An Investigation into the Enablers and Barriers of Green Economy Management

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Abstract

The term 'green economy' was first coined by a group of leading environmental economists in UK in 1989 in a report entitled 'Blueprint for a Green Economy'. The green economy is one in which value and growth is maximized across the whole economy, while natural assets are managed sustainably. Sustainable system is based on "triple bottom line" thinking-environment, economic and social or in other words planet, profit and people respectively, being called "the three Ps". Green economy is an important tool for sustainable development; one that is inclusive and can drive economic growth, employment and poverty eradication, whilst maintaining the healthy functioning of the Earth's ecosystems.

Although green economy is most natural and being practiced since the inception of agricultural society, however, with the progress of civilization, as it is being preached more and more, it is becoming a distant reality.

The objective of this article is to study the status of green economy in great detail, with the success and failure story of the green economy across the globe and investigate the enablers (political pressure, international law, global policy and framework, reverse technology transfer, reverse innovation, inclusive innovation, humanitarian innovation etc.) and barriers (lack of foresight, lack of vision and knowledge, lack of involvement and commitment, business risk etc.) of green economy.

The research methodology used in this study is a combination of literature review, case studies and key informant interviews. The literature review includes both published as well as unpublished sources of literature. Case studies have been mainly taken from Wind industry which by nature is 'green'. In case of key informant interviews, informal telephonic discussions have been carried out with the key executives of the organizations **(**industry, university, research institutions and government officials) who are actively engaged and taking lead role in the development of green economy.

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The study will help to build policy, strategy and practice to achieve Green Economy which includes sustainable development, inclusive growth and elimination of inequality.

Keywords: Environment**,** Green economy, Sustainable economy, Enablers, Barriers.

Introduction

UNEP has defined the Green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. It is low carbon, resource efficient and socially inclusive" (UNEP, 2011). A green economy, therefore, is one that has increased access to ecological goods and services and enables inclusive growth through more equal distribution of wealth. "It also enables improving human health and well-being, through enhancing the quality and quantity of such goods and services (such as clean air and water), as well as the quantity and quality of traditional public infrastructure and services (such as roads and rail, sanitation, schools, education, policing and fire protection)" (http://resilientcities2015.iclei.org/fileadmin/RC2015/files/Framework_for_a_Green_Economy_Transition.pdf). Green economy offers a path to sustainable development in economic way, where economy, society, ecology and technology are embedded within each other and are managed by systems of good governance. In other words, "a green economy will use appropriate technology and innovation to generate economic growth that brings inclusive benefits to society, while maintaining the ecology and natural resources upon which all life depends" (http://resilientcities2015.iclei.org/fileadmin/RC2015/files/Framework_for_a_Green_Economy_Transition.pdf.). Sustainable development was introduced by the Brundtland Commission, which defined it as evelopment that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1983). Sustainability involves stabilizing the currently disruptive relationship between humanity and our planet (Hawken, P, 2007).

The term "green economy" was first coined in 1989 in a pioneering report entitled Blueprint for a Green Economy by a group of leading environmental economists in UK (Pearce, Markandya and Barbier, 1989). The report was commissioned to advise the UK Government if there was a consensus definition to the term "sustainable development" and the implications of sustainable development for the measurement of economic progress. In 1991 and 1994 the authors released sequels to the first report entitled Blueprint 2 (David Pearce, 1991): Greening the world economy and Blueprint 3 (David Pearce, 1994): Measuring Sustainable Development. The theme of the first Blueprint report was that economics should come to the aid of environmental policy, while the second extended this message to global problems-climate change, ozone depletion, tropical deforestation, and resource loss in the developing world.

In 2008, the term was revived in context of discussions on the policy response to multiple global crises. In the context of the financial crisis and concerns of a global recession, UNEP championed the idea of "green

stimulus packages" and identified specific areas where large-scale public investment could kick-start a "green economy" (Atkisson, 2012). It inspired several governments to implement significant 'green stimulus' packages as part of their economic recovery efforts with a hope that Green economy will improve human wellbeing and social equity while significantly reduce environmental risks and ecological scarcities-and greening economies can be a new engine of sustainable growth.

In this context, the 2012 rio+20 conference reasserted the importance of green economy as a tool for achieving economic, social, and environmental sustainable development. It stressed that this approach should take account of local as well as regional development needs, while at the same time meeting broader international obligations and targets. Rio+20 called on all relevant stakeholders to strengthen partnerships, institutional and financial capacity, and disseminate technology to create an enabling environment for the transition to a more effective development pathway towards national and international economies (UNEP, 2014).

Despite the growing international interest in green economy, however, there is lack of understanding on an internationally agreed definition or universal principles for green economy. The emergence of interrelated but different terminology and concepts over recent years such as Green growth **(**Lee Myung-bak, South Korea**)**, Low carbon economy (C Levy, European Union), Sustainable economy (Brundtland Commission, United Nations World Commission on Environment and Development (WCED), Steady-state economy (Herman Daly, USA), Circular economy (Kenneth Ewart Boulding, UK)**,** Gross National Happiness (Jigme Singye Wangchuck, Bhutan), National Wellbeing (the International Institute of Management in USA), Better Life Index (OECD), Green GDP (Wen Jiabao, China) etc. has created a lack of clarity around green economy policy, procedure, priorities and objectives relating to economic growth and poverty eradication, as well as a perceived lack of experience in designing, implementing, maintaining and reviewing the costs and benefits of green economy policies. "All these ideas are not new; some are decades old. But the political willingness to engage with them is very new. Leaders are realizing that social and environmental conditions simply demand a different approach". As Angel Gurría, head of the OECD, declared, "Growth as usual is no longer an option." (http://www.donellameadows.org/life-beyond-growth-a-revolution-in-how-we-think-about-progress/).

Recent publications on green economy or green growth by the United Nations Environment Program (UNEP), the UN Department of Economic and Social Affairs (UNDESA), the United Nations Conference on Trade and Development (UNCTAD), the World Bank, the International Labor Organization (ILO), the Organization for Economic Cooperation and Development (OECD), the Global Green Growth Institute (GGGI), the Green Economy Coalition, the Green Growth Leaders, Stakeholder Forum and many others have begun to address these knowledge gaps and demystify concepts related to green economy. "Importantly, there is also emerging practice in the design and implementation of national green economy strategies by both developed and developing countries across most regions, including Africa, Latin America, the Asia-Pacific and Europe. This emerging

practice can help to provide some important insights and much-needed clarity regarding the types of green economy policy measures, their scope with regard to various sectors and national priorities, and their institutional barriers, risks and implementation costs as well as environmental, social and economic benefits. This international experience may serve to alleviate concerns regarding the effective integration of green economy policies with national economic and social priorities and objectives, including the achievement of internationally agreed development goals" (https://sustainable development.un.org/topics/greeneconomy).

Table 1.Green Economy and Allied Terminology

S. No.	Terminology	Coined by	Year	Where
1	Green growth	Lee Myung-bak	2010	South Korea
2	Low carbon economy	C Levy	2010	European Union
3	Sustainable economy Development	Brundtland Commission	1987	WCED
4	Steady-state economy	Herman Daly	1970	USA
5	Circular economy	Kenneth Ewart Boulding	1966	UK
6	Gross National Happiness	Jigme Singye Wangchuck	1972	Bhutan,
7	National Wellbeing	The International Institute of Management	2005	USA
8	Better Life Index	OECD	2011	UN
9	Green GDP	Wen Jiabao	2004	China

Research Objectives

The objective of this article is to study the green economy in great detail, discusses the myths associated with it, highlight the success and failure of the green economy across the globe and investigate the enablers and barriers of green economy. The study will help to build strategy, policy and practice to achieve Green Economy which includes sustainable development, inclusive growth and elimination of inequality.

Research Methodology

The research methodology used in this study is a combination of literature review, case studies and key informant interviews. The literature review includes both published as well as unpublished sources of literature. However, despite wide coverage and the recent nature of the evaluations, the literature varies in focus, breadth and depth so that a uniform analytical methodology could not be drawn from it. Case studies have been mainly taken from Wind industry, Renewable energy industry which by nature are 'green'. In case of key informant interviews, informal telephonic discussions have been carried out with the key executives of the organizations **(**industry, university, research institutions and government officials) who are actively engaged and taking lead role in the development of green economy.

As a result, this review focuses on qualitative analysis mainly based on UN organization reports. While great effort was devoted to selecting studies that show rigorous empirical foundations, policy brief, myths, practices and views to reach to conclusion regarding

enablers and barriers of green economy, conclusion is not been supported by any data analysis.

Literature Review

What is Green Economy?

A green economy "is one that results in improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities. The green economy agenda seeks to promote an economic system which increases human wellbeing over the long term while maintaining natural capital and environmental resources so that future generations do not face significant environmental risks and ecological scarcities" (UNEP, 2011).

Although green economy is most natural and being practiced since the inception of agricultural society, however, with the progress of civilization, it is being preached more and more than it is really practiced and thus Green economy is becoming a distant reality. UNEP's Working Definition of a Green Economy defines it as "A system of economic activities related to the production, distribution and consumption of goods and services that result in improved human wellbeing over the long term, while not exposing future generations to significant environmental risks and ecological scarcities" (http://www.unep.fr/scp/Marrakech/pdf/SCP-GE%20Workshop%20presentation%20Steven%20Stone.pdf).

From UNEP's perspective, "green economy is a tool (as opposed to a particular state of an economy) helps to focuses on mobilization and more efficient allocation of resources and achieve sustainable development. Based on this perspective, any policy that is able to mobilize and shift investments to attain specific sustainable development targets can be considered as a green economy policy".

Thus the green economy essentially consists of:

- Earn Profit;
- Inclusive human development;
- Improve social equity; and
- Reduce environmental risks and ecological scarcities, by use of technology and innovation, and practicing good governance.

Good governance is required to guide and ensure that developments are sustainable and the end result can be achieved by use of technology and innovation. This is the broad context for the development of the Strategic Framework for Green economy.

A green economy, therefore, must ensure that development or growth is decoupled from natural resource use and impacts. In other words, a green economy will use appropriate technology and innovation to generate economic growth that brings inclusive growth to society, while maintaining the ecology and natural resources upon which life depends. This concept is depicted in Fig. 1.

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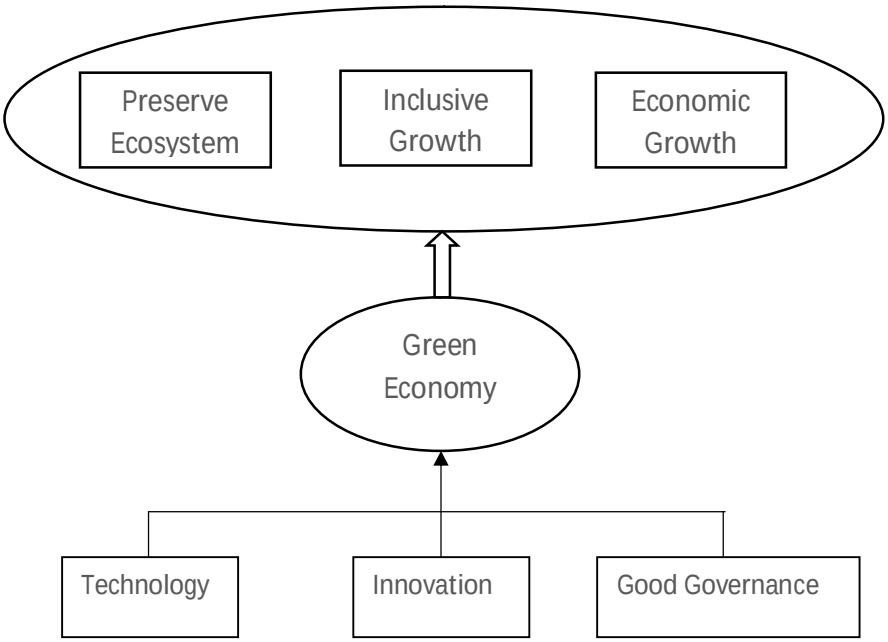

Figure 1.Inputs and Objectives of Green Economy Management

Why Green Economy?

The human race today has established itself as a society of production, consumption and performance excellence by delivering profit in all sectors of the market. But driven by the profit motive and price pressure, one important fact is forgotten-the care of our mother nature and concern for underprivileged. Some centuries ago mankind was an expert of green manufacturing or in a broader sense green economy. By getting the highest possible harvests, as well as the best possible utilization of its products, farmers ensured the survival of their families over the future years. And if the farmer was smart enough, he did that in a sustainable way, so that he kept his cattles and fields healthy, in order to gain at least the same harvests in the next coming seasons. People had no supermarkets where they could buy frozen foods when needed and put them into their refrigerator at home. "Having all that technology, now, two thousand years later, the human race is again learning to be energy- and resource-efficient in producing new goods, calling this Green Manufacturing. Today's manufactured products have to meet a significantly growing amount of requirements providing environmental, societal and economic benefits while protecting environment and human health over their entire life cycle, starting at the extraction of the raw materials and going down to the final disposal or recycling procedure" (David Eibel, 2014).

The current development model is unsustainable, not only environmentally, but also from economic, employment and social perspectives. The resource-intensive development model of the past will lead to rising costs, loss of productivity and disruption of economic activity. Estimates based on the ILO Global Economic Linkages (GEL) model suggest that in a business-as-usual scenario, productivity levels in 2030 would be 2.4 per cent lower than today and 7.2 per cent lower by 2050. This is in line with the findings of a number of studies assessing

economic damages due to environmental degradation and loss of basic ecosystem services.

The current development model is inefficient as regards to productive employment and decent work. It has failed to create sufficient decent work opportunities and has generated increasing instability, which creates high costs for enterprises and workers as well in the real economy. There are also important social costs associated with environmental degradation over and above the job destruction and income loss resulting from the overuse of natural resources. "If the business-as-usual scenario continues to dominate, wasteful production and consumption patterns along with continued soil degradation, deforestation, over fishing and climate change will result in increasing water shortages and polluted environment escalating prices for food, energy and other commodities. This will exacerbate problems such as poverty, malnutrition food shortage and inequality. This is due to the fact that low-income households spend a significant and disproportionate share of income on energy and food and related items. These trends will impose massive social and economic costs, whereas a greener economy and more sustainable enterprises is creating tens of millions of green jobs" (ILO, 2012).

The current policy approach privileges economic development through privatization and deregulation while ignoring and aggravating social inequalities. Till date, the world's economy has been resource intensive and economic development has often led to widening of the gap between the rich and the poor and has undervalued ecological goods and services, which form the basis of all economic activity. A green economy, on the other hand, aims to improve the efficiency of natural resource use so as to improve human well-being and reduce ecological scarcities and environmental risks.

Myths about Green Economy

UNEP's Green Economy Report, entitled "Towards a Green Economy" aims to debunk several myths and misconceptions about "greening" the global economy, and provides timely and practical guidance to policy makers on what reforms are needed to unlock the productive and employment potential of a green economy.

Perhaps the most widespread myth is that environmental sustainability and economic progress cannot go hand in hand, however, there are now ample evidences that the "greening" of economies neither inhibits wealth creation nor employment opportunities, and that there are many green sectors for investment and related growth in wealth nor jobs. "A caveat, however, is that there is a need to establish new enabling conditions to promote the transition to a green economy, and this is where urgent action is required of policy makers around the world" (Lange Edgardo 2011).

A second myth is that a green economy is a luxury only and only wealthy countries can afford it, Contrary to this perception, there are a plethora of examples of greening transitions taking place in various sectors in the developing world, which deserve to be emulated and replicated elsewhere.

Third myth is that natural resources are cheap and abundant. However, it is far from true. Bottlenecks arise when resource scarcity or reduced quantity makes investment more costly. In resource based model, loss of natural capital can exceed the gains generated by economic activity,

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undermining the ability to sustain future growth. Imbalances in natural systems bear the risk of abrupt, highly damaging and potentially irreversible effects. Climate change, global nitrogen cycles and biodiversity loss have already been exceeded the threshold. For instance**,** "today only 20% of commercial fish stocks, mostly of low priced species, are underexploited, 52% are fully exploited with no further room for expansion, about 20% are overexploited and 8% are depleted" (State of World Fisheries and Aquaculture 2008). "Water is becoming scarce and water stress is projected to increase with water supply satisfying only 60% of world demand in 20 years" (McKinsey and Company, 2009), agriculture saw increasing yields primarily due to the use of chemical fertilizers (FAOSTAT, 2009), which have reduced soil quality (Müller, Adrian and Joan S. Davis, 2009) and failed to curb the growing trend of deforestation-remaining at 13 million hectares of forest per year in 1990-2005. (Global Forest Resources Assessment, 2010) Ecological scarcities are therefore seriously affecting the entire gamut of economic sectors, which are the bedrock of human food supply (fisheries, agriculture, freshwater, forestry) and a critical source of livelihoods for the poor. And ecological scarcity and social inequity are definitional signatures of an economy which is very far from being "green". (UNEP, 2011, Towards a green economy, http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_1_Introduction.pdf).

Meanwhile, for the first time in history, more than half of the world population lives in urban areas. Cities now account for 75% of energy consumption (UN Habitat, 2009) and 75% of carbon emissions (Clinton Foundation Annual Report, 2009). Rising and related problems of congestion, pollution, and poorly provisioned services affect the productivity and health of all, but fall particularly hard on the urban poor. With approximately 50% of the global population now living in emerging economies (World Bank, World Development Indicators, 2010) that are rapidly urbanizing and will experience rising income and purchasing power over the next years-and a tremendous expansion in urban infrastructure-the need for smart city planning is paramount.

Benefits of Green Economy

The report "Towards a Green Economy" focuses on 10 key economic sectors because it is seen these sectors as driving the defining trends of the transition to a green economy, including increasing human well-being and social equity, and reducing environmental risks and ecological scarcities. Across many of these sectors, it is found that greening the economy can generate consistent and positive outcomes for increased wealth, growth in economic output, decent employment, and reduced poverty.

United Nations Research Institute for Social Development's report focuses on the following points:

- The relationship between growth strategies and displacement, unemployment, social exclusion, conflict, livelihoods and food security and so on;
- Long-term social and environmental sustainability versus short-term economic growth;
- Problems that growth periodically encounters cannot be resolved through market mechanisms; (UNRISD, 2012),

The benefits of greening the environment are considerable. For example, a recent study

completed by the U.S. Green Building Council and the New Buildings Institute found that buildings constructed to Leadership in Energy and Environmental Design (LEED) standards are 25%-30% more energy efficient than existing non-LEED buildings.

Along the same lines, commercial buildings that have earned an ENERGY STAR (a joint program of the U.S. EPA and U.S. Department of Energy) rating use nearly 40% less energy than average buildings and emit 35% less CO2. The Environmental Protection Agency (EPA)'s findings from the recent ''Lifecycle Building Challenge'' indicate that 27% of existing buildings will be replaced between 2000 and 2030, and that 50% of buildings in 2030 will have been built since 2000. This furthers the case for making green building and sustainable development projects an important focus area (Christopher Choi).

IRENA, (2014) estimates that renewable energy jobs reached 6.5 million in 2013. In decreasing order, the largest employers were China, Brazil, the United States, India, Germany, Spain and Bangladesh. Solar photovoltaic and wind power remain the most dynamic renewable energy technologies. Wind employment remains relatively stable at 0.8 million jobs. Policy changes in several countries have reduced installation jobs, while those in operations and maintenance have experienced some growth.

By products of Green Economy

The green economy not only creates a direct impact on planet, people and profit but the by-product of green economy are also many. The green economy helps indirectly in so many ways. Following are examples.

Increased technology level: Resource constraints force the increase technology level.

Productivity increase: Incentives for greater efficiency in the use of resources and natural assets, including enhancing productivity, reducing waste and energy consumption, and making resources available to their highest value use.

Increase in Innovation mindset: Opportunities for innovation, spurred by policies and framework conditions that allow for new ways of creating value and addressing environmental problems.

Creation of New markets: Creation of new markets by stimulating demand for green technologies, goods, and services; creating new job opportunities.

Confidence and Capability building: Boosting investor confidence through greater predictability and continuity around how governments deal with major environmental issues.

Stability: More balanced macroeconomic conditions, reduced resource price volatility and supporting fiscal consolidation through, for instance, reviewing the composition and efficiency of public spending, and increasing revenues through putting a price on pollution.

Increased Reverse technology transfer and Reverse Innovation: Green energy demands more from emerging economy thereby facilitating Reverse technology transfer and Reverse Innovation.

Efficient Disaster Management: Because the focus area of green economy on inclusive growth, hence efficient disaster management is imminent.

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How to achieve Green Economy?

Although changes in employment and incomes will be seen throughout the economy, eight key sectors will undergo major changes: agriculture, forestry, fishing, energy, resource-intensive manufacturing, recycling, buildings and transport.

To ensure that the momentum towards a greener economy is sustained, and a new sustainable development model realized, a comprehensive policy approach is needed. The approach must recognize the country-specific and sector-specific challenges while ensuring that opportunities for decent work and social inclusion are achieved. This requires a three-pillared strategy-Research, Industrial application and skilled manpower.

Focusing only on research or industrial application is a rather short-term thinking process. In order to get the best benefit in Green Manufacturing for the future on a long-term perspective, the integration of this issue into the education of today's and tomorrow's engineers is the key element (David Eibel). The transition to a green economy requires a workforce with the right skills.

The means of implementation to establish a green economy were identified as:

- Investing strategically in green innovation and technology;
- Defining a new economic base for a green economy; and
- Building the basis of a partnership between governments, business, labor and civil society. Building a Green Economy is not about throwing out the old system and starting from scratch, it's about making choices according to the full cost-not just the financial cost-of any and all activities.

Indicators of Green Economy

It is not very easy to judge whether an investment is towards green economy or an action will ultimately contribute towards improvement of green economy, without which the progress towards green economy management cannot be monitored. The same can, however, be judged by Table 2.

Table 2.Indicators of Green Economy

S. No.	Indicator	Direction
1	Green investment	Increase
2	Quantity & quality of jobs in green sectors	Increase
3	Global and local environmental benefits	Increase
4	Life expectedness	Increase
5	Literacy rate	Increase
6	Consumption level of renewable energy	Increase
7	Energy/resource use per unit of production	Decrease
8	Greenhouse gas emissions	Decrease
9	Waste	Decrease
10	Pollution	Decrease
11	Disaster Management Cycle time	Decrease

Enablers of Green Economy

After literature survey, case studies and key informant interviews, the following enablers are identified for green economy. These enablers can be categorized in six groups, viz. Regulatory, Developmental, Operational, Financial, Organizational, Knowledge and networking. These will help the policy makers to decide strategy, policy, plan and procedures towards managing green economy.

- Regulatory-These are the most effective enablers which force to go for green economy
- Developmental-These are strategic enablers to make it happen.
- Operational-Without these enablers, green economy cannot sustain for long time.
- Financial-Must enablers for efficient management of green economy
- Organizational-Tactical enablers to administer green economy
- Knowledge and networking- Enablers that give competitive edge.

Table 3.Enablers of Green Economy

S. No.	Enabler Class	Enablers
1	Regulatory	Political pressure International law Global policy and framework
2	Developmental	Technology Development Technology transfer Capability building Reverse technology transfer Reverse innovation Inclusive innovation Humanitarian innovation
3	Operational	Competition Pressure from government Pressure from society/consumers/customers Scarcity of resources
4	Financial	Risk management Fiscal policy reform Financing and investment Trade policies and markets
5	Organizational	Public-private partnership Transparency, monitoring, and accountability Good governance Integrated policy-making
6	Knowledge and Networking	Sustainable consumption More use of ICT Information and awareness, Education, Participation and networking Global Green New Deal (GGND) international coordination

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Barriers of Green Economy

In December 2011, GlobeScan and SustainAbility, in collaboration with UNEP, queried about 650 sustainability experts and practitioners from around the world to get intelligence on the barriers that are impeding progress to sustainability. The biggest barrier is financial short-termism, inappropriate regulations and low awareness of the business imperative among business leaders (Jeff Erikson, 2012). The barriers can also be classified in five groups:

- Visionary: These are the barriers which lead to failure of green economy
- Regulatory: Discourages green economy
- Operational: Prevents progress
- Financial: Prevents happening
- Knowledge and networking: Makes green economy unsustainable**.** These will help the policy makers to decide strategy, policy, plan and procedures towards managing green economy.

Table 4.Barriers of Green Economy

S. No.	Barrier Class	Barriers
1	Visionary	Lack of foresight Lack of vision and knowledge Lack of involvement and commitment
2	Regulatory	Business risk Instability of governments Intellectual property rights Regulatory uncertainty Government monopoly Policies to address green growth constraints
3	Operational	Technological development pressure Complexity Inadequate infrastructure Low human and social capital Technology and performance standards Inadequate skilled Manpower
4	Financial	Low returns to R&D High investment costs
5	Knowledge and Networking	Poor Networking efforts Information externalities

Status of Green Economy

Green Economy appears to be appreciated by all the relevant economic agents. Hence, with active support from government, the private sector, and civil society, it is positioned to assume to center stage in growth process. This could, however, be a long, drawn out endeavor, as it is generally perceived that shifting to green business will mean high initial costs and could compromise growth as well as employment targets. This predicament is not limited to India, but is common to all other developing and

underdeveloped economies. The international community particularly developed nations, international organizations, and so on, have a major role to play in supporting efforts in these nations to achieve the common global goal of a Green Economy. By adopting green initiatives, the countries could in return compromise a little on short-term growth to gain long-term benefits in order to make overall growth sustainable.

Indian companies are pursuing a conscious strategy to align their businesses to serve a larger societal purpose. Tishya Chatterjee (2011), secretary, Ministry of Environment and Forests, Government of India explains:

1. Developed countries have to take the lead in changing their production and consumption patterns;
2. Developing countries can maintain their development agenda but use sustainable means and developed countries commit to enable and support the developing countries' sustainable path through finance, technology transfer and reforms to global and financial structures;
3. The form of international conferences should be less of a negotiation and more of encouraging bilateral and sectoral alliances to build the institutional framework of the future. Both China and India have grown dramatically in wind power, solar PV panel and electric cars industries in a very short time.

The successful leapfrogging in the environment-related green industries in the emerging economies suggests that there are opportunities for the developing countries to catch-up in the emergent green industries (Xiaolan Fu, 2011).

Green Economy Strategy

Green Economy Strategy Framework is about achieving the triple dividend of optimizing green economic opportunities, enhancing environmental performance, and performing inclusive growth-a three in one package preached by religious gurus, environmental experts as well as management leaders.

"Strategies for the Green Economy offer a hopeful vision of companies transforming challenges into opportunities, re-imagining not just their products and processes, but themselves. Makower's engaging stories and sharp insights show that companies need to comply not just with the laws of government and the marketplace, but also the laws of nature. This is an indispensable guide for any company seeking to not just survive, but thrive in years ahead." (Michael Braungart and William McDonough, 2002).

The strategic framework should be based on “more action based” and “better aligned” with existing green economy initiatives and strategies. The themes were revised and finalized in March 2013, and divided into two clusters- mitigation and adaptation

(http://resilientcities2015.iclei.org/fileadmin/RC2015/files/Framework_for_a_Green_Economy_Transition.pdf).

The following steps were identified for sustainable development:

1. Identify potentially worrying trends affecting sustainable development;
2. Assess the main issues underlying the trends;
3. Analyze the root causes of the issue;
4. Analyze how the issue impacts society, the economy and the environment.

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The combination of different indicators for analyzing simultaneous environmental, social and economic trends is essential to identify present and upcoming issues and clearly determine their causes and effects within and across sectors (UNEP 2014).

The means of implementation to establish a green economy were identified as:

- Investing strategically in green innovation and technology;
- Defining a new economic base for a green economy; and
- Building the basis of a partnership between governments, business, labor and civil society (http://resilientcities 2015.iclei.org/fileadmin/RC2015/files/Framework_for_a_Green_Economy_Transition.pdf).

Although a green economic transition will involve many actors, the following points are made with national governments and their policy makers specifically in mind. These key enabling conditions include:

- Establishing sound regulatory frameworks;
- Prioritizing government investment and spending in areas that stimulate the greening of economic sectors;
- Limiting spending in areas that deplete natural capital;
- Employing taxes and market-based instruments to shift consumer preference and promote green investment and innovation;
- Investing in capacity building and training; and
- Strengthening international governance.

(UNEP, 2011, Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication-A Synthesis for Policy Makers, www.unep.org/greeneconomy)

Green economy strategy should be built up based on focus on technology transfer, learning and innovation taking into account of enablers and barriers with an ultimate objective of economic growth, inclusive growth and preserving ecosystem.

Managerial Implication

The resource based strategy has been tried for long time but it has finally evolved a society where resources are being used without any concern for the future generation and has become scarce, inequality has become the rule of the game, environmental and ethical issues are mounting day by day. Moving after short term immediate profit, the expectations and aspirations of future generation are ignored. A new breed of managers is needed who will live in present but think for the future. A new holistic integrated approach in economy is also needed. Green economy can fill the gap. For implementation of green economy, the managers should focus on Technology and Innovation with good governance keeping an eye on three bottom line concepts: people, planet and profit. The study will help to build strategy, policy and practice to achieve Green Economy which includes sustainable development, inclusive growth and elimination of inequality.

Conclusion

Resource based strategy and linear "Take, Make and Dispose" industrial model and the present lifestyles deplete finite reserves to create products that end up in landfills or in incinerators will be thing of past. The green economy is bound to emerge. The green

economy will emerge in different forms in different parts of the globe, depending on local economic strengths and weaknesses. Stakeholders in economic development have the opportunity to shape their green economy based on local, regional and international goals through strategy, policy and procedures.

While making strategy, policy and procedure and managing green economy, the deciding authority and managers should take care of enablers and barriers of green economy. Intervention will be most effective if it is built upon local strengths and chooses appropriate policies to meet global goals. New green standards, regulations, incentives, technical assistance, and marketing programs can help spur the green economy. This should be the immediate strategy for long term achievements.

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