

## ENVIRONMENTAL ACCOUNTING AND LEGAL COMPLIANCE: A CRITICAL ANALYSIS IN CEMENT COMPANIES

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### **ABSTRACT**

*Sustainability and within that the environment is an important concern, if not the most important concern for, business and society today.*

*Since the 1990s the Government of India (GOI) has started to pay attention to the environmental management of the country. In the wake of increased public protests at various places in India, environmental degradation due to increased industrial activities, pressure on a global scale to check environmental pollution and pressures from the donor agencies to improve the environmental condition, the Government of India passed the Environment (Protection) Act was enacted in 1986, the Act was last amended in 1991, Under this Act, companies may be asked to disclose environmental information as and when required. Moreover, the Act requires environmental clearance before the establishment of a new industry. Other strategic responses of the Government of India to the environmental protection include formulation of the National Environment Policy and the National Environmental Management Action Plan (NEMAP). At present, the corporate laws e.g. Companies Act-1956, THE SECURITIES AND EXCHANGE BOARD OF INDIA ACT, 1992, Income Tax Act-1961 of India is insisted significant environmental disclosures.*

**Key Words:** *Environmental Accounting, Laws, Legal Compliance.*

### **INTRODUCTION**

Most of the areas in India and other countries, the environment have reached its carrying capacity in terms of air pollutants like nitrous oxide (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), suspended particles and the toxic heavy metals like lead. The impact of such anthropogenic emission into the atmosphere and their movement into the biosphere by transformation, reaction and modification is responsible for variety of chronic and acute diseases at the local, regional and global scale (Rawat and Banerjee, 1996). Impact on the plant community has also been studied worldwide in terms of plant – environment interactions, since the plants are much more sensitive in comparison to other organisms (Abbasi et al. 2004). Tauqueer Qureshi, an environmental expert, told *The Express Tribune* about the hazards posed by cement factories. Gypsum and iron ore, usually with the help of coal as fuel, are burnt in a rotary kiln at a very high temperature. This produces carbon monoxide, carbon dioxide and oxides of nitrogen and sulphur, all of which are pollutants. Consuming energy from fossil fuels such as oil and coal creates carbon dioxide (CO<sub>2</sub>), the most important Greenhouse Gas (GHG) causing climate change. CO<sub>2</sub> was approximately 69% of the total emissions of green-house gases on a weight basis in 1990. In addition, the chemical process of making clinker produces CO<sub>2</sub>. These two factors mean that the cement industry produces 5% of global man-made CO<sub>2</sub> emissions, of which 50% is from the chemical process, and 40% from burning fuel. Trivedi and Singh (1995) indicated air pollution in terms of its severity and degree. Thus, plants can be effectively used as bio indicators of air pollutants, although their sensitivities could vary across the plant community with tolerant species showing no or minimal symptoms while sensitive ones showing symptoms even if the air pollutants increase in small amounts (Singh, 2003). The resulting impact can be used for monitoring of suspended particulate matter in cement industry in terms of SPM concentrations to observe the air quality in the locality. Limestone and cement dusts, with pH values of 9 or higher, may cause direct injury to leaf tissues or indirect injury through alteration of soil pH (Vardaka et al., 1995; Auerbach et al., 1997). Pollutants enter into the plants and react in a variety of ways before being removed or absorbed that may include accumulation, chemical transformation and incorporation into the metabolic system. In this process some plants are injured, while others show minimal effects (Priyanka and Dibyendu, 2009).

The first step in reducing GHG emissions is to establish a universal framework for measuring and reporting those emissions. This allows companies to set meaningful targets for reduction, understand their costs, and monitor

progress. It is the task of individual companies to set and publish their own targets, and to choose the most appropriate strategy for achieving them. Because climate protection has such a high profile in the industry, effective strategies for managing CO<sub>2</sub> emissions are of crucial importance in the marketplace. The reduction options are likely to include: innovation in improving the energy efficiency of processes and equipment; switching to lower carbon fuels; using alternative raw materials to reduce limestone use; developing CO<sub>2</sub> capture and sequestration techniques; and taking advantage of market mechanisms such as emissions trading and voluntary initiatives. Hence all companies are equally responsible for social and environmental improvement. There is growing pressure on companies to account for comply and report not only the financial performance but also the social, legal and environmental performance.

### **ENVIRONMENTAL LAWS IN INDIA**

In India, many acts have been enacted to implement the decisions reached at the UN conference on Human Environment held in 1972 at Stockholm. Article 253 of the constitution of the India gives parliament the power to enact laws on virtually any matters arising out of international treaty, agreement, convention or conference. It states, The parliament has power to make any law for the whole or any part of the territory of India for implementing any treaty, agreements or convention with any other country or countries or any decision made at any international conference, association or other body (Basu 2001).

The following laws have been enacted in conformity with the provisions:

1. Article 48A and Article 51A(g) of the constitution (through 42<sup>nd</sup> Amendment 1976)
2. The water (prevention and control of pollution ) Laws Act,1977
3. The forest (conservation ) Act 1980
4. The Air (prevention and control of pollution) act 1981
5. The Environment protection Act, 1986.

Nevertheless, India had enacted a number of legislations even prior to the Stockholm conference. Also in some other legislation, there were certain provisions relating to the management of environment. The following are some examples:

1. The Indian Forest act,1927
2. The Factories Act,1948
3. The Atomic energy Act 1962
4. The Insecticides Act,1958
5. The Wildlife( protection) Act,1972
6. The Water ( prevention and control of pollution ) act 1974

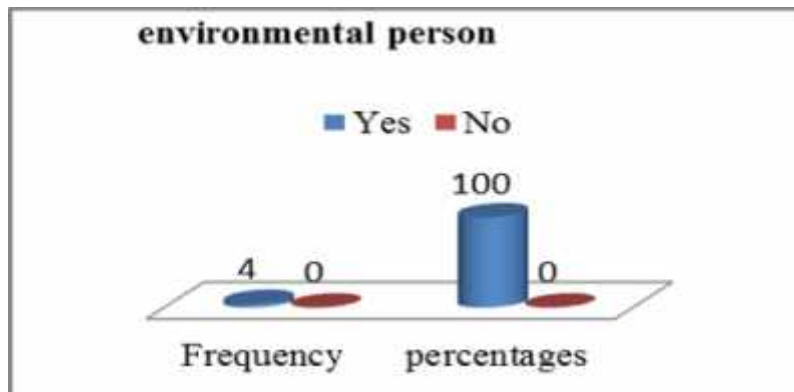
Therefore, it cannot be said that all environmental legislations in India took place only after the Stockholm conference. But certainly, the agreements arrived at the Stockholm conference paved the way for increasing the environmental awareness and emboldened the process of environmental management among many member countries of the UN general Assembly .India is a glaring example of this. In view of the above developments the issues of environmental laws in India under three heads: Administrative structure, Constitutional laws and Other laws.

Usually every cement companies has to follow the various rules and regulations prescribed by central ,state and local governments from time to time in its various stages of production to distributing it to end users. All the cement companies have to prepare audited environmental statements and submitted to the state pollution control boards. In that companies can expressing their concern towards the environmental issues like rawmaterial consumptions, water consumptions, waste & other toxic substances produced and other precautionary measures are undertaken to protect and enforce the environment. To enforce the environment, and satisfies conditions imposed by various laws cement companies have some programmes. They are as follows.

### 1. Person for Environmental Concern.

Category	Frequency	percentages
Yes	4	100
No	0	0
Total	4	100

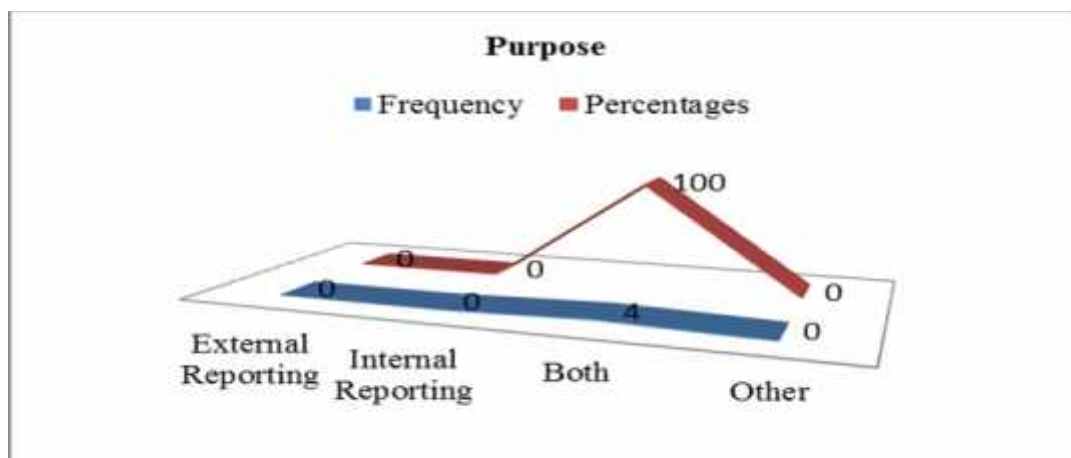
Source: Field survey



The above table shows that all cement companies having a separate department created towards protecting environment and ecology, headed by qualified person in the area called as environmental managers. These people look after the issues and challenges about the same and looking towards the appropriate strategies to safeguard the same. In our survey all 04 companies (100%) had a environmental managers to tackle the environmental issues.

### 2. Purpose of Environmental System in the Organization

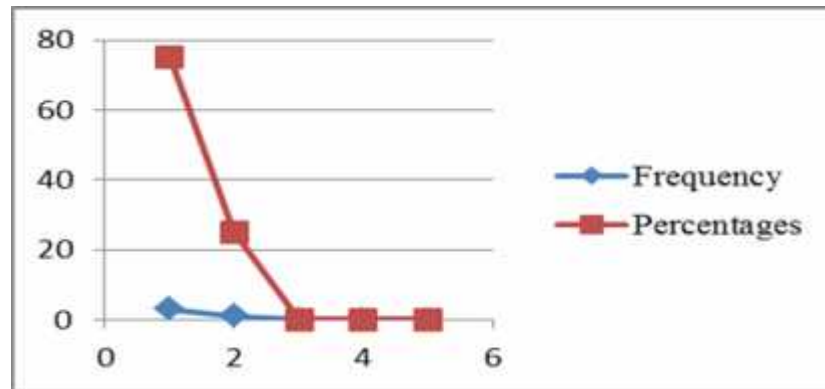
Purpose	Frequency	Percentages
External Reporting	0	0
Internal Reporting	0	0
Both	4	100
Other	0	0
Total	4	100



The above Table can showing that the purpose for which the system of environmental accounting can adopt in the organizational hierarchy. The main motto behinds this is to provide appropriate information to the internal for the purpose of decision making and also for stakeholders in general. Hence all 04 companies (100%) are employed this system both internal as well as external purpose.

### 3.Environmental Accounting System and Consultation with MOE (Ministry of Environmental) Guidelines.

Category	Frequency	Percentages
Very Much	3	75
Fairly	1	25
To some Extent	0	0
Not Very Much	0	0
Almost none	0	0
Total	4	100



The above table shows that majority of cement companies in Karnataka are following the guidelines of ministry of environment. Out of 100 %, 75% (03 companies) of sample companies are very much consulting with the MOE guidelines. Remaining 25% (01 company) is fairly consult the guidelines issued by ministry of environment for protecting the environment.

### FINDINGS AND SUGGESTIONS

1. Companies have to verify the compliance with the standards and conditions prescribed by the regulatory bodies under the water act, the air act and environmental protection act.
2. Companies have to check the effectiveness of organizational setup of the industry for decision making and environmental management with special reference to their technical, attitudinal viewpoint, training and environmental policy of the company.
3. The companies shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the SPCBs
4. The solid waste collected in the factory premises as sweepings wastage packaging, empty containers, residue, sludge including those from air pollution control equipments shall be disposed off scientifically to the satisfaction of the board.
5. The companies shall promptly comply with all orders and instructions issued from time to time by the board or any other officers of the board duly authorized in this behalf.
6. The companies shall appoint a qualified environmental engineer/ scientist for environmental management in a factory and also establish an environmental cell.
7. Companies shall maintain the environmental management system in conformity with ISO 14001-2004 standards.

8. The companies shall comply with the guidelines under corporate responsibilities for environmental protection 2003 issued by ministry of environmental Forests and CPCB.
9. The companies shall not change or alter raw materials or manufacturing process, change the product or product mix, the quality, quantity or rate of discharge / emissions and install, replace, alter the water or air pollution control equipments without prior approval of the board.
10. The companies shall forthwith keep the board informed of any accidental discharge of emissions/ effluents into the atmosphere in excess of the standards laid down by the board. The companies shall also take corrective steps to mitigate the impact.
11. The companies shall submit the environmental statement every year for the period ending 31<sup>st</sup> march in Form V of Rule as per Rule 14 of environment (protection) rule 1986 on or before 30<sup>th</sup> September.

## CONCLUSION

Environmental accounting is in preliminary stage in India and whatever shows in the accounts in this regard is more or less compliance of relevant rules and regulation in the Act. Actually, unless common people of India are not made aware towards environmental safety, development of accounting in this regard is a little bit doubtful. It is then call of the time that corporate prepare a firm environmental policy, take steps for pollution control, comply with the related rules and regulations, mention adequate details of environmental aspects in the annual statements. There are several challenges of environmental accounting and reporting such as environmental accounting method, social values in applicable assumptions, economic value and lack of reliable industrial data. To solve such challenges a large number of research accounting standard, various measures, rules, restriction and proper procedures for Environmental accounting and effectively implementation in corporate scenario is necessary. For sustainable development of country, a well-defined environmental policy as well as proper follow up various laws and proper accounting procedure is a must.

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