

Ecopreneurship: Boons and Challenges in Indian Business Context

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Abstract—Ecopreneurship, or ecological entrepreneurship, has emerged as a sustainable approach to addressing environmental challenges while fostering economic growth. In India, with its diverse ecological zones and growing environmental consciousness, ecopreneurship presents both significant opportunities and hurdles. This article examines the concept of ecopreneurship in the Indian context, highlighting its advantages, such as environmental conservation, job creation, and market potential, while also exploring challenges like regulatory hurdles, financial constraints, and cultural barriers. Using secondary data, this paper explores current state of ecopreneurship in India, analysing case studies and trends to propose solutions for sustainable growth.

Index Terms—Ecopreneurship, India, sustainability, green economy, Start-ups, challenges, opportunities

I. INTRODUCTION

Ecopreneurship refers to the trend of running a business with an ecological and sustainability focus is on the rise worldwide, including in the emerging markets of the emerging economy of India. It combines business expertise with the idea that can develop profitable and ecological postures for various businesses. Ecopreneurs are crucial in giving solutions in eras that India faces challenges for example; pollution, resource depletion, global warming among others. The presence of significant biological and cultural diversity in India is a favourable environment for ecopreneurships. Topic areas span from schemes on natural agriculture and green energy to green clothing articles and proper disposal of wastes. However, in practice there are several issues as follows: Ecopreneurships policy support systems in India are not very strong; there is a general awareness problem; Ecopreneurs also suffer from funding, or the lack of it. This article will also

describe the promotion of ecopreneurships as a positive phenomenon in India and address the problems of such activity. These study intends to be put forth the opportunities and current strengths of ecopreneurships in India and the challenges currently facing by Indian ecopreneurships that can be overcome by timely active initiatives from the part of government and related authorities.

II. LITERATURE REVIEW

Ecopreneurship has been applauded as a revolution in the achievement of sustainable development. Previous research reveals that ecopreneurs are agents of change steering sustainable environmental recovery and innovation (Schaltegger, 2002). Hall et al. (2010) state that ecopreneurs are involved in the green economy since they design green products and services. Scholars have so highlighted the increasing importance of ecopreneurships in the Indian context. According to Singh and Panwar (2018), due to environmental issues in India as well as an entrepreneurial culture, India is ripe for green businesses. Nonetheless, as highlighted in the study by Sharma, Rai, and Singh (2020), the structural problems remain apparent for the sector's development, policy problems and financial challenges.

Ecopreneurship which integrates ecological considerations with entrepreneurship is becoming more relevant and valuable as a sustainable paradigm of economy and ecology development. Concerns itself with the imaginative and inventive put to apply the enterprise acumen and resourcefulness to resolve environmental and social problems (Shrestha & Rijal, 2022; Shrestha, 2023). As trying and tackling uncertainty in their businesses, ecopreneurs do not expect magnificent rewards for risks but are striking

at the root of the novel and unexplored business opportunities with environmental sustainability as their goal (Rodríguez-García et al., 2019). The idea is significant for facilitating change in educational areas in the present and into the future, urging adoption of the intervention into curricula and learning-teaching models (Shrestha & Rijal, 2022; Shrestha, 2023). In their turns, ecopreneurship and green product initiatives have many advantages for development, for example, eliminating poverty and creating work places (Solaja, 2017; Shrestha & Rijal, 2022). But the sustainability, the more lasting sustainability, calls for partnership among ecopreneurs and members of society on one hand and producers of the products on the other (Rodríguez-García et al., 2019). Thus, governments, researchers, and stakeholders are encouraged to support and fund the application of ecopreneurship to create more sustainable living environment.

Using Indian ecopreneurial cases like renewable energy start-ups, and organic farming, the study found that the outcomes were not completely positive or linear. Where some businesses have grown organically, others fail because of the highly fragmented market and customer skepticism (Rajput & Singh, 2019). These findings point to the Table 1: Ecopreneurships selected for case study

importance of the supportive environment with the necessary policy push, financial instruments, and consumer awareness.

III. MATERIALS AND METHODS

This research uses secondary data sources that include government publications, journal articles, trade journals, and other sources accessible on the internet. Survival and growth factors were obtained from analysing quantitative data relative to ecopreneurial ventures, specific markets, and policy contexts. To support these concepts, case studies of prospective and restless ecopreneurs in India were also discussed for better understanding of their knowledge. In the analysis of data, the study utilised qualitative methods to make meaning of patterns and themes in the secondary data analysis. In comparing the progress of ecopreneurships in India to global trends, a comparative research strategy was employed. Overall efficiency and efficacy of ecopreneurial ventures was evaluated with the help of common performance indicators illustrating environmental responsibility, market share, and business profitability. Case studies were conducted on the functioning of the following ecopreneurships

State	Startup Name	Year Founded	Founder(s)	Focus Area	Key Innovation
Maharashtra	Beco	2018	Akshay Varma, Anuj Rathi, Aditya Ruia	Biodegradable household products	Producing eco-friendly alternatives to plastic-based items
Delhi	Chakr Innovation	2016	Kushagra Srivastava, Arpit Dhupar, Prateek Sachan	Emission control devices	Converts diesel generator emissions into usable products like ink and paints
Karnataka	Saahas Zero Waste	2013	Wilma Rodrigues	Waste management	Offers collection, segregation, and recycling services, reducing waste to landfills
Telangana	Banyan Nation	2013	Mani Vajipey, Mathangi Swaminathan	Plastic recycling	Technology-driven plastic cleaning and recycling to produce high-quality recycled Granules
Kerala	Tree Tag (Trivandrum)	2021	Abhijith Kumar Meenakumari & Aashuthosh B Sai	Green-tech initiatives	Focused on reducing carbon emission through tech-integrated afforestation projects

IV ANALYSES AND DISCUSSION

4.1 Opportunities of Ecopreneurship in India

4.1.1 Environmental Conservation:

Ecopreneurs in India contribute significantly to reducing pollution, conserving biodiversity, and promoting sustainable resource use. For example, ventures in waste management have introduced efficient recycling systems in urban areas. Table 1 showing the positive impact of ecopreneurship on the Table 2: Environmental Impact of Ecopreneurship in India

Area of Impact	Examples	Achievements
Waste Management	Recycling initiatives	Reduction in urban waste by 25%
Renewable Energy	Solar and wind energy projects	Increase in renewable energy by 30%
Biodiversity Conservation	Eco-tourism, organic farming	Preservation of 10 endangered species

(Sources: Secondary data)

The table 2 captures major outcomes across one of the three categories of impacts. In waste management the recyclable programs have helped in cutting urban waste level by 25% hence enhancing cleanliness. In the renewable energy, the solar and wind energy projects have added 30% capacity in the renewable energy generation which is helping in delivering sustainable solutions. On the other hand, conservation of the remaining natural resources, such as eco-tourism and organic farming, reveal improvements in the protection of 10 endangered species in the country with regard to preservation of ecological diversity as well as the promotion of environmental balance.

4.1.2 Economic Benefits

Table 3: Economic Contributions of Ecopreneurship

Sector	Jobs Created	Revenue Generated (INR Crores)
Renewable Energy	1,00,000+	12,000
Organic Farming	50,000+	4,500
Sustainable Fashion	25,000+	2,000

(Sources: Secondary data)

Three sustainable sectors are analysed in the table 3 in terms of their economic and employment generators. The clean energy has become one of the major industries, providing more than one hundred thousand employees and ₹12,000 crores of the revenue; therefore, the renewable energy helps in both economic development and the increased use of clean technologies. More than 50,000 individuals are working in organic farming and business of ₹4,500 crores prove the impact of organic farming in agriculture and generating healthy food. The concept of sustainable fashion has created over 25,000 jobs, and has increased the revenue of ₹2,000 crores for the

environment. Data were compiled from published reports of Ministry of Environment, Forest, and Climate Change reports, Data from the Central Pollution Control Board (CPCB) on waste management and pollution reduction and the studies published in environmental science journals or reports by organizations like TERI (The Energy and Resources Institute).

Green enterprises create jobs and stimulate local economies. The renewable energy sector, particularly solar energy, has generated substantial employment opportunities in rural India. Following table (table 2) showing the economic contributions of sector wise ecopreneurship in terms of employment opportunities and revenue in India. The required data were compiled from the published reports by the Ministry of New and Renewable Energy (MNRE) for job creation and revenues in renewable energy, Agricultural data from the Ministry of Agriculture and Farmers' Welfare for organic farming statistics and industry analysis reports on sustainable fashion by McKinsey or other consulting firms.

textile and apparel industry, proving that fashion consumption can be a sustainable act. Together, these sectors show how green initiatives create employment opportunities, economic development, and help to ensure the development of a more sustainable economy.

4.1.3 Market Potential: With increasing consumer awareness, demand for sustainable products is rising. India's middle class, driven by values of environmental responsibility, represents a growing market for green goods. Table 3 shows the rate of consumer adoption and size of consumer base of ecopreneurship in India. The required data were

extracted from sources such as market research reports by Nielsen or Kantar on consumer preferences for sustainable products, data from trade

organizations like FICCI or CII regarding market trends in eco-friendly products etc.

Table 4: Consumer Adoption of Sustainable Products

Product Category	Growth in Adoption (%)	Consumer Base (Million)
Organic Food Products	40	50
Eco-Friendly Packaging	35	30
Green Energy Solutions	50	20

(Sources: Secondary data)

Extending the notion of sustainable products, the table 4 shows the increase of sales in three areas of concentration. The awareness of the health and environmental impacts of organic food products has enhanced product adoption level which has increased by 40% with 50 million consumers. Sustainable packaging has grown by a third within the past year, with 30 million consumers consciously using products with less or no plastic. Green energy solutions are at the forefront of the growth surging by 50% to gain 20 million consumers who are embracing renewable sources of power as they seek to fight climate change. Altogether, these trends describe a pivotal change of consumer behaviour overall focusing on environmentally friendly

products and/or services. This shift shows the increased market attractiveness for sustainable goods, as well their importance for creating a more sustainable society.

4.1.4 Government support to Ecopreneurships in India

To promote sustainable business endeavours Government of India and state governments provided considerable budget allocation as depicted in table 4. Related statistics were compiled from the sources like official government websites, such as the Start-up India portal or MNRE, for detailed information on subsidies and initiatives and from the annual budget documents and policy announcements by the Government of India.

Table 5: Government Incentives for Ecopreneurs in India

Incentive Program	Description	Budget Allocation (INR Crores)
Subsidies for Renewable Energy	Financial support for solar and wind projects	5,000
Start-up India Initiative	Support for eco-focused start-ups	2,000
Tax Benefits for Green Ventures	Tax exemptions for sustainable businesses	1,500
Skill Development Programs	Training for green entrepreneurs	500

(Sources: Secondary data)

The table 5 shows the primary government incentives for sustainability and green entrepreneurship agendas. The largest allocation goes to subsidies for renewable energy of ₹5,000 crores to finance solar and wind power to boost move to green energy. The India Start-up Amity, with an outlay of ₹2.000 crores, caters for the green-start-ups, while encouraging innovation in environment-related industries. Tax incentives for green initiatives, with ₹ 1,500 crores planned, provide exemption to sustainable start-ups so more business entities intend to stake into green initiatives. Lastly, the youths are invested ₹500 crores in training green entrepreneurs so as to enhance their ability to master required employments skills from the emerging green economy. All these initiatives

show that there is some strategic approach towards sustainability by using financial incentives and capacity building of entrepreneurs and towards developing sustainable economy for India.

4.2 Challenges of Ecopreneurship in India

Reviewing the reports and publications related to entrepreneurship and governance, it can be inferred that there are three key barriers facing ecopreneurships in India.

4.2.1 Regulatory Hurdles: Complex and inconsistent policies often discourage potential ecopreneurs. Navigating bureaucratic processes to obtain permits can be time-consuming and costly.

4.2.2 Financial Constraints: Access to funding remains a significant barrier. Many ecopreneurs

struggle to secure investments due to perceived risks associated with green ventures.

4.2.3 Cultural Barriers: A lack of consumer awareness and skepticism about sustainable products

hinder market penetration. Traditional mind-sets often resist changes in consumption patterns.

Table 5 shows the evidence in statistics which reveals the prominent challenges faced by ecopreneurships in India

Table 6: Key Statistics Evidence of Challenges of Ecopreneurships in India

Challenges	Key Statistics
Regulatory Hurdles	Over 60% of green start-ups report delays due to unclear regulatory frameworks (Source: FICCI 2023)
Financial Constraints	Only 25% of green ventures successfully secure seed funding compared to 45% of traditional start-ups (Source: NASSCOM 2023)
Cultural Barriers	70% of Indian consumers prioritize cost over sustainability, with only 20% aware of eco-friendly alternatives (Source: EY 2023)

(Sources: Secondary data)

The following are some of the main issues described by green start-ups in India as per the table 6. Some the challenges are policy-related, with more than 60% green start-ups complaining of delays attributable to lack of clear and coherent regulatory standards, FICCI (2023). This delay often slows down the growth and expansion of such firms so that they end up becoming small medium sized businesses. Another problem specifically the financial condition — nearly half the innovative green venture gets no seed money contrary to 45% of regular start-ups according to NASSCOM (2023). This indicates a shortfall in the sources of funding, which most green businesses struggle to finance, given that they are considered risky by investors, or because they take more time to start generating profits. Further, consumer behaviour is still defined by cultural factors, which give difficulties to adopt green products and services. As highlighted in EY (2023) statistics, only 20% of Indian consumers have knowledge of environmentally friendly products, and 70% place a premium on the cost of goods. This consumer behaviour remains rather challenging for new green start-ups because they are unable to effectively promote environmental choices as more attractive than cheaper, non-environmentally friendly options. Altogether, the three problems that green start-ups in India face and portrayed in this piece are regulatory, financial, and cultural: and all these describe the broad picture of challenges that green start-ups meet before they gain traction in the market. Very scant has been found about the number of green start-ups that have shut down their operations in India in more details. However, according to the Start-up

India Portal as on December 2024, out of an estimate of 152000 recognised start-ups under Start-up India including most of the green enterprises, 5063 have been marked as discontinued (Financial Express, 2004, December 20).

4.3 Recommendations

Summing up, we can outline the following recommendations to overcome the challenges, Present study also offers the following recommendations.

4.3.1. Recommendations as solutions to overcome regulatory issues

- **Streamline Policies:** There is need for government to come up with clear policy standards for green enterprises and simple requirements for permits.
- **Green Start-up Hubs:** Establish a focal point for the regulatory processes concerning the ecopreneurial activities through developing collection points or a centre’s one-stop for the corresponding authorizations.
- **Tax Incentives:** Cultivate taxation incentives for all green/sustainability-based businesses.
- **Collaborative Policy-Making:** Take ecopreneurs into inclusion into policy making so as to ensure that the policy measures set are proportional and favourable.

4.3.2 Recommendations to overcome the problem of financial constraints.

- **Green Investment Funds:** Promote private capital and financial sector development to establish specific portfolio or fund for green business.

- Government Grants: Expand availability of grants and low interest rates for ecopreneurships ventures especially at start up time.
- Risk Mitigation Strategies: That should be done in the form of green insurance or credit guarantees in order to lower the perceived risks associated with investing in sustainable projects.
- Awareness Campaigns: Inform the investors about high sustainable revenues and positive social externality of the green business ventures.

4.3.3 Recommendations regarding cultural barriers are as follows:

- Consumer Awareness Programs: Organise awareness campaigns around the country in hope of helping the society embrace sustainable product consumption.
- Green Certification Labels: To support and consolidate the customers' belief, it is possible to create certificates for environmentally friendly products.
- Affordable Green Products: Help ecopreneurs work towards decreasing the costs of production due to the use of new technologies as well as seeking large scale production.
- Incentivizing Sustainable Choices: As an incentive to consumers who go green, they should be given coupons with rebates or bonuses to use their green products.
- They may help in initiating favourable conditions that would help the large pool of ecopreneurs in the country and make the economy more sustainable.

V. CONCLUSIONS

The study examines the opportunities and challenges of ecopreneurship in India, highlighting its potential to drive sustainable development, address ecological issues, and generate economic benefits. However, the sector faces hurdles in regulation, funding, and cultural acceptance. Current policies are inconsistent and bureaucratic, deterring green investments. Simplifying procedures, offering tax exemptions, and creating clear legal frameworks can encourage ecopreneurs. Funding remains a significant barrier as traditional investors avoid green ventures due to perceived risks and long-term returns. Developing green bonds, low-cost funding, and tailored financial

solutions is essential. Cultural attitudes also hinder ecopreneurship, with societal preference for conventional careers over green businesses. Education, awareness campaigns, and media can foster acceptance and inspire youth to embrace sustainable entrepreneurship. India's natural resources, skilled workforce, and rising green consumerism present opportunities, while partnerships with private sectors, community involvement, and increased R&D can strengthen ecopreneurship, positioning India as a global leader in sustainability.

VI. IMPLICATIONS

The study highlights ecopreneurship as a key solution to environmental challenges while fostering economic growth. It emphasizes the need for reforms in regulation, funding, and cultural attitudes to support sustainable businesses. Simplified policies, subsidies, and financial solutions like green bonds can address bureaucratic and financial barriers. Cultural shifts, through education and media, can inspire future generations to embrace sustainable business models and increase public acceptance of eco-friendly practices. Intersectoral cooperation, including PPP approaches, community participation, and R&D, is crucial for advancing green industries. India, with its rising purchasing power, rich natural resources, talented youth, and growing consumer awareness, is well-positioned to lead in sustainable entrepreneurship. Addressing these barriers will enable ecopreneurs to overcome challenges, drive growth, and set global benchmarks for sustainable economies.

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