

Rising Need for Environment Sustainable Responsibility by the Firms

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Abstract: The need for environmental sustainable responsibility by firms has risen on an altogether new level as the year 2011 ended with the largest ever jump in greenhouse gas (GHG) emissions. The bitter truth is that the carbon intensity of the world's fastest growing economies is only rising despite futile efforts of UN climate talks. It is imperative for an organization to work collectively towards reorganizing the world's systems of energy and agricultural production by optimizing its capabilities, assets and even by flexing its political muscle to directly influence inadequate policies. Practically this is rare as companies tend to "greenwash" their image by misrepresentation of facts to popularity & profits. On the other hand companies such as Google & IBM have been genuinely effective in playing their part in environment sustainability.

Keywords: Environment Sustainability Responsibility, Amount of Damage, E-Waste, Mining, Green house Emissions, Responsible Corporates.

I. INTRODUCTION

Environmental sustainable responsibility means that the corporates make decisions and take action that are in the interests of protecting the natural environment. This field is gaining a lot of importance as we are nearing to an end of the natural resources which we use to generate power like, coal, natural gas etc.

Corporates potentially cause land pollution, air pollution, water pollution mainly. Some of the common environmental concerns include:

- Dumping e-waste in landfills,
- Draining their factory waste in waterbodies such as rivers, seas etc. and polluting them,
- Damaging rainforests and woodlands through logging and agricultural clearing,
- Over-fishing of oceans, rivers and lakes,
- Polluting the atmosphere through transportation which requires diesel consuming vehicles, and the burning of fossil fuels,
- Damaging prime agricultural and cultivated land through the use of unsustainable farming practices.

One can see nowadays that new scientific concepts are coming into play like Life cycle assessment (LCA) which is a method to assess environmental impact of a product, process, or a service. It requires sound data, and critical analysis of all the stages of a product production, from acquisition of raw materials to its end. The environmental impact can be calculated with the help of this technique. It is really important that the corporates use such techniques and combine them at the strategy formation and objective setting level.

In 2010, the combustion of fossil fuels and the production of cement sent more than nine billion tons of carbon into the atmosphere, the new analysis found, with 57 percent of that coming from developing countries. China's emissions accounted for 8.33 billion tonnes.

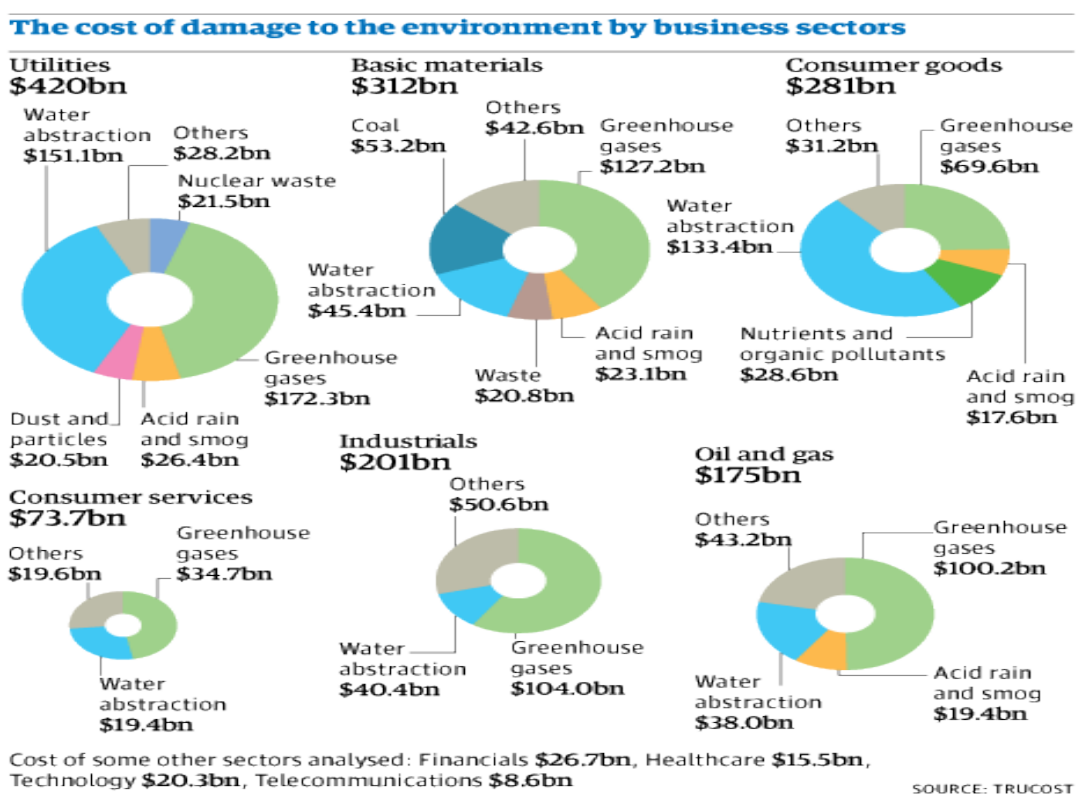
2011 was a record year for weather disasters, it had the largest-ever jump in greenhouse gas (GHG) emissions, and the carbon intensity of the world's fastest-growing economies are on the rise.

II. AMOUNT OF DAMAGE

A report conducted by London-based consultancy Trucost revealed the world's 3,000 biggest companies caused estimated combined damage to environment worth US\$2.2 trillion (£1.4tn) in 2008, this figure equates to an average of one-third of their profits.

The report comes amid growing concern that no one is made to pay for most of the use, loss and damage of the environment, which is reaching crisis proportions in the form of pollution and the rapid loss of freshwater, clean air, fisheries and fertile soils.

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The Gulf of Mexico oil spill is one of the worst company-created environmental disasters in history which led to destruction of Water and wetlands. In India, in 1984 Union Carbide pesticide plant accident, released toxic gases that killed more than 5,000 residents (activists estimate 25,000 died). An estimated 500,000 residents continue to suffer from birth defects, blindness, early menopause, and a host of other debilitating conditions. These are just two of the examples where the corporates has caused billions of dollars of damage to the environment and its habitants alike, yet nobody has asked them to pay.

III. E- WASTE CRISIS

The ever-growing demand for the latest fashionable cell phone, flat screen TV or super-fast computer creates ever larger amounts of obsolete electronics that are often laden with toxic chemicals like lead, mercury and brominated flame retardants.

In the yards, unprotected workers, many of them children, dismantle computers and TVs with little more than stones in search of metals that can be sold. The remaining plastic, cables and casing is either burnt or simply dumped. Generally a

computer consists of ferrous metal, plastic, lead, cadmium, mercury, glass, palladium, etc. which are all toxins. When these electronics are discarded and incarcerated, the toxins are released and harm the environment.

Containers filled with old and often broken computers, monitors and TVs - from brands including Philips, Sony, Microsoft, Nokia, Dell, Canon and Siemens - arrive in Ghana from Europe and the United States under the false label of "second-hand goods" or are simply dumped. China receives 90% of the Asian recycling market; other dumping countries include India, Africa, and basically all developing nations.

The thrown away goods are either sent to a landfill, incarcerated, exported, refurbished or recycled. By any means the pollution is caused, it can be either land pollution, air pollution or water pollution.

In 2005 an estimated 5.3 billion pounds of electronic waste was generated (EPA, 2005). Of this, only 9% was recycled (Yadong et al., 2006). When computers end up in landfills it is possible that the toxic metal can leach into groundwater. The EPA developed the Toxicity Characteristic Leaching Procedure (TCLP) to simulate a scenario in which toxic materials leach out into landfills. (Schmidt 2003, Jang & Townsend 2003) These tests show that lead and other toxic metals in e-waste do leach. This is an environmental hazard that cannot be ignored; however, alternative end-of-life options are yet to produce a solution.

IV. IMPACT OF MINING COMPANIES

Mining includes extraction of non-renewable resources from the earth's crust for use in different industries. Mining activity creates a lot of environmental problems in long run. The companies which indulge in mining are not concerned about the implications which it will have on the environment. The environmental impact of mining includes erosion, loss of biodiversity, and contamination of soil, groundwater, surface water by chemicals. The companies resort to illegal means when a government or any NGO intervenes.

Bellary in Karnataka is a region rich in iron -ore, when the Chinese demand for iron -ore grew, the Obulapuram mining company resorted to illegal mining. According to the Lok Ayukta Report, there have been severe ecological changes due to illegal mining. Certain species of animals, like the sloth bear, that in the Bellary region have disappeared. Medicinal plants from the area do not grow any more. The entire system of rain has changed in the district of Bellary. It is reported that the entire area surrounding the mining area is stripped of greenery and has no agricultural activity.

Another case in Colombo is of Coltan mining. Coltan is the name for Colombo-tantalite mined in Africa. It is a crucial raw material for the production of modern electronics. When refined, the ore becomes tantalum, which is particularly well-suited for use in electric capacitors, because of its ability to hold high electric charges. (Burge & Hayes, 2002) Coltan is used in cellular phones, computers, jet engines, missiles, ships, and weapons systems. (Montague, 2002) Without coltan the digital age economy would slog to a halt.

The extraction of coltan is a process that heavily influences the surrounding environment. Coltan is found in high concentration within the boundaries of Kahuzi Biega National Park, home of a rich tropical forest ecosystem. The strain put on wildlife by over-hunting was compounded by habitat loss due to deforestation. Forests were cleared to set up mines and camps. Just as severe as the initial deforestation was the sustained exploitation of wood for fuel.

Acid mine drainage (AMD) is a potentially severe pollution hazard that can contaminate surrounding soil, groundwater, and surface water. The formation of acid mine drainage is a function of the geology, hydrology, and mining technology employed at a mine site. The primary sources for acid generation are sulphide minerals, such as pyrite (iron sulphide), which decompose in air and water. Many of these sulphide minerals originate from waste rock removed from the mine or from tailings. If water infiltrates pyrite-laden rock in the presence of air, it can become acidified, often at a pH level of two or three. This increased acidity in the water can destroy living organisms, and corrode culverts, piers, boat hulls, pumps, and other metal equipment in contact with the acid waters and render the water unacceptable for drinking or recreational use.

According to a study commissioned by the European Union: "Because of the large area of land disturbed by mining operations and the large quantities of earthen materials exposed at sites, erosion can be a major concern at hard rock mining sites. Consequently, erosion control must be considered from the beginning of operations through completion of

reclamation. Erosion may cause significant loading of sediments (and any entrained chemical pollutants) to nearby waterbodies, especially during severe storm events and high snow melt periods”.

Thus we can see how the mining process impacts the environment. In a nut shell, the mining causes: erosion of soil, destruction of habitat, deforestation, noise pollution, water contamination due to leaching of toxins, air pollution due to emission of particulate matter etc.

V. SUSTAINABLE COMPANIES

Corporates are now becoming very image conscious and know that they cannot afford to ignore environmental consequences of their businesses. As the consumers are getting smarter and the laws getting stricter, they are implementing environmentally sustainable practices and green supply chain management to eliminate waste and generate cost savings. In addition, with many consumers committed to “going green,” eco-friendly businesses often benefit from favourable public opinion and greater customer loyalty.

Some of the corporate policies and practices have undergone rigorous analysis, using metrics regarding their environmentally preferable products, services and practices, such as their materials, waste, water and energy inputs/outputs and the environmental impact of their offices, plants, land, suppliers and transportation. They now know that to be able to generate long term profits, they would have to be accountable for the kind of practices they follow and how they can contribute to make environment sustainable.

Some of the examples of corporates implementing green practices are:

1) Google:

Google known for its fastest search engine is also leading the way to a greener future with its environmental sustainability and green supply chain management practices. Through initiatives such as powering its facilities with renewable energy sources like solar energy, bringing in goats to trim the grass, and hosting farmer’s markets and sustainable-cooking seminars, Google has established an environmentally aware corporate culture and solidified its reputation as one of the world’s most forward-thinking companies.

2) Nike:

This footwear giant does more for the environment than encourage people to walk; its headquarters in the Netherlands use recycled aluminium frames and underground energy storage. It also enforces strict emission standards at all of its factories, and has been able to reduce its overall carbon footprint by approximately 80% since the late 90s.

3) Ford:

Ford’s philosophy is that sustainability issues should be integrated into the business. The automaker now offers seven electrified models. Six are hybrids. The seventh, the Focus Electric, is a pure battery electric car.

4) IBM:

IBM in 2012 received the European Union Code of Conduct for Data Centres Award, recognition for their long term efforts. In fact, they have been one of the first eco-friendly companies back in a time when the concept of climate change was something too vague to be concerned about. Additionally their Smarter Planet Initiative has successfully engaged consumer to get involved and lead a greener and more sustainable life. Education and innovation within the digital and social media space is their key to success.

These are just some of the examples of Multinational corporations trying to work sustainably, as they now know they play a major role in the sustainable development of the environment.

VI. CONCLUSION

The corporates who in yesteryears only worked for the profit and took natural resources for granted, now realise the crucial role they play in the maintenance or degradation of the environment. There is rapid increase in the need for environment sustainable responsibility by the firms who operate in the world. The ways in which they operate, the products they produce, the process used, everything has an impact on the environment. Some firms even if they realize

this need , turn a blind eye towards it, as generally it involves a lot of cost to follow these sustainable measures. It is now high time that all the firms whether big or small, do their bit to save the environment.

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