

DISCLOSURE OF SUSTAINABILITY REPORTING BY GLOBAL REPORTING INITIATIVE FRAMEWORK IN INDIA MINING SECTOR

Daizy and Niladri Das***

Abstract: Ecological calamities, environmental pollution global warming and other impacts of corporate houses are pressuring them to integrate the information on the environmental, social and economical performances of corporate houses. This paper is to examine sustainability reporting disclosure as per Global Reporting Initiatives in Indian Mining sector with content analysis technique. From content analysis techniques it revealed that Coal India Ltd is still not disclosing full information on their non-financial performances. The study also implies that acceptance of global Reporting Initiative guidelines will help the corporations both as a useful sustainability reporting tool, and as a mean to provide stakeholders with credible information about their sustainability reporting performances.

Keywords: Sustainable development, Coal India Ltd, Global Reporting Initiatives.

1. INTRODUCTION

Nowadays ecological calamities, environmental pollution global warming and other impact of corporate houses are pressuring them to integrate the information on the environmental, social and economical performances of corporate houses. Financial performance and growth are no longer remains exclusive driver of business because sustainability issues because of advancement in communication technology that allow to transfer the information regarding negative impact of corporate houses on the environment and society. Due to rapid globalization and information efficiency in the market has led the corporate houses towards the challenging task of providing information about their performances not only on financial aspects but also on the front of environmental and social performances. Although, corporate houses have been criticized for their environmental misbehavior for a century. Corporate sustainability is a process of reporting information regarding the non-financial performances of the organizations. Corporate sustainability is the combination of two terms corporate social responsibility and triple bottom line. But there is clear differences do exist between

¹ Junior Research Fellow, Department of Management Studies, Indian School of Mines, Dhanbad-826004, E-mail: jassal1986@yahoo.com

² Assistant Professor, Department of Management Studies, Indian School of Mines, Dhanbad-826004, E-mail: niladri_pnu2003@yahoo.co.in

(CSR) corporate social responsibility and TBL (triple bottom line). These reports basically focus non-financial performances of the organization.

Generally sustainability reporting is having three dimensions, namely: environment, social and economic. Although companies started presenting reports on the environmental and social aspect as early as the 1700s (Mock, Strohm, and Swartz, 2007). Due to the increase in the awareness of the sustainable development business leaders are increasingly accomplishing the need to integrate environmental and social issues within the corporate strategy. The term came in to existence in 1987, in *Our Common Future*, a book by the World Commission on Environment and Development (WCED). However sustainable development is neither a straightforward concept nor there is any universal definition to be used by the accountant.

Based on above manifestation, the aim of this paper is to examine sustainability reporting disclosure as per Global Reporting Initiatives in Indian Mining sector. This paper is organized into eight parts. In part II we will discuss brief introduction followed by brief overview of sustainable development, and part III will discuss corporate sustainability reporting and related aspects such as its history and framework. Part IV will discuss the background of the mining sector in the Jharkhand state. In part V will discuss the research methodology and in part VI we briefly figure out nature of sustainability reporting disclosure as per GRI in Coal India Limited and its two subsidiaries in Jharkhand Limited and in part VII we will figure out the result and findings. This paper will summarize and conclude in part VIII.

2. SUSTAINABLE DEVELOPMENT

The changing times and the pace of change motivated companies to extract and exploit natural scarce resources and co-human beings as well. Moreover, corporate houses are consuming and using the natural scarce resources faster than the rate at which they generated. The basic idea behind the sustainable development was that the current development must not compromise the ability of future generations to develop. These two terms "Sustainable" and "development" first appeared together in the 1970's in several years of preparation of the document "The world Conservation Strategy" by International Union for Conservation of Nature and Natural Resources (IUCN, 1980) (Adams, 2009, p. 59). The concept 'sustainable' originates from the Latin word *sustenerere* which means 'to uphold' (ref: finn Redclift 1993). The idea depict here is i.e. stock inflows. The term sustainable implies that the flow of expenses is less than equal to income. In the scenario, the stock of resources is not depleted completely.

On the other hand the concept of 'development' implies increase the sufficiency of real human "well-being" for all. As u can imagine this term well being which

refers to comfort, happiness and health. Therefore it is fair to say the word is linked to human development. Hence, this (sustainable development) term was first used in 1972 UN Stockholm Conference on the human environment. In 1980 ICUN, WWF, UNEP published report on world conservation strategy. In 1983, Norwegian prime minister Gro Harlen Brundlant asked by UN Secretary General to head a UN commission to consider the ideas developed at a meeting in Stockholm and out of this work in 1987 came a very well know “Our Common Future” and in this report we find the first definition of sustainable development. Sustainable development means humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generation. If you will look at the definition, it consists of two concepts:-

- Deals with present as well as future and ;
- It talks about needs in particular the essential needs of the world’s poor, to which overriding priority should be given.

Therefore sustainable development is a broad concept and can be interpreted in many different ways that stabilizes the need for economic growth with environmental protection and social equity. To minimize the negative impact on the environment is one of the foremost principles of sustainable development but the focus of SD is far broader than just the environment. It’s also about ensuring a strong, healthy and just society.

In nutshell sustainable development is all about finding better ways of doing things, both for the future and the present. However, we need to change the way we work and live now. Nevertheless, in real life setting there are some challenges of sustainable development. *Population* is basic challenge. The *shortage of drinking water* in many regions of the world is a major barrier to sustainable development. *Human health* is also considered an important factor. *Consumption of energy* is one important challenge of sustainable development. Presently, consumption of all forms of energy is increasing. Forest is diminishing day by day due to the expansion of agriculture and because of it *Deforestation* is considered to be another obstacle.. The challenges faced are complex and serious and it can’t be addressed in the same way as it was created. But without doubt it can be addressed. In order to combat these challenges, various significant initiatives have been undertaken by global bodies worldwide.

A few important initiatives relating to sustainable development along with the leading organizations supporting the initiatives are presented in Table 1.

3. CORPORATE SUSTAINABILITY REPORTING

From many decade companies has been reporting about financial aspect in their annual reports. Nowadays, corporate houses are criticized for their misbehaviour towards the environment and society. Therefore from last two

Table 1
Significant International Sustainable Development Initiatives

<i>International Initiatives</i>	<i>Year</i>	<i>Description</i>
Rio Earth Summit	1992	The 1992 United Nations Conference on Environment and Development (UNCED), which took place in Rio de Janeiro, had over 20,000 participants from 178 countries representing governments, non-governmental organizations (NGOs), and the media. In addition to looking at solutions for global problems such as poverty and the growing gap between developed and developing countries, the summit also considered solutions for achieving sustainable development. At its conclusion, six conventions emerged from the summit, including the Rio Declaration, a set of 27 principles committing governments to environmental protection and responsible development; and Agenda 21, which provides a global plan of action for sustainable development and forms the basis of national sustainable development strategies.
UN Global Compact	2000	Launched in 2000, the Global Compact brings companies together with UN agencies, labour and the general public to support principles in the areas of human rights, labour, environment and anti-corruption. As a voluntary initiative, the Global Compact relies on public accountability, transparency, and the enlightened self-interest of companies, labour, and the public to initiate and share substantive action in pursuing the principles upon which the Global Compact is based.
Millennium Development Goals	2000	Signed by all UN Member States in 2000, the Millennium Development Goals commit the international community to a new vision of development that sees human development as key to sustaining social and economic progress in all countries. The eight goals establish national targets for poverty, education, gender equality, and environmental sustainability. The targets set for each goal are to be achieved by 2015.
Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises	2000	The Guidelines constitute a set of voluntary recommendations to multinational enterprises in the major areas of business ethics, including employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and

contd. table 1

<i>International Initiatives</i>	<i>Year</i>	<i>Description</i>
		taxation. They are part of a greater program that seeks to improve the fit between business and society by clarifying the rights and responsibilities of governments and enterprises in the area of international business.
World Summit on Sustainable Development	2002	As a ten year follow-up to the Rio Summit in 1992, the 2002 World Summit in Johannesburg brought various interest groups together, including heads of state and government, NGOs, businesses, and other major groups to focus the world's attention and direct action towards meeting challenges associated with sustainable development. Although there were mixed reviews on the success of the summit, it did produce two documents: the <i>Johannesburg Declaration on Sustainable Development</i> , which expresses commitments and direction for implementing sustainable development, and the <i>Johannesburg Plan of Implementation</i> that will guide government activities.
UN Norms on Human Rights Responsibilities of Companies	2003	Interpreted from the Universal Declaration of Human Rights (1948), the UN Norms on Human Rights Responsibilities of Companies provide the first set of comprehensive international human rights norms specifically applicable to transnational corporations and other businesses.

Source: Compiled from Certified General Accountants Association of Canada (2005)

decades and in addition to financial reports, a growing organisation are presenting information to their stakeholder and that person who are directed or indirectly engaged with the companies. Generally history of sustainability reporting is quite recent as compared to financial reporting. The concept of corporate sustainability reporting started too emerged only in the end of 21st century before which profit maximisation was the sole and foremost objectives of the organisation. Many companies used to believe that achieving monetary profits is enough to survive in the world today. But presently, with more and more people getting aware of the environmental and social issues, they have realized that the stakeholders will not be interested in them till they show their disclosure of non-financial performances. As a result corporate sustainability reporting is becoming as important as the annual reports for big companies to create a value and good-will for the company in front of the investors.

Corporate sustainability reporting is widely becoming important or corporate houses. It is the reporting of non-financial performances as well as financial

performance of the company on order to satisfy the information need of the stakeholders of the company. Sustainability reporting is also known as social responsibility reporting or all those form of report in which corporate houses disclose environmental, social and economic performances (GRI,2009). Corporate sustainability reporting is basically conjunction of two terms: corporate social responsibility and triple bottom line. Corporate social responsibility mean how companies manage to put positive impact on the society. It is a subset of sustainability. On the other hand, triple bottom line is a metric of corporate economic, social and environmental performances. It is latest series of words to describe involvement of sustainability. Sustainability reporting is gaining momentum globally as an important communication tool for companies to disclose their sustainability plans and performances and enhances stakeholder confidence.

Corporate sustainability reporting is basically integrating of non-financial performances of the corporate houses. Sustainability reporting provides various benefits that can be accrued from sustainability reporting is the increased efficiency of the organization.

- To collect information on sustainable initiatives and its achievements and measuring their values.
- It leads companies towards the innovation.
- To improve relationship with investors and stakeholders
- To improve financial performance and increase good-will.

3.1. Global Reporting Initiatives (Sustainability Reporting Framework)

The Global Reporting Initiative (GRI) produces a comprehensive Sustainability Reporting Framework that is widely used around the world, to enable greater organizational transparency (GIZ, 2012). This initiative was first established in 1997 and focus on popularize sustainability reporting. Soon, a GRI steering committee was formed and in the year 1999 the United Nation Environmental Program (UNEP) joined this effort bestowing a worldwide scope to GRI and its disclosure framework (Fet and Michelsen, 2003). At present, GRI produces the world's de facto standard practice by providing guidelines. It's about disclosure of organization's economic environmental social and governance performance. The GRI has developed a set of core metrics intended to be applicable to all business enterprises sets of sector-specific metrics for specific types of enterprises and a uniform format for reporting information integral to a company's sustainability performance.

The first issued of the GRI was issued in 2000 and second generation guidelines known as G2, was brought out in 2002 at the world Summit on Sustainable Development in Johannesburg. In the year 2006 G3 i.e. third generation guidelines issued. By the year 2011, globally there are about 8691 sustainability reporting published as per GRI framework.

With the growing trend of publishing sustainability reporting throughout world or at global level, Indian companies are also getting ready to embrace reporting to enhance competitiveness. But, the reporting is still on nascent stage with nearly 47 companies disclosing their information on sustainability performance. Out 8691 reports only a handful of 122 reports are published in India. However from last five year, reporting on sustainability performance has increased considerably (KPMG, 2011). Below table will show all the indicators information.

VI. BACKGROUND OF MINING SECTOR IN JHARKHAND

Jharkhand is located in eastern India and covers an area of 79714 sq km. It was carved out from southern Bihar in 2000 to form a separate state. It has 24 administrative districts. Ranchi is state capital and an industrial city. Apart from Ranchi, there are also some of the major cities such as Jamshedpur, Dhanbad, Bokaro, Deoghar and Hazaribagh . 29% of the state area is covered with forest. This makes it among state with greater forest cover. Jharkhand is considered as land of mineral and mining. Jharkhand has surrounded by 90% of the country's mineral resources such as coal, uranium, iron ore, copper, mica, bauxite, granite, limestone, silver, graphite, magnetite and dolomite. Hindi and Santali are commonly spoken language of the state. Urdu and Bengali are also prevalent. English is the primary medium of education. Jharkhand is known as a land of minerals in India. Table 3 outlines comparative figure of mineral production in Jharkhand & in India.

Jharkhand state enjoys a strong position on the mineral map of the country. The state is endowed with and rich deposit of a variety of metallic and non-metallic mineral deposits such as coal, iron ore, bauxite, limestone, copper, mica, Graphite and Uranium. Jharkhand is the sole producer of Coking Coal. Coal India Limited (CIL) is one of the largest coal producing companies in the world. Energy is a prerequisite in the economic development of any country. In developing countries, the energy sector plays a critical role in view of the ever-increasing energy needs. India is one of the fastest growing economies of the world. Coal dominates the countries energy mix. It contributes over 50% of India primary energy production. But there are numerous damaging environmental impacts of coal that occur through mining and waste storage. because of all these activities , corporate houses are criticized to show their information on the non-financial performance of the organization. In next section we will discuss techniques which we are using to know sustainability practices of Coal India.

4. RESEARCH METHODOLOGY

This empirical work is an attempt to contribute to the existing literature by analyzing the extent of annual reports, sustainability report and websites of the Coal India Limited and its two subsidiaries in Jharkhand i.e Bharat Cooking Coal

Table 2
Minerals Production
(Comparative Figure of Mineral Production in Jharkhand & in India)
(Fig in million tonnes)

Sl. No	Name of mineral	2006-07		2007-08		2008-09		2009-10	
		India	Jharkhand	India	Jharkhand	India	Jharkhand	India	Jharkhand
1	Coal	430.85	88.76	457.08	90.89	492.75	96.27	532.06	105.93
2	Iron ore	180.91	18.58	213.24	20.75	212.96	21.20	218.63	23.00
3	Lime stone	179.26	1.95	193.08	2.03	221.56	1.94	228.93	1.91
4	Bauxite	15.66	1.48	22.62	1.24	15.55	1.58	13.95	1.66
5	Copper ore (conc)	0.15	0.00	0.21	0.04	0.13	0.01	0.12	0.01
6	Graphite	0.12	0.01	0.17	0.01	0.11	0.01	0.10	0.02
7	Pyroxenes	0.30	0.08	0.28	0.04	0.28	0.05	0.27	0.04
8	Dolomite	4.78	0.26	5.85	0.30	5.50	0.30	5.18	0.42
9	Quartz	0.23	0.03	0.31	0.02	0.43	0.03	0.50	0.06
10	Felspr	0.37	0.01	0.48	0.01	0.53	0.01	0.45	0.01
11	Kyanite	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00
12	fireclay	0.44	0.02	0.54	0.01	0.49	0.01	0.41	0.01
13	Quartzite	0.09	0.21	0.09	0.01	0.09	0.00	0.10	0.01
14	Kooline	1.30	0.07	1.46	0.15	2.08	0.16	2.57	0.09
15	Silica sand	2.28	0.11	4.30	0.11	2.83	0.12	2.28	0.10
16	Cooper ore	0.00	0.00	3.24	0.04	3.45	0.32	3.22	0.38
	Total	816.74	111.57	902.96	115.66	958.74	122.01	1008.78	133.65

(BCCL) and Eastern Coal Limited (ECL), by identifying that whether they are showing sustainability reporting as per GRI (Global Reporting Initiative) guidelines. Data for this research paper is secondary data (annual report, sustainability reporting and websites) which has been collected from Capitaline database and from Companies' websites.

The research techniques used in this study to collect the required data from the annual report is content analysis. Content analysis is defined as the method of a research technique for the objectives, systematic and quantitative description of the manifest content of communication (Berelson, 1971). Basically it is technique used to determine the presence of certain words or concepts within texts. Originally, the techniques was developed to assess the appropriateness of communication, but it has been modified to permit analysis of the particular information set being analyzed (Carney 1972).

Hence this research uses 'number of sentences' as a recording unit for the purpose of content analysis. Number of sentences has been used in the previous

empirical studies like (Hackson and Mir, 2008) and this has been done on the basis of the indicator of GRI guideline of sustainability reporting. According to them, for measure of disclosure, coding and analysis number of sentences are considered as most appropriate way. Moreover information related to sustainability is observed to be scattered in several part of annual reports. Therefore content analysis of the complete annual reports are undertaken to analyze the present of sustainability reporting as per GRI in the coal India ltd and their Jharkhand subsidiaries.

Thereby the information is collected from the annual reports, sustainability reports and websites based on the global reporting initiative indicators under three categories, namely, 'volume of disclosure', 'form of disclosure' and 'types of news'. The volume of disclosure is measured in the form of number of sentences after studying the annual reports of each coal India subsidiaries and Coal India Limited.

If the information is in general form then it will be narrative in nature, if information disclosed with suitable evidence then it is said to be qualitative in nature and if the disclosure of the information in the monetary terms, then it will be financial in nature. The division of the 'form of disclosure' has been adopted from the study undertaken by Burrit (1997), in which the 'form of disclosure' is categorized under the heads of physical, qualitative and financial information. The information has also been examined on the basis of three types of news, viz. positive, neutral and negative news related to environmental impacts.

Consequently, the volume of disclosure, form of disclosure and type of news has been analyzed subsidiaries wise separately for all GRI indicators which is going to be shown in the next below section.

5. DISCLOSURE OF SUSTAINABILITY REPORTING AS PER GLOBAL REPORTING GUIDELINES

5.1. Coal India Ltd. (CIL)

Sustainability reporting disclosure pattern of coal India is given in the table 4.1. It can be observed that there has been maximum disclosure of information on financial indicators followed by environmental indicators and then social indicators. Total disclosure of sentences are 141 out of which it observed that 44.69% of information are narrative in nature, 39.72% are qualitative in nature and only 15.61% are financial in nature. It also observed that disclosure of information are partial in nature i.e information is not completely as per the GRI indicators which may considered for quality improvement of the disclosure. Moreover complete silence on the negative information indicates that sustainability reporting practices by Coal India is not transparent in nature. There are certain indicators which are based on mining industry only as per global reporting guidelines and out of nine indicator CIL showed only one indicator information.

Table 3
Sustainability Reporting Disclosure As Per Gri Guidelines (Coal India Ltd)

Indicators as per Global Reporting Initiatives	Coal India Ltd (Cil)												Form of Disclosure			Types of News			Theme Wise Disclosure		
	Volume of Disclosure						Sustainability Report						Narrative	Qualitative	Financial	Positive	Neutral	Negative			
	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13								Web-sites	
Environmental performance indicators																					
EN1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
EN2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN3	0	0	1	1	1	0	0	0	0	1	1	0	0	0	5	0	1	0	0	0	5
EN4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN10	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	2
EN11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN12	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	2
MM1	0	0	1	0	7	0	0	0	0	0	0	0	0	5	3	0	8	0	0	0	8
EN13	0	0	1	2	0	0	0	0	0	0	0	0	3	15	4	0	19	0	0	0	3
EN14	0	0	3	4	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
MM2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN18	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	4	0	0	0	4
EN19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

contd. table 3

5.2. Bharat Cooking Coal Limited (BCCL)

Sustainability reporting disclosure is given in Table 4.2. which reveals that a total of one hundreds twenty two (122) sentences are reported out of which 32.79% are narrative, 40.99% are qualitative and only 10.65% financial in nature. Also, out of total volume of disclosure maximum information are observed from social performance indicators followed by environmental and economic indicators. However, it is good to find that BCCL disclose 14 negative sentences. It showed that BCCL is having transparency in their account towards stakeholders.

5.3. Eastern Coalfield Limited (ECL)

Total volume of sustainability reporting disclosure as per GRI guidelines is given in table 4.3. Total volume of disclosure of ECL is 225 sentences. Out of which maximum disclosure is reveal on social performance indicators i.e. 155 number of sentences followed by environmental (56) and economic indicator (14). Most of the information is narrative in nature. However, maximum disclosure is positive in nature followed by the neutral and negative.

6. CONSOLIDATED SUBSIDIARIES WISE DISCLOSURE

Table 6 presents the computed sustainability disclosure pattern in a consolidated form. It can be observed that ECL is disclosing maximum sustainability information, with a total volume of two hundred and twenty five (225) sentences and followed by coal India ltd with one hundred and forty one (141) sentences. It can be clearly seen that volume of disclosure in BCCL is very poor.

In terms of 'form of disclosure', majority of total disclosure is a combination of narrative and qualitative information. More than 60% of the total sustainability information is in narrative form. Out of three, Coal India Ltd reveal maximum amount of financial information with thirty five (35) sentences. Although Coal India limited occupies second position in term of disclosure. With the regard to 'type of news', the sustainability information disclosed by all sample is in positive in nature. BCCL is showing all information in positive nature that showed still there is no transparency in the account of BCCL reports. Interestingly, few neutral and negative types of disclosure found in ECL. On the other hand, BCCL and CIL are not disclosing any information in negative form.

7. RESULT AND FINDINGS

The disclosure of sustainability reporting information is analyzed for the sample subsidiaries and Coal India Limited by studying their annual reports, sustainable development reports and websites. It found that information related to sustainability reporting as per GRI guidelines indicators scattered in various part

Indicators as per Global Reporting Initiative	Bharat Coking Coal Limited (BCCL)																	Theme Disclosure
	Volume of Disclosure									Form of Disclosure					Types of News			
	Annual Reports			Sustainability Report			Web-sites			Narrative	Qualitative	Financial	Positive	Neutral	Negative	0	0	
2007-08	2008-09	2009-10	2010-11	2011-12	2007-08	2008-09	2009-10	2010-11	2011-12									2009-10
HIR6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HIR7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HIR8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HIR9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Economics Performance Indicators	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

contd. table 4

Table 5
Sustainability Reporting Disclosure as Per GRI Guidelines (Eastern Coal Limited)

Eastern Coalfields Limited (Ecl)		Types of News	
Indicators As Per Gri (Global Reporting Initiative) Guidelines	Volume of Disclosure	Form of Disclosure	Types of News
	Annual Reports		Theme wise disclosure
	2007-08	2008-09	
	Sustainability Reporting as per GRI		Theme wise disclosure
	2008-09	2009-10	
	Web-sites		Theme wise disclosure
	2008-09	2009-10	
	Narrative		Theme wise disclosure
	2008-09	2009-10	
	Qualitative		Theme wise disclosure
	2008-09	2009-10	
	Financial		Theme wise disclosure
	2008-09	2009-10	
	Positive		Theme wise disclosure
	2008-09	2009-10	
	Negative		Theme wise disclosure
	2008-09	2009-10	
	2010-11		Theme wise disclosure
	2010-11	2011-12	
	2011-12		Theme wise disclosure
	2011-12	2012-13	
Environmental Performance Indicators			
EN1	0	0	0
EN2	0	0	0
EN3	0	0	0
EN4	1	1	4
EN5	0	0	0
EN6	0	0	0
EN7	0	0	0
EN8	0	0	0
EN9	0	0	0
EN10	0	0	0
EN11	0	0	0
EN12	0	0	0
MM1	0	0	0
EN13	0	0	0
EN14	0	0	0
MM2	0	0	0
EN15	0	0	0
EN16	0	0	0
EN17	0	0	0
EN18	0	0	0
EN19	0	0	0
EN20	0	0	0

contd. table 5

Eastern Coalfields Limited (Ecl)																	
Indicators As Per Gri (Global Reporting Initiative) Guidelines	Volume of Disclosure					Sustainability Reporting as per GRI					Form of Disclosure			Types of News			
	2007-08	2008-09	2009-10	2010-11	2011-12	2007-08	2008-09	2009-10	2010-11	2011-12	Web-sites	Narrative	Qualitative	Financial	Post-Neutral	Negative	Theme wise disclosure
EN21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN22	0	0	3	0	0	0	0	0	0	0	0	0	3	3	0	0	3
MM3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EN30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Social																	
Performance																	
Indicators																	
LA1	1	1	1	1	1	0	0	0	0	0	0	0	5	0	0	0	0
LA2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LA3	0	0	4	5	7	0	0	0	0	0	10	5	17	4	26	0	26
LA4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LA5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM4	1	1	1	1	0	0	0	0	0	0	0	0	4	0	1	3	4
LA6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LA7	1	1	2	1	1	0	0	0	0	0	0	0	6	0	2	4	6
LA8	1	1	1	1	2	0	0	0	0	0	3	2	7	0	0	9	9
LA9	0	5	8	0	11	0	0	0	0	0	24	0	0	10	14	0	24
LA10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LA11	0	0	0	0	3	0	0	0	0	0	3	0	0	3	0	0	3
LA12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

contd. table 5

Eastern Coalfields Limited (Ecl)																		
Indicators As Per Gri (Global Reporting Initiative) Guidelines	Volume of Disclosure					Sustainability Reporting as per Gri					Form of Disclosure			Types of News				
	2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	2007- 08	2008- 09	2009- 10	2010- 11	2011- 12	Web- sites	Narra- tive	Quali- tative	Finan- cial	Posi- tive	Neutral	Nega- tive	Theme wise disc- losure
LA13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LA14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR7	0	0	7	0	0	0	0	0	0	0	0	7	0	0	7	0	0	7
HR8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HR9	1	1	2	2	2	0	0	0	0	0	0	0	8	0	4	0	4	8
SO1	14	16	10	7	8	0	0	0	0	0	0	4	5	0	14	31	0	55
MM6	0	8	0	0	0	0	0	0	0	0	0	5	0	3	0	0	8	8
MM7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MM9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SO8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

contd. table 5

Table 6
Consolidated Sustainability Reporting Disclosure

Consolidated Sustainability Reporting Disclosure as per Global Reporting Initiatives (Gri)

<i>Name of the Subsidiaries</i>	<i>Volume of Disclosure</i>	<i>Narrative</i>	<i>Qualitative</i>	<i>Financial</i>	<i>Positive</i>	<i>Negative</i>	<i>Neutral</i>
Coal India Ltd	141	(66) 46.81%	(55) 39.716%	(35) 15.61%	(137) 94.33%	(0) 0%	(0) 0%
Bharat Coking Coal Limited (BCCL)	122	(40) 32.79%	(50) 40.99%	(13) 72.96%	(89) 72.95%	(0) 0%	(14) 11.48%
Eastern Coalfields Limited (ECL)	225	(95) 42.2%	(62) 27.56%	(22) 10%	(138) 61.3%	(65) 28.9%	(12) 5.3%

of the annual reports, sustainability reports and websites. After analyzing past five year data it revealed that no sustainable development report is published by sample subsidiaries. The trend of sustainability reporting is comes in to picture in the last years i.e. 2011-2012 that showed sustainability reporting is very nascent stage in the Indian mining sector.

The sustainability reporting disclosure is analyzed both industry-wise and theme -wise under three broad categories, namely 'volume of disclosure', and 'type of news'. An important finding emerge that none of the sample subsidiaries reveal information on gas emission. Moreover, information which provide on sustainability reporting is partial in nature as per GRI guidelines.

However, disclosure in narrative and qualitative form should be quantified as narrative comments shall not adequately reflect the contribution towards the sustainability. The awareness of GRI framework is not reflected in the disclose information and because of that the information is partial in nature.

8. CONCLUSION

Till now sustainability reporting is not a mandatory requirement in India. The GRI (global reporting initiative) can be used as a basis for disclosing sustainability reporting by the companies. This study is attempted to show whether GRI guideline is used for disclosing non-financial performance of the organization. From the above research it is concluded that sustainability reporting practices as per GRI is still in nascent stage. From content analysis techniques it revealed that Coal India Ltd is still not disclosing full information on their non-financial performances to their stakeholders. In general, mining activity create disruption in social life and environmental life.

The study also implies that acceptance of global Reporting Initiative guidelines will help the corporations both as a useful sustainability reporting tool, and as a

mean to provide stakeholders with credible information about their sustainability reporting performances. The study covers only two subsidiaries which are in Jharkhand with Coal India Ltd. The samples size can be further increased to incorporate other subsidiaries of Coal India Ltd. However extension of this paper gives rise to enough for further research.

References

- Adams, W. M. (2009), "Green Development 3rd edition, Environment and Sustainability in a Developing World", London and New York: Routledge.
- Berelson B. (1971), "Content Analysis in Communication Research", in Guthrie J. and Parker L. (Eds.), *Corporate Social Disclosure Practices: A Comparative International Analysis*, *Advances in Public Interest Accounting*, Vol.3, No.2, pp. 159-175.
- Carney, T. (1972), "Content Analysis : A Technique for Systematic Interence from Communications", University of Manitoba Press, Canada, pp. 342.
- Burritt, R. L. (1997), " Environmental Disclosure in Annual Reports of Australian Gold and Copper Mining Companies with Activities in Papua New Guinea and/or Indonesia", RMAP working paper, October. No. 13, pp. 1-28.
- C. Strohm, and K. M. Swartz (2007), "An Examination of Worldwide Assured Sustainability Reporting.", *Australian Accounting Review*, Vol. 17 Issue 2, pp. 67-77.
- Fet, A. M., and O. Michelsen (2003), 'Industrial Ecology Study and Research Program at Norwegian University of Science and Technology', *Clean Technologies and Environmental Policy*, Vol. 5, No. 2. pp. 95-100.
- GRI, Sustainability Reporting Guidelines (2009), Retrieved from www.globalreporting.org, Accessed on August 2012.
- Limpitlaw, D. (2004), "Mine Closure as a Framework for Sustainable Development," School of Mining Engineering, University of the Witwatersrand, Johannesburg, March.
- Sheldon, C. G., J. E. Strongman and M. Weber-Fahr, "It's Not Over When It's Over: Mine Closure around the World," World Bank and International Finance Corporation, 2002, Washington, D.C.
- Stewart, M. and J.G. Petrie. (2000), "Planning for Waste Management and Disposal in Minerals. Processing - A Life Cycle Perspective," in Alyson Warhurst and Ligia Noronha (Eds.) *Environmental Policy in Mining: Corporate Strategy and Planning for Closure*, Lewis Publishers, London, UK, pp. 145-174.
- IUCN. (1980). *The World Conservation Strategy*. Geneva. Johansen, K. E., & Vetlesen, A. J. (2000), *Innføring i etikk* ([Rev. utg.] ed.). Oslo:Universitetsforl.
- Warhurst, A. and Noronha, L, *Integrated Environmental Management through Planning for Closure from the outset: The challenges*, *Environmental Policy in Mining: Corporate Strategy and Planning for Closure*, 2000, Lewis Publishers, London, UK.
- Warhurst, A., *Mining, Mineral Processing and Extractive Metallurgy: An Overview of the Technologies and their impact on the Physical Environment*, Alyson Warhurst and Ligia

Noronha (Eds.) *Environmental Policy in Mining: Corporate Strategy and Planning for Closure*, 2000, Lewis Publishers, London, UK.

WBCSD (2002), 'Sustainable Development Reporting: Striking the Balance', Retrieved from http://www.wbcsd.ch/DocRoot/GGFpsq8dGngT5K56sAur/20030106_sdreport.pdf, Accessed on September 2012.

