

A Study of CSR and Environment Management in Indian Industries

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Abstract— Environment management is one of the leading concerns of good governance as it paves way to good health that leads to more capability resulting into more output and improved quality of life. Thus, a study on ecology management especially through CSR becomes more important in a developing country like India which still lacks basic facilities to all its citizens and where a large chunk of population lives in rural areas having poor civic and hygiene conditions. In this regard corporates are expected to contribute a lot. The present research paper has been an attempt to gauge CSR and environment management. The present study has been carried out with objective to analyse the initiatives and contributions of corporates under social responsibility to protect and conserve environment. The data has been collected from printed literature, websites and opinion survey on 200 firm's heads in HP have been undertaken.

From the findings it is concluded that the major companies in India have taken many initiatives to protect and conserve the environment such as installation of solar powered streetlights, organization of rallies to spread environment protection and preservation message, conservation of the marine and mangrove plantation, tree plantation and livelihood generation for the farmers, setting up of water treatment plants, conservation of species and habitats, using compact florescent lamps to save power, setting up of rainwater harvesting projects, organization of large scale plantation drives, organization of afforestation campaigns etc. It has been observed that the manufacturing companies practiced more corporate social responsibility activities in order to protect and conserve the environment in comparison to the service companies. The major actions of the manufacturing companies included measures to dispose off wastes and pollutants from the factories and initiatives to prevent pollution. It was also noted that large sized companies took greater initiatives to protect the environment in comparison to micro, small and medium companies in order to protect and conserve the environment. The companies need to concentrate on CSR efforts in order to make world a better place to live especially in a country having dominance of rural society characterizing limitations of resources & governance.

I. INTRODUCTION

Corporate Social Responsibility (CSR) is a company's sense of responsibility towards the community and the environment

Manuscript received August 9, 2014. (Write the date on which you submitted your paper for review.) This work was supported in part by the U.S. Department of Commerce under Grant BS123456 (sponsor and financial support acknowledgment goes here).

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in which it operates. Business world is changing rapidly. Today the corporations have grown in size and numbers all over the world with their increasing ability to mobilize productive resources and create wealth¹. Van Marrewijk, highlighted corporate responsibility as the balancing of economic, social and environmental role that companies play when conducting business. According to this model the concept of corporate social responsibility is used when referring to a corporation's social and environmental work and actions or the attitudes towards firm's engagement in these issues². Thus CSR has become a buzzword in the corporate world and doing lot of activities under this.

The key aspects in CSR now emerging are environment management, eco- efficiency, responsible sourcing, stakeholder engagement, labour standards and working conditions, employee and community relations, social equity, gender balance, human rights, good governance and anti corruption measures. Undoubtedly, environment management emerges one of the leading concerns of good governance as it paves way to good health that leads to more capability resulting into more output and improved quality of life. Thus, a study on ecology management especially through CSR becomes more important in a developing country like India which still lacks basic facilities to all its citizens and where a large chunk of population lives in rural areas having poor civic and hygiene conditions. In this regard corporates are expected to contribute a lot. The present research paper has been an attempt to gauge CSR and environment management.

II. OBJECTIVES AND METHODOLOGY

The present study has been carried out with this objective to analyse the initiatives and contributions of corporates under social responsibility to protect and conserve environment. The data has been collected from printed literature, websites and opinion survey on 200 firm's heads in HP have been undertaken.

III. CORPORATE SOCIAL RESPONSIBILITY INITIATIVES TOWARDS ENVIRONMENT PROTECTION AND CONSERVATION

The companies have installed solar powered streetlights which helped in reduction of annual carbon dioxide (major greenhouse gas) emissions³ have organized rallies to spread the message of environment protection and preservation, have organized large scale plantation drives,⁴ have worked for conservation of the marine diversity (mangrove ecosystem) through research, education/awareness building and regular

monitoring, propagation of various species of mangroves, by developing theme parks on medicinal plants and rare endemic scale. plant species⁵. The initiative by Wipro in this regard has been social forestry in Tamil Nadu which involves sustainable tree plantation and livelihood generations for the farmers of the area⁶. The initiatives have also been observed where the companies have developed an energy-efficient and environment friendly wood based crematorium, has developed stringent conservation action initiatives to prevent extinction and examining the possibility of translocation of the species to additional areas to conserve species and habitat⁷, have set up a water treatment plants, has also met stiff targets for reducing the consumption of non-renewable energies like fuel and power, which are rapidly depleting resources and major pollutants, using energy efficient lighting like compact fluorescent lamps (CFL) instead of fluorescent tube lights (FTL) saving up to 130 KW of power, has set up a rainwater-harvesting project on-site to make effective use of rainwater, has adopted green packaging policy ⁸ has undertaken the rejuvenation and reconstruction of several traditional water bodies including step wells and traditional ponds, have been instrumental in bringing together corporate, government bodies and the larger public to take collaborative action towards environmental sustainability and energy efficiency, have installed energy saving solutions at its offices, have invested in rain harvesting units and solar panels in local communities⁹ The People Matter project of Infosys aims at building a network of business experts to share experience and develop thought leadership in talent, skills and sustainability. All Infosys campuses have eco groups, comprising enthusiastic employees who pride themselves on taking charge of environmental initiatives. These initiatives range from awareness to action projects for the conservation of electricity and water, recycling of waste, reduction in emissions, and afforestation. Eco group outreach programmes also include partnerships with local communities on actions for a cleaner and greener planet. Ingersoll Rand also partnered with TERI (The Energy and Resources Institute), to participate in the Lighting a Billion Lives initiative that helps bring improved, clean and affordable lighting to remote villages in need of reliable lighting service. This programme brought solar lighting to 1,000 people providing 200 lanterns across four villages¹⁰.

On the basis of cases cited above it can be put forth that the companies have been taking initiatives for environment protection and conservation. Many companies have organized large scale plantation drives, have organized afforestation campaigns, have organized education and awareness camps to spread the message of environment protection and preservation. Some companies have also worked for propagating various species of rare endemic plant. The companies not only use energy efficient lighting like compact fluorescent lamps (CFL) but has also helped harness solar energy to energize street lights, lanterns and home lighting which helped in reduction of annual carbon dioxide (major greenhouse gas) emissions. Many companies have set up rainwater-harvesting projects on-site to make effective use of

rainwater. The companies stress on green packaging policy, celebrates World Environment Day by holding quiz competitions for students and employees, holds awareness sessions on electrical energy conservation at home and the workplace and aims at solid waste management in different states of the country.

IV. CSR & ECOLOGY MANAGEMENT IN HIMACHAL PRADESH

Ecology Management in Himachal Pradesh

During the last decade, the industrialization in the State of Himachal Pradesh has made significant progress. Till 2003-04 there were only about 30839 SSI units and about 211 large and medium units employing just 164225 people. Today the state has about 39512 (39018 small scale and 494 medium & large scale) industrial units with an investment of about Rs. 17165.54 crores and employment of about 2.76 lakh persons registered with the Department of Industries¹¹. The severe climatic conditions, topographical and geographical severities throw challenges in the process of industrialization. However, the state has been able to attract investment due to the special package of incentives announced for the state by Government of India as well as due to the continuous efforts of the Government of Himachal Pradesh, to develop quality infrastructure in all industrial areas/estates of the State with respected norms of environment protection.

For this the government would be heavily earmarking on the industries encouraging eco-friendly and environmentally sustainable industrial growth through adoption of cleaner technologies, environmental management systems and promoting public disclosure of pollution status at the unit level and cluster level. More participation of the industries is expected on skill development, entrepreneurship development, human resource development and vocational education so as to facilitate and create employment opportunities for local resource owners and stakeholder. The matter of the fact is that industrial enterprises cannot be kept aloof from undertaking corporate social responsibility activities aimed at welfare of local stakeholders and resource owners¹².

Moreover with the new Companies Act, 2013, making it mandatory for all the companies with a turnover of Rs 1,000 crore or net profit of Rs 5 crore or more to earmark 2 per cent of their net profit for the preceding three years on corporate social responsibility (CSR), the state may finally find big companies and multi-national companies (MNCs) to invest in socially useful activities and this will also help companies to connect more with the communities. With the grant of the 2003 Central industrial package various MNCs and big firms like Colgate Palmolive, Mankind, Torque, Cipla, Torrent, Indo Farm, Indorama, etc, have entered in the state. In Himachal Pradesh, many industrial units have been doing extemporary contribution in CSR especially for environment protection. A survey of about 200 firms was conducted and their opinion response has been analyzed as under and the collected data from unit heads have been analyzed with the help of mean and Standard Deviation (S.D).

V. RESULTS AND FINDINGS

The survey was conducted & presented in two parts; (I) Nature of firms & (II) Size of the firms.

(I) In order to examine the initiatives & contribution, a comparative analysis of manufacturing and services organizations with respect to corporate social responsibility and environment protection and conservation The mean difference response of the managers/entrepreneurs of manufacturing and services organizations has been tabulated and findings thereof have been discussed below.

TABLE 1.1:
MEAN DIFFERENCE WISE COMPARATIVE RESPONSE ANALYSIS OF
MANUFACTURING AND SERVICES ORGANIZATIONS WITH RESPECT TO
CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENT PROTECTION AND
CONSERVATION

Sr.No	STATEMENTS Our company:	Manufacturin g		Services		T
		M	S.D.	M	S.D	
1.	Restricts the use of polythene bags in the organization.	4.33	1.02	4.46	.83	-.591
2.	Avoids use of plastics plates and tumblers in the organization.	3.97	1.20	3.67	1.37	1.126
3.	Makes use of recycled paper in the offices.	3.55	1.30	3.38	1.38	.620
4.	Uses solar energy systems for lights and heat in the offices and passage.	2.79	1.31	2.92	1.21	-.448
5.	Encourages colleagues and friends to refrain the use of personal vehicle at least once in week.	2.45	1.19	2.67	1.27	-.807
6.	Participates in harvesting and conservation programmes.	4.07	1.23	3.17	1.37	3.319***
7.	Takes adequate measures to dispose off wastes and pollutants from the factories.	4.58	.74	2.54	1.06	11.890 **
8.	Takes proper measures to prevent pollution.	4.57	.83	2.71	1.04	9.984 **
9.	Has separate division for environment management.	4.18	1.19	2.58	.88	6.314**
10.	Have facilities for waste water treatment.	3.94	1.47	2.46	.88	4.841 **

11.	Takes initiatives for conservation of botanical gardens.	2.02	1.21	2.29	.99	-1.116
12.	Takes initiatives to save rare species such as leopard and paharimaina from extinction.	1.94	1.05	2.25	.85	-1.392
13.	Organizes training programmes to train scientists on conservation projects.	2.15	1.26	2.46	.93	-1.141
14.	Organizes afforestation campaigns and awareness programmes.	2.98	1.58	2.75	1.03	.683
15.	Works for cleaning and restoration of natural sources of water.	2.82	1.59	2.58	1.14	.699
16.	Participates in growing medicinal plants and trees.	2.40	1.39	2.17	.82	.795
17.	Has worked for beautification of parks.	2.84	1.52	2.63	1.09	.653
18.	Takes initiatives for soil conservation.	3.68	1.44	3.08	1.06	1.960
19.	Minimizes the energy consumption.	4.19	1.12	2.79	1.18	5.716 **
20.	Prevents harmful emissions to the natural environment.	4.35	.97	2.38	1.01	9.281 **
21.	Has started the watershed projects in water stressed areas.	3.72	1.35	2.54	1.10	4.106 **
22.	Takes measures to reduce the wastage of water (by using slogans, mails, display cards).	4.22	.97	3.04	1.16	5.460 **
23.	Works for development and diffusion of environment friendly technologies.	4.32	.98	2.67	1.17	7.580**
24.	Uses technology and materials that reduces greenhouse gas emissions.	4.28	1.01	2.46	1.06	8.254 **
25.	Markets products with 'eco mark' symbol.	4.28	1.03	2.29	1.30	9.004**
26.	Adopted programmes for rehabilitation (i.e. land in place of land).	2.28	1.35	2.46	.98	-.611

27	Participates in forest conservation by plantation.	4.14	1.15	2.96	1.30	4.622**	1.	Restricts the use of polythene bags in the organization.	4.67	.71	4.23	1.02	4.25	1.06	4.56	.90
28	Celebrates environment day.	4.41	.94	3.50	1.29	4.237**	2.	Avoids use of plastics plates and tumblers in the organization.	4.33	.71	3.89	1.27	3.84	1.18	4.02	1.28
29	Ensures proper utilization of natural resources.	4.46	.82	3.38	1.41	5.491**	3.	Makes use of recycled paper in the offices.	3.11	1.05	3.47	1.38	3.44	1.25	3.78	1.28
30	Promotes floriculture.	4.32	.99	3.13	1.45	5.213**	4.	Uses solar energy systems for lights and heat in the offices and passage.	2.44	1.33	2.58	1.20	2.81	1.23	3.17	1.43
31	Encourages innovative initiatives with regard to minimizing environmental impacts arising out of the use of its products/services.	4.48	.91	2.88	1.39	7.506**	5.	Encourages colleagues and friends to refrain the use of personal vehicle at least once in week.	2.33	1.58	2.47	1.19	2.54	1.14	2.44	1.25
							6.	Participates in harvesting and conservation programmes.	3.44	1.67	3.89	1.29	3.71	1.35	4.43	.98
							7.	Takes adequate measures to dispose off wastes and pollutants from the factories.	4.22	.97	4.41	.93	4.37	.98	4.22	1.21
32	Is ISO 14000 certified.	4.41	1.09	3.08	1.38	5.396**	8.	Takes proper measures to prevent pollution.	4.11	.93	4.49	.92	4.29	1.13	4.28	1.14

*p<0.01, **p<0.001, ***p<0.05, ****p<0.005

Table 1.1 examined the mean difference of responses of managers/ entrepreneurs between the manufacturing and service companies pertaining to the environment related Corporate Social Responsibility practices. The results of mean and standard deviation indicated that the manufacturing companies practiced more corporate social responsibility activities to protect and conserve the environment in comparison to the service companies. Manufacturing companies took adequate measures to dispose off wastes and pollutants from the factories (M= 4.58) and initiatives were also taken to prevent pollution (M=4.57). On the other hand the service companies also took initiatives to protect environment and restricted the use of polythene bags in the organization (M=4.46) and made use of recycled paper in the office (M=3.38). However, it can be noted that both manufacturing companies and service companies have appeared to be quite low on many certain aspects like taking initiatives for conserving of botanical gardens (M= 2.02 and 2.29) and taking initiatives to save rare species from extinction (M= 1.94 and 2.25).The findings also revealed that the mean difference between manufacturing and service companies have been found to be highly significant for most of the statements related to environment conservation and protection.

II. The firm size wise managers'/entrepreneurs' mean difference response with respect to corporate social responsibility towards environment protection has been examined and the findings have been discussed underneath:

TABLE 1.2
INDUSTRY SIZE WISE MEAN DIFFERENCE RESPONSE ANALYSIS OF CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENT PROTECTION AND CONSERVATION

Sr. No.	STATEMENTS Our company:	Micro		Small		Medium		Large	Statements	M	S.D.	M	S.D.	M	S.D.	M	S.D.
		M	S.D.	M	S.D.	M	S.D.										
								18.	Takes initiatives for environmental conservation.	2.67	1.41	3.69	1.40	3.49	1.41	3.80	1.39
								19.	Minimizes the energy	3.67	1.11	4.08	1.19	3.97	1.25	4.07	1.22

	consumption.								small and micro
20	Prevents harmful emissions to the natural environment.	3.78	1.20	4.24	.99	4.17	1.18	3.93	1.36, 1.073 respectively). It was also noted that all types of companies showed mean values above average for most of the components like restricting the use of polythene bags in organization, taking
21	Has started the watershed projects in water stressed areas.	3.33	1.11	3.47	1.37	3.75	1.36	3.57	measures to reduce the wastage of water, promoting floriculture and encouraging innovative initiatives with regard to
22	Takes measures to reduce the wastage of water (by using slogans, mails, display cards).	4.00	1.00	4.16	.98	3.87	1.22	4.22	minimizing environmental impacts arising out of the use of its products and services, taking adequate measures to dispose of
23	Works for development and diffusion of environment friendly technologies.	3.89	.93	4.22	1.07	4.06	1.16	4.11	wastes and pollutants from the factories and prevention of harmful emissions to the natural environment. It was also seen that all types of companies took least initiatives to save rare
24	Uses technology and materials that reduces greenhouse gas emissions.	3.89	.93	4.20	.99	3.95	1.35	4.02	species from extinction and organized least training programmes on conservation projects.
25	Markets products with 'eco mark' symbol.	4.00	.87	4.09	1.13	4.03	1.27	4.00	VI. OBSERVATIONS, CONCLUSIONS AND SUGGESTIONS: The major companies in India have taken many initiatives to protect and conserve the environment such as installation of solar powered streetlights, organization of rallies to spread
26	Adopted programmes for rehabilitation (i.e. land in place of land).	1.67	1.00	2.45	1.34	2.40	1.32	2.11	environment protection and preservation message, conservation of the marine and mangrove plantation, tree
27	Participates in forest conservation by plantation.	4.11	.93	3.99	1.23	3.79	1.34	4.22	plantation and livelihood generation for the farmers, setting up of water treatment plants, conservation of species and habitats,
28	Celebrates environment day.	4.22	1.09	4.28	1.09	4.17	1.07	4.48	using compact florescent lamps to save power, setting up of rainwater harvesting projects, organization of large scale
29	Ensures proper utilization of natural resources.	4.11	.93	4.34	.98	4.22	1.00	4.48	plantation drives, organization of afforestation campaigns etc. It has been observed that the manufacturing companies
30	Promotes floriculture.	4.11	1.05	4.23	1.10	4.00	1.17	4.33	practiced more corporate social responsibility activities in order to protect and conserve the environment in comparison to
31	Encourages innovative initiatives with regard to minimizing environmental impacts arising out of the use of its products/services.	4.33	1.00	4.34	1.02	4.21	1.13	4.30	the service companies. The major actions of the manufacturing companies included measures to dispose off wastes and
32	Is ISO 14000 certified.	4.44	1.01	4.19	1.26	4.14	1.26	4.44	pollutants from the factories and initiatives to prevent pollution. It was also noted that large sized companies took greater

*p<0.01, **p<0.001, ***p<0.05, ****p<0.005

Table 1.2 examined the mean difference of the responses of managers/ entrepreneurs of micro, small, medium, large sized companies pertaining to the environment related Corporate Social Responsibility practices. The results indicated that large sized companies obtained comparatively higher mean than others on majority of issues related to protection and conservation of the environment. Large sized companies showed highest mean regarding participation in harvesting and conservation programmes (M=4.43) and least mean was seen in the case of micro companies (M= 3.44). Also, large companies used solar energy systems for lights and heat in offices and passages which was again greater in comparison to medium,

Thus, it may be concluded that, business all over the world including the Indian companies are taking serious initiatives towards environment protection and conservation and realizing their stake in the society and engaging in various social and environment practices to safeguard, protect and conserve the environment. Therefore, corporate social responsibility focuses on improving and enhancing the living conditions so as to sustain the planet through contributions to the society and thus making a better world through innovation and value creation. As doing good can be good for the companies therefore, companies all over the world must concentrate on CSR efforts in order to make world a better place to live especially in a country having dominance of rural society characterizing limitations of resources & governance.

REFERENCES

[1] Post, J., Lee, P. and Sachs, S. (2002); Redefining the Corporation: Stakeholder Management and Organizational Wealth, Stanford University Press, California.)
 [2] Marrewijk, M. V. (2002); Concepts and Definitions in CSR and Corporate Sustainability, Journal of Business Ethics, Vol.44, No.2/3, pp.1-12.

- [3] <http://www.authorstream.com/Presentation/yam0078-581420-csr-of-cadbury/>
- [4] Reliance Industries Limited Sustainability Report 2011-12, <http://www.ril.com>
- [5] Verma, A. G. (2009); Corporate Social Responsibility, ieema journal, p. 18-20 <http://mangroves.godrej.com/pdf/CSR.pdf>
- [6] www.csridentity.com/india/wipro.asp
- [7] <http://www ONGC.com>
- [8] www.himalayahealthcare.com
- [9] Corporate Social Responsibility of U S Companies in India, (2013); A Compendium AMCHAM India American Chamber of Commerce in India, www.amchamindia.com
- [10] National Foundation for Corporate Governance, (2013); CSR Practices 2013 Edition, Published by Confederation of Indian Industries, Edited by One world.net One world Foundation India)
- [11] <http://himachal.nic.in/industry/indstatus.htm>
- [12] Industrial Policy, Government of Himachal Pradesh (2013). [http://103.28.141.76/indiafoodprocessing/Portals/0/Images/pdf/Himachal Pradesh/hp_draft_industrial_policy_2013.pdf](http://103.28.141.76/indiafoodprocessing/Portals/0/Images/pdf/Himachal%20Pradesh/hp_draft_industrial_policy_2013.pdf)