

The Environmental Management of Multinational Corporations in India

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Abstract. Post the trade liberalization in India in 1991; it witnessed growth in the multinational corporation activity, giving rise to tremendous economic development of the country. The fact that MNCs possess clean technologies that can enhance the overall work output and hence the profit for a country, yet they put a doubt on whether their technology is safe to maintain the environmental sustainability of the host developing countries. The Environmental Conduct of the MNCs is indeed very controversial. This paper reviews the environmental analysis of a few MNCs in India and explores the positive influences leading to higher environmental standards, along with the barriers or negative influences. It introduces to new mechanisms, systems and practices across the environmental management of MNCs. It ponders over the question of whether the MNCs are an asset for the environmental sustainability or not.

Keywords: Environmental Management, MNCs, Trade Liberalization, India.

1. Introduction

Multinational corporations are large companies which help increase the investment level and thereby the income and employment. They build up factories, offices, buildings, warehouses, etc. in the developing countries as a form of subsidiary investment. [1] However it has been argued that the MNCs deceive the developing country by involving in labor exploitation and environmentally destructive activities.

The last few decades of the twentieth century have witnessed a growing awareness of environmental effects of production processes, product performances and business practices. Managing environmental responsibilities has become an integral part of doing business in the global economy. [2]

India has had a rapid and remarkable economic growth in last several years. Where this economic growth has taken out millions out of poverty, it has also caused immense degradation in the environment quality. Hence, there is an immediate requirement to put in place a system that enhances the environmental performance from the organizations that hamper this sustainability. Corporations have adopted Environmental Management System (EMS) based on ISO 14001 that requires informed consensus on environmental management objectives and policies that are based on a good understanding of the shared roles and responsibilities of all players, including the regulator, the regulated community (developers and polluters) and the affected community (general public). [3] To prevent the unfavorable effect on environment, a number of laws have been enacted but their enforcement is poor. There has been a trend towards environment management and increased disclosure in annual reports of the MNCs, but meaningful disclosure has not been achieved yet.

According to the National Environmental (Protection) Rules of 1986, each polluting facility must submit an Environmental Statement at the end of each financial year. [4] Even though periodic attempts to legislate such norms have not ended in a successful endeavor, it is quite encouraging to note that companies are voluntarily adopting Environmental Disclosure Practices by disclosing environmental information through their annual reports. [5]

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2. The Case Of Ganges

Fig. 1, The Ganga (Ganges) River rises on the southern slopes of the Himalayan ranges from the Gangotri glacier at 4000 m above mean sea level. [6]

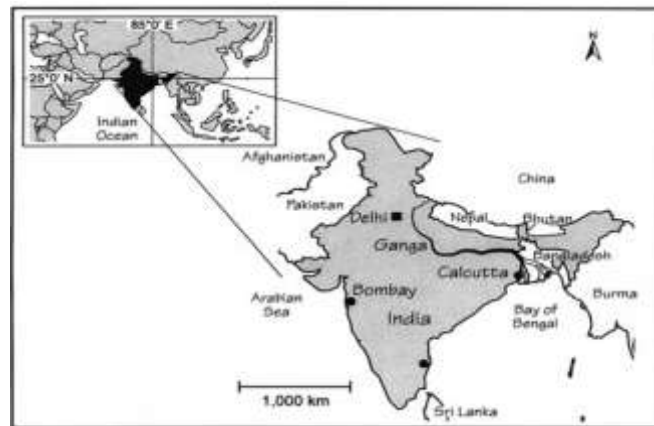


Fig.1 : The Ganges

Recently, due to rapid progress in commerce and communications, there has been an increase in the settlements along the river. As a result, it no longer gives in to its use as a source of water but is also used by the various industries that have emerged along the River Ganga. It is used as a dumping ground to channelize the transportation of urban wastes away from the cities. Due to such pollution, the natural assimilative capacity of the river is severely affected. It has been assessed that more than 80 per cent of the total pollution load (in terms of organic pollution expressed as biochemical oxygen demand (BOD)) arises from the industrial and domestic sources.

Industrial Waste - 68 out of 100 industries that were found on the main river were considered to be extremely polluting and were discharging huge quantities of waste water into the river. Under the Water (Prevention and Control of Pollution) Act 1974 and Environment (Protection) Act 1986, 55 industrial units out of the total of 68 had installed effluent treatment plants. In addition, two others have treatment plants under construction and currently one unit does not have a treatment plant. [6]

Attainable Objectives - The broad aim of the Ganga Action Plan (GAP) was to reduce pollution and to clean the river and to restore water quality to at least to Class B (i.e. bathing quality: 3 mg l⁻¹ BOD and 5 mg l⁻¹ dissolved oxygen). The multi-pronged objectives were to improve the water quality, as an immediate short term measure, by controlling municipal and industrial wastes. The long-term objectives were to improve the environmental conditions along the river by suitably reducing all the polluting influences at source.

Right from its inception in 1986, the GAP started a very comprehensive water quality monitoring Program by obtaining data from 27 monitoring stations. Since then, there has been a considerable improvement in the quality of water. This project is a successful example of an intelligent action taken at the governmental level.

The above case indicates the complacent nature of the Multinational Corporations in keeping the production processes environment friendly. Although, timely action did lead to a better situation but this incident would always call for a better environment management system.

3. The PepsiCo Case Study

PepsiCo, Inc. is an American Fortune 500 company headquartered in New York. PepsiCo owns five different food and beverage brands: Frito-Lay, Quaker, Pepsi-Cola, Tropicana and Gatorade. This paper narrows its evaluation to environmental management of PepsiCo's beverage products in India. The company's beverage portfolio in India consists of carbonated and non-carbonated drinks and packaged mineral water.

3.1 Environmental Issues at PepsiCo and the Indian Regulatory Environment

PepsiCo India faces two environmental issues - the quality and quantity of water extracted for its beverages. The challenge faced by the company is the amount of plastic use and waste generated in bottling and packaging of its products.

Industrial Water Use - According to Indra Nooyi, CEO of PepsiCo Inc., “soft-drinks and bottle water account for only 0.04% of the total industrial water usage in India”.(PepsiCo, 2009) It has been alleged that the company practices ‘water piracy’ that has resulted in scarcity of drinking water for the residents of Kerala, India. [7] In 2003, a study led by the Center for Science and the Environment (CSE), an environmental NGO in New Delhi, nationally released reports confirming that soft drinks of Pepsi and Coca-Cola contained pesticides. The samples were found to be 24 times above the general standards finalized by the Bureau of Indian Standards. [8]

Industrial Plastic Waste Management - PepsiCo has been criticized over its alleged contamination of the country’s environment through the dumping of plastic waste by bottling their drinks. In 1992, upon investigations it was found that out of the 10,000 metric tons of plastic waste generated; only 60 to 70 percent could be processed. The remaining 3,000 to 4,000 metric tons of plastic garbage was not recyclable. As a result, PepsiCo launched its new Eco-Fina bottle that used 50% less plastic than its traditional bottles. [9]

3.2 Changes in the Environmental Management of PepsiCo, India

This section uses the framework described at the beginning of this paper to describe the changes made in the environmental management of PepsiCo India. This section describes the new strategies or policies that it has adopted. This dimension also reveals the underlying environmental strategy followed by the company: its central objectives, source of strategy, and the extent to which the strategy is implemented.

Since 2006, PepsiCo has been working with the mantra of “Performance with Purpose.” It adopted two main programs to attain environmental sustainability: **Replenishing Water** and **Waste to Wealth**. [10]

➤ The Replenishing Water program addresses the issue of water quality and ground water depletion by introducing the concept of a positive water balance. The programs adopted under this umbrella at the community level are: In-Plant Water Recharge and Harvesting and Zero -Water Discharge. PepsiCo has associated with a scientific research organization TERI in Delhi that aims at enhancing and rejuvenating local water bodies in the states of Karnataka and Uttaranchal. This program has achieved a current recharge rate of 300 million liters of water every year. It has also partnered with Water Partners and Safe Water Network to provide safe water and sanitation.

Part of the Waste to Wealth program is directed towards reducing material waste through sustainable packaging and recycling of waste generated at its bottling plants. PepsiCo now uses “light -weighting” in its packaging which is cost-effective, generates less waste, and reduces the amount of energy and raw materials, such as plastic, that are used. In the India beverages, the carbonated soft drink crown lining has been converted to PVC (polyvinyl chloride)-free compound, removing resin and reducing cost. [11]

4. The Case of BPCL and ONGC

Bharat Petroleum Company Limited - BPCL is an integrated refining and marketing company in the petroleum industry. In 1976, the Indian Government acquired 100% equity in Burma Oil Refineries. It has the third largest retail network in the country with a market share of around 22% in petroleum products and 20% in LPG. [12]

4.1 Environmental Policy of BPCL

BPCL is totally dedicated to capture the maximum standard in health, safety environment and security performances and in quest of good governance of the same, the corporate Health Safety and Environment (HSE) put in place HSE system during 2007.

➤ Energy Refineries

BPCL has taken a good action in energy refineries. An Environment Cell has been created in HSE with a major emphasis on projects for combating Climate change. It has already given a membership of Carbon Disclosure Project and has started working on Clean Development Mechanism (CDM) related projects.

➤ Green Refineries

- ✓ To produce clean automotive fuels by Upgrading Refinery.
- ✓ To manufacture environment friendly (ultra-low sulphur, long life), lube oils.
- ✓ Use of new technology & modern instrumentation.

TABLE I: Environmental Indicators of BPCL

Indicators	2007-2008	2008-2009	2009-2010
Green House Gas Emission	4,66935 thousand ton	4,676.19 thousand ton	4,337.15 thousand ton
Direct Energy Consumption at Marketing SBUs	20.86 million giga joules	30.5 million giga joules	19.33 million giga joules
Indirect Energy Consumption at Marketing SBUs	127.25 million giga joules	87.66 million giga joules	363.7 million giga joules
Water Withdrawal /reused (refineries)	3.24 million	3.20 million	3.28 million

Source: [http:// www. bharat petroleum .com](http://www.bharatpetroleum.com)

4.2 OIL & NATURAL GAS COMPANY LIMITED

Oil and Natural Gas Corporation Limited (ONGC) is an Indian state-owned oil and gas company headquartered in Dehradun, the capital of Uttaranchal. It is a Fortune Global 500 company ranked 413, and contributes 77% of India's crude oil production and 81% of India's natural gas production. ONGC is currently engaged in exploration and production activities. [12]

ONGC Environmental Policy

ONGC has worked for the environmental initiative by launching an Environmental Management System based on ISO 14001 which is further incorporated with Quality, Occupational Health and Safety management System (QHSEMS) for having holistic approach towards HSE issues of the company.

- 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.

TABLE II: Environment Performance Indicators of ONGC

Indicators	2007-2008	2008-2009	2009-2010
Green House gas Emission	7.78 million ton	8.13 million	8.25 million
Direct energy Consumption	94248 (terra joule)	97130 (terra joul)	104858 (terra joul)
Indirect Energy Consumption	307048 (MWH)	272133 (MWH)	305595 (MWH)
Fresh water usage in onshore location	30.72 (Billion liters)	31.27 (billion litre)	28.47 (billion litre)

Source: <http://www.ONGC.in>

4.3. Analysis & Findings

➤ Analysis of Green Gas Emission

As far as BPCL is concerned, its Green House Gas Emission was extremely high and volatile in 2008-2009 as compared to other consequent years.

And ONGC's exposure regarding GHG Emission was continuously increasing in three consequent years and was extremely high in 2009-2010.

➤ Analysis of Direct Energy Consumption and Indirect Energy Consumption

As far as BPCL is concerned its direct energy consumption is also extremely volatile for the same duration of three years. It was extremely high in 2008-2009 and extremely low in 2009-2010. So there was a high degree of volatility in the respect of energy consumption. Its indirect energy consumption is also extremely volatile.

As far as direct energy consumption of ONGC is concerned it was continuously increasing in a three consequent years. But on the contrary its indirect energy consumption was continuously volatile in three consequent years and it was extremely high in 2007-2008, and extremely low in 2008-2009.

➤ Analysis of Fresh water use and Recycling & Reuse of water

In respect of water consumption, BPCL uses the water which is already used. But the ONGC continuously uses the fresh water. In this way BPCL is saving the environment sources by recycling the reused water while ONGC does continuous utilization of fresh water.

➤ Analysis of Environmental Policy of Sample Units

As far as the environmental policy of both the sample unit is concerned, we can easily conclude that environmental policy of both the companies is effective, efficient and vibrant. Both companies are putting their full efforts for securing the environment, so the comparison cannot be made between both sample units. The only comparison is that BPCL is saving the environment in respect to the water consumption and greenhouse gas emission but ONGC is saving it in a low manner as compared to the BPCL.

The findings of the study show that BPCL & ONGC are totally concerned about the major issues of environment that directly hamper the environmental performance and they totally agree that they must do their duty by giving environment disclosures. But the reports lack quantitative information about environmental costs and expenditures. Hence, there should be proper accounting from the regulatory authorities & the information related to the environmental expenditure.

4.4 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 determines environmental related costs, liabilities and expenditure and the company should be asked to submit the whole information regarding environmental issues & if the company does not provide the required information; a strict action must be taken by the regulatory body against the company.

5. Conclusion

Rising environmental consciousness has generated the need to account for the various interactions between all sectors of the economy and the environment. Many multinational companies that are setting up in India are creating a sort of precedent by taking environmental issues seriously. There is an uptick in the activism of Non-Governmental Organizations (NGOs). In some cases, NGOs have taken up major causes on behalf of poorer stakeholders, putting some large infrastructure and manufacturing projects on hold. Furthermore, environmental regulations are being enforced more stringently than earlier, and an overall "environmental awareness" has begun. These factors combined with increasing globalization have caused Indian companies to take both environmental requirements and best practices seriously.

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