

GREEN ENTREPRENEURSHIP: A SECURED MODE OF SUSTAINABILITY AND ITS PROSPECTS IN ASSAM

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ABSTRACT

Green economy is a means for reconciling environment and economic development. Green entrepreneurship facilitates the use of those methods of production which do not destabilise the environment. Green entrepreneurship and sustainable development are closely knit terms. Green entrepreneurship is the need of the hour for promoting sustainable growth in India. Green entrepreneurship is a collective responsibility on the part of the government, civil society, companies and all the other stakeholders of a country. It is irony that the concept is still at its nascent stage in India, especially in Assam. Until and unless people are aware of the concept of green entrepreneurship and sufficient training, support and infrastructure is available for the same, green entrepreneurship can never translate into reality. The study is an attempt to analyse the interwoven dynamics of green entrepreneurship and sustainable development and highlight the crucial areas offering prospects for green entrepreneurship in Assam. To study emphasises upon the role of government, civil society and companies (via CSR) in promoting green entrepreneurship. The study also tries to find out how aware the people of Assam are about green entrepreneurship and whether they would really like to undertake green projects in future. The study reveals that very few people are aware of the concept and most of them are interested in green entrepreneurship projects, provided they are given due training and required assistance.

Keywords: *Green entrepreneurship, Environment, Sustainable Development, Green projects,*

I. CONCEPT OF GREEN ENTREPRENEURSHIP

The concept of green entrepreneurship gained importance in 1971 and has recently in a very short time developed beyond its infancy stage. The world economic crisis has left the world for a new thinking. There has been a tremendous increase around the world to expand economic activities so as to face the challenge and at the same time face the increasing environmental pressure. There is an immense and immediate need to greener the earth by preventing environmental degradation, bio-diversity loss and unsustainable resource use. It includes a wide application area including the entrepreneurship activities on sustainability, sustainable consumption and production pattern. It facilitates the use of those methods of production which do not destabilise the environment.

With global warming and energy crunch, sustainable environment friendly businesses have begun capturing the world's imagination. The human beings need to employ such methods so that the earth's climate, forests, rivers, oceans, eco-system are not poisoned beyond repair and the human race can continue to grow and develop. Here arises the need of solving old problems in new ways, which has given birth to a new thinking. This new concept is green entrepreneurship which is an attempt of the green entrepreneurs by entering a green business. Green entrepreneurs are different from other entrepreneurs because they pursue profit goals by means of socially and ecological oriented businesses. Various terms have been used to describe green entrepreneurship like ecoentrepreneurship, ecopreneurship, environmental entrepreneurship, ecological entrepreneurship, sustainable entrepreneurship etc.

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Isaak (2005) has defined green entrepreneur as , “ An ecopreneur is a person who seeks to transform a sector of the economy towards sustainability by starting business in that sector with a green design, with green processes and with the life-long commitment to sustainability in everything that is said and done”.

According to Volery (2002), “there are two types of entrepreneurs:

1. Environment-conscious entrepreneurs are individuals who develop any kind of innovation (product, service, process) that either reduces resources use and impacts or improves cost efficiencies while moving towards a zero waste target.
2. Green entrepreneurs are those who are aware of environmental issues and whose business venture is in the environmental marketplace. Such entrepreneurs pursue environmental-centred opportunities which show good prospects”.

II. SUSTAINABLE DEVELOPMENT

In sustainable development there are two words sustainable and development. The term sustainable means the ability to maintain at a certain rate or level and the term development is about change. It is about changing for the better. It could be about social or economic change for improvement or progress. When we refer to sustainable development, it means development without sacrificing the need of future generation.

The term sustainable development has gained importance since the UN Conference on Environment and Economic Development in 1992, popularly known as Rio conference or Earth Summit. The conference raised awareness amongst the public in respect of integrating environment and development i.e. sustainable development.

Sustainable development may be defined as the development that meets the needs of the present without compromising the ability of the future generations to meet their needs. It poses a multi-dimensional challenge in terms of economic, social and environmental dimensions- with each having competing claims for primacy.

III. OBJECTIVES OF THE STUDY:

The objectives of the study are as follows:

1. To highlight the relationship between green entrepreneurship and sustainability.
2. To study the dimensions of green entrepreneurship.
3. To find out the awareness and enthusiasm level regarding green entrepreneurship in the mind sets of local people.
4. To emphasise upon the role of government, civil society and companies (via CSR) in promoting green entrepreneurship.
5. To highlight some crucial areas offering prospects for green entrepreneurship in Assam.

IV. RESEARCH METHODOLOGY

1. **Research design:** The research design is descriptive in nature.
2. **Source of data collection:** Data were collected from primary as well as secondary sources.

➤ Secondary data:

The nature of data collected and used for the research are mainly secondary in nature. The relevant and required data were collected from the secondary sources such as government reports, newspapers, books, websites and journals.

➤ Primary data:

Primary data were also collected in order to find out few facts regarding the awareness and enthusiasm level in respect of green entrepreneurship in Assam. For this purpose, personal queries were conducted upon people from various areas of Assam. The primary data were collected via face to face interviews and telephonic interviews.

3. **Sample design:**

- a. Type of sampling: Probabilistic sampling (i.e. Convenience sampling) was used for selecting sample respondents.
- b. Size of sample: 100 people were chosen randomly from different areas of Assam, especially Guwahati.

4. Statistical tools employed:

The statistical tools used for the purpose of analysis are percentage and ratios. The information/data collected have been classified, tabulated and analysed as per the requirements to fulfil the aforesaid objectives.

5. Research instrument:

Questionnaire cum schedule was used for collecting data.

V. GREEN ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT

The Rio Conference paved way for green economy in its various forms, and as a consequence of the conference, various nations started proposing green economy as the means for development, international cooperation and support for sustainable development.

The aftermath of the 2008 financial crisis left nations bleeding and the concept of green economy received the attention of many as a tool to combat the financial crisis. It was one of the two themes of the 2012 UN Conference on Sustainable Development (Rio + 20). The concept of a greener earth to tackle environmental as well as financial issues has gained importance over the years. The concept of green entrepreneurship is of vital importance in a country like India which is abundant in natural resources.

There is a direct link between sustainability and innovation. Green entrepreneurs who have reduced creation of wastes can decrease handling and disposing expenses. These savings from improved efficiencies has in turn passed on the benefit to the buyers in the form of reduced prices. Secondly, innovation in waste reduction, use of clean and efficient process of production creates a competitive advantage. Thirdly, these innovations can be used to create improved image of the organization among the customers, suppliers, investors, government and the public at large. Fourthly, the business also saves by conserving energy, fuel, and other resources of the nature which are depleting. Fifthly, they find it easy to comply with the regulations of the government relating to environmental issues. Sixthly, risks of accidents are reduced. Seventhly, health and safety costs are lowered as a result of adoption of green techniques. Eighthly, this initiative pays in the form of improved brand image and goodwill for the organisation.

Sustainable growth can be creating energy without polluting the environment. Producing and selling goods using the least resources available. It can be building of vehicles which consume the little of natural gases and resources. Some become entrepreneurs to develop something new and are always curious to create new things like innovators and scientist. These innovations are sometimes cost-effective also. The growing pressure of climatic change faced by the earth on a global scale and awareness among the people about the impact of the human activities on the environment has led to the world wide celebration of 22nd April as Earth Day. This has also popularised the demand for businesses that supply environment friendly products and services and to remain competitive in the market the business organisations need to look at sustainable products and services. It is observed that a customer prefers a green product only if it benefits him by being cost effective.

VI. DIMENSIONS OF GREEN ENTREPRENEURSHIP

Green entrepreneurship is not only correlated to human development but also have social, environmental and economic impacts. These impacts are multidimensional in nature and can be studied under the following heads:

- a. **Demand dimension**-This dimension assesses the extent to which green entrepreneurship is enabling citizens to lead productive lives through its presence and development work/sustainable work.
- b. **Social dimension**- Green Entrepreneurship projects often require citizen's cooperation and acceptance to innovation. Hence, it is important to understand how well the citizens accept the innovation and understand its necessity and importance.

- c. **Environmental dimension-** Green entrepreneurship projects are eco-friendly. The production, distribution and consumption of goods and services under green entrepreneurship will create less or no pollution and contribute to sustainable development.
- d. **Economic dimension-** The initial investments required for green entrepreneurship may be high but in the long run it is going to yield profitable and sustainable results which can lead to overall inclusive growth of the country, especially for a country abundant in natural resources like India.

VII. FOUR PILLARS FOR GREEN ENTREPRENEURSHIP

When one speaks of sustainable development, the very first thing that comes to mind is conservation of natural resources. A country may be very rich in terms of natural resources but if these are not handled properly the country may face resources crunch in future. Green entrepreneurship is a means to promote sustainable development as it develops a pragmatic attitude towards sustainable growth. Green entrepreneurship is not an individual obligation but a collective responsibility of all the stakeholders of the nation. Of course, it is quite obvious that the role of government in introducing and implementing the concept is the most important. Green entrepreneurship can be promoted and developed with the following pillars as the base:

- a. **Government** has to take the initiative in promoting the concept of green entrepreneurship in the country and also initiate measures for its development. Government should implement policies for effective implementation of strategies for the same. In this respect, government should work at grass root level and help in this regard may be sought from NGO's operating in the respective areas.
- b. **NGO's** i.e. non-governmental organisations should take up the issue of green entrepreneurship seriously and support government as well as initiate steps on its own to educate the society about green entrepreneurship, develop infrastructure for the same and help the desirous people in starting eco-friendly projects.
- c. **Companies** have an important role to play in respect of green entrepreneurship. The Companies Act, 2013 has made it mandatory for certain companies to deliver Corporate Social Responsibility (CSR). Accordingly, Clause 135 of the act states that w.e.f. April 1, 2014 every company operating in India with an annual turnover of Rs.1000 Crores and more or with a net worth of Rs.500 Crores and more or with a net profit of Rs.5 Crores and more has to mandatorily spend 2 percent of its average net profit for the immediately preceding three financial years on CSR activities. In such case, it is imperative for many companies to compulsorily deliver CSR. Companies can take steps for promoting the cause of green entrepreneurship projects either by spreading awareness on the issue, developing infrastructure required for the same, imparting training or by financing ecopreneurship projects.
- d. **Civil society** i.e. individuals in the society have to prudently understand the concept of sustainable green entrepreneurship and assume it as their individual responsibility. They should be conscious of the consequences of the on-going environmental threats surrounding them and shoulder the responsibility of promoting greenery. Awareness about environmental problems creates mass demand for green revolution which in turn forces business houses to green both their products and services. This also creates an automatic pressure on the government to formulate green plans. If required, assistance can be sought from NGO's and government or individuals may form Self Help Groups for the same.

VIII. ANALYSIS OF PRIMARY DATA:

A very short survey was conducted on total of hundred (100) samples for finding out how aware people are about green entrepreneurship and that on learning about the concept how enthusiastic people feel about it. On being asked about awareness regarding green entrepreneurship, the responses that were received are tabulated as follows:

Table no. 1: Awareness about Green entrepreneurship

Aware about Green entrepreneurship	Responses (in no.s)	Responses (in percentage)
Yes	37	37
No	63	63
Total	100	100

Source: Field-survey

Interpretation:

Table no. 1 shows that out of 100 respondents, only 37 percent are aware of the concept of green entrepreneurship. This is probably because the concept is in its nascent stage in Assam and steps are required on the part of government, educational institutions, NGO's etc. to develop and implement the concept.

On being asked about the first source of awareness about green entrepreneurship the responses that were received were as follows:

Table no. 2: First source of awareness about green entrepreneurship

Source	Responses (in no.s)	Responses (in percentage)
Books	04	11
Government schemes	03	08
Seminars/conferences	12	33
Journals	09	24
NGO's/ Civil society bodies	07	19
Others	02	05
Total	37	100

Source: Field survey

Interpretation:

Table no. 2 shows that out of a total of 37 respondents who were aware of the concept of green entrepreneurship, the maximum people (33 percent) came to know about green entrepreneurship through seminars and conferences followed by 24 percent who came to know about the concept through journals. 19 percent came to know through NGO's/civil society bodies, 11 percent through books, 08 percent through government schemes and 05 percent through other sources, viz. newspapers and informal discussions etc.

The respondents who were unaware were explained about the concept of green entrepreneurship and then they were asked that if provided with innovative ideas, requisite financial help and infrastructure, whether they would like to go for green entrepreneurship based projects or not, hundred i.e. cent percent opined that they were willing to start such projects which were environment friendly.

On being asked whether support from government, NGO's, companies, civil society bodies etc. was necessary for promoting green entrepreneurship or not, the responses that were received are tabulated as follows:

Table no. 3: Support for green entrepreneurship required or not

Support for green entrepreneurship required or not	Responses (in no.s)	Responses (in percentage)
Yes	97	97
No	03	03
Total	100	100

Source: Field survey

Interpretation:

From the table it is clear that majority of the respondents (97 percent) believe that if there is sufficient support for green entrepreneurship projects then they are ready to undertake such projects. Only 3 percent respondents believe that starting green entrepreneurship projects do not require any support and can be pursued alone.

IX. SOME CRUCIAL AREAS OFFERING PROSPECTS FOR GREEN ENTREPRENEURSHIP IN ASSAM

Assam is a pioneer state of the north-east India with immense development potentialities. It is embedded with rich natural resources, abundant human resources and sufficient government financial assistance as well. The rich natural resources offer ample opportunities for green entrepreneurship. The resources in Assam include varieties of flora and fauna, human capital, water bodies etc. When the discussion comes to employment of these resources the picture is not so rosy. Moreover, though a lot of fiscal incentives, policies and schemes have been undertaken by both state and central government to promote entrepreneurship yet the concept of green entrepreneurship still is nil or vague in the mindsets of the local people. Green entrepreneurship is the need of the hour as it promotes pollution free eco friendly environment and sustainable development. In the absence of green entrepreneurship, Assam may fall prey to the onslaughts of *industrial terrorism* i.e. environmental

degradation. A little initiative will foster awareness about green entrepreneurship which will pave way for a greener Assam and hence promote sustainable livelihoods for the people of Assam who are dependent on Mother Nature for their living. If the entrepreneurial ventures in Assam are clubbed with phase wise introduction of mandatory provisions for green entrepreneurship or if incentives are provided for green entrepreneurship based projects then the state will be able to overcome the environmental threat posed by rapid industrialisation in the state. The long term benefits that will generate from the introduction of such measures for green entrepreneurship will be higher than the short run huge costs that will be incurred in the implementation of the same. Moreover, sustainable growth cannot be compromised at the cost of short run profits.

Most of the entrepreneurs of today are not so concerned about environmental degradation and think of multiplying the financial benefits from their ventures even at the cost of the environment and society. It is to be understood here that such benefits are short-lived and in the long run it will be their step towards greener environment that will inculcate a sustainable beginning for the upcoming generations. There is a dire need to shed ignorance on green entrepreneurship and various agencies like government, companies, NGO's, civil society, institutions etc. will have to play lead roles in promoting green entrepreneurship.

As per the Industrial and Investment Policy of Assam, 2014 around 85.92 percent of the total population of Assam is rural with agriculture as the major occupation. Again, according to Industrial and Investment Policy of Assam, 2019, "Assam's unique location in combination with its rich natural resources and skilled manpower provides a natural backdrop for promising business." Through the policies, the government of Assam has emphasised on adoption of eco-friendly investment strategy to encourage sustainable development of the state.

There is sufficient scope for small and medium environment friendly industrial projects in Assam. The importance of small and medium industries cannot be overlooked in the north-eastern region. The contribution of these industries towards economic growth and prosperity is well established. Promoting green entrepreneurship can induce inclusive growth. Through this initiative the traditional industries can be developed and can create a vast pool of skilled and semi-skilled labour force as well as the innovative ideas and entrepreneurial skill can foster competitiveness in the economy.

The Prime-minister of India, has on several occasions called upon the north-eastern states to develop 'organic farming or cultivation' on a large scale which is possible in this part of India because of its climate and available resources. Organic farm products are very high in demand these days, in India as well as abroad. However, the concept still needs a push.

Another scope of green entrepreneurship is in respect of white revolution i.e. dairy products. If proper attention is paid there are huge prospects for milk industry in Assam which is purely an ecopreneurship project.

The availability of sufficient flora and herbs having medicinal properties also lays prospects for setting up herbal/ ayurvedic medicine producing plants and natural cosmetics producing plants in Assam as well as north-east.

The vast water resources offer promising eco-friendly business opportunities in the field of pisciculture/aquaculture. There is huge scope of food processing, agro-based products, bamboo based products, mineral based products, and horticulture (especially floriculture) based industries in Assam.

Some facts are provided to substantiate the given proposals. Blessed with ample rainfall, Assam is famous for bamboo production which can replace wood on many grounds and generates bio mass.

Around 300 types of medicine and aromatic plants exist in abundance in the hills and forests of Assam but it is disheartening to note that only 5 to 10 percent of the plants and herbs are commercially cultivated. The scope of horticulture and food processing extends to fruits, vegetables and spices etc. The state government has initiated a number of schemes for commercialisation and development of these sectors. National Mission on Food Processing is also operating in the state for promoting entrepreneurial ventures in these sectors.

Sericulture industry too offers promising prospects in the field of ecopreneurship in Assam as the state is popular for its silk production in its unique style.

Of course there is a dire need to take up these entrepreneurial opportunities in a green way so the transformation process too is environmental friendly and the product contributes to the cause of greener environment.

X, SUGGESTIONS

Green entrepreneurship is very relevant issue and needs awareness as well as attention on all dimensions. Although the issue is still at its nascent stage in India yet if steps are not taken up seriously to promote green economy then sustainable development will only be a myth. A few suggestions are put forward for promoting green entrepreneurship in India in general and Assam, in particular.

1. Raise awareness among the masses about the benefits of green entrepreneurship as well as strengthen the business case for sustainability. Information campaigns and training programmes can improve knowledge about the environmental activities that can be undertaken. Voluntary organisations as well as government should come up with necessary training and infrastructure support for green entrepreneurship based projects. Awareness about environmental problems creates mass demand for green revolution which in turn forces business houses to green both their products and services. This also creates an automatic pressure on the government to formulate compulsory green plans.
2. The government can encourage green entrepreneurship by providing formal certification to those entities that encourage sustainable practices.
3. Government can also encourage and extend help to provide formal training as well as technical knowledge to those entrepreneurs with skills for sustained green oriented strategies. This acts as a catalyst to increase the gross domestic production of the region by giving a thrust on economic activities which are based on the locally available resources.
4. Government can play a role in bolstering environmental awareness through informational campaigns and education. Courses in educational institutes should include the concept of green entrepreneurship. Formal education orientation regarding environmental education also creates demand for green solutions like for energy efficient appliances, renewable energy and organic food which in turn promotes green entrepreneurship.
5. Entrepreneurs should be forward looking visionaries and innovative. Entrepreneurs should not only embark upon existing or new market opportunities but create their own opportunities by addressing existing problems augmenting environmental degradation and thus creating demand for green products which do not exist but can be produced.
6. Governments may take direct steps to strictly ban undesirable products or services or levy heavy taxes on such products or services which will in turn promote desirable products or services. As for example, if government puts a ban on plastic bags then automatically use of cloth bags will be encouraged. Indirect measures may also be undertaken like consumer education, green policies, green labelling and certification.
7. Government may provide specific support and recognition to firms engaged in green entrepreneurship.
8. Government must provide financial help to budding as well as existing green entrepreneurs by providing tax- incentives, subsidies on raw materials used, co-investment funds or support NGO's or other associations to promote green entrepreneurship.
9. Investment financing banks or other agencies should take into account the environmental impact of an investment into account rather than concentrating only on the returns on investment.
10. Research and development on green projects should be undertaken by research centres and universities in respective fields to promote green entrepreneurship.

CONCLUSION

Green entrepreneurship is a development initiative which is taken by individual, groups, civil society and government to strengthen the environment and for the enhancement of quality of life by reinforcing

individuals and thus supporting a more participatory, cooperative and demographically inclusive culture. Green entrepreneurship as the study reveals is in a growing stage with shallow awareness at grass root level. The recognition that effective change cannot be promoted from outside, India has begun promoting the concept of sustainable development and green entrepreneurship is a part of it. Green entrepreneurship is a part of socially responsible design which will help in the reduction of pollution, use of green technologies which will be beneficial in maintaining sustainable development, the benefits of which cannot be compromised by short term profits by acquiring other system of entrepreneurship. Empowering the masses on green entrepreneurship through universal education will lead to positive awareness and inculcate a positive attitude towards green entrepreneurship.

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