

A STUDY ON GREEN INITIATIVES IN INDIA TOWARDS GREEN BUSINESS

Author: Ms.Ulchi Venkata Sumalatha – Assistant Professor – Department of Commerce – St.Peter’s Institute of Higher Education and Research – Email ID: dishusuma@gmail.com

ABSTRACT:

Green entrepreneurs need to be embedded in the current industry paradigm to achieve sustainable growth. With corporate social responsibility and other business movements, the world's top companies have begun to turn green. It is imperative that manufacturing, supply chain, IT and retail companies seek green practices. So, the potential of a green entrepreneur in the future is huge for new and established ones.

Key words: Green Business, Green Practices, Green Challenges etc.

GREEN ENTREPRENEURSHIP

Introduction:

Environment is one of the major concerns nowadays with day by day degradation and misuse leading to calamities and disasters worldwide. Some initiative needs to be undertaken to cope with the ongoing environmental problems. These measures which benefits our environment in a positive manner and are sustainable can be termed as 'GREEN'.

Entrepreneurs working towards reducing negative impact on environment can be termed as 'GREEN ENTREPRENEURS'.

'Green Entrepreneurship' is formed by adding two words 'Green' and 'Entrepreneurship' where 'Green' refers to any such activity which is potentially reducing the negative environmental effect or providing some significant benefit to the environment. 'Entrepreneurship' on the other hand refers to the "activity of setting up a business or businesses, taking on financial risks in the hope of profit". Combining both we can say that 'Green Entrepreneurship' refers to the activity whereby a person (Green Entrepreneur) starts or implements in his business an effort to make or offer a product, service or process that benefits the environment and is economically viable.

"Green Entrepreneurship is all about benefitting the Environment while being economically sound".

Green Entrepreneur vs Green Entrepreneurship

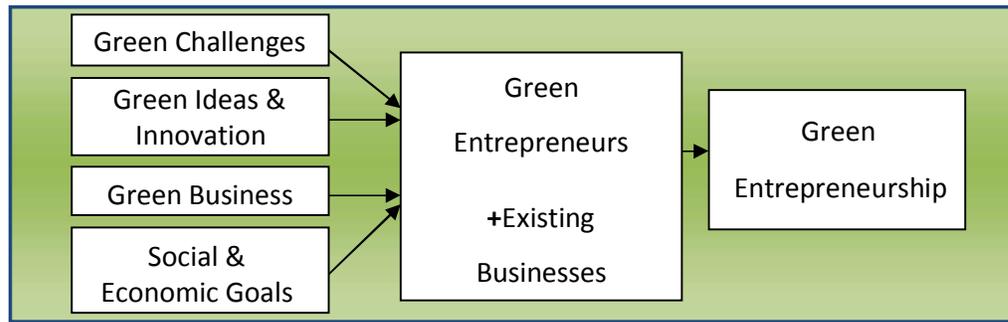
- **Green:**A product, service or process that benefits the environment or minimizes the negative environmental impact of existing products, services or processes.
- **Entrepreneur:**Ready to start a new venture or company and take full responsibility for the decision..



Green Practices

It includes all those activities which negates the degradation of environment and benefits it in a positivemanner. These practices may include:

- Energy conservation and Enhanced Energy Efficiency
- Recycling and Reuse of Resources
- Optimum Utilization of Resources
- Waste and Ecosystem Management
- Lower Emission
- Eco-friendly Production Process and
- Eco-friendly Products/ Services



•**Green challenges:** The environmental problems faced by the business which is to be sorted out. This may include problems related to pollution, global warming and climate change, natural resource scarcity, energy consumption, waste, and other hazardous disturbances in the environment.

•**Green Idea and Innovation:** The green idea and innovation involves having unique sustainable solution to the green challenges. This may include solutions like green product/service and green design, green production, green practices, green supply-chain etc.

•**Green Business:** The green business constitutes an enterprise fulfilling the environmental obligations which includes either reduction of ecological degradation or enhancing the positive impacts on environment. This includes greening (making eco-friendly) the product, service, process or practice of the enterprise. Green business here refers to both 'green' as well as 'green-green' businesses.

•**Social and Economic goals:** The social and economic obligations to be achieved by the business. This includes profit to be earned, revenue generation, societal obligations like housing, schooling, environmental conservation, health etc.

GREEN INITIATIVES IN INDIA- AN OVERVIEW

In India, a number of businesses are investing or being established with a focus on delivering some serious environmental benefits to overcome the global eco- challenges we are facing nowadays. Be it in the field of renewable energy, recycling and reuse, responsible utilization of resources, reduced emission, green innovation and ideas, and every type of pollution reduction or anything which directly or indirectly benefits the eco-system.

Green initiatives can be of two types on the basis of outcomes:

1.Those which reduce the negative impact on environment directly and revitalizes the eco-system making it bearable. The focus is on mitigation of loss rather than complete transition into green system. Recycling and reuse are one of the best ways to achieve such.

2Those which enhances the positive environmental impact in the first place and radically involves in greening the system. The focus is on complete transition to sustainable system. Green innovation and ideas are the best example of this.

Green initiatives of both natures positively contribute to the overall environmental sustainability and eco-system. Green Initiatives include green products, services, processes and practices.Again, both established as well as start-up greens can undertake green initiatives to overcome the environmental challenges and provide social and economic benefits. Pros and cons are present for both but each type can typically enhance the greening of the economy in their own way.

GREEN INITIATIVES OF GREEN (EXISTING) BUSINESSES

This includes the green initiatives of the large businesses which move towards greener ways of business through adoption, adaptation and change. Success is sweeter when it is more inclusive in nature and the existing business have understood this concept of inclusive growth by moving towards and benefiting the environment. This leads to all round sustainability through fulfilment of social, ecological and economic goals; where all these are inter-related and inter- dependent. Some green initiatives of 'Existing green businesses' which significantly contributes towards the environmental entrepreneurship movement are:

1.LG: It has joined the green movement through innovative green products and gadgets which are eco-friendly in nature, such as LED monitors (E60 and E90 series) which consume 40% less energy than conventional monitors. Even the production of such monitors hardly uses any hazardous material like halogen or mercury reducing the damage to environment.

2.HCL: It has also innovated green products like HCL ME 40 Notebooks which do not use harmful chemicals and materials namely polyvinyl chloride (PVC) and is energy efficient. Bureau of Energy Efficiency (BEE) has also rated it 5 stars. It has also called for a Restriction on Hazardous Substances (RoHS) legislation in India, thereby bringing an eco-revolution in the IT sector.2

3.Haier: Green Initiatives of Haier includes Eco-branding through Eco Life series Products like semi-automatic and automatic washing machines and refrigerators, split and window ACs and many more.3

4.Samsung: Samsung India has a range of eco-friendly products like LED TVs, backlights etc. which use 40% less energy and are made with no harmful chemicals like mercury and lead.4

5.Tata Consultancy Services: Tata Consultancy Services (TCS) has been globally recognized for its sustainable green practices and secured 11th spot in the Newsweek's 'Top World's Greenest Company' title. It has also scored 80.4% on 'Global Green Score' for creating technologies for agriculture and community benefits.5

6.Oil and Natural Gas Company (ONGC): ONGC, India's largest oil company has come up with the idea of innovative green crematoriums (Mokshada),which serve as a replacement of traditional funeral pyres cutting down the smoke emission rate, wood consumption (60-70%), oxygen usage and even burning time to 1/4th.6

7.IndusInd Bank: It is one of the first banks in India to come up with no usage of paper for counterfoils and sending electronic messages, which has saved lot of unnecessary usage of paper, reducing deforestation. It has also pioneered country's first solar-powered ATM.7

8.ITC: Indian Tobacco Company (ITC) has adopted the 'Low Carbon Growth Plan' and 'Cleaner Environment Approach'. It has also introduced 'Ozone treated elemental chlorine free' bleaching technology that has improved the lives of millions in India. The result of this is an entire new range of eco- friendly products and solutions including multi-purpose paper.8

9.Wipro: Wipro has created technologies that helps in waste reduction and energy saving. It also proudly flaunts it headquarter campus in Pune, Maharashtra, which is the most eco-friendly building in this sector, all over India. It has also been ranked number 1 in the 18th edition of the 'Greenpeace's guide to Greener Electronics' scoring high as 7.1 for: a) reducing greenhouse gas emissions, and b) increasing its use of renewable energy. Moreover, it also has an effective recycling and waste reduction program.

10.MRF Tyres: MRF has innovated the ZSLK series which is all about creating eco-friendly tubeless Tyres made from unique silica-based rubber, which also helps to enhance the fuel efficiency of vehicles using it.

11.Idea Cellular: Idea has strengthened the green movement through, 'Use mobile, Save Paper' campaign. It has also organized 'Green Pledge Campaigns' where thousands pledged their support to the green movement. The company has also set up bus shelters with potted plants and tendril climbers to convey its green message.11

12.Tamil Nadu Newsprint and Papers Ltd. (TNPL): TNPL was adjudged the best performer in 2009-10 Green Business Survey and was awarded, Green Business Leadership Award in the pulp and paper sector. Its major green initiatives include two clean development mechanism projects and a windfarm project that generated 2,30,323 Carbon Emission Reductions earning Rs.17.40 Crores.12

13.Tata Metalics Ltd. (TML): TML considers everyday as 'environment day' and this is evident through its green initiatives such as: a) green workhouse practices, b) ample green cover around plant (approx. 33.46% of 197-acre plot), c) use of electric bikes within campus, d) solar-heated canteens, and e) use of green technology and practices.13

14.ICICI Bank Ltd.: The green initiatives of ICICI Bank includes: a) Instabanking through internet, IVR and i-Mobile banking, b) green vehicle financing through waiver of a percentage of processing fee, c) green home financing through reduced processing fee for homes in 'Leadership in Energy and Environmental Design' (LEED) certified buildings, and d) green communication based on 'paperless' and 'commute-free' processes.

15.Other Green Initiatives: Other green initiatives are from companies like: a) Godrej with sustainable green plants and buildings, energy efficiency, recycling and usage of renewable

energy etc., b) ACC cements with green manufacturing and energy and environment management initiatives, and c) energy-efficient technologies of Kirloskar Brothers Limited, etc. There are several other major players contributing significantly towards the green movement.

GREEN INITIATIVES OF GREEN-GREEN (START-UP) BUSINESSES

This includes the green initiatives of green-green/start-up businesses which are environmental to their very core i.e. these businesses are created and operated with the sole aim of delivering environmental benefits and sustainability and particularly refrain from doing anything that has negative impact on the eco-system. Profitability is their secondary goal. Due to this fact they are referred to as 'Typical Green Entrepreneurs'. Some popular green initiatives undertaken by typical green entrepreneurs or say green-green businesses are:

1. Digital Green: A non-profit organization that uses technology and social organization to promote agriculture, health and nutrition. It also creates a platform for rural communities to create and share videos that incorporate locally appropriate practices. It partners with local, public, private and civil communities to share knowledge about locally produced advanced farming practices, livelihoods, health and nutrition.

2. Waste Ventures: This is a Delhi-based startup that was founded in 2011 to divert waste from nutrient-rich organic manure dumpsites. It signs a multi-year agreement with local municipalities and uses waste products in their processing units to separate waste. In 2016 alone, more than 44 projects have been launched, of which 2 projects have been launched in Andhra Pradesh villages.

3. EnCashea: This is a Bangalore-based startup that collects scrap waste for cash in select areas of the city. It pays to properly dispose of recyclable scraps and reduce environmental damage. It also has an Android app for easy user request. The rate list for scrap is listed on the website. Books Rs. 6 / kg and e-waste Rs. 10 / kg

4. Fourth Partner Energy: The Fourth Partner Energy (4PEL) was founded in 2010 by Vivek Subramanian, SaifTorajivala and Vikas Salukutty. It focuses on financing and building rooftop solar projects for commercial, industrial and residential customers.

5. Banyan Nation: It collects and recycles industrial plastic waste. Performance enhancers also have a greater life cycle in recycled plastic. New recycling unit has opened in Hyderabad. The company recycles more than 300 tons of plastic per month.

6. SayTrees: This is a group of professionals who are determined to protect the environment by educating others on environmental protection and participating in tree planting campaigns. Team members are usually corporate employees who show their love for trees on weekends. Started as a weekend venture in 2007, it now operates more than 50 timber gardens in 4 months of the rainy season.

7. Priti International: This startup was founded by HruteshLohia and it recycles industrial and consumer waste into useful products. It has become a \$ 10 million company that designs and manufactures handmade items from old virgin bags to handbags, military tents and denim pants to handbags. It produces furniture from waste tins, drums, old military jeeps, tractor accessories, waste machine parts and lights from old scooters and bike lamps.

8. HelpUsGreen: This unique Kanpur-based startup creates a 'bouquet' of natural and certified organic products from wastewater. Flower wastes are collected from places of worship and

from the Ganges and recreated into proprietary methods like earthworm, luxury incense and bath rods.

9. D&D Ecotech Services: This startup has helped households and organizations take rainwater harvesting. It also designs its own rainwater harvesting recharge structure based on the customer's needs and specifications.

10. Feeding India: This social enterprise tackles two interrelated issues in India simultaneously. The problems are food wastage and hunger. This is done by helping those in need get more cooked food from restaurants and restaurants.

11. The Living Greens: This Jaipur-based startup was founded by Pradeep Tiwari and helps set up rooftop farms and kitchen gardens. The goal is to grow organic vegetables on every roof, turn every building into a living greenhouse, and create the largest number of urban carbon credits in the world.

12. Green Ventures: It develops green technologies and innovative business models to create sustainable energy solutions, including large scale renewable energy generation projects, advanced energy efficiency projects and rural areas.

13. Graviky Labs: Working in the carbon capture industry is the only startup in India. It produces paint and inks from pollution, which are captured in the form of raw carbon and suite through the unique decay that is attached to the exhaust in the tail pipes of vehicles, chimneys, and boats. Subsequently, this raw carbon is carried into the purification process to convert air pollution into printing ink.

14. Sustain Earth: This startup provides clean and affordable cooking gas to rural households in India using innovative biogas technology and enterprise model. The biogas system is easy to install, reliable and requires minimal maintenance. The performance of the system can be monitored through mobile and internet connectivity.

15. Green Nerds: Founded in 2010, The Green Startup has developed a technology product for scientifically controlling, separating, managing and recycling commercial, residential, residential and municipal waste. It provides complete solutions and products for waste management and other environmental issues, including the development and rigor of plant, equipment and technology for a variety of waste management and industrial exclusion systems.

16. Bakeys: This startup was founded in Hyderabad in 2010 and is working on the idea of eliminating harmful plastic cutlery and replacing it with recipes made from low irrigation flours that demand crops such as sorghum. Edible spoons come in a variety of flavors, and a set of 100 spoons costs Rs. 300.

17. EcoFemme: This community female-led company was founded in 2010, in Tamil Nadu, to manufacture and sell washable bands, provide menstrual health education to adolescents, and open dialogue on menstruation. The aim is to create radical socio-environmental change by revitalizing eco-sustainable healthy menstrual practices.

18. Aura Herbal: It was founded by Arun Bait and Sonal Bait and is developing its own process for producing natural dyes and textiles, herbs and other raw materials through contracts made with farmers in Central and South India. The first showroom opened in Ahmedabad by introducing the 'Aura' brand, under which T-shirts, shirts, scarves, yoga dresses, eco bags, fabrics, underwear and SPA products. And organic in nature.

19.ONergy: This social enterprise was founded in 2009 in Kolkata and offers decentralized energy solutions for fewer homes and companies. It offers a complete range of energy solutions with a full range of solar products. It claims to have saved 2,50,000 lives by providing solar lamps, solar water heating systems, solar inverters, solar street lighting, cook stoves, KW installations for homes and companies. In addition, it has also introduced innovative products such as solar TV, solar system, solar micro grids and solar irrigation systems. It operates through a network of trained rural entrepreneurs, NGOs, Self Help Groups and MFIs and currently exists throughout West Bengal, Odisha and Jharkhand.

20.Sarga: Founded by Sunil Mande, this startup is fundamentally involved in creating eco-friendly fabrics and furnishings. It uses completely organic and naturally available fibers such as organic cotton, bamboo, lyocell, mold, flax and jute. The prints, dyes, and texts involved in this process ensure that they are completely eco-friendly. It explores and invests in new segments.

21.HonECORE: HanECORE was founded in 2007 by a group of five people from Bangalore with an engineering and management background with a vision of 'Green World'. It aims to provide eco-friendly packaging solutions and a variety of ecological products consumed in the construction of lush green buildings. USP is to completely replace wood from its customers' packaging.

22.The Green Gift-Nurturing Green: Growing Green promotes the unique idea of giving a potted plant a gift to loved ones. For this, the plants are specially formulated in a craft hemp pot. Each of the gifted plants contributes to the welfare of the rural women who make this pot.

23. Smart Air Filters: This initiative, centered on Delhi, was launched in 2013 when air pollution in the capital reached alarming levels. This is a clean tech startup that promotes low-cost refineries. The company has launched DIY (Do-It-Yourself) Air Purifiers for Rs. 3,959 suitable for 150 sq.ft. Room

24.Log 9 Materials: This initiative was founded by IIT Akshay Singhal. It works on products that have a positive environmental impact. Areas of focus are water purification, air purification and efficient energy storage and display. The company is collaborating with the Indian Institute of Science (IISc) and R&D Center in Bangalore. It is growing (jointly with IIT Roorkee) BBF - a plug in filter for cigarettes, which removes toxins from the smoke without affecting the flavor.

25.Pastiwala: This startup was founded in 2010 and is based in Vadodara, Gujarat. It organizes waste paper collectors and recyclers, most of which are collected from industrial units and homes. The waste is then recycled and put back into use. Online and phone bookings are accepted, followed by a collection vehicle to collect paper waste. It says it helped save 3,40,000 trees a year.

26. Fourth Partner Energy – Conversion of Solar Power: Founded by Vivek Subramanian, SaifTorajivala and Vikas Salukutty in 2010, Fourth Partner Energy (4 Bell) focuses on financing and building rooftop solar projects for commercial, industrial and residential customers. It recently raised \$ 2 million.

27. Jhatkaa – Propaganda Site: Jatka is a new propaganda organization committed to campaign for environmental issues. They collaborate with civil society to engage citizens to hold corporate, cultural and government leaders accountable through digital communication platforms. They came to light after a video showing the toxic mercury levels in Kodaikanal

left by a Hindustan Unilever factory went viral. Hindustan Unilever recently agreed to pay compensation to affected workers after Jatka's efforts.

28. The Ugly Indian – Citizen Activism Site: Ugly Indian is an anonymous group launched by a group of Bengalurians, who came together to exchange Spot Fixes in the city and launched a Facebook page to highlight it. Today, they have created a whole generation of enthusiasts around the country, who have self-organized these space fixes, including cleaning up specific areas of the city, installing paint and plants.

ADVANTAGES OF GREEN ENTREPRENEURSHIP

Some of the important advantages of Green Entrepreneurship are:

- Reduced Utility Costs.
- Lower Negative Impact on Environment.
- Enhanced Public Image.
- Tax Benefits and Rebates.
- Increased Business Opportunities.

CONCLUSION:

Green Entrepreneurship is all about businesses delivering environmental benefits while being economically sound. Green Entrepreneurship is being practiced by most of the enterprises and employees are well aware of the same. In the present scenario of climate change and degrading environment, Green Entrepreneurship has become the need of the time. Many unique Green innovations and technologies are being developed by different businesses to overcome the environmental challenges and provide environmental benefits. However, there is still lot of scope to explore in this respect. Enterprises practicing Green Entrepreneurship are getting lot of support from customers and a positive image is created due to such responsible activities. The customer base of such enterprises is growing. Green Entrepreneurship practices will significantly strengthen the financial position of the enterprise making it stronger and more sustainable.

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