

Green entrepreneurship towards sustainable environment

¹ Purushottam N Vaidya, ² Dr. D.V. Honagannavar

¹ Assistant Professor, KLE Society's J G College of Commerce, Hubballi, Karnataka, India

² Associate Professor and Principal, KLE Society's J G College of Commerce, Hubballi, Karnataka, India

Abstract

Green entrepreneurship is a system which transforms the socially- and environmentally-engaged business by means of significant innovations. Green entrepreneurship emerges from as a mutual product of environment and entrepreneurship. It aims to provide positive environmental outcomes when producing goods and services. Green, most calming of colours, has many shades. It is the colour of money. It is also the colour of the environment. For too long, the twains have not met. However, with global warming and an energy crunch, sustainable environment friendly businesses have begun capturing the world's imagination. Green entrepreneurship is emerging commerce which is equally profit- and nature-orientated, and might possibly solve ecological problems throughout its business activity. Across India, entrepreneurs are investing talent, technology and loads of cash to kick start green businesses.

In this paper an attempt is made to introduce the concept of green entrepreneurship; briefly discuss importance of green entrepreneurship and to communicate the readers list of successful green entrepreneurs in India.

Keywords: green entrepreneurship, global warming, sustainable environment, green businesses, green entrepreneurs

Introduction

Green Entrepreneurship is the move by entrepreneurs to a sustainable business framework that is environmentally friendly by not only making profit but also driven by concerns toward saving our world and making it a better place to live in for us and our future generations to come. Both protection of environment and achievement of entrepreneurial goals are very vital to the concept of Green Entrepreneurship.

Green Entrepreneurship in India is an emerging practice which is gaining more prominence from all avenues with each passing day. Our Future generation must realize that this is the need of time and one must not solely question the Administration on solution to such matters but as being a responsible part of society each of us must fulfill or serve our environmental obligations and responsibilities so as to create a smarter and more sustainable planet.

Green Entrepreneurship

The concept for the "green entrepreneurship" springs from the blend of the key appearances of the term 'entrepreneurship' and 'green'.

Entrepreneurship: Passion, Motivation, Risk, Innovation and competitive advantage. Green: Sustainable, Ecological and Social

"Green Entrepreneurship" is one of the three most important components of the sustainable development and an intersection of traditional, social and sustainable entrepreneurship.

Thus, the "green entrepreneurship" is a cost-effective activity whose products, services, methods of production or organization have positive upshot on the environment.

This upshot could be a result of the following: -

- Offering products or services the consumption of which leads to a change in the consumer's behavior, reducing the negative effect on the environment;

- Balancing the ecological and the economic goals of the company;
- Acquaint innovative ecological solutions to problems connected with production and consumption of products and services;
- Emerging business models which, when applied to use, might lead to a sustainable economic development;
- Discovering new possibilities on the market which are in connection with the demand and new way of living of the society.

Entrepreneurship is considered to be the moving force of the economy, assuring economic growth, technological and organizational innovations, and new workplaces. Training staff to work in the field of "eco-entrepreneurship", as well as finding ecologically engaged people who have developed a plan for solving an environmental issue, is the key strategy for the success of the "green" idea. All types of eco-friendly business are many and thus, it could reflect on people's lives in different ways in order to encourage them to think "green".

Green Entrepreneurship - The Engine for Job-Rich Growth and Youth Employment

Entrepreneurship is indispensable for the country's socioeconomic development. Green entrepreneurship can form an integral part in the fight against youth unemployment due to the low entry-level requirements for young people in many sectors and their generally strong interest in innovative business solutions and sustainability considerations.

In addition, the creation of new firms allows equal access in terms of gender and is not limited to urban areas where traditionally larger employment opportunities exist. Green entrepreneurship can also provide new employment opportunities to workers who are set free during the restructuring towards a greener economic model.

Green Entrepreneurs are Drivers of Change

Initiating mainly from a level of technical innovation such as pollution reduction, clean production processes and resource efficiency, green entrepreneurship goes beyond the narrow technology-based aspects of doing business. It can nurture a culture of lifecycle-based thinking and stimulate green innovation at the societal level. In doing so, green entrepreneurs create a shift in peoples' mindsets towards greener thinking and increased demand for green products and services, boosting the dual effect of employment and environmental gains.

Green Entrepreneurship Possible Openings

i) Food

While most people living in the world do not give it much thought, food security and sources are a major concern for rest of the world. World's leading organizations have started recognizing the rapidly growing importance of food security. In the business context, it is possible to invest in the food market in order to resolve the situation. In fact, growing food is one trend that's only going to get bigger. Worm farming and organic compost sales are other green gardening business ideas that might work for you.

One solution would be to invest in garden-parks. What is this? Create small tray potted plants to fit within a balcony, in order to enable people to grow their own food. If we think on a larger scale, Entrepreneurs can create true eco-friendly gardens on rooftops to supply entire communities. This is a marketable and scalable idea with a good application.

Entrepreneur could also develop a green business focusing on products that will help people grow plants, such as greenhouses suitable for residential homes or ecological pest controls.

ii) Heating

The costs of some of the more traditional energy sources are increasing, as is the case of coal, oil and gas. So why can't entrepreneur invest in the energy saving market?

It is valuable suggestion that entrepreneur should participate in solar water heating systems. This system can be installed in any building in order to provide up to 70% of a family's hot water when properly installed. When integrated with the building, solar water heating systems can also be used to heat the house and keep it warm, especially during those cold winter nights.

iii) Cleaning

Detergents used to clean clothes, dishes and even our cars are extremely polluting. At a time when environmental issues are catching the world's attention, people are growing more reluctant to use these types of products and are becoming extremely environmentally conscious. So it's a great idea to invest in Eco-friendly cleaning goods.

Using only eco-friendly cleaning products in cleaning business could give entrepreneur a competitive edge. If entrepreneur want to take this idea in another perspective, he can also produce and sell eco-friendly cleaning products.

iv) Consulting

Being green is becoming very popular. From all around the world rapidly increasing number of individuals and businesses want to become greener but don't know what the best course of action is. So, an excellent idea would be to advise those

businesses with services of green consulting.

What can a green consultant do? This kind of work involves putting together a strategy by examining their client's energy needs and analysing their strengths and weaknesses. For example, is a home or business using the correct amount of energy? If they are not, entrepreneur could adjust their energy needs or find a way for them to generate their own power at cheaper rates than what they get from their electrical utility, and help them becoming greener.

v) Transportation

Replacing ones car for a more eco-friendly solution is a great way to go green and for reducing their carbon-footprint. If not being able to replace the car then one can try to use it fewer times. A great solution is to buy a scooter or a bike. Riding this vehicle helps saves money, become environmentally friendly and improve one's health.

In the coming years, electric and gas scooters and electric bikes are going to increase in popularity. Entrepreneur can come up with good range of green vehicles, including mopeds, scooters and electric bikes, and they offer franchises.

vi) Building

Construction companies, architects, designers and contractors can – and should – specialize in green building. This way they can build homes that are eco-friendly. Even if entrepreneur are not in the construction market, you can participate in this business with green products like water-saving toilets, rooftop solar panels, or even after-installation servicing.

vii) Fashion

People don't live without a little bit of fashion, do they? Well, who said that fashion and environment don't match with each other? Entrepreneur can use organic cotton, reused fabric scraps and even plastic bottles to start a green fashion line. Further, can create silk screen artwork for eco-friendly T-shirts, or designer handbags and accessories made of recycled materials. Be creative and design specific line of eco-friendly clothes.

Green Entrepreneurs and Their Role in Sustainable Development of the Economy

Given the strategic importance of environmental management from a national perspective, it is necessary for the entrepreneurs in India to take a more proactive role in creating managers and business leaders who have a good understanding of how to incorporate environmental issues into corporate decision making.

In this paper Ten Green Entrepreneurs with their green contribution to the society is presented to the readers as follows.

1. Green Entrepreneur : Dhivik Reddy, 29(years), Bangalore
Green Product : Go Green BOV
Green contribution :

With global warming a growing concern and fuel prices shooting up, Dhivik Reddy knows electric vehicles are only going to gain prominence. In 1996, when his father Ashok Reddy introduced Landi conversion kits to turn petrol and diesel into liquefied petrol gas, it fueled Dhivik's passion to contribute to a greener environment.

As an initiative under their company ACTD Electronics &

Electricals, the Reddys formed Go Green BOV (battery operated vehicle) in 2007 to manufacture electric two-wheelers. Priced between Rs 28,000 and Rs 48,000, the bikes don't burn fuel, so there is no smoke emission. One can travel 120 km on a fully charged battery. For every bike sold, buyers are encouraged to plant a sapling. Go GreenBOV operates from a unit in Kolar district. Apart from 96 dealers in south India, Go Green has received inquiries from Brazil, Philippines, Australia and East European nations for its electric vehicles.

2. Green Entrepreneur : T.S. Shankker 46 (years)
Green Product : Biotech Bags
Green contribution :

In 2010, with an investment of Rs 1 crore, he set up Biotech Bags along with friends Ravi Iyer, 50, and K.N. Lakshmanan, 60, to make biodegradable plastic bags. Biotech bags, which cost Rs 200 per kg, are coated with a food-grade enzyme that makes the bag decay about 90 per cent in 180 days.

3. Green Entrepreneur : Rajaram Tripathi 49(years)
Green Product : Herbal Products,
Green contribution :

Tripathi felt the prime reason why farmers had mounting debts was because of wasteful expenditure on pesticides and fertilisers. His group uses organic fertilisers made of farm waste, including leaves and cow dung. His farms also use bio-waste generated power. The group, comprising 200 tribal families, markets its produce with the help of Central Herbal Agro Marketing Federation of India. They have set up a herbal food supplement production unit and have an annual turnover of Rs 20 crore.

4. Green Entrepreneur : Mini Varkey Shibu, 46(years)
Green Product : Natural Khadi
Green contribution :

Mini believes in "khadinomics". Along with husband Kochery C. Shibu, who works with a hydraulics company in Himachal Pradesh, Mini, an NID graduate, started her first retail store for eco-friendly fashion clothing in December 2007 in Bangalore. The store is called MINC, short for 'mini' couture. The intention, as a poster-photograph in the store proudly proclaims, is to "initiate young users to eco-friendly clothing and the value of our rich heritage in fabric".

All the fabric used in Mini's store is organic and sourced from tribals of Dharmapuri district in Tamil Nadu. Chemical fertilisers are a strict no-no. The cotton is hand-spun under specific instructions. While she mainly uses vegetable dyes, Mini has also opted for ammonia-free colours. The initial plan was to stock only khadi, Mini found that this was not economically viable. So she opted for all natural fabrics including cotton and silk.

5. Green Entrepreneur : Anupam Jalote, 46 (years)
Green Product : Green Oil
Green Contribution :

Green Oil produces organic manure and sells it on a small scale under the brand name of Green Oil Karishma. The company is in the process of building a 1 MW power plant-which will be connected to the National Grid-in Samode village, near Jaipur. "It is like a sophisticated goobar gas plant that uses waste to produce bio-methane through anaerobic digestion," says

Jalote. Rotten fruits and vegetables, cattle and elephant dung and other organic farming waste would be used to produce electricity. The company will also sell the by-product, organic manure. Jalote aims to build 10 power plants of 1 MW each in five years. The company's current revenue is Rs 3 lakh-Rs 4 lakh a month.

6. Green Entrepreneur : Surendranath 53(years)
Green Product : Green Gold
Green contribution :

Surendranath left a career in mainstream journalism to set up an NGO, Uravu, in 1996 with the help of 15 other ecology enthusiasts from different walks of life. "The inspiration for setting up Uravu came from taking part in various social movements connected with protection of environment, livelihood issues of indigenous people and dangers posed by unbridled development," says Surendranath.

Eco-friendly homes Uravu focuses on making houses and handicrafts out of bamboo. "When we use bamboo for construction, it involves wastage of 30 per cent but reduces the need for cement by 50 per cent, sand by 20 per cent and steel by 90 per cent," says Surendranath. This helps reduce ecological degradation.

7. Green Entrepreneurs : Mahesh Yagnaraman 48(years) & Mukund Deogaonkar 47(years)
Green Product : Biomass pellet
Green contribution :

In 2006, Yagnaraman and Deogaonkar joined First Energy, a subsidiary of BP Energy, and a year later, they came up with Oorja biomass pellet stove in collaboration with Indian Institute of Science in Bangalore. They began by targeting households in villages and small towns, encouraging housewives to give up cooking by chulha. Each stove costs Rs 2,000-Rs 3,000 and pellets Rs 16 - Rs 18 per kg.

A kilo of pellets equals 4 kg of wood. By eliminating wood as a fuel resource, the stove reduces pollution and deforestation. The pellets, made of agricultural residue like peanut husks, ensure that farmers don't burn waste

8. Green Entrepreneurs : Mansukhlal Raghavjibhai Prajapati (48years)
Green Product : Mitti Cool fridge
Green contribution :

In 2002, Prajapati launched Mitti Cool fridge, a clay refrigerator for the common man. It runs without electricity, keeps perishables fresh for seven days, water cold and milk and curd fresh for almost 24 hours. He is now working on the 'Mitti Cool House', a house that will keep itself cool without consuming any extra energy.

At the top level of the Mitti Cool fridge is a storage chamber for 10 litres of water. The bottom compartments can hold 5-7 kg of vegetables, fruits and milk at 8-10°C below room temperature. Water poured into the chamber just beneath the top trickles down between its double-layered walls, extracting heat from within, and evaporates, leaving the chambers cool. With an annual turnover of more than Rs 30 lakh, Prajapati has sold over 7,500 refrigerators. On every fridge priced at Rs 3,340, he earns a profit of Rs 400. He has now ventured online too.

9. Green Entrepreneurs : Preethi Sukumaran 34(years) and Srinivas Krishnaswamy 36 (years)
Green Product : Healthy detergent
Green contribution :

The Chennai-based duo were always eco-conscious. They started their own company, Krya Consumer Products, in 2011, which manufactures household products with natural ingredients that are high on the green quotient. Their first product was the Krya natural detergent powder that saves 25 liters of water per wash as compared to chemical detergents. The detergent is more expensive than regular ones, with a 400 gm box costing Rs 290. They average a sale of Rs 1 lakh a month.

10. Green Entrepreneurs : Pallavi Agarwal, 35(years) Prachi Agarwal, 30(years)
Green Product : Chalk and Chuckles toys
Green contribution :

The sisters make interactive toys for children of all age groups. They do not use plastic; all their toys are made of cardboard. All ink used in the games is soyabean-based and the paints are water soluble which means no turpentine is used to thin them. Cardboard is FSC certified which means the paper comes from forests that are sustainable. They have a local provider who sources the cardboard from Germany and Netherlands. Local paper costs Rs 26 a sheet while imported ones cost about Rs 38-40 a sheet.

Chalk and Chuckles toys are priced Rs 20 per cent above market average because of the higher cost of production. In the last one operational year, its revenue was Rs 50 lakh with 20-30 per cent month-on-month growth. Currently, there are 14 toys on offer but the plan is to expand the portfolio to 40 toys. The Agarwal sisters retail not only in major Indian cities but also Australia and Southeast Asia. Apart from selling in stores like Beanstalk and Landmark, they have an online presence as well.

Conclusion

In order to increase the awareness of society that is related to green entrepreneurship, social responsibility projects can be prepared together with role models. Owing to collaboration between universities and industry, environmental technology should be improved and in addition green entrepreneur must gain this technology with low cost.

Regional development agencies and incubators play vital role for Green Entrepreneurship. This supports can be opportunity for green businesses and local entrepreneurs. However green entrepreneurship could not be brought to desired level in country because of causes such as created enough information about green entrepreneurship, reached the desire levels of regulation.

Limitations and Further Research

Every study has their own confines same as in this study. There is lack of good studies on green entrepreneurship which is relevant to this paper. This paper can be a base for further research and one can make an empirical research paper by using the concept and various identified factors of this study. There are still many stuffs may be left in this paper which can be added in the further research work.

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