and development item is only 21.2%, which is very low. Companies must allocate more funds in budget on research and development activities, so as to have benefit of low cost and better environment.
6. Fixing goals and targets relating to environmental performance is one important method for controlling level of emissions by the companies. It not only acts as benchmark but also helps in assessment of company’s performance on environmental front. Results of the study show that disclosure on environmental goals and targets is just 6.4%. It means that only a few companies are fixing goals and targets for environmental performance. So, more emphasis should be given on fixing quantitative goals and targets by the companies.

7. Preparation of stand-alone environmental reports can help companies not only in the assessment of environmental performance but can also help in better presentation of environmental information. Report Design and Accessibility Index shows that only 15.2% companies are disclosing this information. So, separate environmental reports should be promoted so as to provide more information to the stakeholders.

8. Though many companies are giving emphasis on adoption of clean and eco-friendly technology for production but there are some allied activities which also have a great impact on environment, e.g. Packaging and Transportation. Using eco-friendly packaging can help in sustainable development of society and similarly use of efficient transportation can help in checking emission levels. Results of the study show that not many companies are disclosing information in this regard. Disclosure on transportation and packaging is 5.2% and 5.6% respectively, which are very low. So, companies must also look into these activities.

9. It has been observed during the study is found that environmental disclosures are not placed at one place in the annual report rather it is scattered at different places. It makes difficult for the stakeholders to find environmental information. It is, thus suggested that a separate place in the annual reports must be reserved for environmental disclosures, so that stakeholders could have easy understanding over the environmental disclosures.

10. There is no standard format of environmental reporting, which makes the reports of companies incomparable. The way information is presented in the annual reports differs from company to company. So, there is a need to
develop a common framework of reporting so that inter firm comparison could be made easily.

11. In the annual reports, most of the environmental information is given in the descriptive manner. Normally companies do not provide information in quantitative or monetary terms. It is the general tendency on the part of companies to elaborate in detail in the annual reports any good news or achievement of the company regarding environment. However, in case of any bad news like some environmental damage etc., either there is no information in the annual report or very less information is given. So, companies must be encouraged to give information in monetary or quantitative terms to make it more objective.

12. In India, most of the environmental disclosures are voluntary in nature. As a result there are a few companies which provide information in annual reports on environmental matters, but most of the companies do not. Thus, there is a need to make environmental reporting mandatory, so as to ensure that every company includes environmental information in their annual reports.

13. In India, there are many laws which deal with environmental matters. Multiplicity of laws not only adds to confusion but also makes it difficult to have knowledge of all the laws. Government must try to have one integrated law on environmental issues applicable on all the companies. It will not only ensure proper compliance of the law but will also promote reporting on environmental matters.

14. It is observed in the study that number of awards for the environmental performance has a positive effect on environmental disclosures made by the company. So, government, regulatory bodies and industrial associations must constitute more awards for good environmental performance. It will not only recognize the efforts made by the company on environmental front but will also help in promotion of environmental performance.

15. Last but not the least, the lack of any accounting standard for environmental accounting and reporting is one of the main hurdles in the promotion of environmental disclosures. So, different professional bodies like the Institute of Chartered Accountants of India or Institute of Cost Accountants of India must develop some specific standard for dealing with environmental issues.
On one side, it will act as a guide in environmental reporting and on the other side, it will remove confusion faced by managers while preparing environmental accounts and reports.

8.5 SCOPE FOR FURTHER RESEARCH

It is found that only a few studies have been made in India on corporate environmental reporting. So, the scope of future research in India on this topic is very bright. Present study covered companies related to five environmental sensitive sector that is, cement, textile, FMCG, pharmaceutical oil. Further study can be conducted covering more sectors related to manufacturing industry.

Cottage and small scale sector plays an important role in Indian economy. No study is yet undertaken in India covering environmental reporting practices of small and cottage industry. So, study can be covering small and cottage industry.

Service sector is one of the key sectors of any economy. Further research can investigate the environmental efforts made by the companies related to service sector. Similarly, study can be conducted comparing environmental disclosures of Indian companies with some foreign companies.

8.6 CLOSING WORDS

Contrary to what many perceive, corporate environmental reporting is not a new phenomenon and has permeated the consciousness of accounting research as far back as 1977. The fact that it has remained a much-discussed issue spanning over three decades illustrates the importance of appropriately communicating sustainability and environmental information to stakeholders. Once seen as part of a broader corporate social reporting / CSR reporting agenda, environmental and sustainability reporting has emerged as an area of inquiry in its own right. The nature of the work over the past three decades highlights the interdisciplinary nature of this work, encompassing areas such as environmental science, economics, financial reporting, law, management, sociology and even linguistics.