Emergence of Green Business Engendering New Avenues for Augmentation of Green Entrepreneurship and Sustainable Development through Indian MSMEs

Dr. Nisha K.M.  
Corresponding Author: Dr. Nisha K.M.

Abstract: Manifestation of Green slant to the business is prevailing in the contemporary global scenario that provides practical solution for the unprecedented increase in the exploitation of natural and non-renewable resources. The perceptible rise in the levels of environment pollution in the form of emission of poisonous gases, solid/liquid waste and e-waste is resulting in environmental degradation and drastic climate change. Along with this the population explosion and employment challenges are causing severe threats to sustainable life on earth. A paradigm shift in the economy towards a clean technological mission is an eye-opener for sustainable development that can be guaranteed through mainstreaming environment into economic growth. The idea of green business emerged at the close of 20th century by embracing on green spectrum of business operations. Green entrepreneurship in manufacturing and service sectors are striving for sustainable development through different forms of economic activities bringing synergy in growth through maintaining proper equilibrium between rural and urban needs and requirements of local and international communities. Micro Small and Medium Enterprises (MSMEs), one of the key stakeholders in the transition of economies worldwide are great emissaries of sustainable growth as they are run on small scale basis, causing low environmental hitches, concentrating on wide range of products and services especially in the rural and less industrialised areas. The article attempts to bring to light the emergence of green business that is opening up novel avenues for supplementing green entrepreneurship in India. Research methodology consists of use of secondary data drawn from annual reports, journals, magazines, newspapers etc. Findings reveal that green entrepreneurship or ecopreneurship is gaining momentum across India decoupling economic and environmental performances. In addition, it is also adding social values by developing innovative technologies and new fangled business models thereby rejuvenating the prevailing economy. Green entrepreneurship triggers sustainable development by finely-tuning environmental challenges into business opportunities to create environmental value through innovative eco-designs thereby reducing the negative impacts on the environment. The study explores the increasing scope for ecopreneurial talents in young India especially in the State of Kerala where female entrepreneurs are on the rise that can facilitate sustainable, balanced and inclusive development in upcoming years. A number of government initiatives and policies are helping to hasten the growth of green entrepreneurs and more emphasis should be given to the effective implementation and proper follow ups to bring buoyancy in transforming the nation into a green economy.

Keywords: Ecopreneurship, Environmental Entrepreneurs, Green Business, Green Entrepreneurship, Sustainable Development, Micro Small and Medium Enterprises (MSMEs)

I. Introduction

New millennium is reckoned as an eon of entrepreneurship where business scene has been fortifying with the influx of industrial revolution and technological advancements. In the contemporary globalised and commercialised world, dynamic environment friendly entrepreneurial activities are progressively acknowledged as a germane ingredient for economic prosperity and sustainability. Numerous environmental issues related to climate change and carbon miles have elevated awareness of the environment and many people at this instance prefer to procure products and services with environmental sensitivity in mind (Anderson, 1998). The concept of green entrepreneurship or ecopreneurship is a relatively new phenomenon that first and foremost originated in developed countries like Australia and Europe soon after advancing to US (Allen & Malin, 2008). Ecopreneurial practices began in the 1970’s and its popularity increased substantially from 1990 onwards (Aras & Crowther, 2012). During early 1990’s there was immense progress in business opportunities pooled with emerging alternative lifestyle choices, enactment of new legislations and recognition of competitive edge in eco friendly business agenda (Holt, 2010). The period witnessed promotion of new businesses, especially ‘green’ micro oriented start-ups to create more sustainable business models with revamping focus on processes manifesting
greater environmental concern and latterly more social issues (Cohen, 2006; Larson, 2000, cited in Holt, 2010). Ecopreneurial tendencies are still in the infancy stage in developing countries like India. However, it is gaining momentum and popularity due to the detrimental effects of modern business practices on environment and increasing demand for sustainable development. At this juncture the fidelity for eco friendly approaches of establishing and operating new and innovative ventures comes into vista for assuring sustainability through green life styles. There is increasing green consensus and growing recognition for aspects such as link between sustainability and innovation, need for sustainability in strategic business development, emergence of green consumer demands, persistence for sustainable industrial practices, market based environmental policies etc (Aras & Crowther, 2012).

Green entrepreneurship through ecopreneurial practices leads to sustainable entrepreneurship which is more about the economic, psychological, social and environmental consequences of future goods and services (Cohen & Winn, 2007). Ecopreneurship facilitates green production, green design, green processes, exchange of green products and services from people to people with a growing niche for products that symbolizes loyalty to the principle of sustaining the planet, its resources and biodiversity for coming generations. The espousal of environmentally responsible business practices not only impacts environment positively but also plausibly open up new avenues for enriching additional range of opportunities for existing as well as prospective entrepreneurs to move on with sustainable business framework. It endows with bountiful niches where innovative entrepreneurs can design new products and services, improve the efficiency of existing firms, develop novel marketing techniques, reconfigure existing entrepreneurial models, practices and so forth. In Indian scenario substantial environmental damage has been caused due to the rapid population growth and pace of urbanisation and this menace is likely to intensify further in the coming decades. Greening of business and innovative technologies promoting sustainability are the need of the day for countries like India. According to the reports of Planning Commission, (2011) India’s total carbon footprint is escalating and it is the third largest emitter in the world behind China and the United States. On the other hand population growth has produced a ‘youth reservoir’ for the nation, as India is the leading country in the world in terms of size of youth population. On this grounds India’s National Skill Development Policy calls for the creation of 500 million skilled workers by 2022. Providing workers with the skills necessary for a green economy offers a great opportunity to address the environmental challenges faced by India and provide decent work to young Indians. However, currently the formal training offered for ‘green’ skills, such as programmes in achieving energy efficiency, is only in the preliminary stage of development.

MSMEs have emerged as a highly vibrant and dynamic sector of the Indian economy through generating enormous employment and self employment opportunities for particularly the disadvantaged and backward sectors of society. It is also addressing the needs of sustainable modernisation in the business world through innovative ideas and ways of carrying out eco friendly business operations in the country. Indian MSMEs contribute extensively to the socio economic development in the country as if they are the largest employment generators in the country after agriculture. It has an ambitious target of creating additional 100 million jobs in manufacturing sector through an annual average growth rate of 12-14 % in manufacturing arena. MSMEs contribute to over 45% in overall industrial output, 40% of the employment generated and 40% of the exports of the nation. The National Manufacturing Policy envisions in raising the sectoral share of manufacturing sector in GDP to 25% over the next decade (Reports of Press Information Bureau, MSME, 2017). The Twelfth Five Year (2012-17) laid special emphasis on skill development to achieve the target of faster, more inclusive and sustainable development, generating decent employment opportunities (Planning Commission, 2013). MSMEs are the vastly innovative and high growth entrepreneurial sectors and more than 94% of MSMEs are unregistered, with a large number of enterprises established in the informal or unorganized sectors. The heterogeneity and the unorganised nature of the Indian MSMEs are imperative aspects that must be factored into policy framing and programme implementation. The objective of sustainable development rests on availability of skilled manpower for the industries including greening practices. Several policies, laws and regulations need to be further enacted and implemented to discourage traditional enterprises from high-energy consumption, high pollution and high green house gas (GHG) emissions so as to enhance the use of clean and green technology based products and services. Green ventures targeting green products and services accentuating on optimal utilisation of scarce resources, pollution prevention, recycling, adoption of green supply chain management, focusing on green technology to save universe and make money is the need of the day. Organisation for Economic Co-operation and Development (OECD) (2012), reports that green growth entails promotion of cost effective and energy efficient models of production and consumption patterns by reconciling and reinforcing diverse facets of economic, social and environmental policies. It brings in economic diversification, technological innovations and changes the business ecosystem by mainstreaming sustainability, inclusiveness and equitable growth. A consensus should be created among the present generation for stirring sustainable consumption and production to ensure better life quality without jeopardizing the needs of future generations.

DOI: 10.9790/487X-2010036377 www.iosrjournals.org 64 | Page
Emergence of Green Business Engendering New Avenues for Augmentation of Green…

II. Review of Literature

Ecopreneurship is represented by different terminologies namely, green entrepreneurship, eco entrepreneurship, sustainable entrepreneurship, enviropreneurship, ecological entrepreneurship and so on. According to Schaltegger (2002) Ecopreneurship is a mishmash of two terms ‘ecological’ (eco) and ‘entrepreneurship’. It is entrepreneurship through an environmental lens with less orientation towards management and technical procedures and greater emphasis on personal initiative and skills of entrepreneurs to realise market success through environmental innovations. Kim and Mauborhe (2005) emphasised that there is a growing green movement, rising demand for greener products and services, scarcity of resources etc creating business opportunities for ecopreneurs go in pursuit of environmental friendly businesses opportunities. Eco-friendly entrepreneurship otherwise called as green entrepreneurship or ecopreneurship is a brand new avenue that is gaining high relevance in the modern world. It encompasses ‘ecological’ as well as ‘entrepreneurial’ characteristics with orientation towards some fundamental aspects of entrepreneurial activities and reflects inclination towards environmentally oriented entrepreneurship bridging the gap between environmental progress and market success (Anderson & Leal 1997; Isaak 1998, Wilkund 1999, Larson 2000). Ecopreneurs are eco-friendly entrepreneurs who create dynamics of environmental progress through environmental orientation towards ecological goals, eco friendly products and services, organisation of environmental management and communication of environmental issues (Schaltegger, 2002).

Green Industry and Green Economy Burgeoning Eco-friendly Lifestyles

Green industries are productive sectors operating efficiently by using organic components, phasing out toxic ingredients, substituting with renewable energy sources, improving occupational health, safety and environmental performances ultimately reducing environmental impacts of processes and products in a prudent manner (United Nations Industrial Development Organization (UNIDO), 2011). The policy matrix for greening of industries comprises of elements like corporate social responsibility, industry awareness and capacity building, extended producer responsibility, eco-labeling, green public procurement, greening supply chain, environmental taxes, technology diffusion, education and training, research and developmental activities, eco-park cluster networks, industrial standards, etc., (Collaborating Centre on Sustainable Consumption and Production (CSCP), 2007). Greening of industries are germane feature for all genus of industries from small, medium scale, to large industries, manufacturing as well as service sectors, it also encompasses companies that manufacture and install renewable energy machineries and develop and produce clean technologies. Greening of industries decouples the environmental stress and strains from economic growth. It incorporates a holistic approach integrating socio-economic, political and environment dimensions and bringing synergy in growth through maintaining proper equilibrium between local, state, national and international communities. Green industrial development is an instrument for transforming and fostering the nations to green economies with eco friendly life styles.

Green economies facilitate the growth of green enterprises and service industries on sustainable lines for reaping economic benefits through upholding environmental values. According to the United Nations Environment Programme (UNEP), the green economy is: “One that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.” Green economy definition was initially limited to climate change and reduction of carbon dioxide emissions and proposing short-term solutions to current environmental crisis. It has now evolved to include greening of the entire economy, providing long-term objectives of sustainable development and promoting social justice and decent work. Green economy includes broader dimensions of energy and resource efficiency, poverty eradication, social equity and human wellbeing. One of the tools that help us track these is the ecological footprint, which is a resource accounting tool that helps countries, cities, businesses, and individuals understand their ecological balance sheet. It gives them the necessary information to manage their resources and secure their future. A high footprint denotes that more ecological capital is being exploited than what is existent or will be regenerated. By means of providing a common unit, the footprint also helps businesses understand their ecological impacts. Green enterprises as a component of green economy focus on economic development, poverty alleviation, ensuring energy security, creates green jobs, implements waste management and promotes healthy and sustainable life on earth.

Green Entrepreneurship Instrumental in Sustainable Development

Green business orientation is gaining momentum especially due to increasing demand for quality life, sustainable development and rise in the velocity of adversities happening all over the world in the form of natural and man-made catastrophes. Eco friendly entrepreneurship adopts principles, policies and practices campaigning for green behavioural approach that encompasses 4Rs- reduction (reduction of consumption and reduction of waste), reuse, recycling and recovery (Kassaye, 2001). Greening of the business may involve additional costs; however, preference for green products and services that enhances the quality of life will
Emergence of Green Business Engendering New Avenues for Augmentation of Green...

always bring extra benefits and increase the profitability of business. by going green the business can gain a competitive advantage, better customer acceptability, enrich brand image, provide value added services magnetizing more customers towards a sustainable commercial approach (Collins, 2008; Swallow, 2009; Hartman et al., 2005; Laroché et al., 2001). At universal level people are expecting corporate world to exhibit more social and environmental responsibility (Webb et al., 2008). Mbebe (2012) examined the function of endogenous ecological entrepreneurial investments as a strategy that shifts from corporate oriented capitalism and local survival strategies toward sustainable environmental management. In the study a positive attitude toward green ventures was observed in the participants of green economy projects and the survey confirmed that attitudes, social norms and perceived behaviour control were significant predictors of the participants’ intention to engage in ecological entrepreneurship. Kainrath (2009) examined the main concepts of entrepreneurship and sustainability fields. In the exploratory part of the study the author identified eco-innovation, eco-commitment and eco-opportunity as part of instrumental theory of ecoentrepreneurship.

A proper equilibrium should be maintained between monetary and non monetary goals for establishment and operations of business enterprises so as to bring them in tune with sustainable growth. Green entrepreneurs are crusaders of environment responsible behaviour in addition to their keenness to achieve economic goals. Green entrepreneurship can be instrumental in sustainable development of a country at micro and macro levels by ensuring the endurance of systems and processes. Watling, Zhou and Nasholm (2011) elaborated on economic, social, environmental and institutional dimensions of sustainability in their exploration. They investigated on how people have positive or negative attitudes towards sustainability and how knowledge levels affected people’s attitudes. It was observed that micro-level sustainability elements are influenced by macro-level sustainability. Green entrepreneurial activities facilitate sustainable development in various dimensions of business environment. Pawlowski (2006) enumerates on sustainability dimensions like moral, ecological, social, economic, legal, technical and political. Raderbauer (2011) states that environmental sustainability comprises of measures undertaken to lessen energy consumption, execution of recycling, composting programmes. It also gave focus on the introduction of water saving measures, purchase of environmentally friendly products, encouragement of eco-friendly behaviours, develop business plans, purchase of local products etc. It was found that an increased performance of sustainable business practices is associated with a higher level of benefits perceived, additional strategic planning and a reduced intensity in perception of barriers.

Factors Influencing Ecopreneurship

One of the major factors influencing green entrepreneurship is the concern of people to preserve and protect environment. It is an indispensable constituent that manifests an environmentally responsible behaviour. Environment responsible behaviour is shown by an individual or group to protect the natural world of land, sea, air, plants and animals. Stern and Dietz (1994) research study reflected that environmental concern is related to egoistic, social-altruistic and biospheric value orientations and also believes about the consequences of environmental changes for valued objects. Alibeli and White (2011) in their article examined the structure of environmental concern in the United States. According to Stern et al. (1993) environmental concern is a tripartite phenomenon that comprised of concern about non-human species (biospheric), secondly it consists of concern about the welfare of other human beings (social-altruistic) and finally egoism or self-interest orientation. Guber (1996) for the purpose of testing dimensionality of environmental concern, uni and multidimensional models had to be formulated on the basis of prior theoretical expectations. The measures of environmental concern like air, water pollution and acid rain can most likely serve as valid indicators of a general orientation toward environmental pollution. On the other hand issues surrounding ozone depletion, deforestation and the “greenhouse effect” can in all likelihood represent a broad concern for global environmental problems. Measures related to environmental concern for toxic waste, nuclear contamination, and loss of wildlife habitat, were excluded from analysis because they seemed to tap considerations that were significantly different from either latent trait. Thus the measures of environmental behaviour were reduced to three broad categories reflecting political activism, conservation efforts and “green” consumer behaviour.

Yusof, Iranmanesh and Waziri (2016) undertook a study and the main focus was to analyse the Pro Environmental Practices (PEP) dimensions in construction firms, specifically among architectural, engineering, and contracting (AEC) firms in Malaysia. Findings manifests the four factors emerged as the PEP dimensions of firms i.e., energy efficiency, paper recycling, office waste recycling and involvement in pro-environmental efforts. Propensity, tendency or inclination towards sustainability is an important determinant of ecopreneurial practices. D’Alisa (2007) in the study stated that sustainability may be viewed as a junction among the so-called economic, social and environmental facets of sustainable development. The pollster observes that environmental system contains mainly the economic and social dimensions, besides this it also consists of other significant segment like institutional dimensions that adds the participatory democracy dimension for a proper synchronization of all aspects that are required for obtaining a complete visualisation of sustainable

DOI: 10.9790/487X-2010036377 www.iiosrjournals.org 66 | Page
development. Organisational potency or influences as per the Business Dictionary includes factors like the ability and capacity of an organisation expressed in terms of its human resources, their number, quality, skills and experience, physical and material resources like machines, land building; financial resources like money and credit; information resources like pool of knowledge, database and intellectual resources like copyrights, designs, patents etc.

ILO (2003) enumerates that environment factors are the external factors that include government policy both fiscal and legislative policies, access to appropriate business development support, access to finance and financial services and community and family. Mansor (2005) considered in the study various environmental factors like venture capital availability, presence of experience, technical skilled labour force, accessibility of suppliers, customers, new markets, government influences, land, transportation, new technological development, supporting services and living condition. Likewise ILO (1998) also included infrastructure, legal, regulatory, economic and socio-cultural variables such as rapid and threatening change, one’s family, school and work environment as the environmental factors that can have a significant effect on women entrepreneurs. The environment of business can provide opportunities or pose challenges to firms as they are external and beyond the control and management of the business owners. They are sometimes unpredictable which include the economic, financial, legal, political and socio-cultural factors. These factors play an immense role in entrepreneurial activity because, in spite of having the requisite personal entrepreneurial characteristics like education, right attitude to risk, motivation, energy, working experience etc, the environment may hold back women entrepreneurs from exploiting entrepreneurial opportunities (Kuzilwa, 2005; Shastri & Sinha, 2010; Vob & Muller, 2009).

The relationship between intention and entrepreneurial orientation has been considered by Ajzen (1991) who devised the theory of planned behavior (TPB). TPB stated that intention is the best predictor for behaviour and entrepreneurial intention is the locus of understanding the entrepreneurial process. The two prominent entrepreneurship intention models are Ajzen’s (1991) Theory of Planned Behaviour (TPB) and Shapero’s model of Entrepreneurial Event (SEE) (Shapero, 1982). The TPB has three key antecedents of entrepreneurial intentions - attitudes towards the behaviour, subjective norms and perceived behavioural control (PBC). Shapero’s model constitutes of three antecedents to entrepreneurial intentions - perceived desirability, perceived feasibility and propensity to act. Both these models support the influence of perceived feasibility on intentions. Lumpkin and Dess (2001) in their study elaborates that entrepreneurial orientation has been used to refer the strategy making processes and styles of firms that engage in entrepreneurial activities. A renowned model of entrepreneurial orientation (EO) suggested five dimensions - autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness (Lumpkin and Dess, 1996). It was found that proactiveness was positively related to performance but competitive aggressiveness tended to be poorly associated with performance. Murugesan (2008) found that green practices of business include elements like (1) Green use: which reduces the energy consumption of products or services and use them in an environmentally sound manner; (2) Green disposal: indicates the refurbish and reuse of goods and also includes recycling of unwanted goods; (3) Green design: comprises of designing energy efficient and environmentally sound components or provide eco friendly services; (4) Green manufacturing: concentrates upon the manufacturing of goods and delivery of services that have minimal or no impact on the environment.

**Ecopreneurial Typologies**

Types of ecopreneurs vary according to their function, orientation and influences. Schlange (2006) elucidates that there are basically three types of entrepreneurs the traditional ones who are more inclined on creating economic value and hence, termed as economically driven entrepreneurs, secondly comes the socially driven entrepreneurs who creates value for society at large. Finally there are ecologically driven entrepreneurs who are oriented towards improvement of environment. When all the three categories are combined becomes sustainability driven entrepreneurs. An Ecopreneurial motivational matrix was developed which comprised of radical ecopreneurs, ineffective ecopreneurs, star ecopreneurs and exploitative ecopreneurs. The basis for differentiation was ethics and values and their desire to make money (Bosman, 2012). Thompson and Scott (2010) identified four ecopreneurial categories comprising of those who are exploiting regulatory opportunities, struggling with regulations, running true environmental business and under achieving as a business based on level of achievements, environmental concern constraints and perceived environmental opportunities.
Emergence of Green Business Engendering New Avenues for Augmentation of Green...

According to Taylor and Walley (2004) as cited in Isaak (2005), Green entrepreneurship typology includes visionary champion and ethical maverick having more orientation towards sustainability, innovative opportunists and accidental enviropreneurs with higher orientation towards economic aspects. Visionary champion and innovative opportunist are subjected to hard structure influences, whereas, ethical maverick and accidental enviropreneurs are subjected to soft structure influences.

Schaltegger (2002) uses two dimensions for typology, one reflecting the priority given to environmental issues as a business goal from low to high, while the other focusing on the market effect of the business, with a spectrum through ‘alternative scene’ to ‘eco-niche’ and mass market. The major thrust was given to those companies where environmental goals are core to the business as opposed to those where the focus is merely on environmental management or administration. Within the former, three main types of ecopreneurs were identified that included Alternative actors, Bioneers and Ecopreneur actors. Alternative actors are those whose market goals are not important and the business may exist to support a lifestyle. Next are Bioneers who occupy medium-sized niche markets with customer-focused eco-products. These are often inventors with a strong R&D focus and can be found in high technology sectors, such as alternative energy sources. The third category is Ecopreneur Actors who aim to possess a large market share and to engage with mass markets. These are rarely inventors, but aim to search for business ideas with products and services that solve environmental problems.

Linnanen (2002) also uses two criteria in his typology based on internal motivations: the desire to change the world (high, low) and the desire to make money and grow the business (high, low). From this he derives four types of ecopreneurs Non-profit business with high desire to change the world, low financial drive, Self-employer who has low desire to change the world, low financial drive, Opportunist with a low desire to change the world, high financial drive, Successful idealist who has a high desire to change the world and high financial drive.

Research Methodology

The paper is based on exploratory research that is conceptual in nature. The study has been done on the basis of extensive review of literature related to green business and sustainable development. This research paper is principally based on secondary data which has been published in various research journals, leading magazine, newspapers, websites and government reports.
Emergence of Green Business Engendering New Avenues for Augmentation of Green...

III. Objectives of the Study

- To explore green business practices augmenting ecopreneurship in India
- To analyse the determinants of Green Entrepreneurship
- To identify ecopreneurial typologies
- To examine the role of MSMEs in ecopreneurial development in Kerala
- To study the challenges and prospects of green business in the country

IV. Results

Industrial development and modernisation is inevitable for any countries growth and development but it should not be at the expense of environmental sustainability. High density of population, destruction of vast forest lands, over use of scarce resources and pollution of all kinds will make things worse for India. Measures for going green through valuing its natural resources in an appropriate manner should be adopted for meeting issues of sustainability. While calculating countries’ GDP, the impact of pollution on cost of public health and the cost of cleaning up of the environment that has been destroyed in the course of economic development should also be well thought-out. Green business culture is transforming many economies around the globe towards enhancement of a clean and safe lifestyle along with saving the present resources and wealth of the earth also for the future generations to come.

As per the World Bank report, Poverty and backwardness in India is both a cause and effect of resource degradation. The agricultural yields from these degraded lands become lower and forests and grasslands are exhausted as the rural folks are compelled to mine and overuse these limited resources resulting in a downward spiral of impoverishment and environmental degradation. With the increasing population and industrialisation things are becoming more relentless, therefore India has a big challenge to meet for environmental sustainability as it moves along its growth trajectory. High level of pollution, due to excessive use of coal, low quality gas, petrol and diesel in factories and transportation services etc results in high level of Green House Gas (GHG) emission. The country should develop a Green Development Index (TDI) that aims at a low-emission, resource-efficient greening of the economy with minimum impact on its Gross Domestic Product (GDP) growth.

The advent of globalisation and emergence of cosmopolitan culture are changing the habits and preferences of consumers and Indian scenario needs a genuine refinement in their new business outlook. Modern businesses are causing impairment to the human as well as natural habitat. Kerala reckoned is one of the leading States in India to promote women entrepreneurship through MSMEs. With the support of State government, NGOs and other Self Help Groups (SHGs), entrepreneurship in the State have always endorsed the idea of “Green and Clean Technology” that demands for eco-friendly and sustainable growth and development. Inclusiveness of women and backward sectors in contributing effectively towards economic and social development is also being focused. The study analyse, how far the entrepreneurs in India especially in Kerala are sensitive towards establishment and operation of green enterprises or adopting green or ecopreneural practices in their operations. The thrust areas being green manufacturing, green technology, green marketing, eco friendly products and services and so on, that is least detrimental to environment.

Green entrepreneurship is often influenced by a number of external and internal factors like environmental concern, propensity to sustainability, organisational potency, environmental factors, ecoprenuerial intentions and orientation, and ecopreneurial practices.

<table>
<thead>
<tr>
<th>Table 1. Determinants of Ecopreneurship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors</td>
</tr>
<tr>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Environmental Concern</td>
</tr>
<tr>
<td>Propensity to Sustainability</td>
</tr>
<tr>
<td>Organisational Potency</td>
</tr>
<tr>
<td>Environment Factors</td>
</tr>
<tr>
<td>Ecopreneurial Intensions</td>
</tr>
<tr>
<td>Ecopreneurial Orientation</td>
</tr>
<tr>
<td>Ecopreneurial Practices</td>
</tr>
</tbody>
</table>

Source: Self Compiled

DOI: 10.9790/487X-2010036377 www.iosrjournals.org 69 | Page
Entrepreneurial practices are dynamic and entrepreneurs in different regions and doing different business reflects diversified behaviours. The nature of doing business and actions, attitudes, and choices of entrepreneurs under different circumstances are becoming more complex at an astonishing pace, especially in the hi-tech sectors. They tend to vary in terms of internationalisation, outsourcing and networking. New typologies are likely to emerge in the future, based on different approaches followed in their business and lifestyles. From various typologies mentioned by different authors it can be inferred that in all these typologies there are strong overlaps. Thus Linnanen’s self-employer is similar to Walley and Taylor’s ethical maverick, the opportunist to the ad hoc enviropreneur and the successful idealist to the visionary champion.

The crux of green entrepreneurship comprises of adopting energy saving behaviours, water conservation measures, green financing, giving thrust to green construction and production. Green business often uses proper waste management techniques for disposal, reducing, recycling, upcycling and reusing of products to assure waste free and pollution free environment. It gives due importance to green procurement of products and services, resorting to green pricing, labeling and branding. Green entrepreneurs makes their ventures stick to a green protocol enhancing quality, durability and guaranteeing sustainability. Focusing on eco friendly distribution system and employing eco-friendly marketing logistics they make sure that the customers are left with better choices that corroborate a quality living and lifestyles.

**Table 2. Crux of Green Entrepreneurship**

<table>
<thead>
<tr>
<th>Basis</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Saving</td>
<td>Replace conventional energy sources with renewable energy sources like – solar energy, wind power, tidal energy, biomass, geo thermal energy and hydro energy.</td>
</tr>
<tr>
<td>Water Conservation</td>
<td>Recycling and reuse of water, avoid water pollution, rationale use of ground water, choose efficient fixtures, water treatment plants etc.</td>
</tr>
<tr>
<td>Green Finance</td>
<td>Finance supporting green growth, finance to prevent environmental costs.</td>
</tr>
<tr>
<td>Green Construction and Production</td>
<td>Environment sustainable site, energy efficiency, water efficiency, natural lighting and ventilation, indoor environmental quality, reduce waste, ensure high performance, use non toxic materials and resources, reduce harmful emissions like VOC’s and CO₂, life cycle assessment, green technology.</td>
</tr>
<tr>
<td>Waste Management</td>
<td>Reduce garbage, reduce toxicity of waste and trash, reuse containers, repair equipments, recovery and recycle of products, separate waste into degradable and non degradable and dispose it in a suitable way, incineration/combustion/thermal treatment and plasma gasification.</td>
</tr>
<tr>
<td>Recycling and Reuse</td>
<td>Reuse durable items, reprocess recyclable products, upcycle old products to new products and reassemble old products to innovative products.</td>
</tr>
<tr>
<td>Pollution Prevention</td>
<td>Prevent air, water, sound and land pollution, produce environmentally sustainable and local materials/products, protect sensitive areas, use green and clean technology for production, distribution and disposal.</td>
</tr>
<tr>
<td>Green Procurement</td>
<td>Choose suppliers based on sustainable principles, reduce use of chemical inputs, procure eco brand products/services, reclaim wasted resources, recover the usefulness of resources, restrict the use of non renewable resources, relinquish goods and services that are detrimental to environment, repair and recondition for reuse.</td>
</tr>
<tr>
<td>Green Pricing</td>
<td>Consumer pays fixed premium per month, pricing as per usage, renewable as generation charges, capacity based blocks, contribution/donation.</td>
</tr>
<tr>
<td>Green Distribution</td>
<td>Eco-branding, eco-labeling, green packaging, green promotion, green warehouse, eco friendly storage and transportation, choose distributors based on sustainable principles, reverse logistics, green supply chain management.</td>
</tr>
<tr>
<td>Green After Sale Service</td>
<td>Product &amp; service pairing, warranties, guarantees and special services, customer relationship marketing, field technical assistance, spare parts distribution.</td>
</tr>
</tbody>
</table>

**Source:** (Lieberman, 2002; Bolding, 2003; Polonsky, 2005; Mwaura, Letting, Ithinji & Orwa, 2016; Egonsson, Bayarsaikhan, & Ly, 2013; Rahbar & Wahid, 2011)
Government Schemes of MSMEs for Promoting Sustainability in India

Many schemes for development of MSMEs in the country have been initiated and the various Ministries/Departments of Government of India gave thrust to address general thematic issues. Recently development in lines with environment protection and sustainability is also gaining attention. As a part of this implementation of energy efficient technologies, setting up Carbon Credit Aggregation Centres, technology upgradation to make it greener and cleaner, promoting Lean Manufacturing, providing access to credit (Credit-linked Capital Subsidy Scheme), quality improvement (Quality Management Standards/Quality Tools Scheme for MSMEs, QMS/QT), assistance to achieve national and international standards, (ISO 9000/14001/HACCP Reimbursement Scheme), marketing assistance schemes (Marketing Assistance and Technology, Up-gradation Scheme for MSMEs, Vendor Development Program for Ancillarization, Export Promotion Program for Packaging) has been supported by the Ministry. A capacity building of new entrepreneurs (Support for Entrepreneurial and Management Development of SMEs through incubators), promoting use of information technology in MSMEs (Information and Communications Technology schemes for MSMEs), assistance in developing new designs (Design Clinics Scheme) and creating awareness about intellectual property rights (Building Awareness on Intellectual Property Rights for MSMEs) are also part of MSMEs development programmes. These schemes can be availed by any of the MSMEs, either by individual enterprises or by a group of enterprises, across all sectors.

Setting up of Sustainable MSMEs and government Policies

- Increasing Energy efficiency
- Enhancement of use of new and renewable energy
- Waste minimization and management
- Beneficial uses of waste
- Prevention and control of air, water, soil pollution
- Sustainable Consumption Production (SCP) oriented financing or Green financing
- Giving due importance to Occupational Health and Safety (OHS)
- Utilisation of ICT in manufacturing for enhancing productivity
- Skill development and up-gradation of workers especially from SCP angle
- Creating awareness amongst managers of the benefits of SCP
- Augment Investment in Research & Development for developing green technologies
- Extensive marketing of Green Products
- Integrated and Aggregate Reporting
Emergence of Green Business Engendering New Avenues for Augmentation of Green...

V. Discussions

Ecopreneurship and Social Entrepreneurship for Sustainable Development in Kerala

Kerala State renowned for its natural beauty is bestowed with picturesque mountains, dense forest areas, stunning rivers, backwaters, lagoons, coastal regions and variant species of flora and fauna. The State government support plans and policy frameworks that address eco friendly and sustainable development. The rise in the number of industrial units and other business establishments, high population density, changing life styles and consumption patterns, modernisation and urbanisation requires plenty of natural resources as inputs leading to its exhaustion. Developmental activities and its negative impacts on environment will directly impact Kerala’s the biodiversity reserve of Western Ghats, Wetlands, Forests and Coastal regions. Government is taking measures to safeguard and preserve forest regions, its flora and fauna by declaring sensitive areas as green zones that reduces setting up of industrial units and encourage migrations of population from hilly regions to urban areas. A proper balance also needs to be maintained between urban and rural population to avoid excessive use of natural resources due to high density population. Endorsement of sustainable energy by using more renewable energy sources, energy efficient devices and green technologies to cater to the increasing power need of the masses has been acknowledged. Green transportation, green technology, green construction, effluent treatment plants, effective waste management, clean water and better sanitation facilities etc has been adopted to make Kerala green and clean. Environmental sustainability eliminates toxins, accelerates healthy living and act as an embodiment of quality life and means to save resources for future generations to come. Eco friendly micro units, eco tourism, green services, ecopreneurial activities are emerging to facilitate faster economic growth and development in Kerala. A transformation in consumption behaviour, industrial structure and technologies, changes along global value chains highlighting green regulations and quality standards are inevitable for green growth (OECD, 2010).

Ecopreneurship delivers economic, environmental, social values and brings equilibrium especially between economic and environmental goals identifying novel opportunities in sustainability niches to address the global issues. The exclusivity of Kerala as a treasure of biodiversity, unique climate and pristine nature is turning out to be the most attractive destination for diverse business activities in the form of eco-tourism, Ayurvedic wellness treatment, hotel business, fisheries, biotechnology industry etc. Kerala is one of the biodiversity hotspots in the world with a reserve of rich variety of flora and fauna. It is said to become the foremost State in India to have a policy document on biodiversity conservation related ‘Access and Benefit Sharing’ (ABS), with Kerala State Biodiversity Board (KSBB). KSBB targets to make the stakeholders conscious of the need for safeguarding the ecological wealth if their businesses are to be sustainable in the long run (KSIDC, 2015). Green business and ecopreneurial activities in Kerala spreads across in multidimensional arenas like clean and renewable energy, eco-tourism, green funding, green architecture, green gadgets, green innovations, organic agriculture, organic food and drinks, eco friendly bag manufacturers, agro biotech research centres, coir and handloom products, eco friendly packaging, eco fashion and fabrics, eco- art and crafts, waste management, water conservation, herbal medicines, training and education in eco friendly business.

Apart from environmental sustainability the need for social sustainability is also targeted so as to ensure and enhance a fair and equitable health and social security system. Kerala is the model State in terms of its social development with high Human Development Index (HDI) that is even comparable with foremost countries in the world. The State has high literacy, low infant mortality and death rates. Kerala has good public healthcare system and it supports the vulnerable sections of the society like the aged, disabled, disadvantaged and marginalised. However due to changing life styles diseases are aggravated habits like smoking, consumption of high calorie processed food and consumption of alcohol and injuries from traffic accidents are causing additional burden to the State. The principle fundamental to the social security system is solidarity. Solidarity between various social groups, that is between the employed and unemployed, the young and the old, the healthy and the ill. A proper governance system also forms the base of social sustainability. The decentralized participatory initiative followed for Local Self Governance (LSG), E-Governance implementation reaching out to the masses on real time to support social security and welfare activities helped in leveraging local resource base, location or physical and social infrastructure to push for sustainable competitiveness. Necessary actions are taken with respect to setting performance standards for products, mandatory energy efficiency rating labels, organic food labels, statutory warning on tobacco products etc. Steps to educate the youth through formal and informal means, campaigns and advertisements to create awareness among the public regarding sustainable development has also been carried out. Structural reforms, quality certification for products and services, better education, women empowerment, inclusive and equitable growth goals brought about buoyancy in micro entrepreneurialism among women and youth. The concept of social entrepreneurship incorporating economic as well as social returns on investment can bring socially sustainable developments. Social problems are adequately dealt with so as to ensure the societal well being of the people by setting up business socially responsible entrepreneurial ventures. Social entrepreneurship brings social sustainability
focusing on non economic reforms creating social impacts through solving social issues and enriching the safety, security and social wealth of the society.

**MSMEs as an Elixir of Ecopreneurship Development**

Developmental activities around the globe are causing serious concerns in the form of emissions of Green Houses Gases (GHGs), environmental degradation and with the factors leading to climate changes. China and USA are the two most polluting nations of the world. India, the third highest pollution causing nation has pledged to reduce its Green House Gas (GHG) emission intensity by 33-35 % by 2030. The UN Sustainable Development Summit held during 2015 in New York adopted the document entitled “Transforming Our World: the 2030 Agenda for Sustainable Development” which set goals for ending poverty, famine, improving health conditions, education system, making cities more sustainable, combating climate change, and conservation and preservation of ocean and forest wealth. Sustainable Development Goals embraces the triple bottom-line approach to human well-being, that is, a combination of economic development, environmental sustainability and social inclusion. India’s commitments to the United Nations summit on climate change was revealed through the Government’s Policy to promote “Zero Effect, Zero Defect” in manufacturing focusing on environmental issues. They expect to carry on with the concept of sustainable consumption and Production through Government schemes for development of MSME Clusters (Bhide, Agasty, & Kaur, 2016).

In India the economic liberalization policies in 1991 triggered the steady growth of industrialization. The MSME sector contributing to a considerable growth in GDP, employment generation and having green consciousness has triggered conscious developmental support by different Central Ministries/Departments. The Planning Commission of India has projected a growth rate of 9.5% for the manufacturing sector to achieve and a GDP growth rate of 9% during the current Twelfth Five Year Plan period. As a part of Make in India campaign by govt. of India, the National Manufacturing Policy announced in 2011 envisaged to increase the share of the manufacturing sector to 25% of the Gross Domestic Product (GDP) by 2025. This indicates almost a threefold increase from the current base. It is also envisaged that a 100 million new jobs will be created in this process. Majority of enterprises in India are Micro Small and Medium Enterprises and amongst these more than 90% enterprises falls in the category of Micro enterprises. Majority of entrepreneurial activities are concentrated in the unorganised sectors of MSMEs, (MSME, 2016). Micro enterprises is considered as a forte for rapid industrialisation with limited capital and capable of generating enormous employment opportunities especially among the backward sectors, in rural areas, among women, youth and also helps in optimum use of locally available resources. It uses simple technologies, labour intensive approach and creates less pollution leading to a more environment friendly, sustainable socio economic development. As far as the entrepreneurial activities of India are concerned Kerala is one of the major Indian States having largest number of women entrepreneurs.

Kerala’s changing socio economic scenario towards higher growth is primarily due to hike in construction, transport, warehousing and communication, trade, hotels and restaurants, real estate ownership, legal services and other commercial activities. The major drivers of domestic demand are remittances, tourism industry, government welfare expenditure programmes and the welfare activities of social organisations. Kerala has achieved significant growth in service sector; however there is dearth of sufficient growth in manufacturing sector, resources are under utilised for development of the region and there is no parity of growth all causing a grim business scenario. A panacea for these issues is setting up of MSMEs that can promote rapid industrialisation, with limited resources and employ labour intensive cum eco friendly technologies to accomplish the goal of inclusive and sustainable development. It is capable of launching strong structural changes that can transform the economy by revitalising manufacturing and service sectors towards sustainable growth. MSMEs are lagging behind in upgradation and modernisation of their facilities and it is mainly because of poor awareness regarding availability of alternative clean technologies, lack of awareness of advantages of investing in such technologies and low skill sets of existing workforce to adapt to new technologies. SIDBI the chief Development Financial Institution engaged in promotion, financing and development of Indian MSMEs, has since inception acted proactively in the area of sustainable development of MSME sector.

MSMEs sustainability and inclusivity needs to be encouraged through machineries that provide enticement for eco friendly operations. It facilitates in the designing and development of business models that favours disadvantaged and rural communities who can also act as engines of economic growth and development with equity. Kerala is one of the foremost Indian States having largest number of women oriented micro enterprises. It ensures the mainstreaming of women, making them economically productive and self-reliant. The labour intensity of the sector also gives an advantageous position through generation of low cost employment both wage and self-employment. MSMEs are emerging as a highly vibrant and dynamic sector of the Kerala economy over the last few decades and supporting the large industries as ancillary units. MSMEs of Kerala is enormously contributing in socioeconomic development playing a critical role in the overall industrial economy by rapid industrialisation of rural and backward areas, reducing regional imbalances, guaranteeing more equitable distribution of national income and wealth. MSMEs with its agility and dynamism are a panacea for
sustainability and quality life through optimum utilisation of locally available resources, upgrading traditional industries, promoting green development through reducing material wastage, enhancing water conservation, ensuring minimum energy consumption, in general making structural changes supporting green products and services (MSME, 2014). Green and inclusive MSMEs encouraging the participation of women, youth, rural and backward sectors in industrial growth provides opportunities for learning and skill advancement for low-skilled workers to kick start opportunities in diverse range of products and services.

**Ecopreneurship in Kerala Trending Towards Sustainable Development**

Kerala a State with high rate of educated men and women, good infrastructural facilities, strong Information and Communication Technology (ICT) capability, good HDI and high level of balanced socio economic development is in the path of quality growth and sustainable prosperity. With adequate prerequisites to march ahead smoothly in the new millennium, Kerala’s strength, that is education, health and ICT will be the linchpin of knowledge economy that will interlink all other sectors like agriculture, fisheries, manufacture, tourism and other businesses. Transparency, responsibility and accountability being the prime requirement in the present business scenario, a business can survive and growth only by perpetuating the values of business ethics, eco friendliness, quality assurance and sustainable living. Green business, ecopreneurial development, good governance, robust monitoring of physical and financial performances, continuous appraisal of personnel and creation of an enabling environment to proceed with better business ideas through state support is the need of the day. Different projects initiated by the State government with support of Centre and Non Governmental agencies are now promoting ecopreneurial activities, social entrepreneurship especially through women entrepreneurs.

Vitalizing inclusive growth of small businesses is decisive for generating employment opportunities for millions of prevailing and potential entrepreneurs and enhancing optimum utilisation of available resources in the country. small scale khadi and village industries, traditional sectors need to be refined and re-energised for fostering overall economic development in rural, urban and semi urban areas of the State. Kerala, with focus on “Green and Clean Kerala” is also aiming at bringing about eco friendly and environmentally sustainable practices like better waste management technology, sensible use of water and forest resources, follow stringent quality and environment norms for the manufacturing sector to sustain in the long run. Such enterprises are indispensable in terms of job creation, technological upgradation, upholding the entrepreneurial spirit and innovation and also crucial in fostering competitiveness at local and international levels.

More than 50,000 registered micro enterprises are now functioning in the rural, semi urban as well as in urban areas across the State that are engaged in diverse manufacturing and service sectors like food processing, manufacture of dairy products, soap making, paper bag making, catering services, readymade garments, courier services, preparation of ethnic delicacies, etc. This silent revolution to eradicate poverty and promote the welfare of the family has its mellifluous advancement by channelising its activities into economically productive lines. Thus, extreme precedence is given for the fruitful execution of these programmes for up-lifting the marginalised sections of the society and to bring them above the poverty line. Kerala government is now coming up with new policies and programmes for opening up fresh avenues for development of MSMEs in the State.

Initiatives are taken for the development of MSME sector and protecting the traditional industries through Private Public Partnership (PPP) arrangements. Funds have been allocated for the construction of more industrial parks or estuaries, to provide training for skilled man power, development of clusters and focus on product diversification to cater to varied needs of the customers. Measures are also taken for modernisation of Handloom Societies, Hantex, Handweave, Powerloom Societies and development of Handloom Village. Promotion of value added products, providing margin money loans and grants to ensure financial inclusion and free flow of fund for smooth entrepreneurial operations are also given due weightage. Other priorities include stimulation of coir industry, increasing the production in khadi and village industrial sector, renovation of Cashew sector including its brand building programmes (State Planning Board, Government of Kerala, 2013).

The MSMEs are the gateway of entrepreneurial growth in Kerala and beacon of hope for Khadi and Village, Handloom and Handicraft Industries marketing pure, ethnic and environment friendly products in the global market. Kerala the land of coconuts have tremendous opportunities in the Coir sector as coir a raw material from coconut husk is wonder fiber that could be converted into high value products like coir mats, coir beddings, flooring materials, decorative materials, geo-textiles and other green products. Measures are being taken by the government for absorbing new technologies and skilled human resource for improving productivity in coir manufacturing sector. Coconut available in plenty is also finding commercial compass as a canned natural drink, besides coconut milk, coconut shell are also green products available for commercialisation. Penetration of information and communication technology is also stressed upon that can augment the overall competitiveness of the sector as well as the quality of governance. Innovations in varied dimensions are spurring growth and of new ventures facilitating them to reach ambitious goals and making them competent enough to find a share in the global market. Kerala the land of spices have tremendous opportunity in the foreign markets.
Emergence of Green Business Engendering New Avenues for Augmentation of Green...

by exporting rich quality natural spices. Besides spices, Munnar and Wayanad are renowned for tea and a coffee estate that produces world class products.

Identifying the entrepreneurial flavor of the State, Kudumbashree Mission, Janasree, She Taxi, Green and Clean Kerala mission, etc are different projects and programmes initiated by the government and NGOs. They are campaigning for poverty alleviation, women empowerment, inclusive socio economic growth, eco-friendly and sustainable prospects of the State. Mainstreaming environment with the vision is to achieve economic prosperity for the benefit of future generations has a direct implication on the consumption and production pattern. Clean production systems, clean technology paradigm, reducing waste, conserving raw materials and energy and eliminating toxic raw materials, recycling waste to recover useful materials, convert into reusable products etc lead to greener development. Accelerating the development of green infrastructure, strengthening institutions and promote ‘green’ economy can create new opportunities for investment, employment and trade in industries that produce goods and services that are environment friendly and bring a better quality of life.

Suggested Measures for Promoting Sustainable Development in MSMEs

- Private Public Participation (PPP) should be accelerated in promoting green business in Kerala
- Adequate measures should be adopted to ensure that facilities like green finance, green technologies, green logistics etc are accessible to the manufacturers especially the MSMEs, at an affordable cost.
- Setting up Green Industrial Estates for enhancing green production and green service orientation through creating a green Special Economic Zone.
- Scale up sustainable development of MSME clusters through collaboration and convergence of different institutional and integrated programmes for focusing on development of sectoral MSME clusters addressing sustainable growth.
- Providing ample platforms for Government-Industry consultations and alliances for formulation of effective programmes for sustainable development and also its effective monitoring and evaluation.
- Popularising Lean Manufacturing Techniques (LMT), a multi-dimensional approach that encompasses a wide variety of management practices like Just-in-Time, Total Quality Management (TQM), Total Preventive Maintenance (TPM), Human Resource Management (HRM) and Supplier Chain Management (SCM). It helps to work synergistically to create a streamlined, high quality system that produces finished products at the pace of customer demand with little or no waste.
- Facilitate in the Life Cycle Assessment of Green products and services of MSMEs for fostering the growth of those enterprises that chooses to develop and commercialise green products & services.
- Building capacity of industry associations to enable them to take the lead in taking up schemes for promoting sustainability of the enterprises in their clusters.
- Mandating of Green Product and service certification that will help manufacturers and service providers to position their products and services as green and eco-friendly.
- Upgrade the human resource of the firm and adopt measures to ensure their safety, security and well being for the enhancement of quality work and improve their level of achievement.

VI. Conclusion

The notion of green business emerged at the close of 20th century and is highly oriented and committed towards long term strategies and principles of environmental sustainability by embracing green spectrum of business operations. Green businesses are striving for sustainability economically, socially and environmentally by using renewable resources, eco-friendly practices, minimizing the detrimental impacts of business on environment, thereby assuring the well being of current as well as the future generations. MSMEs are the backbone and key stakeholders in the transition of Indian economy. More than 90% of the MSMEs in the country are microenterprises run on small scale basis, causing low environmental hitches, concentrating on wide range of products and services especially in the rural and less industrialised areas. They can contribute enormously towards green and inclusive economy by fostering innovation, generating green employment, and providing resilience to global economic apprehensions. Increasing thrust has been given to procedures and policies that endorse the concept of low-carbon economy resulting in the fruition of a number of green industries such as renewable energy, eco-agriculture, green tourism and so on. The study will significantly contribute to streamline the renewable energy and ecopreneurship sectors to help the ecopreneurs nurture in structured style and also assist government policy makers in designing good strategies for the growth of green business consequently boosting economic growth on sustainable lines.
Emergence of Green Business Engendering New Avenues for Augmentation of Green Entrepreneurship and Sustainable Development through Indian MSMEs


 IOSR Journal of Business and Management (IOSR-JBM) is UGC approved Journal with Sl. No. 4481, Journal no. 46879.