



Conservation as a Practice: Case Studies of Inclusive Growth from Indian Industries

KEYWORDS

Biodiversity Conservation, Industrial Social Responsibility, Local Participation, Conservation programs

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ABSTRACT *This research article is an attempt to discuss about the various issues relating to environmental and biodiversity conservation programs which are voluntarily initiated by the business houses beyond their business profits as social and environmental responsibility towards the sustainable development of the society. The paper highlights how the corporate perspectives on sustainability has changed and thus has served as the reason for taking up wildlife conservation initiatives and the major issues and challenges faced by the industry, changes being brought about in the ecosystem as a result of industry intervention and the replication potential of such initiatives in other geographies. The sensitization and outreach of industry in relation to the initiatives and encouraging localized platforms and addressing policies as well as need based interventions have also been discussed in context to Indian perspectives, as model of development. There is a pressing need to redefine the relationship between growth and conservation and thereby look forward to conservation along with growth. The basic ambience of the article thus is to point out, using model initiatives by four Indian industries from diverse sectors that are extending their agenda beyond business. These industries are involved in identifying and executing corporate partnerships with civil society organizations carrying forward corporate initiatives for integrated and inclusive development across diverse domains of biodiversity conservation.*

INTRODUCTION

Corporate Social Responsibility (CSR) is mainly present in wider systems of responsibility in which business, governmental, legal and social actors operate according to some measure of mutual responsiveness (Dobers and Halme, 2009). The industries depend on raw material from environment in any form either directly or indirectly, for various processes and activities of economic benefits. The impact of industries on the environment and social communities recently attracted a lot of attention and became a center area of concern for most of the researches. As the Indian economy grows to become the third largest in the world over the next three decades alongside huge infrastructure development, the pressure on wildlife and their habitats will also increase many folds consequentially. Such pressures are endangering several species, many of which are being pushed towards extinction. A World Bank report entitled, "Diagnostic Assessment of Selected Environmental Challenges in India" is the first- ever national level economic assessment of environmental degradation in India. The annual cost of degradation in India amounts to about Rs. 3.75 trillion (\$80 billion) equivalent to 5.7% of GDP.

Referring to the Indian context, corporate perspectives on sustainability has changed and served as the reasons for taking up major issues and challenges faced by the industry in terms of conservation initiatives and changes being brought about in the ecosystem as a result of industry intervention and the replication potential of such initiatives in other geographies, as a topic of discussion.

Due to a sudden paradigm shift in industrial processes and culture and legislation enforcement, there is a need of an approach that would catalyze long term holistic and sustainable measures which will factor in growth with

conservation. The role of industries assumes significance given the fact that industries often operate in many wild landscapes and seascapes, and sometimes their impacts cause direct degradation of wildlife habitat. The effects or impacts caused due to the industrial intervention may be direct or indirect. An industrial footprint on natural assets and biodiversity makes it an important stakeholder and there is a need to internally recognize this fact. There is a pressing need to redefine the relationship between growth and conservation and move it to conservation along with growth. At a time, when the government is exploring various options to move on to a low- carbon growth path, five Indian companies have made it to the global list of firms that have shown leadership in adopting measures to cut their climate- damaging emissions. The list has 187 companies from across the globe which illustrates that a low- carbon future does not mean low profit. The Indian companies that made it to the CDP climate performance leadership Index 2014 are Essar oil, Larsen & Tubro, Tech Mahindra, TCS and WIPRO. This article explores the way ahead and discusses the initiatives taken by the Indian corporate and their volunteer activities for mainstreaming the cause of conservation and development. The sensitization and outreach of industry in relation to their initiative in encouraging localized platforms and addressing policy as well as need based interventions in context of Indian perspectives as model of development. The examples cited here in this paper from Indian sector, demonstrates how individual action can make an impact which can mitigate some of the negative effects of development and ensures sustainable conservation.

There is a growing literature about both sustainable development and corporate social responsibility. It then explores the new roles and responsibilities of business within a new

operating paradigm that has shifted from a 'do no harm' approach to a 'demonstrate positive development benefit' imperative (Warhurst, 2001). Key elements of sustainable development, according to Bansal and Howard (1997) are:

- Connectivity embraces ecological, social and economic interdependence.
- Equity suggests fairness, within and across generations and species.
- Prudence connotes duties of care and prevention, technologically, scientifically and politically.
- Security demands safety from chronic threats and protection from harmful disruption.

By extrapolation, any form of development that fails to satisfy each of these elements could be deemed to be unsustainable. Research so far suggests there is little evidence to date that these four elements combined have been sufficiently acknowledged by business. Initiatives, and civil society organizations and industrial associations that, in turn, are promoting model codes of action have been least described in the literatures of biodiversity conservation and industrial development. This article attempts to highlight positive initiatives towards environmental sustainable development of the industries instead of economic or business development. Companies in India and across the globe are striving to reduce environmental impact and optimize energy consumption in their organizations. Organizations in India are committed to care for the environment in which they operate (Sambrani, 2013).

Objectives:

This paper deals with the exploration of industry in relation to their action towards conservation, benefits towards society and awareness among the masses from the preview of Indian scenario. The other objective of the article is to discuss approaches adopted by these industries towards integrating conservation approach with environmental education and awareness. It also highlights the industries voluntarily taking up responsibilities accepted along with the economic perspective of the business.

Research Methodology

Research is a diligent and systematic inquiry or investigation into a subject in order to discover or revise facts, theories, applications, etc. Descriptive research is under-

taken which involves extensive scanning of secondary data. In the Indian context, in order to understand the industry parlance towards the environmental sustainability measures towards inclusive growth, four different industries delivering their business in different sectors are identified. The identified industrial houses taken into consideration for describing best practices towards conservation are TATA Housing Development Company Limited (Real Estate Sector), AIRCEL India Ltd. (Telecom Sector), Godrej & Boyce Manufacturing Co. Ltd. (Manufacturing Sector), and The Hongkong and Shanghai Banking Corporation Limited (Financial and Banking Sector), India.

In understanding the details about initiatives and program taken by the particular industry, exhaustive literature survey regarding the topic and related concepts has been done. Secondary data inclusive of quantitative and qualitative data was collected from various sources, including books, research papers, magazines, and company official websites which have been used for the purpose of the study. The work relies on experiences, case studies and other literature related to environmental responsibilities as a part of their CSR activities. The annual CSR and company reports were also taken into account from the websites. For the ease of convenience and comparison only three categories specific to responsible practices were taken into account viz., environmental initiatives towards conservation, local participation and awareness and interpretation by the industries. The data from various agencies like WWF- India, Confederation of Indian Industries (CII), particular companies' panel discussions report is available from the internet or their conference/ workshop brochure or reports were taken into consideration in compiling the status.

FINDINGS

CSR not only concerns with the relationship between firms and other actors that can be studied empirically, but it also has a normative content that addresses what responsibilities corporations might have in our changing social and economic context (Dobers and Halmes, 2009). As per the methodology and the industrial sector taken into consideration, a brief summary of the initiatives by these industries, their target species focus for conservation and location of program rooting is described in **table 1** below along with the issues and action taken by these industries..

Table 1: Comparison of Industrial Initiatives towards the conservation and environmental sustainability

Indian Industrial Houses and Sustainable Biodiversity initiatives				
Sectors-	Aircel	Tata Housing Development Co. Ltd.	Godrej & Boyce Mfg. Co. Ltd.	HSBC- India
	Telecom	Real Estate	Manufacturing	Banking & Financial Services
Initiative by Industry	Wildlife Conservation Initiative	Biodiversity Conservation Initiative	Wildlife conservation	*My Ganga, My Dolphin *Gharial reintroduction
Target Species	Tiger	Red Panda; Snow Leopard; Whale Shark	Butterfly, Faunal Biodiversity, Mangrove Ecological restoration	Dolphin (<i>Delphinus sp.</i>) Gharial (<i>Gavialis gangeticus</i>)
Location in India focused for conservation practice	Dudhwa Tiger Reserve; Meghamalai Wildlife Sanctuary; Cauvery Wildlife Sanctuary; Sathyamangalam Tiger Reserve	Arunachal Pradesh; Sikkim; Ladhak	Sanjay Gandhi National Park (Mumbai), Vikhroli	Moradabad (Uttar Pradesh), Hastinapur Wildlife Sanctuary Ramganga River (UP)

<p>Issues captures and broad areas of measures and management practices covered.</p>	<p>Conflict Mitigation; Rapid Action Project; Anti-poaching; Equipping forest staff for diligent protection of forests and skill development for conservation.</p>	<p>Minimizing and mitigating Value Chain impact on environment. Bio diversity Conservation supporting river systems, wetlands and glaciers.</p>	<p>Sonabai Pirojasha Godrej Marine Ecology Centre has taken several measures to protect these mangroves as a part of environmental and social responsibility. Conservation of this marine diversity through research, education and Awareness building and regular monitoring. *The natural Mangrove habitat with associated vegetation along its edges was found to support maximum butterfly diversity, illustrating their importance for the survival of various Species and preserving the biodiversity.</p>	<p>-HSBC India partners with some of the most respected civil society organizations for its Community Investment program for nature, habitat and biodiversity conservation to support Sustainable development. -Initiatives with the stakeholders (domestic, agricultural and industrial users) to collaborate to address basin level issues Through its Ramganga for Life, Life for Ramganga campaign in Moradabad, * WWF-India envisages facilitating the sustainable management of shared freshwater resources through collaboration</p>
<p>Stakeholder</p>	<p>Wildlife Trust of India (WTI); Forest Departments, Locals</p>	<p>WWF-India; LTDC; Lachen Dzumsa Sikkim Institute of Rural Development.</p>	<p>WWF-INDIA NGOs working on Biodiversity conservation Local residents of Vikhroli.</p>	<p>NGOs; Uttar Pradesh Forest Department; WWF- INDIA</p>

Source: Data collection through various sources as described in research methodology.

The table 1 above clearly illustrates that the Indian industries has shifted its paradigm from 'do no harm' approach to a 'demonstrate positive development benefit' imperative. The analysis of the data shows that the companies now- a- days are committed to environmental excellence across its value chain, especially focusing towards the biological components and wildlife protection and mitigation of value chain impact on the environment. The analysis also clearly illustrates that these initiatives strive to rejuvenate the environment and the conservation measures have a diverse area of interest from invertebrate to vertebral fauna along with the floral component of the ecosystem in a nutshell. Apart from it the study also illustrates that the various stakeholders are also coming forward with a holistic industrial approach towards conservation like WWF- India, local stakeholders, NGOs etc.

The other domain of the industrial initiative apart from the conservation practices is their positive attitude towards the society. The local participation is an important aspect that these industries have followed in order to reap the benefits of biodiversity conservation to the societies in a long run.

Benefits carried to the society Industry Initiatives:

Aircel: The major initiatives taken by the Aircel along with the major stakeholder collaboration for the biodiversity conservation as a part of their responsibility are:

- Conflict Mitigation project in Dudhwa Tiger Reserve
- Rapid Action Project. Snare-free and Anti-poaching in

- Meghamalai Wildlife Sanctuary
- Rapid Response Units in Cauvery Wildlife Sanctuary
- Equipping forest staff in Sathyamangalam Tiger Reserve with anti-poaching kits
- Donation of equipment to the Special Tiger Protection Force (STPF) in Bandipur Tiger Reserve
- Donation of Equipment to the Forest Department in Dudhwa National Park

Ten Crore rupees raised during Telethons in 2010 and 2012 have been utilized to provide Rapid Response Units (RRU's) to equip and train Forest Departments across reserves in India to respond to any tiger emergency in and around the reserves.

An RRU has the following features:

- It will allow up to 17 forest personnel to solve the problem/conflict area in minimal time.
- It will be able to deal with tranquilizing any wild mammal that has either strayed out of the forest or is injured.
- It will allow up to six forest guards to camp in remote areas for between 3-5 days without any additional support.
- It will be able to mitigate man-animal conflict by instilling confidence among villagers residing around protected areas as well as boosting the morale of the rescue team of the forest department.
- The RRU will equip the department to control mobs at problem sites in a far more efficient manner.
- There are enough personal-safety-device on the vehi-

cle to protect the squad from injury through encounters with wild animals and people alike.

- The members of the Rapid Response Team will be able to stay connected through walkie-talkies all through the mission even if they are outside the range of the forest wireless system.
- The Rapid Response Units will strengthen the anti-poaching squads of tiger reserves.
- It will act as an emergency vehicle, which the villagers can summon in case of any wildlife-related problems.

Godrej and Boyce Mfg. Co. Ltd.

Soonabai Pirojsha Godrej Marine Ecology Centre – The Centre has taken several measures to protect these mangroves as a part of environmental and social responsibility. The main objective of the center is conservation of this marine diversity through research, education and awareness building and regular monitoring. Simultaneously, center is engaged in the propagation of various species of Mangroves, developing theme parks of medicinal plants and rare endemic plant species, palms amongst others. The infinite expanse of these mangroves considered to be along of Mumbai second only to the Sanjay Gandhi National Park Faunal Biodiversity of Godrej Mangroves.

Through the specialized root systems and other morphological adaptations, mangroves form dense forests on the shorelines, creating a secured habitat for a variety of fauna. The marine faunal biodiversity recorded here include 20 species of fishes, 15 species of crabs, 7 species of prawns and numerous molluscs. The terrestrial fauna logged so far include 206 species of birds, 33 species of reptiles, and 30 species of spiders, 12 species of mammals and over 82 different species of butterflies. The important mammalian species found here are the Jungle cat, Asiatic Jackal, Wild Boar, Indian mongoose and various species of bats. The reptilian fauna is vivid and main species are Cobra, Krait, Russell's viper, Rat snake, Rock python, Indian monitor lizard, Dog-faced water snake, Wart snake, *Ambystoma* sp., amphibians, Garden lizard etc. Major bird species of the area are White bellied sea eagle, Greater flamingo, lesser flamingo, Brahminy Kite, Osprey, Marsh Harrier, Buzzards, Black Kite, White cheeked bulbul etc. The wetland is actually an important stopover for over hundreds of species of migratory birds including the magnificent flamingos, gulls, terns, avocets and curlews. Research and Ecological Restoration – College students and nature enthusiasts are involved in the plantation programs conducted by The Soonabai Pirojsha Marine Ecology Centre. Subjects covered under some of the research works were control and cause of degradation of the mangroves areas, preparation of an inventory of species of flora and fauna in the area, taxonomy survey of the area, standardization of techniques of afforestation, ecological and social assessment of mangrove ecosystems at Vikhroli, a comparative assessment of status of mangrove fauna in different areas in Vikhroli, role of interpretation centers in mangrove and nature conservation, role of mangroves in mitigating Heavy metal pollution, pest incidence of *Hyblaea parea*, pest on mangroves in Vikhroli, determination of carbon sequestration capacity of the mangroves etc. For restoration of degraded mangroves in the area, a nursery for different species of mangroves has been developed. Plantations have been successfully carried out in about 100 acres of saline blank area.

3. HSBC-

River health assessment of urban water bodies of Moradabad which empowers to engage constructively in river conservation through community involvement called "Mi-

tras". HSBC India partners with some of the most respected civil society organizations for its Community Investment program for nature, habitat and biodiversity conservation to support sustainable development. The *Mitras* are being empowered to engage constructively in river conservation and have already The Hong Kong and Shanghai Banking Corporation Limited, India undertaken the river health assessment of the Dhela—a polluting tributary of the Ramganga and the first citizen census of urban water bodies in Moradabad. HSBC is also designing an institutional framework for the Multistakeholder groups, which is sustainable (socially, institutionally, financially and legally) is very challenging. Building partnerships, while engaging with the District Administration and the State Government provided an opportunity to identify possible synergies among existing Government policies related to Ramganga conservation. Also, engaging with diverse stakeholders brings in a pool of unique expertise, which strengthens the campaign, while making it coherent and result-oriented.

4. Tata Housing Development Co. Ltd.

The Company is committed to environment excellence across its value chain. In addition to minimizing & mitigating value chain impact on the environment, it also strives to rejuvenate the environment by bio-diversity conservation across the geographies of India. It minimizes the environmental impact of its operations by adopting sustainable construction practices and creating climate change awareness among all its stakeholders.

The Company has partnered with WWF-India for a three year partnership for bio-diversity conservation in western Arunachal Pradesh and Sikkim and tiger conservation in six tiger landscapes of India. The KCL (Khangchendzonga Landscape) and WAL (Western Arunachal Landscapes) regions are rich in biodiversity, supporting and many river systems, wetlands and glaciers. These regions are home to many endangered species of flora and fauna including Red Pandas. Safeguarding these natural regions with their biodiversity and maintaining their pristine environment is therefore of key importance. One year of Tata Housing- WWF-India partnership was completed in December 2013. Several important milestones have been achieved during the first year of this three-year partnership.

Red Panda Conservation- In Arunachal Pradesh, baseline data on red panda status and habitat was generated through field surveys in Twang and West Kameng districts. Between December 2012 and February 2013, a total of 83 plots were sampled in the Pangchen valley of the Twang district for presence-absence and habitat status of red panda, covering roughly 10 sq km in Pancheng Lakhar CCA. Between May and June 2013, 32 plots were sampled in a Mandala-Naga GG of West Kameng district covering three different sites to prepare a conservation plan for the Indian Army.

WWF-India is in the process of compiling data collected during this period and it seems there are Red Panda evidences in most of the plots surveyed.

AWARENESS INITIATIVES FOR THE SOCIETY BY THE INDUSTRIES

Local Participation and Interpretation units- Aircel set up Rapid Response Units (RRUs) to equip and train Forest Departments across reserves in India to respond to any tiger emergency in and around the reserves, which gives opportunity for locals to get training and employed as forest personal and forest guards.

Godrej and Boyce Mfg. Co. Ltd conducts sessions on biodiversity in the mangroves, the threat it faces and its importance for mankind through various mediums enlightening 5000 visitors every year. The spectrum of visitors is mainly school children, college students, Godrej company employees and their families.

HSBC and WWF India, tapped the problem of basin level issues and took it as an opportunity and formed multi-stakeholder groups, encouraging over 600 individuals to sign up for a number of different projects naming one the Ramganga Mitra in Moradabad district. This led to engagement of diverse stakeholders and with the district Administration and the State Government provided an opportunity to identify possible synergies among existing Government policies related to Ramganga conservation.

Tata Housing Development Co. Ltd. environment camp, titled "Wake up to Nature" was organized for teachers at Chemchey, South Sikkim. The program was targeted mostly at rural schools which were located near to the protected Areas of Maenam Wildlife Sanctuary and Barsey Rhododendron Sanctuary. Twenty seven teachers from 16 different schools participated in the program. Over the course, the program covered topics on the biodiversity of Sikkim, understanding climate change, solid waste management, water resources of Sikkim, and local environment issues.

Awareness campaigning initiatives-

Aircel partnered with the Wildlife Conservation Trust to deploy and implement high impact on-ground projects. The projects consisted of developing and deploying Rapid Response Unit vehicles, revamping antipoaching camps and training of foresters. This partnership has been able to effectively place 41 Rapid Response Units in 35 tiger reserves, train front line forest guards in various aspects of conservation and revamped over 1167 anti-poaching camps across most tiger reserves.

Godrej and Boyce Mfg. Co. Ltd has increased awareness through education. Every year over 5000 visitors of diverse backgrounds learn about the biodiversity in the mangroves, the threats it faces and its importance for mankind through various mediums like nature trails, film shows, lectures and presentations and display of posters. Active participation is seen from school children, college students.

HSBC supports WWF-India in the establishment of "Ramganga Mitra- a Multi-stakeholder Platform" in Moradabad district with over 600 individuals, industrialists and officials sign-up to engage in Ramganga conservation.

Similar awareness initiative programs have been taken up by Tata Housing Development Co. Ltd. for communities of Lachen, WWF-India, as a part of the project, partnered with LTDC and Lachen Dzumsa for organizing the village festival, coinciding with World Wetlands Day at Lachen in which the entire population of Lachen comes together. This gathering of the village was used as an opportunity for awareness generation on biodiversity conservation and the importance of high altitude areas. WWF is working for promotion of bio – briquette to the remote places as an alternative to fuel wood for reduction of this dependency on firewood from the forests.

SUMMARY

The industrial initiatives towards the biodiversity and wildlife conservation have changed its paradigm from just CSR

activities on paper to a live situation problem and practical approach towards conservation. The example cited in this article from different industrial houses illustrates model initiatives towards conservation in the Indian perspectives. The review of literature across the world in this field of industrial, social responsibilities is of importance to justify the hypothesis and genesis of the concept that illustrates the paradigm shift. In the current scenario, Indian companies are more focused towards the wildlife conservation and sustainable development of biodiversity ecosystem. Now a days industry in India is working closely with the government and different stakeholders involved in policy issues, interfacing with thought leaders and enhancing competitiveness and business opportunities for industry through a range of specialized services and strategic linkages towards conservation programs along with the people participation. They are also taking initiatives towards providing a platform for consensus building and networking on key issues. Extending their agenda beyond business, industries are involved in identifying and executing corporate partnerships with civil society organizations carrying forward corporate initiatives for integrated and inclusive development across diverse domains of biodiversity conservation, including affirmative action, education, healthcare, wildlife management, diversity management, skill development, local empowerment and institutional building and water, to name a few. The practices as adopted in a nutshell also illustrates the concepts of ecosystem management, biodiversity conservation in a practical approach of real life initiatives for future research in sustainable management and strategic management.

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