Vol. 2, Issue 1, August 2025 Subject-Law ISSN 3049-3099 (Print)

Peer Reviewed

VIPS JOURNAL OF LAW & DEVELOPMENT

VIVEKANANDA INSTITUTE OF PROFESSIONAL STUDIES-TC (VIPS-TC)
Affiliated to GGSIP University, Delhi & Approved by Bar Council of India & AICTE
Grade 'A++' Accredited Institution by NAAC &
Recognized by UGC under Section 2 (f) & NBA Accredited for MCA Programme
ISO 9001:2015 Certified Institution

About Vivekananda Institute of Professional Studies – TC (VIPS-TC)

Vivekananda Institute of Professional Studies - TC (VIPS-TC) was established in the year 2000. Even as a sapling, its roots were firm, for they were energized by Swamiji's teachings. Today, VIPS – TC has progressed and is nestling sixteen courses under seven different Schools. It continues to stand with determination, moral sight and strength of mind to create capable and ethical human beings with infinite power, infinite knowledge and indomitable positive energy. Under the aegis of VIPS – TC, Vivekananda School of Law and Legal Studies (VSLLS) is committed to realizing the words of Swami Vivekananda: "Man Making, Character Building and Nation Building" and is well known for its robust efforts in legal education. Research is integral to academics as it forms the foundation for knowledge creation and intellectual growth. It enables students, scholars, and professionals to explore new concepts, test theories, and contribute to the existing body of knowledge in their respective fields. VSLLS works towards development oriented research in the Legal domain.

About the VIPS Journal of Law & Development

VIPS Journal of Law & Development is an annual double blinded peer reviewed journal accepting submissions in English language. The inception year of the Journal is 2024 and it is further envisioned to promote global development of Law as it provides a platform for scholarly research dedicated to exploring the intersection of legal frameworks and socio-legal development with an inter disciplinary approach. The Journal follows transparent review policy, ensuring that all submissions undergo rigorous scrutiny through a double- blind peer review process by subject experts, maintaining academic integrity. As a policy of the Journal the contributing authors are communicated the comments and suggestions from the reviewers and are also regularly updated about the status of their submission. The mode of citation for the journal is VIPS VSLLS VOL 2 VJLD (2025).

TABLE OF CONTENTS

Title of the Paper / Author	Page No.
An Appraisal of Arbitration Laws in India *Dr. Chandrakanthi L*	**1**
From Crisis To Circularity: A Legal Perspective on E-Waste Management in India *Dr. Gunjan Ahuja & Dr. Ankita Kumar Gupta*	**23**
Green Economy: Catalysing Sustainable Development in India *Dr. Sadaf Moosa*	**37**
Judicial Discretion and Sentencing: Balancing Justice, Proportionality, and Reform in Indian Criminal Law *Shashank Raghav*	**56**
Reforming Juvenile Justice In India: The Role of Victim-Offender Mediation in Diversion and Rehabilitation *Chinki Verma*	**81**
Advancing Circular Economy through Extended Producer Responsibility in India *Vagisha Nandini*	**100**
Mental Health Laws in India: Unveiling the Legal Landscape *Srishti*	**124**
Reforming the Indian Matrimonial Law: The Case for Recognizing Pre-Nuptial Agreements in India's Pluralistic Society *Rupal Gupta*	**142**
Judiciary's Role In Tackling Non-Performing Assets in The Indian Banking Sector *Dikshant Gupta*	**156**

Beyond Consent: The New Frontier of Children's Privacy Rights in India's DPDP Act **176**
Ananya Tiwari

Navigating gig work in India's New Labour Codes: Legal Challenges, Global Insights, and the Path to Social Security **192**
Pallavi Kumari

Digital Dystopias: Legal Quandaries of Innovation, Accountability, And Rights in the Metaverse **210**
Shambhawi Tiwari & Akanksha Aditi

Patent Illegality in Arbitration: Aligning Indian Jurisprudence with Global Standards **223**
Disha Bhatia

Weaponized Code: The Use of Automated Systems to Sort, Control and Exclude Refugees **234**
Manshwi Anand

Submission Guidelines **256**

GREEN ECONOMY: CATALYSING SUSTAINABLE DEVELOPMENT IN INDIA

VIPS Journal of Law & Development
Subject - Law
August 2025, Vol. 2, Issue 1, 37-55
ISSN 3049-3099 (Print)
©Vivekananda Institute of Professional Studies-TC
(VIPS-TC)
https://vslls.vips.edu/vslr/

Dr. Sadaf Moosa*

ABSTRACT

The imperative to balance economic growth with environmental preservation has gained significant global attention. The traditional paradigm of development, often prioritizing economic indicators, has led to environmental degradation and social inequities. The concept of a green economy, as advocated by the United Nations, offers a promising approach to reconcile these competing demands. This research article delves into the conceptual framework of a green economy, emphasizing its role in achieving sustainable development. It explores the significance of ecosystem services, which often remain undervalued, in promoting environmental health and economic prosperity. By adopting a multidisciplinary perspective, the paper examines the legislative, executive, and judicial initiatives undertaken by India to foster a green economy. In the conclusion, the research article stresses the pivotal role of government, judiciary and sustainability education in shaping a future generation of informed and active citizens. By cultivating a deeper awareness of both environmental problems and practical sustainable approaches, education has the power to equip individuals to make responsible choices and spearhead positive societal change.

Keywords: *Green economy, sustainable development, sustainable economy, legal framework, role of judiciary, India.*

* Assistant Professor, Xavier Law School, St. Xavier's University, Kolkata, Email ID: sadaf.moosa2010@gmail.com.

1. INTRODUCTION

"The Earth is fragile, let us nurture it by Innovating for a green future."
- Justice Pratibha M Singh

It has been long understood that economic and social development impacts the environment, creating a need to preserve and protect natural resources. Traditionally, environmental policy was considered independent from economic and social development policy. Over the last few years, the viewpoint of policymakers on environmental concerns and their consequences has become alarmingly broad. Policymakers working on sustainable development recognised that achieving the economic and social objectives outlined in the Millennium Development Goals (MDGs) while also maintaining a healthy, sustainable environment would be difficult without major technical innovation. Every nation, regardless of its wealth, faces the challenge of balancing social, economic, and environmental aspects of sustainable development. This requires a blend of technological innovation, effective policies, and socioeconomic shifts. The anticipated global population increase from 6-7 billion to 9-10 billion in the next four decades will intensify existing problems, placing even greater strain on environmental resources, economic systems, and social structures.

The "United Nations Conference on Sustainable Development (Rio+20)" regards "green economy as one of the most important ways for attaining sustainable development. It is not a substitute for a truly sustainable economy; instead, it's a means to achieve sustainable development".[1] The term "green" has become widely used, covering a wide range of environmental and sustainability-related concerns, processes, products, and services.

It is significant to note that the natural ecosystem can produce commercial goods such as timber and several valuable services to human society. For example, natural floodplains or wetlands can help to protect cities from destructive floods, forests on the earth absorbs carbon and help to stabilize the climate. Plants, trees and soils help to purify and filter the water. Irrespective the importance of these services provided, it is taken for granted. The healthy ecosystems is greatly beneficial and therefore ecosystem services, environment and economic goals can congregate. The term 'Development', in terms of the green economy, should be sustainable and comprehensive. 'Development' is much more than economic growth, as it balances

1 Sustainable Development Goals Knowledge Platform, *United Nations Conference on Sustainable Development, Rio+20*, https://sustainabledevelopment.un.org/rio20 (last visited Jan, 2, 2025)

economic goals with environmental and social goals. In a book 'Beyond Economic Growth: An Introduction to Sustainable Development', published by the World Bank Institute under their Development Education Program (DEP)[2], emphasised that development should be everyone's concern as it is affecting everyone's life. Not only economists and development experts, but also ordinary people, including youth/ students, should be prepared to participate in the most pressing issues of sustainable development. To accurately assess their nation's place in the world, they must consider sustainable development from a global perspective down to national and even local levels.

Interdisciplinary approach is needed to understand, because development is a comprehensive process involving economic, environmental and social changes. The article discusses the conceptual framework of green economy and its significance in the national international scenario. It focuses on the legislative, executive and judicial initiatives to promote and support green economy in India. The article ends with the suggestion highlighting the relevance of sustainability education in present context.

2. UNDERSTANDING GREEN ECONOMY

A green economy is defined by its low carbon output, efficient resource use, and commitment to social equity. In this model, both public and private investments fuel job creation and income growth, specifically targeting "economic activities, infrastructure, and assets that lead to reduced carbon emissions and pollution, greater energy and resource efficiency, and the protection of biodiversity and ecosystem services".[3] Recently, the UNEP has published, "The Green Economy Report' (GER)" which defines a green economy as, "one in which the vital links between economy, society, and environment are taken into account and in which the transformation of production processes, production and consumption patterns, while contributing to a reduction per unit in reduced waste, pollution, and the user of resources, materials, and energy, waste and pollution emission will revitalize and diversify economies, create decent employment opportunities, promote sustainable

2 Tatyana P. Soubbotina, *Beyond Economic Growth: An Introduction to Sustainable Development,* 1 (The World Bank, Washington D.C. 2004), https://www.gfdrr.org/sites/default/files/publication/Beyond%20Economic%20Growth_0.pdf.

3 UN Environment Programe,*Green Economy*, (2023), https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy. (last visited Jan. 6, 2025).

trade, reduce poverty, and improve equity and income distribution". It is critical that green investments be enabled and supported by targeted public spending, legislative reforms, and adjustments to taxes and regulations. Various international organisations have supported and encouraged the state members to adopt the principles of green economy in their nations. The "United Nations Environment Programme (UNEP)" emphasised that "a green economy is a development model that recognises natural wealth as both an economic asset and a generator of public good, particularly benefiting disadvantaged communities whose survival relies on these resources. Rather than superseding sustainable development, the idea of a green economy highlights the importance of economic activity, investment, capital, infrastructure, jobs, and expertise, as well as positive social and environmental impacts throughout the Asia-Pacific region." The "Organisation for Economic Cooperation and Development", highlights that "green growth fosters economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies."[4] The US Occupational Information Network elucidates that green economy relates to "the economic activity related to reducing the use of fossil fuels, decreasing pollution and greenhouse gas emissions, increasing the efficiency of energy usage, recycling materials, and developing and adopting renewable sources of energy."[5] "Green economy not only promotes economic growth and environmental sustainability but also promotes social inclusion. Initially, it was limited to climate change, reduction of CO2 emission and short-term solution to current crises. It has evolved to include greening of the entire economy, long-term objectives of sustainable development, and promotion of social justice and decent work. It includes broader dimensions of energy and resource efficiency, poverty eradication, social equity, and human wellbeing."[6] As also mentioned by the International Labour Organization. The United Nations Environment Programme added a significant component that needs to be considered in green economy are human well-being and social equity. Green economy can be thought of as one, which is low carbon, resource efficient and socially inclusive."[7] It has proposed a four-strategy for the growth of green economy, viz.

4 OECD, GREEN GROWTH AND SUSTAINABLE DEVELOPMENT, (2023), https://www.oecd.org/greengrowth/ (last visited Jan. 6, 2025).

5 *Ibid*

6 International Labour Statistics, *Definitions of green jobs used in the employment and environment policy context,* DEPARTMENT OF STATISTICS, https://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/presentation/wcms_195740.pdf (last visited Jan. 10, 2025).

7 United Nation Environment Programme, *Green Economy*, (2023), https://www.unep.org/regions/latin-america-and-caribbean/regional-initiatives/promoting-resource-efficiency/green

"(i) implementation of strong environmental regulations and safeguards; (ii) Carbon Border Adjustment Mechanisms; (iii) stronger intergovernmental cooperation; and (iv) stakeholder incentives".[8]

Therefore, "a green economy is a broad-ranging policy agenda and a tool to support the achievement of sustainable development, with an emphasis on aligning economic goals to social and environmental ones. The green economy agenda recognizes the potential of new sustainable technologies and green sectors to become the engine of a new development pathway".[9] This approach substantially mitigates environmental threats and the depletion of natural resources, leading to improved human welfare and greater social justice. [10]

There is no worldwide definition of the green economy. The United Nations Environment Programme concept has been mentioned in a number of subsequent papers, including one by the "Organisation for Economic Cooperation and Development". A collaborative effort known as the "Green Economy Coalition", which brings together NGOs, labor unions, and various organizations engaged in grassroots efforts for a green economy provides another brief description of the green economy as "a resilient economy that provides a better quality of life for all within the ecological limits of the planet."[11]

3. IMPORTANCE OF SHIFTING TOWARD A GREEN AND SUSTAINABLE ECONOMY

Embracing a green economy offers numerous benefits for both people and the planet. It promotes job creation in renewable energy sectors like solar and wind power, fostering economic growth while reducing dependency on fossil fuels. Additionally, a green economy enhances public health by reducing pollution and improving access to clean water and air. Furthermore, it encourages innovation and the development of sustainable technologies, driving progress in various industries.

(last visited Jan.26, 2025).

8 United Nations Environment Programme, *Greening International Trade*,(2021), https://www.unep.org/resources/publication/greening-international-trade. (last visited Jan.26, 2025).

9 United Nations, Green Economy, UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE, (2023), https://unece.org/green-economy-3. (last visited Jan. 26, 2025).

10 *Ibid*

11 United Nations, *Green Economy*, SUSTAINABLE DEVELOPMENT GOALS, KNOWLEDGE PLATFORM, (2023), https://sustainabledevelopment.un.org/index.php?menu=1446. (last visited Feb. 6, 2025).

Sustainable development provides a crucial framework for green growth and a green economy. Several international organisations, like "United Nations Environment Programme (UNEP), the UN Department of Economic and Social Affairs (UNDESA), the United Nations Conference on Trade and Development (UNCTAD), the International Labour Organisation (ILO), World Bank, Organisation for Economic Cooperation and Development (OECD), the Global Green Growth Institute (GGGI), the Green Economy Coalition, Stakeholder Forum, the Green Growth Leaders" have defined the concept of green economy respectively.

It was in 1989 that the phrase "green economy" was initially coined, appearing in a paper called "Blueprint for a Green Economy" by a group of influential environmental economists. It was a guideline for the United Kingdom government to understand the basic concept of sustainable development and its effect on the evaluation of the economic growth of the country.

The "United Nations Framework Convention on Climate Change(1994), the Kyoto Protocol (1997) and the Paris Agreement (2015)" are the bedrock for climate change deliberation at global level. The Paris Agreement aims to reduce Greenhouse gas (GHG) emissions and thereby ensure to maintain temperature below 2°C and promotes green economy.

"Action for Climate Empowerment (ACE) was initiated under the UN Framework Convention on Climate Change to enable all members of society to participate in climate action, through the six ACE elements - climate change education and public awareness, training, public participation, public access to information, and international cooperation on these issues."[12]

The Sustainable Development Goals (SDGs) under Goal 13 provide global frameworks to address climate change and sustainability. These agreements shape the legal landscape for promoting the green economy worldwide.

In October 2008, the "UN Environment Programme (UNEP)" launched the "Green Economy Initiative"[13]. This program aimed to offer policy guidance for investments in environmentally friendly industries and to promote sustainable practices in polluting sectors. "As part of this initiative, UNEP commissioned one of the original

12 United Nations Climate Change, *Action for Climate Empowerment*, (2024), https://unfccc.int/topics/education-and-youth/big-picture/ACE (last visited Feb.26, 2025)

13 IISD SDG Knowledge Hub, "*UNEP Launches Green Economy Initiatives*"(2024), https://sdg.iisd.org/news/unep-launches-green-economy-initiative/ (last visited Feb.26, 2025)

authors of the Blueprint for a Green Economy to produce a report titled Global Green New Deal (GGND). Released in April 2009, the GGND proposed a series of policy actions to stimulate economic recovery while simultaneously enhancing the sustainability of the global economy. It urged governments to allocate substantial stimulus funding to green sectors, outlining three key objectives: (i) economic recovery, (ii) poverty alleviation, and (iii) decreased carbon emissions and ecological degradation. It also offered a framework for green stimulus programmes which are combined with supporting domestic and international policy".[14]

4. National efforts to promote Green Economy in India

India has chosen 'Sustainable Development' as a policy, with the goal of reducing poverty and inequities in society (providing opportunities for all castes and genders, as well as providing food, education, employment, energy resources, and sanitation), while also protecting its natural resources. The Indian government has established many national efforts to support green economy growth. These measures have helped to position India as a worldwide leader in renewable energy production. India's long-term development depends on the transition to a green economy. Some key initiatives performed by the government under sustainable development or "green economy" policy are as follows:-

4.1 Legislative framework

The Energy Conservation Act, 2001: This law establishes the Bureau of Energy Efficiency (BEE), which is responsible for promoting energy efficiency and conservation in India. The BEE has set "energy efficiency standards for a variety of appliances and equipment, and it also conducts energy audits and provides energy efficiency consulting services". This Act was amended in 2022 to help India in accomplish the commitments COP-26 i.e. "(a) reach 500GW non-fossil energy capacity by 2030; (b) meet 50 per cent of its energy requirements from renewable energy by 2030; (c) reduce total projected carbon emissions by one billion tonnes from the date of COP-26 to 2030 (d) Reduce carbon intensity of the economy by 45 per cent by 2030, over 2005 levels and (e) achieve net zero emissions by 2070".[15] Under this Act, "the central

14 United Nations, *Green Economy,* United Nations Environment Management Group, (2011), https://sustainabledevelopment.un.org/index.php?menu=1446#:~:text=As%20part%20of%20this%20Initiative,the%20same%20time%20improve%20the. (last visited Feb. 26, 2025).

15 Government of India, *India's Stand at COP-26.* Ministry of Environment, Forest and Climate Change, (2022), https://www.pib.gov.in/PressReleasePage.aspx?PRID=1795071 (last visited June1,2025).

government is empowered to specify a tradeable permit to produce a specified amount of carbon emissions, which is known as the carbon credit trading scheme and may issue carbon credit certificates to entities registered under and compliant with the scheme."[16]

The Electricity Act, 2003: This law focuses on "the growth of the electricity industry and protecting the interests of consumers. The Act also establishes the Central Electricity Authority and the Regulatory Commission as a regulatory body and Appellate Tribunal for the settlement of disputes". [17]

4.2 National Policies

National Action Plan on Climate Change (2008): The action plan is aimed at attaining national growth and poverty reduction goals while maintaining environmental sustainability. It has eight National Missions for Climate Change: -

The Jawaharlal Nehru National Solar Mission (JNNSM): This mission was commenced in 2010 by the Government of India and State Governments to promote ecologically sustainable growth and establish India as a global leader in solar energy. Solar energy generates electricity or heat with zero emissions and it will help India to face challenges of climate change.[18]

The Electric Vehicle Policy: The policy is adopted by the Power department, Government of West Bengal in 2021. It provides incentives to manufactures and purchasers of the "buses (only Electric Vehicle technology), Four Wheelers (Electric Vehicle), Plug-in Hybrid (PHEV) and Strong Hybrid (SHEV), three-wheelers (Electric), including registered E-Rickshaw and two-wheelers (Electric)". It also provides for the setting of charging infrastructure and designates certain areas as green zones. It aims to fulfil the objectives of the "United Nations Climate Change Conference in 2021 popularly known as COP26" by establishing sustainable transportation infrastructure in West Bengal. The policy thereby supports sustainability, energy efficiency and green economy.[19]

The National Green Hydrogen Mission: The government approved the mission in 2023

16 The Energy Conservation Amendment Act, 2022.

17 The Electricity Act, 2003.

18 India Science Technology and Innovation Portal, *National Missions*, (2025), https://www.indiascienceandtechnology.gov.in/st-visions/national-mission/jawaharlal-nehru-national-solar-mission-jnnsm (last visited Mar. 6, 2025).

19 Electric Vehicle Policy, 2021.

which aims "to make India independent in energy sector and help in decarbonisation in major sectors of the economy, less dependence on import of fossil fuel, and enable India to assume technology and market leadership in production, usage and export of Green Hydrogen and its derivatives. The Mission aims to achieve the outcomes by 2030 in the form of development of green hydrogen production capacity of at least 5 MMT (Million Metric Tonne) per annum with an associated renewable energy capacity addition of about 125 GW in the country, Over Rs. Eight lakh crores in total investments, Creation of over Six lakh jobs, Cumulative reduction in fossil fuel imports over Rs. One lakh crore and Abatement of nearly 50 MMT of annual greenhouse gas emissions security".[20]

Swachh Bharat Abhiyan (SBA) or Clean India Mission (2014): This endeavour is intended to clean up Indian cities, towns, and villages. One of its primary goals is to create an open-defecation-free India by building toilets throughout the country.[21]

Eco-Taxes: In India, out of the total seventeen eco-taxes, sixteen are levied by the state government and one by the Central government with the aim to reduce pollution. There are two categories of environment-related taxes, firstly, Product Taxes such as Clean Energy Cess, Gujarat Green Cess, Vehicle Entry Tax, Vehicle Tax on old automobiles, Ecological Fund and environmental cess, Goa Green Cess, and secondly, Natural Resource Tax like Forest Development Tax.

Green building policy: The policy was introduced in 2006 and aims to build all new structures as green building with characteristics, such as "solar panels, rainwater harvesting systems and waste management infrastructure" by 2030. The government provide tax benefits to developers of green buildings under the Income Tax Act. Projects with green certification are sanctioned loans at low interest rates through the "Indian Renewable Energy Development Agency (IREDA)".

4.3 National Institutions

The National Green Tribunal (NGT): The NGT functions similarly to a court in disputes involving environmental preservation, forest conservation, and other natural resources. It acts on disputes relating to environmental concerns and may require persons who cause ecological harm to pay high penalties, take efforts to stop

20 Press Information Bureau, *Cabinet approves National Green Hydrogen Mission,* Ministry of New and Renewable Energy, (2023), https://pib.gov.in/PressReleasePage.aspx?PRID=1888547 . (last visited Mar. 6, 2025).

21 Government of India, *Swachh Bharat Abhiyan,* Ministry of Drinking Water & Sanitation, https://www.pmindia.gov.in/en/major_initiatives/swachh-bharat-abhiyan/. (last visited April. 1, 2025).

and remedy environmental damage, or even sentence to imprisonment.[22]

In addition to these laws and policies, the Indian government is also working to promote carbon zero through government led initiatives, such as the Carbon Neutrality Pledges and the Smart Cities Mission. Moving to a carbon-neutral economy presents a significant challenge for India, yet it also offers a substantial opportunity. By investing in clean energy technologies and energy efficiency, India can generate employment, attract capital, and enhance the living standards of its citizens.

Two significant measures implemented to reduce carbon emissions and advance sustainable development goals are: "permitting up to 100% Foreign Direct Investment (FDI) in renewable energy projects via the automatic route, and exempting inter-state transmission system (ISTS) charges for solar and wind power sold across states, specifically for projects operational by June 30, 2025"[23].

Schemes like the "Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) and the Solar Rooftop" are being promoted. If "India achieves its Net Zero target by 2030, railroads alone would reduce emissions by 60 million tonnes per year. Similarly, India's large LED bulb project has decreased annual emissions by 40 million tonnes". Supercritical units will be used only to expand thermal power capacity beginning in 2017.This will reduce the use of fossil fuels, resulting in fewer CO2 emissions. Numerous programmes and projects have been implemented to increase energy efficiency like promoting electric automobiles and expanding charging facilities throughout the country, implementing fuel efficiency requirements to reduce carbon footprints in the transportation sector and biomass pellets are cofired with coal in thermal power plants.[24]

5. Role of Judiciary in Facilitating Green Economy

The process of developing a green economy is both complicated and demanding, but it is indispensable for securing the future prosperity of India and its people. The judiciary can be instrumental in easing this transition by ensuring that the government

22 The National Green Tribunal Act, 2010.

23 Press Information Bureau, Cabinet approves National Green Hydrogen Mission, Ministry of New and Renewable Energy, (2023), https://pib.gov.in/PressReleasePage.aspx?PRID=1888547 . (last visited Mar. 6, 2025).

24 Press Information Bureau, *Green Economy*, *Ministry of New and Renewable Energy,* (2022), https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1883925. (last visited April. 6, 2025).

and other stakeholders comply with environmental laws and regulations. The Indian judiciary has been proactive and progressive in dealing with environmental issues, and has evolved a rich and diverse body of environmental jurisprudence, based on the "doctrines of public trust, intergenerational equity, precautionary principle, polluter pays principle, and environmental rights". In India, the National Green Tribunal, the Green Benches, and the Environmental Courts play a vital role in the effective establishment of the "5 basic principles of Green Economy i.e. wellbeing principle, Justice, planetary boundaries, efficiency & sufficiency and good governance."[25]

5.1 The Wellbeing Principle

The Wellbeing Principle is a foundational pillar of the green economy, emphasizing that the ultimate purpose of economic activity should be to enhance the well-being of all people, now and in the future, within the ecological limits of the planet. In the Goa Foundation vs. M/s Sesa Sterlite Ltd. & Ors. (Goa Mining Case)[26]. The mining of iron ore in Goa started in the 1950s, but became rampant and widespread in the 2000s, with the involvement of several private companies and the connivance of the state authorities. The mining activities caused severe damage to the environment, ecology, biodiversity, and public health, as well as the loss of revenue to the state exchequer. The mining operations were also in violation of various laws and regulations, such as the "Mines and Minerals (Development and Regulation) Act, 1957, the Environment Protection Act, 1986, the Forest Conservation Act, 1980, and the Wildlife Protection Act, 1972". The Justice M.B. Shah Commission, an investigative body formed by the central government, was assigned to probe into illegal mining, exposed the extent and magnitude of the mining scam, and estimated the loss to the state at Rs. 35,000 crores. The commission also recommended the cancellation of all the mining leases and the recovery of the dues from the lease holders. Based on the commission's report, the central government suspended the environmental clearances of all the mines in Goa in 2012, and the state government imposed a ban on all mining operations in 2013. However, in 2014, the state government decided to renew 88 mining leases, without following the due process of law and the principles of natural justice. The state government also granted the leases for a period of 20 years, instead of the prescribed 5 years, and without imposing any conditions for the protection of the

25 Green Economy Coalition, *The Five Principles of Green Economy* (2025) https://www.greeneconomycoalition.org/news-and-resources/the-5-principles-of-green-economy (last visited July 7,2025)

26 Goa Foundation vs. M/s Sesa Sterlite Ltd. & Ors. (2014) 6 SCC 590.

environment and the rights of the people. Whether the renewal of the leases violated the constitutional principles of "sustainable development, intergenerational equity, and the public trust doctrine". The Supreme Court, in its judgment dated 7 February 2018, quashed the renewal of the mining leases and ordered the cessation of all mining operations from 16 March 2018. Additionally, the court ordered the state government to provide new leases, ensuring compliance with legal provisions and appropriate guidelines. The court also noted the findings of the Justice M.B. Shah Commission, which had exposed the rampant exploitation of natural resources and the collusion of the state authorities with the mining lease holders. The court held that the state government had failed to protect the environment and the rights of the people of Goa. This judgement established the sustainable development principles, balancing economic interests with environmental sustainability and the need for stringent regulatory supervision. The primary focus of a green economy is to provide economic prosperity for all people within the ecological limits and serve the interest of the public at large.

The Tamil Nadu Pollution Control Board vs. Sterlite Industries (I) Ltd (Sterlite Copper Plant Case)[27]

The copper smelter plant operated by Vedanta Ltd. in Thoothukudi, Tamil Nadu has faced several protests, complaints, and closures since its inception in 1994, for allegedly violating environmental norms and causing air, water, and soil pollution, as well as respiratory and skin diseases among the local population. The plant received environmental clearance from the MoEFCC in 1995, and consent to operate from the Tamil Nadu Pollution Control Board (TNPCB) in 1996. The plant was expanded in 2007 and 2009, with further clearances and consents from the authorities. The plant was shut down by the TNPCB in 2013, after a sulphur dioxide leak that affected the nearby residents. The plant was allowed to reopen by the NGT in 2013, subject to certain conditions. The plant was again shut down by the TNPCB and the state government in 2018, following a violent protest that resulted in the death of 13 people. The plant challenged the closure orders before the NGT, which set aside the orders and allowed the plant to resume operations in 2018. The Supreme Court set aside the NGT's order in 2019, on the ground of lack of jurisdiction, and directed the plant to approach the Madras High Court instead. The Madras High Court upheld the closure orders in 2020, and dismissed the plant's writ petitions. The Supreme Court refused to grant any interim relief to the plant in 2020, and asked it to file a

27 The Tamil Nadu Pollution Control Board vs. Sterlite Industries (I) Ltd AIR 2019 SC 1074.

special leave petition against the high court's judgment. The Supreme Court allowed the plant to operate for four months in 2021, only for the purpose of producing medical oxygen, in view of the COVID-19 pandemic.

6. JUSTICE

Justice as a principle of a green economy is about ensuring that the transition to a sustainable, environmentally sound economic model is fair, equitable, and inclusive for all people, both within current generations and between present and future generations. In *Samata v. State of Andhra Pradesh*[28], Samata, a non-governmental organization advocating for tribal rights in Andhra Pradesh, contested the transfer of land in the state's Scheduled Areas to private mining companies. The organization claimed that these transfers breached the provisions of "The Andhra Pradesh Scheduled Areas Land Transfer Regulation, 1959 (Regulation I of 1959)," which prohibits the alienation of tribal land to non-tribals. The core legal issue was whether tribal lands could legally be transferred to private companies and whether government land in Scheduled Areas could be leased to non-tribals for private mining purposes. The court ruled that such transfers to non-tribals were unlawful. It underscored the role of the State as a trustee of tribal lands and held that it cannot alienate or lease these lands to private entities. However, it permitted mining by government agencies or public sector undertakings, provided that tribal welfare is prioritized. The ruling reinforced the rights of tribal communities over land and natural resources in Scheduled Areas and bolstered constitutional safeguards for their land rights.

7. THE PLANETARY BOUNDARIES PRINCIPLES

The Planetary Boundaries Principle in a green economy asserts that human economic activity must operate within the scientifically defined "safe operating space" of Earth's key biophysical systems. It's a fundamental recognition that the planet has finite limits, and transgressing these limits risks triggering irreversible environmental changes with severe consequences for human well-being and prosperity. In the *National Green Tribunal Bar Association vs. Ministry of Environment & Forests and Ors. (Sand Mining Case)*[29] The Justice M.B. Shah Commission's reports

28 Samata v. State of Andhra Pradesh AIR 1997 SC 3297.

29 National Green Tribunal Bar Association vs. Ministry of Environment & Forests and Ors. M.A. No.685 of 2013.

served as the foundation for the case, which had exposed the illegal and unregulated sand mining activities in various rivers and riverbeds across the country, which posed a serious threat to the environment, ecology, biodiversity, and public health. The petitioner sought the NGT's intervention to enforce and monitor the compliance of the existing laws and regulations on sand mining, such as the "Environment Protection Act, 1986, the Environment Impact Assessment Notification, 2006, the Mines and Minerals (Development and Regulation) Act, 1957, and the Sustainable Sand Mining Management Guidelines, 2016". The issue in this case was whether the sand mining activities aligned with the legal and environmental framework. The Tribunal restricted the sand mining activities and recommended various measures such as:

a. banning sand mining without environmental clearance or consent from the authorities;
b. constituting committees and task forces at the central and state levels to oversee the implementation of the orders and guidelines;
c. directing the respondents to submit periodic reports on the status of sand mining, the action taken against the violators, and the measures taken to restore the damaged environment;
d. imposing penalties and compensation on the respondents and the offenders for the environmental damage caused by sand mining;
e. issuing guidelines and standard operating procedures for the regulation and management of sand mining, such as the use of technology, the identification of sand sources, the assessment of environmental impact, the allocation of leases, the monitoring of transportation, and the involvement of local communities.

8. Principle of Efficiency and Sufficiency

It focuses on optimizing the use of resources (energy, water, raw materials) and minimizing waste and pollution throughout the entire lifecycle of products and services.

Vardhman Kaushik vs. Union of India & Ors. (also known as NCR Construction Ban Case)[30]

30 Vardhman Kaushik vs. Union of India & Ors. 2016 SCC On Line NGT 4176.

The case was based on the problem of pollution caused by various sources, such as vehicular emissions, crop burning, dust, waste burning, and industrial emissions. The applicant sought the NGT's intervention to enforce and monitor the compliance of the existing laws and regulations on pollution control, such as the "Air (Prevention and Control of Pollution) Act, 1981, the Environment Protection Act, 1986, the Motor Vehicles Act, 1988, and the National Ambient Air Quality Standards, 2009". The issue was whether the pollution levels in Delhi and NCR were in violation of the law and the environmental norms and standards. The NGT passed several orders and directions in this case, imposing various measures and restrictions on the pollution sources, such as banning diesel vehicles older than 10 years, prohibiting crop burning, enforcing dust control measures, levying environmental compensation, and monitoring the compliance of the authorities and the offenders. The court, through this judgement, highlighted the importance of promoting economic opportunities and reducing emissions.

9. Good Governance

Good governance refers to the integrated, accountable, transparent, participatory, and resilient institutional frameworks and processes that guide society towards sustainable development. It acts as the backbone that enables the other principles (well-being, justice, planetary boundaries, efficiency, sufficiency) to be effectively implemented, sustained, and achieve their desired outcomes. Without good governance, even the best intentions for a green economy are likely to falter. In *Hanuman Laxman Aroskar vs. Union of India (Mopa Airport Case)*[31], the proposed greenfield international airport site is situated on a tabletop plateau surrounded by steep slopes and forests. The site falls within the Western Ghats, which is a biodiversity hotspot and an ecologically sensitive zone. The airport project would involve the felling of trees, the diversion of water sources, the generation of noise and air pollution, and the displacement of local communities. The appellants alleged that the environmental impact assessment and the public consultation for the project were flawed and inadequate, and that the clearance violated the law and the constitutional principles of "sustainable development, intergenerational equity, and the public trust doctrine". Whether the "environmental clearance" granted for the airport project was valid and in accordance with the law and the environmental norms and guidelines. The Supreme Court quashed the "environmental clearance" and ordered the cessation of all construction activities at the site. The court found

31 Hanuman Laxman Aroskar vs. Union of India (2019) 15 SCC 401.

that the clearance was based on a faulty and incomplete environmental impact assessment, which failed to take into account the impact of the project on the forests, ecologically sensitive zones, flora and fauna, water and air quality, noise pollution, and public consultation. The court also found that the clearance was granted without due regard for the rule of law and the environment, and that the project proponent and the authorities had acted hastily and without due diligence. The Expert Appraisal Committee was directed by the court to reconsider its recommendations for the clearance, having regard to the specific concerns highlighted by the court, and to submit a revised report within a month. The court also granted liberty to the parties to file the report of the committee before the court for further orders. It was explicitly stated by the court that the committee's report, once presented, cannot be contested in any other court or tribunal. It is analysed that the court emphasised the need for genuine public participation to promote decision-making for locally based economies and biodiversity management.

The Indian judiciary has also balanced the economic and environmental interests, and has ensured that the development activities are carried out in a manner that is compatible with the ecological and social requirements of current and upcoming generations. The Indian judiciary has also issued various guidelines and directions to the authorities and the stakeholders, to ensure the compliance and implementation of the environmental laws and regulations, and to assess and track the environmental consequences of different projects and undertakings. The Indian judiciary has also imposed various penalties and compensation on the violators and offenders of the environmental norms and standards, and has ordered the restoration and remediation of the damaged environment. The Indian judiciary has also recognized and promoted the role of green technologies and innovations, and has supported the development and dissemination of clean and renewable energy sources.

10. Hurdles in the way of Green Economy

A green economy is characterized by its objective of decreasing environmental risks and ecological deficits, concurrently leading to better human lives and more equitable societies. India, as a developing country with a large population and a growing economy, faces many challenges in the pursuit of green economy. Some of the major hurdles are:

a. Dependence on fossil fuels: India relies heavily on coal, oil, and gas for its energy needs, which contribute to greenhouse gas emissions and air

pollution. "India is the third-largest emitter of carbon dioxide in the world, after China and the US."[32] India must broaden its energy portfolio by boosting the proportion of renewable sources like solar, wind, and biomass.

b. Lack of funding and technology: India requires huge investments and technological innovations to support its green growth and development goals. The "International Institute for Sustainable Development", reported that India needs an investment of "$10.1 trillion by 2070 to achieve net-zero" emissions. However, India faces a gap in financing and access to clean technologies, especially from developed countries, who have a historical responsibility for climate change. India also needs to enhance its domestic capacity and innovation for green technologies and solutions.

c. Weak policy and regulatory framework: India has numerous laws and policies concerning to environmental protection and sustainable development, such as "the Environment Protection Act, 1986, the National Action Plan on Climate Change, 2008, and the National Green Tribunal Act, 2010". However, these laws and policies are often poorly implemented and enforced, due to lack of coordination, monitoring, and accountability among various authorities and stakeholders. It leads to disbalance between the environmental protection goals and economic growth and becomes challenging to ensure a fair and inclusive transition to a green economy.

d. Lack of awareness and minimal public participation: In India, the majority of the public, including individuals and businesses, has a limited awareness of the benefits and opportunities of a green economy. The environmental and social impacts of their consumption and production patterns, and the modes to decrease their carbon footprint. are unknown to them. Many businesses are reluctant to adopt green practices and technologies, due to perceived high costs and risks, and lack of incentives and support. India needs to increase its mass education and awareness campaigns with the help of media and non-governmental organisations, and foster a culture of environmental responsibility and accountability. India also needs to engage and empower its civil society and private sector, and create a conducive environment for green entrepreneurship and innovation.

32 NITI Aayog, *Carbon Capture, Utilization and Storage (CCUS) Policy framework and its Deployment Mechanism in India,* MINISTRY OF PLANNING, (Nov.2022), https://www.niti.gov.in/sites/default/files/2022-11/CCUS-Report.pdf. (last visited April.22, 2025).

11. CONCLUSION

The Indian government adopted various measures to address the obstacles to green economy growth and promote green technologies and practices. Further, it provides several financial incentives like subsidies, tax relief, and low-interest loans for businesses and individuals to adopt green technologies. At the same time government is imposing environmental taxes products and natural resources. There is a need to adopt the emission and effluent taxes to prevent pollution and damage of the environment. The government is conducting various capacity-building programs, such as training programs and awareness workshops on green technologies and practices. The existing regulatory barriers in the path of adoption of the green economy are reviewed and updated, and new policies are drafted that promote the green economy in India. The contribution of the Indian judiciary is also remarkable, which established the principles of sustainable development and thereby promoted the green economy and created a sustainable future for India.

12. SUGGESTIONS

To achieve a green economy in India, there is a need for more initiatives by the government. The following are the suggestions that can promote the green economy in India:-

a. The government must continue to invest more in green technologies and infrastructure. The government must support "green budgeting" and allocate substantial public funds in green business, research and development in green technologies, and in promotion of sustainable practices by industries and individuals. The government must facilitate private investment in large-scale green infrastructure projects, including smart grids, electric vehicle charging networks, urban green spaces, sustainable public transport, and waste-to-wealth facilities. This will help in forming the backbone for a green economy.

b. The government must encourage businesses and individuals by providing tax holidays, subsidies, and preferential loans for adopting green practices. The government needs to remove regulatory barriers and develop a skilled workforce to enable a conducive environment for the green economy.

c. "The Ministry of Environment, Forest and Climate Change, Ministry of Finance and NITI Aayog" must formulate and implement a national strategy for a green economy, with Specific, Measurable, Achievable, Relevant, and Time-bound (SMART) targets for renewable energy, circular economy, green jobs, and sustainable agriculture, ensuring inter-ministerial coordination and accountability.

d. All public sector undertakings strive to purchase environmentally friendly goods, services, and technologies, creating a significant market for green products and also provide incentives for their development.

e. Digital Technologies like "Artificial Intelligence (AI), Internet of Things (IoT), and Big Data Analytics", can be utilised for environment monitoring such as air, water and soil quality, pollution source, disaster forecasts, impact of climate change and waste management. Digital platforms can be developed to keep track of environmental clearances, compliance reports and public grievance redressal.

f. The Ministry of Skill Development and Entrepreneurship under the Skill India Mission (SIM) can start Green Skills Development Programs to prepare the workforce for green jobs. Partnerships can be made with industries, educational institutions, and international organisations to develop an appropriate curriculum and certifications.

g. It is necessary to strengthen National Green Tribunals (NGT) other environmental courts by establishing a research cell to analyse, evaluate and monitor cases by the experts from law, economics, finance and political science. It also needs more benches for speedy and effective enforcement of environmental laws. The Judiciary must resolve the matter ensuring the balance between conservation and protection of environment, equality issues, and economic interests without preferring one over the other, and thereby promoting sustainable development. The judiciary must uphold and widen the ambit of environmental jurisprudence to include the green economy initiatives. There should be Strict Compliance with Environmental Impact Assessments (EIAs) by the courts in India.

h. Sustainability education has the potential in shaping green economy in India. Knowledge and awareness can make individuals to make informed decisions and take action towards a sustainable future.