

## Environmental Sustainability through Green Economy in Context to Indian Scenario: A Review

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### Abstract

Green Economy is a new concept that emerged from the Rio+20 conference in 2012 to commemorate the 20th anniversary of the first Rio Earth Summit in 1992. The United Nations Environment Programme (UNEP) describes a green economy as one that “improves human well-being and social fairness while considerably lowering environmental dangers and ecological scarcities. There are several ways that a green economy might aid a developing country like India in terms of development. India’s transition to the Green Economy depends on five high-impact sectors: power, manufacturing, transportation and tourism, agriculture, and construction. These are increasingly evident in the shift to a greener economy. Green economic policies have also some certain limitations, which are need to be addressed. The transition to a green economy will necessitate a paradigm shift in our understanding of industry, consumer behaviour, growth and development. Transition to a green economy requires market instruments (viz., subsidy reform, green taxes, and permit markets), legal instruments (e.g., environmental legislation and incorporating sustainable development into trade agreements), and government policies and measures (viz., sustainable public procurement, sustainable land use, and urban policing).

**Keywords:** Green Economy; sustainable; development; transition

### Introduction

Sustainability of economic growth in a finite resource environment has long been questioned and recognised as a difficult problem. The non-linearities between the economic and ecological variables cause this complexity. Over time, the rate of depletion of resources outpaces the rate of regeneration, putting the economy in risk of limited expansion. As a result of such significant resource depletion and eventual resource exhaustion, economic contraction or protracted economic depression occurs. Natural consumption rates can be controlled by planned economic policies if an equilibrium between resources and the economy can be achieved. Consequently, proactive economic measures that preserve a sustainable resource pool are required (Dutta, 2016). India’s development strategy has also seen some significant adjustments. Fiscal federalism and the transition from a five-year to a fifteen-year development planning model at the national level are examples of this. Another significant shift in the country is the implementation of a new tax framework with the imposition of a Goods and Services Tax. The Goods and Services Tax (GST) is a broad idea that streamlines the massive tax system by promoting and bolstering a nation’s economic expansion (Dani, 2016). GST unifies a slew of federal and state taxes into a single tax, allowing for the creation of a unified national market. Exploring economic decisions that can lead us along the path of sustainable development is frequently mentioned in global and national development discussions (Bhamra, 2018).

### *Green Economy*

Traditional macroeconomic indicators like GDP are now used to assess a country's overall economic position, however GDP does not account for social and environmental costs and benefits. It's also difficult to make long-term decisions. The Rio+20 conferences in 2012, which commemorated the 20th anniversary of the first Rio Earth Summit in 1992, spawned a new idea known as the Green Economy. The notion that the economic and social goals of individuals and nations worldwide can be achieved while staying within the limited bounds of local, regional and global ecosystems is known as the "green economy" (Fiorino, 2014). The term "green economy" is ambiguous and open to several interpretations, much like the preceding concepts, environmental sustainability and sustainable development (Ehresman & Okereke, 2015). The United Nations Environment Programme (UNEP) describes green economy as one that "improves human well-being and social fairness while considerably lowering environmental dangers and ecological scarcities." The term "green economy" refers to a broad notion that has various implications for growth and well-being, as well as efficiency and risk mitigation in the utilisation of natural resources (Loiseau et al., 2016). A green economy is defined as a low-carbon, resource-efficient, and socially inclusive economy. In a green economy, governmental and private investments that reduce carbon emissions and pollution, improve energy and resource efficiency, and avoid the loss of biodiversity and ecosystem services should drive income and employment growth. This strategy focuses on restructuring economic activities and economies in order to achieve sustainable development and poverty reduction (Kamble and Ovhal, 2016).

A Green Economy can be a new possibility for augmentation and development, one that can improve people's lives in ways that are consistent with long-term growth. Emerging economies' quick expansion offers enormous potential for the shift to a green economy (Georgeson et al., 2017). Green economy helps to achieve a triple bottom line by increasing economic, social, and environmental well-being. The current economic growth model is based on expanding GDP. The current system has increased wealth and decreased poverty for hundreds of millions of people, but it comes with significant and perhaps irreversible environmental, social, and economic consequences. According to a recent worldwide assessment, nearly 60% of the world's ecosystem services have been damaged or are being utilised indefensibly (Shukla, 2017).

### *Importance of Green Economy*

India's and the world's biggest challenge continues to be the conflict between economic growth and the need to reduce greenhouse gas emissions (Chandra, 2015). Environmental issues in India are becoming more serious by the day, such as a lack of environmental education, declining agricultural land fertility, declining global water levels, mass deforestation, land degradation, excessive fertiliser and chemical use in food production, and river contamination and pollution. Drought, deforestation and lack of good air quality are some of the important issues. (Kamble and Ovhal, 2016). While India's fast economic expansion has benefited the country in many ways, the environment has suffered, exposing the populace to acute air and water pollution. The cost of environmental deterioration in India is \$80 billion per year, or 5.7 per cent of the country's GDP. To promote sustainable growth and stop the cycle of environmental deterioration and natural resource depletion, green economy measures are required. Emission reductions can be achieved at a low cost to the economy.

The shift to a green economy has taken centre stage at the 2012 United Nations conference in Rio de Janeiro, where the final report states that each nation can choose how to proceed with the shift in line with its own national initiatives, approaches, and sustainable development priorities (Vukovic et al., 2019).

At both the national and global levels, the transition to green and inclusive economies has been long debated (Bholane, 2020). Green growth strategies are needed to promote sustainable growth and to break the pattern of environmental degradation and natural resource depletion. In sectors including energy, transportation, and agriculture, policymakers worldwide have created action plans for the green economy and put those plans into effect (Merino-Saum et al., 2020). The recent financial crisis and climate change talks present an incredible opportunity to accelerate innovation and create a society where citizens accept responsibility for their actions, thus advancing the green economy (Sulich, 2020).

### *Green Growth in India*

The process of moving towards a resource-efficient, low-carbon society while fostering economic growth that protects ecosystems and advances social equity and human well-being is known as “green growth” (Lyytimäki et al., 2018). Green growth entails reconsidering growth plans in light of their effects on environmental sustainability and the environmental resources accessible to poor and vulnerable communities. Researchers associate the eco-industry sector’s hopeful transition from downstream environmental protection technology to resource-saving technologies, which rely on innovation and competitive marketplaces, with green growth and green economies (Jänicke, 2012). A macroeconomic strategy for sustainable economic growth at regional, sub-regional, and national levels is offered by the green economy (Bhattacharya & Sachdev, 2021).

Green economy transition has high potential to grow in India. India has made major international commitments towards the 2030 Global Development Agenda and the Paris Climate Agreement. The Indian government has committed to the Paris Climate Agreement 2015 to install 175 GW of renewable power capacity by 2022. The year 2021 is the 6th anniversary of the adoption of Global sustainable Development Goals (SDGs) by 193 countries at the UN General Assembly. India’s commitment includes 17 Goals and 169 related targets to be achieved by 2030. India ranks 120 out of 193 countries with a score of 66. The major challenges faced by India being zero hunger, good health and gender inequality. The 28 states and 8 union territories of India are categorized under four different categories as aspirant, performer, front runner and achiever on the basis of the degree to which the state/union territory achieved the different sustainable development goals. State/union territory which got an index between 0-49 is comes under aspirant category, 50-64 comes in performer category, 65-99 comes in front runner and whose who have total index value of 100 comes in achiever category. 15 states and 7 union territories are come in frontrunner category and 13 states and 1 union territory come in performer category. Neither any state or union territory comes in achiever as well as aspirant category. Kerala ranks first in the achievement of sustainable development goal with an index value of 75 among states and Chandigarh’s index value is 79 which is highest among all values. The global sustainable development goals are included no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduce inequalities, sustainable cities, responsible consumption and production, climate action, life below water, life on land, peace justice and strong institutions and partnerships for the goals (<http://sdgindiaindex.niti.gov.in>).

### *Green growth Indicators*

Green growth plans have changed in tandem with the increasing prominence of environmental issues and climate change in public discourse over the past few decades (Bowen, 2012). The rise of green growth initiatives coincided with the need to establish tools for evaluating them. This included the economy as a whole as well as its various sectors, including agriculture. Green growth data that is reliable, well selected, and current is an important component of shaping development strategies and a component of instruments that increase the dynamics of change in that regard. The OECD has outlined the conceptual framework for assessing green growth, which includes production, consumption, and the environment as major factors. The recommended indicators were divided into five categories, as follows:

1. The environmental and resource productivity of the economy.
2. The natural asset base.
3. The environmental dimension of quality of life.
4. Economic opportunities and policy responses.
5. Socio-economic context and characteristics of growth (OECD, 2011; OECD, 2014; OECD, 2017).

<i>Green growth</i>		<i>Green growth in agriculture</i>	
<i>Indicator groups</i>	<i>Examples of indicators</i>	<i>Indicator groups</i>	<i>Examples of indicators</i>
The environmental and resource productivity of the economy	<ul style="list-style-type: none"> <li>• Carbon and energy productivity</li> <li>• Resource productivity</li> <li>• Multifactor productivity</li> </ul>	Environmental efficiency and natural resource productivity	<ul style="list-style-type: none"> <li>• Carbon productivity (Agricultural GDP per unit of agricultural greenhouse gas emissions)</li> </ul>
The natural asset base	<ul style="list-style-type: none"> <li>• Renewable stocks: water, forest and fish resources</li> <li>• Non-renewable stocks: mineral resources</li> <li>• Biodiversity and ecosystems</li> </ul>	The impact of agriculture on the natural asset base and environmental quality of life	<ul style="list-style-type: none"> <li>• Renewable stocks</li> <li>• Share of agricultural fresh water</li> <li>• Total fresh water withdrawal</li> </ul>
The environmental dimension of quality of life	<ul style="list-style-type: none"> <li>• Environmental health and risk</li> <li>• Environmental services and amenities</li> </ul>	The economic performance of agriculture	<ul style="list-style-type: none"> <li>• Growth of total agricultural production</li> <li>• Total factor productivity</li> <li>• Relative importance of agricultural trade</li> <li>• Share of agricultural GDP in total</li> <li>• Share of agricultural employment in total</li> </ul>
Economic opportunities and policy responses	<ul style="list-style-type: none"> <li>• Technology and innovation</li> <li>• Environmental goods &amp; services</li> <li>• International financial flows</li> <li>• Prices and transfers</li> <li>• Skills and training</li> <li>• Regulations and management approaches</li> </ul>	Green growth policies and economic opportunities in agriculture	<ul style="list-style-type: none"> <li>• Trends of potentially the most environmentally harmful producer support</li> <li>• Share of agriculture in energy and transport taxes</li> <li>• Farmers with agricultural training</li> </ul>

(Source: Kasztelan, 2019).

**Table 1:** Indicators for assessing green growth in the national economy, with particular emphasis on the agricultural sector.

### Greening Economic Sectors

The green economy is more than just environmental in scope; it is also about development and the economy. From a development perspective there are a number of ways in which a green economy might benefit a developing economy like India. A green economy should not only maintain, but should enhance the value that the poor in developing countries derive from agriculture, fisheries and forest harvest – all activities that depend fundamentally on a sound environment. It should contribute to the reduction of energy poverty by providing low-cost distributed renewable energy solutions.

Five high-impact sectors key to the Green Economy transition in India are Agriculture, Construction, Power, Manufacturing and Transport & Tourism (Bhamra, 2018 ), as follows:

### *Agriculture*

India's agriculture and allied activities clocked a growth of 3.4 % during 2020-21 (Economic survey, 2020-21). Agriculture is the only industry that touches so many different sectors of the green economy. As a result, agriculture is critical to the transition of society to green economies. Greening the economy with agriculture (GEA) investigates the synergies and trade-offs that exist between the green economy and the food and agricultural industries. It refers to providing the right to enough food, as well as food and nutritional security, through effective natural resource management and increased resilience, without endangering the requirements of future generations. Climate change, resource depletion, and poverty are major problems to the food and agricultural industry, which the green economy aims to solve. The food and agriculture business has the potential to become a sustainable development engine by creating millions of green jobs and livelihoods, as well as landscapes that can help mitigate climate change (FAO Council, 2011).

Organic agriculture is among the broad spectrum of environment friendly production methods (Ramesh et al., 2005). Organic agriculture is critical to a country's transition to a green economy. The organic and natural agricultural sector has been granted Rs. 687.5 crore in the Union Budget 2020-21, which was Rs. 461.36 crore in the previous year. Sikkim was declared the country's first entirely organic state in 2015. Many other state governments have been inspired to follow suit.

Agricultural production is adversely affected by severe environmental threat, which is climate change (Enete & Amusa, 2010). Climate change will have an impact on agriculture. Although rising temperatures and increasing carbon dioxide levels in the atmosphere may boost average yields for some crops, the potential of more frequent extreme climatic events increases the risk of greater fluctuation in global food supply and pricing. Changes in lifestyle and consumer tastes, notably the need for more processed and ready-to-eat meals, have caused most of the increase in energy usage. There is a significant quantity of product waste in the system. It is feasible to boost energy efficiency as well as the usage of waste products. Overall, if the food and agricultural system is to adapt to the needs of green growth, technology innovation, human capital upgrades, and an adequate regulatory environment will be required to make the shift to new production methods easier. Multilateral initiatives to abolish non-green policies may aid in improving the sector's environmental performance. International commerce will continue to play an essential role in the food and agricultural system, both in terms of satisfying future food demands and in terms of buffering the system against the consequences of supply changes caused by harsh weather. In order to achieve green growth in the agriculture sector, it will be necessary to maintain open markets and expand international collaboration (Blandford, 2011).

Physical capital assets, financial investment, research, and capacity building in five key areas are required to build green agriculture: soil fertility management, more efficient and sustainable water use, crop and livestock diversification, biological plant and animal health management, and appropriate farm level mechanization. Furthermore, policy adjustments would concentrate on reducing and eventually eliminating environmentally inefficient subsidies that misrepresent the real cost of unsustainable agricultural inputs (UNEP, 2012).

### *Construction*

The construction sector is resource intensive. Around the world, several green building certification programs are in place to support the adoption of green building strategies and the advancement of sustainable construction (Powmya and Abidin, 2014). Buildings that are planned and built using ecologically friendly principles are known as "green buildings," a trend that has gained popularity recently in several areas (Avotra et al., 2021). According to annual report of India green building council, India achieved 7 billion Sq. ft of registered green building footprint with more than 5400 green building projects. Along with this, India has achieved 14 lakhs green dwelling units, more than 1800 green offices, 250 green factories, 48 green townships, 430 green transits, 24 green villages and 12 green cities. It is estimated that green buildings will cause reduction of CO<sub>2</sub> to an amount of 12,000- 15,000 tones/Million Sq. ft

per year and energy savings will be increased by 13,000- 15,000 MWh/ Million Sq. ft per year. Water savings will be attributed by an amount of 43,000- 45,000 KL/ Million Sq. ft per year.

The construction industry poses a significant environmental threat. Buildings account for at least 40% of global energy consumption. When considering the manufacturing process, buildings are expected to absorb 42% of world water and 50 % of raw materials. Furthermore, construction activities contribute 50% of global air pollution, 42% of global greenhouse gas emissions and 50% of global water pollution, 48% of global soil pollution, 50% of all solid wastes and 50% of all chlorofluorocarbons released into the environment. For construction and operation, traditional buildings consume a lot of energy, land, water, and raw materials. New technologies are continually being developed to supplement current building techniques in order to create more environmentally friendly structures. During the construction and operation of a green building, natural resources are used as little as possible. The goal of a green building design is to reduce non-renewable resource demand, increase the efficiency of these resources when they are in use, and optimise the reuse, recycling, and exploitation of renewable resources. The threshold criteria for certification levels by Indian Green Building Council (IGBC) for New Green Buildings are given in table 2 (Giduthuri and Vanakuru, 2017).

<b>Certification Level</b>	<b>Owner- occupied building</b>	<b>Tenant- occupied building</b>	<b>Recognition</b>
Certified	40 – 49	40 – 49	Good Practices
Silver	50 – 59	50 – 59	Best Practices
Gold	60 – 74	60 – 74	Outstanding Performance
Platinum	75 – 89	75 – 89	National Excellence
Super Platinum	90 – 100	90 - 100	Global Leadership

Source: (Giduthuri and Vanakuru, 2017).

**Table 2:** The threshold criteria for certification levels by Indian Green Building Council (IGBC) for New Green Buildings.

<b>Certification Level</b>	<b>Points</b>	<b>Recognition</b>
Certified	50-59	Best Practices
Silver	60-69	Outstanding Performance
Gold	70-79	National Excellence
Platinum	80-100	Global leadership

Source: (Giduthuri and Vanakuru, 2017).

**Table 3:** The threshold criteria for certification levels other than New Buildings by Indian Green Building Council (IGBC).

### Energy

The study of the Green Energy Economy (GEE) emphasises on how an economic system could broaden its green energy markets and systems to achieve sustainable development (Mundaca & Richter, 2015). Growing environmental consciousness because of the growing harm that fossil fuels cause to the ecosystem, the unstable nature of reliance on imported fossil fuels and the introduction of renewable energy has compelled many nations, particularly developing ones, to switch to renewable energy sources (Bhowmik et al., 2017). India’s Nationally Determined Contributions (NDC) under the Paris Agreement for the period 2021- 2030 demands for reducing the emissions intensity of its GDP by 33 to 35 percent by 2030 from 2005 levels and to reach 40% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 with the support of technology transfer and low-cost international finance (Ministry of new and renewable energy, 2020-21).

In a limited sense, sustainable development is primarily concerned with its ecological aspect; yet, in a broader sense, it is seen as a process that signifies a new way for civilisation to function (Lavrinenko et al., 2019). Sustainable development is feasible when citizens have affordable, reliable, sustainable, and contemporary energy. In order to save the environment, numerous nations have embraced

renewable energy technology in recent years (Chen et al., 2022). Investment opportunities in the renewable energy sector are abundant in India (Dey et al., 2022). While studying India’s energy development, supply and demand, it is apparent that the country’s energy sector has a bright future (Siram et al., 2022). India has risen to become one of the world’s most attractive renewable energy markets as a result of strong government support and an improving economic position. By 2040, India’s energy consumption will expand at the quickest rate than any major economy, with coal meeting the majority of this need, followed by renewable energy. By 2020, renewables had surpassed gas and then oil as the second most important source of domestic electricity generation. India’s renewable energy consumption will skyrocket from 17 Mtoe in 2016 to 256 Mtoe in 2040, representing a 12 per cent yearly rise. According to sources from June 2018, the country plans to reach 225 GW of renewable electricity capacity by 2022, surpassing the 175 GW pledged during the Paris Agreement (Majid, 2020).

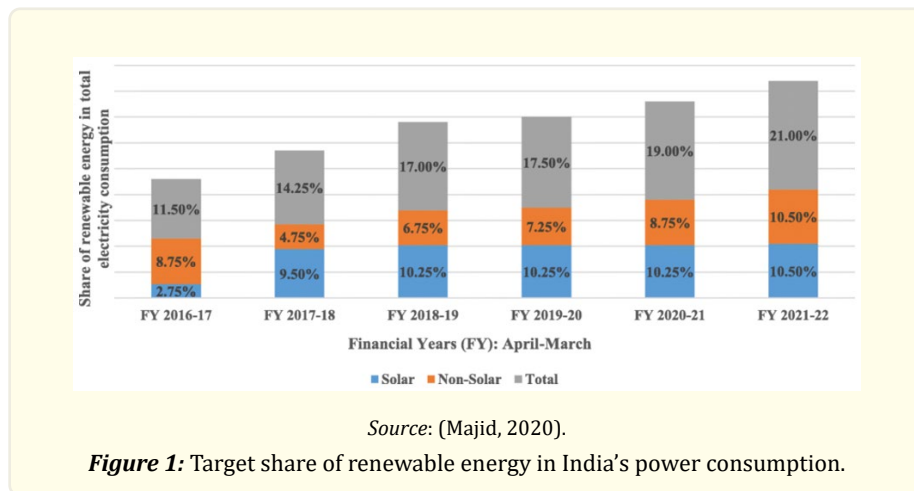


Figure 1: Target share of renewable energy in India's power consumption.

Year	Installed renewable energy Source (GW)	Expected Generation (Billion Unit)					% The Contribution of renewable energy source
		Solar	Wind	Biomass	Hydropower	Total	
2021-22	175	162	122	38	15	327	20.3
2026-27	275	243	188	64	21	516	24.2

Source: (Majid, 2020).

Table 4: Estimated contribution of renewable energy sources to the total energy demand.

### Manufacturing

India’s agenda for green manufacturing comprises imperatives for both industry and policy makers. The necessity for a green perspective in governance and the use of ICT tools that enable green production is urgent. Policy makers in the Indian industry are also actively involved in establishing a green framework. In a vital energy and resource demanding industry, there is a considerable need to enhance policies and coordinate incentives from dedicated agencies, as well as to promote efficiency measures throughout manufacturing. In order to reflect the new manufacturing paradigm that uses a variety of green tactics and approaches to become more ecologically sound, the term “green manufacturing” was created (Deif, 2011). Green manufacturing is a method that reduces production-related waste, pollution and toxins to have a minimal negative impact on the environment (Rehman & Shrivastava, 2013). Green manufacturing’s application often proves advantageous for businesses in addition to the environment (Paul et al., 2014). Green manufacturing has the potential to address both manufacturing and environmental concerns, but it will require concerted efforts from

business and government. To that aim, an agenda for India is being established, which will assist define future talks about green manufacturing innovation, implementation, and sustainability. PAT, CBIPM, and Zero Effects - Zero Defect are just a few of the government’s programmes aimed at making industry more efficient and sustainable. This is a fantastic step toward improving the manufacturing industry. The following years will be critical for putting announcements into action, as well as taking the chance to make the proper investments at the industrial level and making sustainability a non-negotiable goal (Kothawade, 2017).

**Transportation and Tourism**

Transportation accounts for 30% of worldwide energy consumption. The concept of travel has evolved dramatically, particularly since the industrial revolution. Multiple modes of transportation are now accessible that are both cheaper and faster, allowing more people and freight to move. In contrast to European countries, the environmental impact of transportation systems has been greater in emerging countries. The direct impact, such as noise pollution and dangerous gas emissions, is more visible. On the other hand, indirect effects of incomplete combustion in an internal combustion engine have been linked to substantial health risks. The cumulative effect has an effect on the ecology in which we live. Climate change is the result of the cumulative impact of various natural and manmade forces, with transportation playing a critical part (Ministry of Environment, Forests and Climate Change, Government of India, 2017).

According to Raina et al., (2019), current challenges related to urban transportation in India are:

- Land use and transportation networks are not well integrated.
- Due to increased urbanisation, there is a large imbalance between demand and availability for public transit.
- Overlapping and a lack of coordination amongst government agencies.
- Road infrastructure is of poor condition.
- Increased air pollution due to reliance on combustible fuel.
- Mixture of motorised and non-motorized vehicles is incompatible. On the road, vehicles driving at various speeds produce accidents and congestion.
- The use of intelligent transportation systems (ITS) is limited to only a few cities.

To overcome these challenges government of India have taken some initiatives, which are given in table 5.

<i>Policies/Programmes</i>	<i>Key features</i>	<i>Green impact</i>
National Urban Transport Policy	<ul style="list-style-type: none"> <li>• Focus on moving people, not vehicles</li> <li>• To provide seamless connectivity to metro regions</li> <li>• Guidelines to create multimodal and sustainable urban transport systems</li> </ul>	<ul style="list-style-type: none"> <li>• Huge strides in providing efficient bus transport, in major cities</li> <li>• Create comprehensive mobility plans</li> <li>• More focus on bus, light rail and intermediate public transport connections, still the walking and cycling last-mile connectivity options were neglected.</li> </ul>
Atal Mission for Rejuvenation and Urban Transformation	<ul style="list-style-type: none"> <li>• Revised version of JNNURM for 500 smaller cities</li> <li>• Focuses on various aspects of urban service delivery, and has specific fund allotted to create and enhance NMT</li> </ul>	<ul style="list-style-type: none"> <li>• Most of the states (and cities) have utilised AMRUT funds for other urban renewal aspects, NMTs have seen only 2 percent of total AMRUT outlays.</li> <li>• Poor validation and follow up on the part of the national mission as to how each city is spending its intended funding.</li> </ul>



<p>Smart Cities Mission</p>	<ul style="list-style-type: none"> <li>• Providing impetus to walkable communities is one of the focus areas.</li> <li>• Promote transit-oriented development, public transport and last-mile para-transport connectivity.</li> <li>• Furthers technological upgradations in urban transport through Intelligent Traffic Monitoring Systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Has furthered the green mobility cause through programmes and challenges aimed at cities.</li> <li>• Since the COVID-19 outbreak, has brought out programmes like cycles4change and complete streets, that aim to enhance walkability and bike infrastructure and adoption in Indian cities</li> <li>• Scope for standardisation of the programmes and to ensuring that their outcomes continue to impact even after the programmes/ challenges themselves are over.</li> </ul>
<p>National Transit Oriented Development Policy</p>	<ul style="list-style-type: none"> <li>• Comprehensive approach to creating sustainable mobility options in cities</li> <li>• Covers various aspects of transport policy and practice, including finance and urban planning</li> </ul>	<ul style="list-style-type: none"> <li>• To be implemented successfully across cities, changes must be made in the urban planning mandates.</li> <li>• This is the most comprehensive policy to be adopted into a green mobility framework in the future.</li> </ul>

Source: (Ponkshe, 2020).

**Table 5:** India’s existing green mobility policies.

Tourism growth is inextricably linked to India’s great traditions and rich cultural heritage. While there is a global trend of rapidly rising tourism efforts, the negative effects of tourism are alarmingly on the rise in many regions of the world, including environmental degradation, rapid depletion of natural resources, negative effects on biodiversity and ecological balance, and so on. The tourism sector is expanding rapidly and has the potential to become a major contributor of greenhouse gas emissions worldwide (Ibnou-Laaroussi et al., 2020). The sustainable development of the nation and its areas is inextricably linked to green tourism in most of the world’s nations (Lagodiienko et al., 2022). As a result, the importance of developing “nature friendly” tourism, or green tourism, has increased. Green tourism is crucial for promoting travel that supports cultural and ecological elements while promoting preservation and respect for urban resources and cultural diversity (Furqan et al., 2010). Green tourism is nature-based tourism with the goal of “conserving the environment and improving the well-being of local people.” Green tourism, which embodies the principles of conservation-based ecotourism, has the potential to have a more profound and lasting effect on the local people that participate directly (Andari & Setiyorini, 2016).

Sustainable tourism is a type of tourism approach that aims to make tourism development environmentally sustainable in the long run. Sustainable tourism necessitates the sustainable use of resources and the environment in addition to the sustainable expansion of tourism’s economic and social impact (Liu, 2003). Though the goals of green tourism and sustainable tourism are fairly similar, the latter is far broader and encompasses a wide range of tourist characteristics and categories. India’s national policy on green tourism was established by the department of tourism, which developed a set of regulations and guidelines for the growth of ecotourism/ green tourism. Long-term sustainability necessitates a balance of economic, societal, and environmental sustainability (Aftabuddin and Jain 2017).

**Challenges and Issues in Implementing of Green Economic Policies**

While the notion of a green economy is vital and requires major policy support, there are still several obstacles to its adoption and implementation. Transitioning to a Green Economy will necessitate a paradigm shift in how we think about growth and development, manufacturing, and consumer behaviour. This transformation will not occur only as a result of improved knowledge on consequences,

dangers, or sound economic analysis; at the end of the day, it will be about politics and changing the political economy of how major choices are made. Green economic policies have also some certain limitations which are need to be addressed (Agarwal, 2020).

Söderholm (2020) identified the following five major challenges that a transforming green economy must face:

1. Managing diffuse and increasingly global environmental threats.
2. Achieving long-term, dramatic, rather than gradual, technical development.
3. Green capitalism's emergence: the uncertain business-as-usual scenario.
4. The government's role: developing proper policy combinations.
5. Managing distributional issues and consequences.

## Conclusion

The green economy is described as an economy that seeks to reduce environmental hazards and ecological scarcities while also pursuing long-term development that does not degrade the environment. It is closely connected to ecological economics; however, it focuses on political applications. Promoting the development and implementation of sustainable technology is an important part of a green economy strategy. The subject of environmental sustainability is studied and dealt as an inherent component of the consequences of green economy policy. Although India is making strenuous efforts to meet its green economic goals, it still has a long way to go. The government should put a little more emphasis on specific green economic policy principles like renewable energy, water governance, waste management, and energy efficiency. The green idea may be applied in a multi-faceted manner to have a positive impact on employment, trade, agriculture, domestic industries, and business.

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