ENVIRONMENTAL ACCOUNTING AND REPORTING: AN EVALUATION OF ONGC

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Abstract

The rapid growing population and economic development is leading to a number of environmental issues like uncontrolled growth of urbanization, globalization and industrialization, expansion and massive intensification of agriculture, and the devastation of forests in India. In the present world scenario, environmental pollution has become acute and the stakeholders' awareness to the issue serious that environmental accounting has become an essential branch of accounting. Environmental accounting refers to identification, measurement and disclosure of environmental costs, liabilities and contingencies in the financial records of a company for the benefit of various internal and external stakeholders. Environmental accounting basically deals with recognizing and disclosing a company's environmental costs and liabilities in financial reports .While consistently emphasizing on the economic and industrial development, we have taken the environment for granted. The result of such leniency towards environment has resulted into several remarkable incidences in the past including the Bhopal chemical leak (1984), Tsunami in India (2004). The issue of environmental responsibility and the sustainable industrial development has given to the birth of new branch of accounting, i.e. Environmental Accounting and reporting. In this paper, the theoretical foundation of environmental accounting and reporting is discussed with special reference to ONGC. The Environmental Policy shows that they are giving fully efforts for the better protection of environment but on the other hand the research findings doesn't shows the ecological cost , liability , and ecological expenditure .

Keywords: Environmental Accounting and Reporting, ONGC,

Introduction

Rising pressures on the environment and increasing environmental consciousness have generated the need to account for the various interactions between all sectors of the economy and the environment. As we all know that Conventional national accounts concentrate on the measurement of economic performance and growth as reflected in market activity. For an extreme complete assessment of the sustainability of growth and expansion, the scope and coverage of economic accounting need to be broadened to include the use of non-marketed natural assets and losses in income-generation resulting from the depletion and degradation of natural capital. However, Conventional accounts do not concern the commonly used depreciation modification for human-made assets to ordinary assets. Since sustainable development includes economic and environmental dimensions, it is necessary that national accounts reproduce the use of natural assets in addition to produced capital consumption Environmental issues have unfavorable affected most of the business transactions and promoted companies to recognize ecological and social sustainability practices as part of their broader goals .Such initiatives need to be recognized to control the environmental and sustainability gap and the ever growing concern for worldwide warming and environmental degradation calls for combined effort of corporations , government and other stakeholders in tackling the problem .The execution of ecological disclosure practice can help companies and other stakeholders to reduce the cost and reduce pollution correspondingly . The execution of environmental revelation practice can help companies and other stakeholders to reduce cost and decrease pollution respectively. Environmental accounting, as a subject has gained a significance across the global due to the improved concern for worldwide warming and environmental degradation. The ecological threat can be mitigated by the combined effort of companies, government, and other stakeholders of the society. A lot of companies in India willingly started reporting environment related information in the financial statements to show their support toward environmental issues.

Environmental reporting of Indian companies can be broadly categorized into two types' mandatory disclosure and voluntary disclosure. Preliminary investigation of this study shows that Indian companies practice more of voluntary environmental reporting in the form of satellite reporting, sustainability reporting, GRI reporting and internet reporting.In year 2001, a country wide survey, the first of its kind, was carried out by Business Today, a business magazine, and The Energy Research Institute (TERI, 2001) to understand the environmental practices of corporate India. Findings of the survey revealed that more than 75% of the sample had environmental policy; about 70% have environmental audit system; 60% had an environment department; four out of every ten Indian Companies had formal environment certification (ISO 14001).

As per Indian Constitution, Article 51A of Directive Principles "It shall be the duty of every citizen of India, to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures." The constitutional provisions are backed by a number of laws - acts, rules, and notifications like Factories Act 1948; (Prevention and Control of Pollution) Act 1974; Forest (Conservation) Act 1980; Air (Prevention and Control of Pollution) Act 1981; Water Biomedical waste (Management and Handling) Rules 1998; Municipal Solid Wastes (Management and Handling)

Rules, 2000; Ozone Depleting Substances (Regulation and Control) Rules 2000; Noise Pollution (Regulation and Control) (Amendment) Rules 2002; Biological Diversity Act 2002. The Department of Environment was established in India in 1980 to ensure a healthy environment for the country. This later became the Ministry of Environment and Forests (MOEF) in 1985. The EPA (Environment Protection Act), 1986 came into force soon after the Bhopal Gas Tragedy and is considered an umbrella legislation as it fills many gaps in the existing laws.

The Ministry of Environment & Forest, Government of India (GOI), has brought a number of regulatory and non regulatory initiatives, in its efforts in harmonizing environmental protection with economic development. In 1991 GOI has made its first public announcement about the need for environmental disclosure in annual reports. In addition to the above requirement, companies are required to prepare director's report as per director's report rules, 1988. Further, the Companies' Bill 1993 & 1997 had proposed the amendment of section 173 to disclose through its board of directors report the measures taken for protection of environment. There is also a mandatory requirement for Indian companies to report on conservation of energy, technology absorption, etc. in accordance with the provisions of Section 217 (1) (e) of the Indian Companies Act 1956.

In India, financial accounting & reporting guidelines are issued and governed by the Institute of Chartered Accountants of India (ICAI). Companies Act mandates the preparation of annual accounts of companies in accordance with the accounting standards issued by ICAI (Chatterjee, 2005). Specific environmental accounting rules or environmental disclosure guidelines, for communication to different stakeholder groups, are not available for Indian companies. There is no mandatory requirement for quantitative disclosure of (financial) environmental information in annual reports neither under the Companies Act nor as per Indian Accounting Standards (AS's) Further more there are 23 stock exchanges in India, governed by the Securities and Exchange Board of India (SEBI) Act 1992. Each of these stock exchanges has different listing requirements. However, there is no mandatory SEBI listing requirement for Indian companies, from these stock exchanges, to disclose environmental information.

Therefore, any environmental disclosure by Indian companies is purely voluntary.

Voluntary Disclosure: Many corporate entities in India, on their own are giving information in their annual reports on the role played by them in environmental protection. Such information shows their concern about their social responsibility and their inclination to protect the interest of both the present and future generation.

Review of Literature

Imam (2000) analyzed annual reports of 34 companies listed with the stock exchanges of Bangladesh for the year of 1996-97 and found that only 22.5 percent of the sample companies provided environmental information in their annual report

Gray et al. (2001) examined the relation between corporate characteristics and environmental disclosures by taking a sample of 100 UK companies drawn from the Center for Social and Environmental Accounting Research (CSEAR). The authors observed that the volume of disclosure is related to the turnover, capital employed, number of employees and profit, as larger and more profitable firms have disclosed more environmental information

Bhate (2002) investigated the extent to which consumers of India are aware of environmental issues and it was found that Indians are most involved with environmental issues.

Ahmed and Sulaiman (2004) examined the extent and type of voluntary environmental disclosures in annual reports for the year 2000 by Malaysian companies belonging to construction and industrial products industries and concluded that the extent of environmental disclosure was very low and was scattered throughout the report without any concentration.

Objectives of the study

1. To find out the Environmental Policy of sample units .
2. To compare the performance of environmental performance indicators of sample unit .
3. To analysis the extent of the disclosure of environmental information of sample units.
4. To give suggestion for the improvement of their environmental policy.

Sample Size

The sampling frame consist of ONGC.

Data Collection

The present study is exploratory in nature. It is based on secondary data. Environmental reports of Indian Petroleum & Gas company named ONGC studied for four consecutive years2009-2010, 2010-11,2011-12 and 2012-13 has been examined to analyze their environmental disclosure practices .So we can say that an attempt has been made to examine the places of this disclosure in the annual report , its type and length .So mainly the quality of environmental disclosure have been checked for this study.

COMPANY'S PROFILE

Oil and Natural Gas Corporation Limited (ONGC) is Indian state-owned oil and Gas Company headquartered at Dehradun, India, engaged in exploration of hydrocarbons, is one of the leading companies with significant contribution in its industrial and economic growth. Government of India conferred the Maharatna status to ONGC, on 21st May 2010. With this empowerment, equity investment limit in subsidiaries, Joint ventures and Mergers & Acquisitions in India or abroad has been enhanced from Rs 1,000 crores to Rs 5,000 crores subject to a ceiling of 15% of the net worth limited in one project. It is a Fortune Global 500 company ranked 413 and one of the Asia's largest and most active company involved in exploration and production of oil. Today according to Platt's Top 250 Global Energy Company Ranking (2010), ONGC has been ranked as the number one Exploration & Production company in the world and 18th in the overall listing of Global Energy Companies. ONGC has been ranked at 172nd position in Forbes Global 2000 list 2011 of world's biggest companies for 2010 (April, 2011). It has been ranked at second position in financial express FE 500 listing of Indian companies both in terms of Net worth and overall composite ranking. It owns and operates more than 11,000 km of pipelines in India, including 3200 km of subsea pipelines. The company contributes 77% of India's crude oil production which accounts to 30% of India's crude oil requirement and 81% of India's natural gas production. It also one of the highest profit making companies in India.

Environmental Performance Indicators:

Indicators are quantifiable aspects of organization, which give brief information on how the organization is working, For example, to assess a financial performance the indicators such as company turnover, Earning per share profit, and amount of products sold might be used. Indicators can also be used to calculate ecological impacts. Environmental performance indicators (EPIs) may help to recognize the most important ecological impacts, clarify, and communicate company's ecological goals and progress to employees and stakeholders.

Table :1 Financial Performance

Financialperformance (Billion INR)	**2009-10**	**2010-11**	**2011-12**	**2012-13**
Total Assets	1230.28	1480.18	1717.28	1781.27
Income From Operation	619.83	695.32	768.87	833.09
Retained Earning	45.48	102.22	154.53	114.97
Total Revenue	-	720.56	813.40	887.45
Net Profit	167.68	189.24	251.23	209.257
Operating Exp.	126.29	142.38	139.81	173.92
Exp. On Employee	57.19	67.28	67.96	103.30
Int. Payment	0.69	0.25	0.35	0.28
Contribution to exchequer	280.98	317.76	382.87	408.81
Dividend To Shareholder	70.58	74.86	83.42	81.28
Under resources Shareholder with OMCs	115.54	248.92	444.66	494.21
Economic Value Added	22.12%	19.79%	21.36%	15.21%

Source: Company annual Report.

During FY13, the company earned the highest ever turnover of INR 833.09 billion, an increase of 8.35%over turnover of INR 768.87 billion in FY12. The company's net profit is INR 209.26 billion, down by 16.7% over net profit of INR 251.23 billion in FY12 because of sharing of highest ever under-recoveries of INR 494.21 billion and increase in oil industry development cess of INR 42.14 billion. company's net profit is impacted by INR 284.13 billion in FY13 (INR 255.35 billion in FY12) .while company spent on CSR 0.5%of PAT.(according to sustainability Report 2013)

Environmental Performance Indicators of sample units-

Water Pollution:

Water pollution has become a major environmental problem in many countries. Surface and earth water pollution from the manufacturing and agricultural sectors are other significant problems. Acidification of surface waters from air pollution is a more current phenomenon and can be a danger to aquatic life. Water pollution is on attention because of for two main reasons. Perhaps the most important is the possibility of serious health problems: water pollution has been associated with outbreaks of waterborne diseases such as cholera and gastro enteric diseases. The major impact of water pollution on health can be either direct, through utilization of contaminated water, or indirect, through bio-accumulation of contaminants in fish. The major reason for attention is the effect of water pollution on the efficiency of water-based economic activities such as fisheries and irrigation.

Green house gas emission:

A greenhouse gas (sometimes abbreviated GHG) is a gas in an environment that absorbs and emits radiation within them thermal infrared range. This process is the basic cause of the greenhouse effect. The primary greenhouse gases in the Earth's environment are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. In the Solar System, the atmospheres of Venus, Mars, and Titan also contain gases that cause greenhouse effects. Greenhouse gases deeply affect the temperature of the Earth; without them, Earth's surface would be on average about 33 °C (59 °F) colder than at present. Environment concentrations of greenhouse gases are decided by the equality between sources (emissions of the gas from human activities and natural systems) and sinks (the removal of the gas from the atmosphere by conversion to a different chemical compound .The quantity of an emission (e.g. CO_2) remaining in the environment after a particular time is the "Airborne fraction".

Energy Conservation:

Energy preservation refers to activities made to reduce energy consumption. Energy preservation can be achieved through effective energy use, in combination with decreased energy consumption and/or reduced consumption from conventional energy sources. Energy preservation act was passed on 2001. Energy conservation can result in improved financial capital, ecological quality, national security, personal security, and human comfort Individuals and organizations which are close consumers of energy choose to preserve energy to reduce energy costs and encourage economic security.
Manufacturing and commercial users can boost energy use efficiency to maximize profit.

Environmental Performances Indictors:

Table :2 Direct Energy Consumption

Fuel Consumption(TJ)	2009-10	2010-11	2011-12	2012-13
Natural Gas	17326	16519	19032	20068
HSD	1.38	1.70	4.17	3.64

Source : Company Sustainability Report

Table :3 Direct Energy Consumption At other Installation

Fuel Consumption(TJ)	2009-10	2010-11	2011-12	2012-13
Natural Gas	74564	79228	86491	83557
HSD	12963	12123	11842	12226
Aviation Fuel	254	254	239	255

Source :Company Sustainability Report

Table :4 Indirect Energy Consumption at Plant and other Installation

Electric Consumption(TJ)	2009-10	2010-11	2011-12	2012-13
Plant	30.07	26.81	6.77	13.94
Installation	1018.87	1986.85	2068.28	2258.76

Source : Company Sustainability Report

Note:

1 TJ is equivalent of 0.2465 MMSCM Natural Gas .

1 TJ is Equivalent to 26.9499Kl to HSD.

1TJ is Equivalent ton 29.2590Klton ATF

1 TJ is Equivalent to 277.78 MWH of Electric city SCM , standard Cubic meter natural gas at 101325Pa an 15Degree Celsius.

Table :5 Ozone Depletion Substance

Year	2009-10	2010-11	2011-12	2012-13
Quantity (kg)	8895	4305.8	3744	6182
CFC 11Equivalent	88950	43058	37440	61820

Source: Company Sustainability Report

Table: 6 Fresh Water Consumption

Year	209-10	2010-11	2011-21	2012-13
Billion Leture	21.68	31.14	30.26	25.79

Source: Company Sustainability Report

Table :7 Environmental Expenditure

Year	2009-10	2010-11	2011-12	2012-13
Billion (INR)	4.38	5.10	4.95	5.90

Source : Company Sustainability Report

ONGC Environmental Policy:

*ONGC has also worked for the environmental initiative So ONGC has launched Environmental Management System based on ISO 14001 which is further incorporated with Quality, Occupational

Health and Safety management System (QHSE MS) for having holistic approach towards HSE issues of the company.

*The EMS of the individual installation is once in a while audited by Corporate/Sectoral HSE and reviewed by top management for improvement.

*To tackle any contingency and disastrous circumstances,
Emergency Response Plan has been made at Installation level and there is Disaster
Management Plan at Asset level.

*Mock drills are implemented at regularly basis for a variety of contingency circumstances for enhancing the efficiency of response plan.

Analysis & findings: (Environmental Performance Indicators)

Analysis of direct energy consumption or Indirect energy consumption:

As far as direct energy consumption of ONGC is concerned it was continuously decreases marginal because of less consumption of natural gas in 2013, But on the contrary its indirect energy consumption was continuously volatile in four consequent year and it was extremely high in2009-2010, and extremely low in 2011-2012.

Analysis of Fresh water use and Recycling & reused of the water

We have seen a 15% reduction fresh water consumption than P. Y. 20111-12 in order to conserve the natural resources by reducing the fresh water consumption.

Analysis of environmental policy of sample units:

As far as the environmental policy of Company sample unit is concerned, so we can easily conclude that environmental policy of company is effective, efficient and vibrant. The companies are putting their full efforts for securing the environment,.

Analysis of Ozone Depletion Substance

The Ozone depletion rate are increase in all year this year I have seen ,an increase Holon emission .

Analysis of Environmental Expenditure

Environmental Expenditure has also seen a consistent increases over the past four year environmental expenditure increased to INR 5.90 Billion an increase of 19.2%over f.. year 2013-13 (INR4.95 Billion in 2012.)

Conclusion

The findings of the study shows that ONGC are totally concern about the major issues of environment that directly hamper the environmental performance and Totally agree that duty with the best by providing fully information about environmental related disclosure, but industries provide only less information about the environmental related issues , and also not providing the information related to the environmental expenditure and environmental cost . There is also a lacking of quantitative information, so there should be proper accounting pronouncements from the regulatory authorities & the information related to the environmental expenditure. It has not been mentioned in their annual reports. There is also a lacking of the information about environmental related disclosures in the annual reports.

Recommendations:

The findings of the study suggest that the disclosure of environmental related information is mandatory in nature & there should be proper accounting system which determine environmental related costs, liabilities and expenditure and the Company should asked to submit the whole information regarding environmental issues & if the company is not providing the information then action must be taken by regulatory body against the company.

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