Chapter -2

2.1 Review of Literature

The literature review is the critical examination of the present research that is essential to the proposed research work. A literature review is a description of the existing literature applicable to a specific area of enquiry. It gives an overview of prevailing theories and hypotheses, methods and methodologies which are proper and helpful for the research work taken. Truth be told, literature review tries to assess and build up connections between various works so that key topics develop. It might be simply descriptive or it might give a basic evaluation of the literature in a specific field, expressing where the weaknesses and gaps are and differentiating the perspectives of specific authors, or raising questions.

The proposed study on environmental accounting and disclosure practices has pulled consideration of academicians and researchers who have written a number of articles and papers on several aspects on this imperative issue. But an in-depth and extensive study on the commitment of Indian organizations towards environmental accounting and disclosure is found exceptionally limited. In like manner, an evaluation has been made about research works directed and articles written on various aspects of environmental accounting and reporting practices in the following paragraphs.
For the benefit of discussion, the existing literature review has been made in two view points:

I. International studies

II. Indian studies

Research works already done in the field are the principle source of Literature Review. Other than this, a significant good number of articles are found to have been written on various aspects of environmental issues by researcher’s academicians, and others. Some of these are simply theoretical based on text books and experience, and others are depending on empirical studies and secondary data. In addition, there are likewise a few reports on this topic made by different recognized authority and agency which have been also taken into consideration.

2.1.1 International Studies

The studies available in this respect have been classified into two groups as indicated by their innate nature. The first group is related to Social Accounting & Reporting (SAR) and other group is Environmental Accounting & Reporting (EAR) which has been discussed in the following paragraphs.

2.1.1.(A) Corporate Social Accounting and Reporting

Corporate social responsibility (CSR) relates to the voluntary integration of social and environmental concerns in the business day to day operations and their connection with business stakeholders. The concept of corporate social obligation is strongly associated with the ‘Triple Bottom Line’ approach up held by John Elkington in 1997. ‘Triple Bottom Line’ is a system for
measuring and reporting company performance against social, environmental and financial parameters. The thought behind this idea is that for an organization to be sustainable, it should financially assured, it should minimize its negative environmental effect and it must act in accordance with social desire. So CSR is an integral part of sustainable development concept. In this connection, it can be said that social obligations and environmental obligations are not separate thing; rather they are two sides of same coin, i.e., the responsible business. On this background social accounting and reporting has been taken to the purview of this specific literature survey.

Despite the fact that environmental accounting is of late starting point however Adam Smith initially built up the idea of social accounting in 1876. Karl Marx and Frederic Engels in 1844 and Pigue in 1920 concentrated on the distinction of social and private costs. Joan Robinson in 1960 pointed out the social costs of industrial activities.

**Epstein and Elias (1975)** Examined 47 corporations to know social responsibility practices. The study found that equal employment opportunity, charitable donation, environmental quality, were the most commonly disclosed by the company in their annual reports.

**Epstein, Flamholtz and McDonough (1976)** conducted a study on the methods adopted in the USA to measure and report the effects of a company in society. The study also focused future requirements in this area. The study found that various opinions received regarding the measurement methods and reporting framework that should be developed for execution of corporate social reporting from the management consultants and corporate executives, accounting researchers,
Dierkes and Preston (1977) carried out a research on, number of efforts to design corporate policy statements and accounting procedures which was concern with environmental protection and pollution reduction problems. The researchers also shown execution proposal with the aid of data received from survey conducted by researchers.

Ingram (1978) analyzed five hundred fortune companies to know the social responsibility disclosure practices. Researcher took 5 important variables for social information disclosure; those were namely, community involvement, personnel and product. Environmental, fair business practices. The study found that there was a huge variation among the firms regarding voluntary social responsibility information disclosure.

Spicer (1978) initiated a study to examine the relationship between the profitability and its social performance. The study found that positive relationship between the shares value of the firm and its social performance. On the other hand the study also found that organizations with more profitability, bigger size produced improved pollution control.

Brockhoff (1979) analyzed the major German companies to know the social reporting practices in 1973. Researcher reviewed stakeholder’s pressures for social reporting, variety of current reporting mechanisms, research and development and external effects, degree of reporting on internal relations.

Schreuder (1979) conducted a study on social reporting developments in Germany. The researcher considered numerous social reports published till date. The trade unions response to the social reporting was also focused in the study.
**Trotman (1979)** Analyzed 100 biggest Australian companies to know the social responsibility disclosure practices. The researcher used five variables for measuring social responsibility disclosure practices. The study found that Australian firms disclosed different types of social information in the Social Accounts part in their financial reports.

**Kamla (2007)** conducted a brief study on disclosure practices of social accounting in the Arab nations namely: Oman, United Arab Emirates (UAE), Jordan Syria, and Egypt of the Middle East Saudi Arabia, Kuwait, Qatar, and Bahrain. The study tried to investigate fundamentally the fact and probability of social accounting disclosure practices within the Middle East from postcolonial perspective. The researcher opined that social accounting appearances in Arab Middle East were to a great extent orientated towards oppressive/counter radical positions of accounting.

**Onyekwelu & Boniface (2014)** conducted a study on corporate social accounting and improvement of information disclosure of selected Nigerian companies. The study found that major portion of the Nigerian organizations disclosed social information in the directors’ report and followed by chairman’s statement and the companies are disclosing social information in qualitative form. On the other hand, the study found that disclosing of social costs in the social accounting it enhances the information disclosure level. The study recommended that government should create legislations for binding the companies towards information disclosure in their annual reports.
Al-Ajni et al., (2015) analyzed the social Accounting and disclosure practices of Kuwait firms and also tested the association between social accounting disclosure practices and corporate attributes. Their study revealed that most of the companies disclosed social information somehow, and on the other hand, the study revealed a positive association between corporate disclosure practices and profitability and firm size and also found that negative association between social disclosure and government ownership, and there was no impact of leverage, liquidity, firm age, nature of industry on corporate social disclosure.

Nama Ahmed et al., (2016) investigated the association between disclosure of social responsibility and financial performance of 10 manufacturing companies in Nigeria. For measuring corporate social responsibility disclosure four dimensions were considered namely, human resources, environment, product, community. And for measuring financial performance Earning per Share (EPS) was considered. The study found that there is a significant impact of social responsibility disclosures on financial performance. Therefore, the study recommended that companies should take into consideration social issues positively.

2.1.1.(B) Corporate Environmental Accounting and Reporting

A good number of studies are reported on this theme at global level. A portion of the imperative studies have been given below:

Norman Pope (1971) did a study on environmental accounting and disclosure practices. The researcher had taken five heaviest polluting industries those were namely forestry, packing materials and utilities chemicals, energy. The study stated that majority of the organizations disclosed environmental information on ecology in the letter to stockholders from company
Niskala and Pretes (1995) conducted a study on trends of environmental reporting practices by taking a 75 Finnish environmental sensitive companies in Finland studied for five years period from 1987-1992. And the researchers were also considered the willingness of organizations to disclose environmental information. The study found that drastic changes in environmental reporting practices somewhere around 1987 and 1992. In 1992, and approximately 50% companies provided information related to environmental disclosures in their annual reports in five years study period in contrast with a somewhat 25% organizations in 1987. Majority of the companies disclosed environmental information in qualitative rather than in quantitative or financial form. The study concluded that finally a major environmentalism on company environmental accounting and reporting practices and policies.

Fekrat, Inclan and Petroni (1996) carried out a study on scope and exactness of corporate environmental disclosures practices by taking 168 companies from six industries of 18 countries. Researchers also tested voluntary disclosure hypothesis in the context of environmental disclosures. The study found that there was a variation in environmental disclosures and there was no support to the voluntary disclosure hypothesis. On the other hand study also found no association between environmental disclosure and environmental performance.

Jaggi and Zhao (1996) carried out a study on perceptions of managers and professional accountants related to environmental performance and environmental disclose in Hong Kong. The study found that the manages emphasized the importance on environmental conservation but they were not showing interest to disclosure environmental information in their annual reports.
and professional accountants were shown concern towards environmental protection but they had no idea for disclosure of environmental information. The study concluded that managers were not showing interest to disclose more environmental information on a voluntary basis.

**Bewley and Li (2000)** Analyzed the annual reports of manufacturing firms with the aim of investigating the factors associated with environmental disclosures in Canada. The study investigated what extent the voluntary disclosure theory could elucidate the general and financial environmental information. The study found that the companies which were covered by news media about companies environmental activities those companies disclose environmental information.

**Hughes, Sander and Reier (2000)** conducted a study on to examine whether there was any association between environmental disclosure and environmental performances. They chose twenty organizations in U.S. for the study. Of them ten were leaders and ten were laggards in environmental performance as distinguished by Fortune. By comparing the disclosure of these two groups of organizations the study found that laggards made essentially more mandatory disclosures than leaders; in any case, there was little distinction in the voluntary disclosures of the two groups. The disclosure of organizations related to leaders group were positively connected between the mandatory and voluntary sections; though no relationship was seen inside the laggards.

**Moneva and Llena (2000)** analyzed the annual reports of seventy environmentally sensitive Spanish organizations functioning in various industries to examine the development of environmental disclosure practices during 1992-1994 on the premise of stakeholder theory. The primary findings of the study were as per the following: The organizations were reporting qualitative environmental information, despite the fact that there has been an expansion in both
quantitative and monetary reporting and in addition the quantity, of organizations that are reporting. The variables investigated do not permit us to recognize huge contrasts, aside from whether the parent organization is outside based. As a result, there is no critical confirmation that aimed the period investigated the environmental reporting conduct of Spanish organization has attempted to fulfill their stakeholders.

*Holland and Foo (2003)* conducted a comparative study on present corporate environmental annual reports of UK and US. The study found that organizations environmental conservation activities rely on upon the components of lawful and regulatory framework of nation, which impact environmental performance and it’s reporting in yearly reports. The researchers investigated theoretical considerations to set up whether the sorts of disclosure emerging from regulatory pressures, exhibit that responsibility exists in the disclosure of environmental data, and to what degree the disclosure releases the organization’s responsibility to the users of such data.

*Siv Nyquist (2003)* in his research compared the legislations in Denmark, Norway and Sweden with respect to statutory disclosure of environmental data. He has observed that these three nations have large similarities concerning accounting enactment and standards. But, Denmark prefers an alternate approach to drive firms to disclose their environmental performance in contrasting with Sweden and Norway. Separate green accounts are kept up by Danish organizations, while Norwegian and Swedish organizations are undoubtedly to disclose environmental information in their management report. The Norwegian and Swedish organizations’ data basically deal with the financial related outcomes of environmental effect. On the other hand, Norwegian enactment likewise found more extensive than the Swedish enactment. The Danish organizations mainly address society as a rule.
Epstein (2003) conducted a study on developments of environmental and social aspect in both academic literatures and corporate practices throughout the most recent last forty years. The study found that though social and environmental reporting had been increased, but the quality of the disclosures had not been enhanced adequately. The study also found that incorporation of social and environmental effects into management decisions was extremely negligible. The paper focused on the necessity to increase the integration of social and environmental effects into management decisions for the enhancement of both the internal and external disclosures and responsibility of organizations.

Patten and Crampton (2004) analyzed the web page of corporate environmental disclosure of U.S. organizations which is considered as a possible significant device for disclosing environmental data and increasing corporate responsibility. The study shows that corporate web pages turn out extra and non-repetitive environmental data beyond what is given in yearly reports. The study found that centre of Internet disclosure might be more on corporate endeavors at legitimating than on moving greater corporate responsibility.

Tuwaijri, Christensen, Hughes (2004) investigated the interrelations among economic performance, environmental disclosure, and environmental performance in view of the contention that management's general system influences each of these corporate obligations. The study found that great environmental performance was connected with greater economic performance further more with more broad quantifiable environmental disclosures.

Walden and Stagliano (2004) Examined 53 organizations of four major industry groups in U.S. to know the pattern of environmental disclosure themes in the financial and non-financial parts in the annual reports. The study also attempted to find the association between these environmental disclosure themes and environmental performance. The investigation found that
only environmental expenditures and contingencies were the topic of the disclosure in financial part of the yearly report. Then again, non-financial part of the yearly report contained mostly data about contamination decrease and different other environmental information. The study additionally found that there was a significant association between environmental disclosure and environmental performance.

**Epstein and Wisner (2005)** examined the relationship between administrative control frameworks and structures with environmental consistence and applicability of management control hypothesis in Mexican industry. This study likewise observationally investigated the viability of administrative control frameworks and structures in Mexican industry and concentrated on management control and strategy execution in a developing economy like Mexico. The result shown, that the success in compliance with environmental frameworks, is importantly connected with level of administration responsibility, planning, conviction frameworks, and rewards.

**Freedman and Jaggi (2005)** Conducted study on compliance of Kyoto Protocol by the companies. This compliance is mainly related to emission reporting and pro-active reporting of green house gases emissions from these companies compared to others. The study used the annual reports, environmental reports, and websites reports of 120 biggest public organizations represent from the various industries, i.e., motor vehicles, and casualty insurance industries, the oil and gas, chemical and energy industries.
The study found that:

- Organizations from countries that approved the Protocol accomplishes higher disclosure indexes when compared with organizations in other nations;
- Larger organizations disclosed more definite pollution data.
- International organizations worked in different nations that approved the Protocol but had their home places in different nations that did not Approve the protocol provided less disclosure information
- Lack of consistency in disclosure was not helpful in informing shareholders about the social responsibility of their investments.

Lee and Hutchison (2005) carried out a study on results of prior studies on disclosure of environmental information and factors which influence the environmental disclosure and the requirement for future. The classes utilized include: (1) rational cost-benefit analysis, and (2) cultural forces and attitudes. (3) Laws and controls, (4) legitimacy, public pressure, and publicity, (5) firm/industry attributes.

Bose (2006) analyzed the current environmental accounting and disclosure practices of Petrobangla and organizations in Bangladesh. The study shown that during 1998-99 and 1999-2000 only 45.45% organizations, during 2000-01, 63.63% companies and over 2001-03, approximately 82% of companies disclosed environmental information. Consequently the figures showed an increasing trend in the disclosure of environmental information. The study additionally highlighted that Petrobangla organizations disclosed just subjective, clear and positive data without quantification and negative data. Majority of the Petrobangla organizations recognized environmental issues related to environment protection, control of pollution, planting
of trees and different themes. Though, they did not give any significance in regards to waste era, energy conservation, water wastage and reusing of wastage and so forth. This study envisioned that the Petrobangla has officially given much exertion to environmental protection. Though, the current accounting framework does not reflect such efforts for its stakeholders.

**Brammer and Pavelin (2006)** directed a study on a sample of UK companies to evaluate the patterns in voluntary environmental disclosures. The examination separated between the choice with respect to voluntary environmental disclosure and decisions identifying with the nature of such disclosures. They additionally investigated that how the above decisions were affected by organization and industry attributes. The study found that bigger, less indebted organizations with dispersed ownership qualities would give more significance on voluntary environmental disclosures. The other imperative finding was that organizations size and corporate environmental effect was positively associated with the quality of disclosures. The study also found that significant cross-sector variation in the influence of both the participation and quality decisions.

**Karim, Lacina and Rutledge (2006)** conducted a study on factors that are connected with the level of an organization’s environmental disclosure in the footnotes of its yearly report and its 10-K report documented with the Securities and Exchange Commission. The study found that firm with higher foreign focus is connected with less environmental disclosure since they are under higher carefulness from other nations and the universal group. In addition, to some degree, higher profits volatile is also connected with less environmental disclosure. The organizations with a more unpredictability income procedure are less ready to disclose environmental costs and
commitments, in light of the fact that extra expenditures have an adverse effect during low-profits periods.

**Clarkson, Li, Richardson and Vasvari (2007)** assessed the association between the degree of environmental disclosures and environmental performance. Researchers had taken a sample of 191 organizations from the five most contaminating industries in the US. They reported a positive relationship between environmental performance and the degree of environmental disclosures.

**Staden and Hooks (2007)** in their study attempted to examine relationship between organizations which were environmentally responsive as indicated by an independent ranking and the quality and degree of their disclosures with respect to environmental effects. They utilized proactive methodology as a part of accomplishing legitimacy to build up the desire that legitimacy theory could be utilized to anticipate a positive association between environmental disclosure and environmental responsiveness. They examined the quality and degree of what was being reported and then matched this evaluation with an independent appraisal of every organization’s responsiveness towards environment. The study found that positive relationships between rankings based on the quality and degree of disclosures and the independent ranking. The results indicate that those organizations’ environmental disclosures would reflect their environmental responsiveness.

**Sumiani, Haslinda and Lehman (2007)** Analyzed the top 50 Malaysian public companies environmental accounting disclosure practices in 2003. The study attempted to highlight the present condition of Malaysian environmental disclosure practices. They assessed corporate key practices about voluntary environmental reporting frameworks of Malaysian companies. The
study found that the level of degree of environmental information in annual reports in Malaysian companies was fairly low. They just disclosed environmental data in subjective terms. Additionally, the major disclosed data was the general proclamation of the presence of an environmental management framework in their company, while the most reported environmental disclosure was their environment policies that the company had.

Moore (2008) conducted a study on the affect of reforms in public sector on environmental accounting process. The study analyzed the different reforms in the 1980s and 1990s which affected the environmental accounting expenditure in the public sector. The study found that a small advantage was observed from environmental accounting procedures in the organization.

Ousama and Fatima (2010) Analyzed degree of voluntary disclosure practices of Shariah Approved Companies (SHAC). The companies listed on Bursa Malaysia were included in the sample. The study found that Mean environmental information disclosure was 15 percent only. Majority of the information was qualitative information on environmental conservation activities initiated by the organizations. Mean environmental information disclosure was low comparatively to the other computations. The activities/policies which are negative to the environment were not reported.

Lee Les Tien-Shang, (2012) Examined through use of a mail survey data in Taiwan and basic equation modeling that instrumental motives and political motives have direct impact upon the environmental performance. The study found that instrumental motives had marginally affected both participate cooperate environmental duty and environmental performance. The marginal impacts of political motives on environmental performance have likewise been reflected. It was revealed that the corporate environmental duty is vital in this cause-impact association.
Giovanni (2012) examined the impact of internal as well as external environmental management (EM) on the triple bottom line (TBL). TBL incorporates all three kinds of environmental, economic, and social performances. The study found that internal Environmental Management is an effective driver of TBL. Environmental and social performance is upgraded by external environmental management. External environmental management is a less effectual driver, contributing favorable to environmental performance and applying in an indirect marginal effect on financial performance. TBL is directly and positively affected by TBL internal environmental management. The study proposed that corporate top management need to concentrate more on internal Environmental Management, as it is observed to be more viable than external Environmental Management.

Abdo (2014) conducted a study to examine the reasons and motives to disclose environmental information by companies in Libya. The data is collected with a structured Questionnaire from the 45 local and foreign oil and gas companies. The study found that reputation; expectations of society, legal requirements, pressure of society are the main reasons make the foreign companies to disclose environmental information. On the other hand the study found that local reputation and society pressures are the main reasons makes the local companies to disclose environmental information.

Sona Alizadeh Aghdam (2015) analyzed the voluntary environmental accounting and disclosure practices of 50 firms in Iran and also analyzed the association between voluntary environmental disclosure and corporate attributes. The study found that environmental sensitive firms were disclosing higher environmental information than non sensitive environmental firms and on the other hand they found a positive association between, type of industry, firm size, leverage, and
voluntary environmental disclosure and there was no association between voluntary environmental disclosure and profitability.

Agbiogwu et al., (2016) conducted a study to examine the impact of social and environmental costs on 10 Nigerian manufacturing firms. The study found that there was a significant impact of social and environmental costs on net profit margin, earning per share, return on capital employed for manufacturing companies.

2.1.2   Indian Studies

Very few studies have been done in the area of social and environmental disclosure practices so far. Few of the Indian studies have been presented below.

2.1.2.(A) Corporate Social Accounting and Reporting

Singh (1983) assessed the degree of social responsibility disclosure practices in annual reports of public sector organizations. He additionally attempted to examine the relationship between different organizational attributes with disclosure of social responsibility. The attributes were net sales, rate of return, age, and total assets of the organization and the nature of industry. The study found that attributes like age and net sales had no significant effect on social disclosure practices. But size of organization had a solid positive effect on the social responsibility information disclosure. The study also found that, rate of return had no such impact on social disclosure practices; even so earnings margin had a significantly affected social disclosure.

Chander (1989) attempted a study to examine the volume of social accounting disclosure practices of selected public as well as private sector organizations. He additionally investigated the degree of association between corporate social accounting disclosure and size of the organization. The study selected the sample of twenty-four private organizations and twenty
public sector organizations for the year 1996-97. The study found that corporate social accounting disclosure by public sector organizations was significantly superior to private sector organizations and the quantum of tangible assets had influenced corporate social accounting disclosure practices.

Porwal and Sharma (1991) analyzed the social accounting disclosure practices in India. The study used, thirty public sector organizations and one hundred forty seven private sector organizations had been chosen. They considered forty-seven items with allocated weights for measuring social responsibility of the organizations. These items were additionally grouped into five categories namely energy, human resources and the product, Environment, community

Some imperative findings of the study were:

I. Almost 50% of the organizations under study disclosed some kind of social accounting disclosure in annual reports.

II. Majority of the sample organizations of public sector organizations disclosed some disclosure in regards to social duty in their annual report in comparing with thirty-five percent just of their private sector organizations.

III. The organizations were disclosing environmental information in the director’s report and notes /schedules in financial statement.

IV. Majority of organizations disclosed information with respect to human resource development. Only forty-six percent organizations made disclosure in regards to their community involvement. Though just eleven percent disclosed information identify with environmental protection.
The greater the organizations the bigger the environmental information gave by them in their annual report irrespective of their relation to private or public sector.

**Naser, Noor and Pramanik (2001)** in their study concentrated the new areas of corporate social reporting which help in social welfare and enhancing efficiency. The study found that the current corporate social reporting practices were inadequate and much more improvement was required.

**Verma, Saxena and Kaushik (2002)** conducted a study for measuring social performance of nineteen public Indian organizations. The study found that public sector organizations in oil and petroleum industry tried an effective and serious effort for evaluation of social performance. It has been additionally found that Board of Directors had taken the duty to report social performance in annual reports. A large portion of the social performance reports were made annually. Director’s report and Chairman’s report had been taken as most famous and helpful medium for making on social activities and descriptive mode had been considered as prevalent mode.

**Agarwal (2003)** conducted a comparative study to assess the divergent social responsibility disclosure practices of both public and private sector organizations. For study, ten organizations from each group which had been granted for best-exhibited accounts by ICAI were taken into consideration. The study used twenty-six important variables for social information disclosure viz. industrial safety, community welfare scheme energy conservation, environmental effects, and so on. In respect of environmental effects, the study found that information with respect to environmental pollution, ecological disturbance to the almost area, plantation and pollution (air, water) control techniques procedures were disclosed by public sector organizations. 60% of organizations have disclosed this information in the qualitative manner in their annual reports.
One of the public sector organizations has even disclosed the information with respect to the harm to the environment because of their industrial activities. There are just two organizations in the private sector which disclosed much qualitative information.

**Dave (2003)** Conducted an analytical study on one hundred Indian public and private sector organizations to know whether they were conducting social audit or not. He found that Tata Iron and Steel organization and Unit Trust in India conducted a social audit, yet there was no case of Indian organization who had conducted environment audit. Only a few followed social accounting and environment accounting. Though, few organizations disclosed social and environmental information.

**Reddy and Reddy (2003)** did a case study on Chennai Petroleum Corporation Ltd. for measuring social performance. The aim of the study was to measure the CPCL contribution for social progress in terms of social benefits provided to the employees, community and the general public. The study found that the performance of CPCL in respect of its social obligation was notable as the estimation of social benefits to various stakeholders was increasing over the study frame. Social advantages gave to the community as far as environmental improvements were additionally continuously increasing over time frame.

**Ghosh (2004)** Conducted a study on 134 organizations in India with a specific goal to find out the current status of social accounting for the year 1998-99. The study presented that the performance of Indian organizations was extremely poor with respect of environmental accounting and community development accounting, value added statement. Though, better performance was noted on account of statutory reporting of employees’ remuneration. Especially, the portion of findings for which we are worried in our study i.e. environmental
accounting was exceptionally poor. One noticeable attribute in this study was that the organizations which were doing environmental accounting are all manufacturing organizations except of a hotel. It had utilized environmental friendly wind energy for its operation. Another result of the study was that the organizations performing and reporting community development activities were generally production organizations. In one word, the overall performance of the organizations with respect to social accounting was not at all satisfied in this study.

**Kumar, Kaur and Srivastava (2004)** did a case study to know the condition of social reporting in NTPC. The study found that NTPC serves the society exceptionally well. It gives incredible significance in releasing its general social obligations to the community and the society at large. The study observed and recommended that more research must be attempted to develop estimation methods of environmental cost and benefits so that organizations may account and report them all the more reasonably. There is requirement for developing expertise in this social reporting. A multidisciplinary group of experts must be formed to complete environment audit altogether and legitimately.

**Rao and Gupta (2004)** in their study analyzed the current status of social responsibility disclosure practices in public sector organizations in India. They additionally investigated the degree of relationship of various organization characters like return on investment, total assets and capital employed, age, turnover, and with social responsibility disclosure index of public sector undertakings. The study found that the social disclosure practices of public sector organizations were satisfactory. Size of the organization which was measured by capital employed, total assets and turnover of the organization was nearly connected with disclosure...
However, age and return on investment of organization had not any significant effect on social disclosure practice in public sector organizations.

**Gautam & Singh (2010)** analyzed the social responsibility disclosure practices of top 500 Indian companies. Content analysis was used for measuring social disclosure practices. The study found that out of 500 companies, 229 firms were not disclosed any social responsibility information, and only 271 firms were disclosing social responsibility information. And only few companies disclosed social information in a structured format.

**Sharma & Mani (2013)** analyzed the corporate social responsibility of 30 Indian banks. Researchers used the 12 variables for measuring social responsibility. The study found that Indian banks were keeping their efforts towards social responsibly but it was not up to the expected level and public sectors banks were showing more concern towards social responsibility rather than private and foreign banks.

**Maheshwari & Kaura (2016)** conducted a study to know the perception of stakeholders towards location of corporate social accounting disclosure in India. The data was collected with a structured questionnaire from 400 respondents from different stakeholders like financial managers, government officials, academicians, investors. The study found that 50% of the respondents agreed that companies should disclose social information in separate book along with the annual reports.

**2.1.2.(B) Corporate Environmental Accounting and Reporting**

Various studies on Corporate Environmental Accounting and Reporting have been likewise directed in India. Some of these have been given below.
Sengupta (1988) conducted a study to examine the present pattern in pollution control information disclosure of Indian and foreign firms whose operations brought about pollution. The study found that the organizations were disclosing both descriptive and quantitative information in annual reports. The organizations mostly disclosed descriptive information in the Director’s report.

Shankaranayana (1999) in his study, attempted to discuss about the significance of eco-accounting for strategic managerial decision. In this context, eco-accounting approaches for recording and reporting through Eco Balance Sheet has been examined and how managerial decision might be based on eco-accounting has been exhibited.

Mazi (2000) examined the hindrances to response to environmentalism. The mechanics of environmental reporting have likewise been examined. Researcher expressed that without particular rules in regards to its accounting and reporting, some accounting approaches devised by the UN in the SEEA have been exhibited, furthermore the treatment of various components of environmental costs in accounts is appeared. Till now, in India, neither company law nor accounting standards recommend any accounting and disclosure methods for environmental issues in the corporate financial statements and as a consequence of this only a few organizations have voluntarily disclosed Environmental information in descriptive and only positive information.

Ansari (2001) analyzed the possible framework for appropriate norms of accounting and reporting about the environment. In this connection, he discussed about environmental costs and liabilities with its acknowledgment and measurement in accounting. Global and Indian scene of environmental accounting and reporting had been likewise discussed in this study. The
researcher concluded that the corporate environmental accounting and reporting was deluding without any global and/or Indian Accounting Standard on this issue and accordingly a successful corporate environmental accounting and reporting system ought to be presented.

Ghosh (2001) in a case study, attempted to concentrate on disclosure necessity and corporate environmental accounting disclosure practices in India. The study found that the sample organizations were meeting the requirements of regulatory by disclosing voluntary environmental information in number of cases.

Baura and Gautam (2002) conducted a study on environmental accounting and disclosure practices of twenty-five companies for the period 2001-02. The study found that only 48% of organizations gave information concerning environment in their annual report. The study also found that 40% of organizations gave information for contamination control, 20% for environmental harms, 12% for raw material conservation, 67% for waste management of water and its disposal, and all organizations under study disclosed information for protection of environment and energy conservation information in their annual reports.

Padhan and BAL (2002) directed a study on eighty executives of various industries to know their opinion with respect to environmental reporting under the provisions of various enactments in India. The study found that the corporate world was completely aware about the environmental issues and the needs of environmental disclosure. The corporate executives communicated their positive attitude towards environmental disclosure. Nonetheless, this perspective did not reflect in their annual reports. And most of the reporting was extremely poor having a little information about environmental effect.
Sanjeevaiah (2002) in his study, attempted to draw attention on some particular issues on environmental accounting. The study concluded that Environmental accounting would receive a sufficient support if a global agreement could be come to an approach.

Shankaranayana and Upadhyay (2002), in their investigation it was noticed that all the organizations under study were meeting to the requirements of different acts like submitting environmental reports, and data regarding control of pollution and conservation of environment, however they rarely showed in annual reports.

Verma (2002) carried out a study on six Indian organizations for the year 2001-2002. The study found that all the organizations shown policy statement in Director’s report only, they from time to time gave quantitative information on expenditures incurred on target set and achieved with respect of natural resource.

Patra (2003) Attempted to examine environmental accounting and reporting practices by Indian corporate sector as an instrument of environmental management with reference to a case study of TISCO. The study found that most of the organizations are not aware of environmental issues and also there is no proper place in the Directors’ Report for environmental information as such disclosure is not made mandatory by GAAP.

Cheema and Singh (2004) carried out a study to examine stakeholder’s impact on the status of environmental disclosure in the Indian organizations.

The particular goals of the study were:

I. To study the influence of organization size on environmental disclosure

II. To examine the creditors’ impact on the status of environmental disclosure.
III. To examine the foreign impact on the above status.

The observations of their study were:

I. Larger size organizations for having more stakeholders’ environmental convenience and reporting practices are greatly improved than the little size organizations.

II. Organizations for having foreign customers are more cognizant about environmental disclosure than others.

III. Creditors have no impact on environmental disclosure.

The above authors pointed out the followings:

I. The larger organizations for having immense pressure from their huge size of stakeholders are considerably more responsible with respect to environmental performance.

II. The organizations for having foreign customers who are showing more environmental conscious are more concerned about their environmental disclosure.

III. Creditors of Indian are more concerned about economic performance than environmental performance of organizations.

Eilbert and Parker (1973), Spicer (1978), Watts and Simmerman (1978) Deegan and Gordon (1996) additionally contended that the corporate environmental disclosure is associated with the organization size.

Garg and Sinha (2004) in their study mentioned the significance of environmental disclosure for better environmental performance. They also focused on the development in environmental reporting in last two decades which was not satisfied in terms of both quality and quantity. The
study found that corporate environmental reporting practices were still at introductory stage. They fundamentally noticed that organizations in the developed nations do not require stringent environmental disclosure standards setup of developing nations. This is on the grounds that a stringent standard may influence their business. The study concluded with some proposed system for corporate level environmental disclosure in India.

**Oza (2004)** Conducted a study on the requirements for consciousness of corporate citizens in respect of environmental imbalances, how environmental accounting could help environmental responsibility, the current status of environment unified information and practices, and what to be accomplished for long term profitability in the wake of confronting the difficulties of environmental responsibility. The study found that, environmental responsibility by corporate citizens needs change in attitude of people inside the company, the top administration, the key chiefs, the supervisory staff and front line and supporting staff. It should be proactive rather than responding in meeting the environmental responsibility to achieve the aim of sustainable development.

**Deo (2005)** analyzed the relationship of environmental and economic performance of organizations for adopting the environmental management system. She attempted to clarify how environmental accounting could be used for business decisions such as CAPEX decisions, and product design decisions, cost allocation decisions and the like. The study concluded that the green accounting even so helps innumerable managerial decisions for sustainability, and prosperity still it confronts bunches of issues like absence of bolster information, expertise personnel and lack of professional accounting model.
Shukla (2005) carried a study on the disclosure of environmental information of 92 private sector organizations shown that only 37% of the organizations reported environmental related information in their annual reports. Among the organizations petro products, fertilizers, engineering and pharmaceuticals were moderately more responsive with environmental disclosure. Another fascinating element which sprung up from the study was that the medium size organizations were more obligated for environmental disclosure than little and also well huge size organizations. To the extent disclosure mode was concerned descriptive statement in directors’ report was the most well known method of the environmental disclosure.

Singh (2005) Carried out a study to examine the status of voluntary environmental disclosure of big 200 Indian organizations.

**The principle objectives of the study were to:**

I. To know the voluntary environmental disclosure practices of Indian organizations.

II. To know the length of environmental disclosure.

III. To know the place of such disclosure.

**The observations of the study were:**

I. The level of disclosure with respect of those variables which may have adverse effect on the goodwill of the organizations was exceptionally poor. But other disclosure variables the disclosure status of organizations is somewhat satisfactory.

II. The organization wise situation of voluntary disclosure was exceptionally discouraging.

III. Highly polluting industries were more responsible for disclosing environmental information rather than low polluting industries.
An overall, voluntary environmental disclosure practice in Indian organizations was exceptionally poor, off base and was not clear as crystal.

Author identified some causes behind the poor environmental disclosure practices:

Firstly, environmental accounting disclosure practices in India is purely on voluntary base.

Secondly, this is an Expensive affair

Thirdly, absence of awareness and commitment is noticed in case of Indian organizations about social obligation of the business.

Fourthly, the environmental performance of the Indian organizations is exceptionally poor.

Furthermore, in conclusion implementation of the environmental protection law is exceptionally poor.

Chauhan (2006) in his study tried to explain the issue of environmental indicators which could be utilized by the corporate sector to adjudge the sustainable administration of environment for better disclosure of actualities identified with environment.

Parkash (2006) Carried out a study on 85 Indian organizations which shown that environmental accounting of Indian organizations had been made on a voluntary basis with a positive way. As far as industry wise environmental disclosure was related to the oil and petroleum sector and steel and engineering sector both had positioned most astounding in environmental reporting cement sector 60% and 57%, fertilizers, chemicals and pharmaceuticals 50% and consumer products 37%, textile 29%, power and electricity 25% and shipping and airways 20%. No
environmental reporting was observed in case of health sector. Researcher observed that, in India, there is no legal compelling on the corporate sector to account and report for the environmental issues that is the reason organizations are disclosing environmental matters on a voluntary premise with in a positive way as it were in this way, there is need to popularize the advantages of environmental reporting among the industrial’s group.

**Murthy and Abeysekera (2008)** conducted a study on social and environmental reporting practices of Indian software organizations through the eye of legitimacy theory. They directed their study against the background of India’s economic transformation since autonomy. They concentrated up on corporate social reporting (CSR) of Indian software organizations identifying with the complex issues of human resources and community development and found backing for legitimization thought process in for CSR by Indian software organizations.

**Makori & Jagongo (2013)** investigated the association between environmental accounting and profitability of 14 companies in India. Environmental accounting was measured by amount spent on environmental protection and the firm profitability was measured by using proxies, such as Return on capital employed (ROCE), Net Profit Margin (NPM), and Dividend per share (DPS), Earnings per share (EPS). The data was analyzed with the help of multiple regression technique. The study found that there was a positive association between environmental accounting and Net profit Margin (NPM), Dividend per share (DPS) and on the other hand the study found that a negative association between environmental accounting and return on capital employed (ROCE), Earning per share (EPS).
Mandeep Kaur (2015) analyzed the item wise variation in environmental disclosure practices of 500 Indian companies. Environmental disclosure index was used for measuring the environmental disclosure. The study found that there was a significant variation in environmental disclosure items. And on the other hand the study found that energy conservation, corporate commitment statements, water management, waste management were most common themes which were disclosed by the companies.

Bharti Manglani (2016) investigated into the environmental accounting and disclosure practices of 12 Indian companies. The study found that all these companies disclosed this information in different places in their annual reports and only few companies disclosed quantitative environmental information in their annual reports.

2.1.3 Other Environmental Related Literatures

Loli and Gahi (2002) in their study concentrated on auditor’s role in corporate environmental audit and disclosure in India. They noticed that environmental reporting in India was still in adolescence stage. In the greater part of the annual reports at least a small statement in this regard in Director’s Report was likewise missing.

Banerjee (2002-2004) in his study, focused on the requirement for presenting a scientific environmental management system. The researcher proposed an Integrated Environmental Management Approach for the corporate citizens for sustainable economic development.

Chatterjee (2002-2004) carried out a study on environmental management and people’s perception about the pollution control measures taken by the enterprises. The study used 10 factories in Kolkata Metropolitan area. The author opined that the current pollution control measures were not adequate, different choices would be considered. The enterprises must change
their current technology and use cleaner one. The role of community in regards to pollution control is additionally imperative.

**Debnath (2003)** Conducted a study on how environmental pollution prompts to social debasement and to cope up with this issue. He propounded some particular obligations to be performed. He observed the antipollution acts such as Air Protection Act, Water Protection Act, etc. are not adequate to cope up to the issues of environmental pollution.

**Ghosh and Chakroborty (2005)** in their study have tried to draw attention towards alarming situation of environmental debasement which is the aftereffect of growing risky industrialization which undermines the sustainability of future era. The various methodologies of environmental accounting have been examined. They opined that sustainability can only be measured when all assets are in use for organizations survival. Material capital is an important step toward better measure of sustainability of a Nation when all such material is also included in its survival.

**Sarkar (2005)** in his study portrayed to highlight the impact of green house gas emission on environment and concentrated on economic ramifications in the point of view of worldwide emission level. He additionally observed the international concurrences on green house gas direction and also valuation approaches in the point of view of worldwide environmental change as environmental dangerous. the study concluded Since developed nations have economic, technical and institutional ability to adapt to the issue, including developing nations in lessening of emissions level on more normal and programmed premise is much attractive for controlling future green house gas outflows in the air.
Aly M Hewaidy (2016) examined the social & environmental disclosure (ED) practices of 43 companies in Kuwait. 25 social and environmental related items used for measuring social & environmental disclosure practices. The study found that social and ED practices of companies in Kuwait were very low and there was more scope to disclose social and environmental information in their annual reports.

2.1.4 Reports and Guidelines on Environmental Accounting and Reporting
Other than the above studies, there are various reports and guidelines by various agencies and regulatory bodies which are applicable and exceptionally helpful for our study. “Various professional accounting bodies and/or standard setting authorities have come up, obliging corporations to execute environmental management system including its verification arrangement together with the assessment of reporting arrangements. Some of these are Eco-Management and Audit Scheme (EMAS, 1995); the International Organization for Standardization (ISO 14000, 1996); the Social Accountability Standard (SA 8000, 1998) issued by the Council of Economic Priorities Accreditation Agency (CEPAA); THE Copenhagen Charter’ (CC, 1999); the Institute of Social and Ethical Accountability ‘AA1000’ social accounting standard (ISEA, 1999); and the Global Reporting Initiative ‘Sustainability Reporting Guidelines’ (GRI, 2000)."

Some of these reports have been considered in the following discussion. National Association of Accountants Committee on Accounting for Corporate social performance (USA) in its report(1974) has portrayed the distinctive part of social performance and recognized four important areas of social performance to be specific (I) Physical resources and environmental contributions, (ii) Product or service contribution (iii) Community development, (iv) Human resources.
Govt. of India framed Sacher Committee (1978) to consider and provide report on the changes those were necessary in the form of structure of Companies Act and MRTP Act. Committee observed that, “the company must behave and function as a responsible member of the society just like any other individual. It cannot shun moral values nor can it ignore actual compulsion. The real need is for some focus of the accountability on the part of management not being limited to shareholder only, proper utilization of resources for the benefit of others also take care of profit is necessary, but is not primary objective.........the company must accepts its obligations to be socially responsible and to for the larger benefit of the community.” (Sacher committee 1978, p.170). The committee has recommended adequate disclosure in regards social activities of the organizations for the shareholders and other interested parties.

The UN statistical office was working on the project in December 1993, issued a handbook titled *The Handbook of Integrated Environmental Economic Accounting* on integrating environmental and economic accounting. This handbook has given detailed instructions on environmental accounting. This handbook has been subsequently named *System of Integrated Environmental and Economic Accounting (SEEA)*. This handbook was the result of environmental-economic accounting workshops conducted worldwide by UNEP and the World Bank. This discussion on concepts and techniques of environmental-economic accounting did not ready to come any last conclusion and the handbook was issued as a between time report.

UNSD and UNEP published the Handbook of National Accounting: Integrated Environmental and Economic Accounting - An Operational Manual in the year 2001. This handbook mirrored the on-going dialog on environmental accounting since the production of the SEEA in 1993 and
the experiences in developed and developing Nations. It gives an orderly direction on the most proficient method to actualize more practical modules of the SEEA and expounds the employments of coordinated environmental and economic accounting in policy-making.

In 2002 (first published in 1998), UNCTAD made a reexamine direction manual with the help of ISAR, CICA, ACCA and World Bank on ‘Accounting and Financial Reporting for Environmental Cost and Liabilities’ to educate or give direction on environmental accounting issues and recognize best practices that might be considered by national standard setters in the improvement of their own accounting standards, principles and controls.

UNCTAD and ISAR published in 2004, A Manual for the Preparers and Users of Eco-efficiency Indicator with the goal to depict the method that organizations can use to give environmental performance as well as financial performance in efficient and predictable way. The manual helped organizations to give data on their Eco-efficiency Performance for the five generic environmental issues to be specific global worming contributions, ozone depleting substances and waste water use, energy use etc..

In 1997, the Statistical Commission asked the London Group on Environmental Accounting to attempt an update of SEEA. In 2003, European Commission, the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the World Bank the United Nations, the issued, on the suggestion of the Statistical Commission, the last draft of Integrated Environmental and Economic Accounting 2003 (SEEA-2003). It was perceived in the report that despite the fact that the considerable improvement in the range of environmental accounting displayed in the updated SEEA, still there has been a wide extent of methodological and work in this field. The London Group opined that sharing nation experience
would keep to on being a profitable approach to propel hypothesis and practice of environmental accounting.

2.1.5 Research Gap

From the former literature review made, it is obvious that in the most recent decade, pressure from social groups and stakeholders, environmentalists, forced the corporate world to understand that they had a part to play to save the environment. The role of business in society is moving significantly. Corporate social obligation or responsibility and corporate environmental obligation or responsibility is two major decision areas of corporate management. Different frameworks of environmental accounting and reporting developed in various corners of the world. But, till today corporate environmental accounting and disclosure practices in a comprehensive form has not been managed truly. Considering this research gap, an attempt has been made in this study to assess environmental accounting and disclosure practices of Nifty companies on a total comprehensive premise.

2.1.6 Conclusion

There is so much enormous of research work has been done on environmental accounting and disclosure practices in developed countries but the research in developing countries is very less comparatively with developed countries. Due to lack of standard measurement or technique for environmental accounting and disclosure practices, majority of the researchers have been used the content analysis basing on the review of literature for my research also used that content analysis.
References


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