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Green Law and Green Growth: Evaluating the Economic Effects of EU Environmental Regulations

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Abstract

This paper analyzes the diversified economic impacts of the environmental laws of the European Union on India in both long and short terms with respect to the implications of the policies on the various sectors directly or indirectly. It talks about the effects of various environmental policies in both the EU and India on the trade relations, industries competitiveness and sustainable development. In particular, the review will integrate the existing literature to find out how the programs of the EU concerning the green trade and renewable energy can help to calculate the ecological footprint and the economic growth patterns in India. The paper will in addition examine the rapport between the ratification of the international and local treaties on sustainable economic development in India and the EU regulatory pressures in particular regarding the multifactor productivity and application of the green energy technologies. The extent to which these external control processes will result in internal policy changes in India that can possibly lead to a shift in more sustainable production and consumption patterns is also explored in this discussion. The paper has also balanced the impact of these regulatory impacts on the capacity of India import substitution and the general efforts of achieving the Sustainable Development Goals. The economic growth patterns which are characteristic and are largely practiced in India which are characteristically marked by a consumer of energy that determines the consumption of fossil fuels as well as imported crude oil are very threatening to the environmental sustainability.

Keywords:- Green Law, Green Growth, Environmental Regulations, European Union, India, Economic Effects, Trade Dynamics, Sustainable Development, Renewable Energy, Import Substitution, SDG.

1. Introduction

This paper is intended to critically evaluate the diverse economic impacts of the environmental regulation by the European Union on India, but with a particular aim of determining to what depth the external forces impact on localized policies of Green Growth and economic development policy in India in general. It also explores the complex interaction between the strict EU environmental requirements, including deforestation-commodities, and the developing system of Indian governance of sustainable development and the protection of the environment. This discussion shall focus on particular examples of ways the EU regulations have led to changes in Indian policy and industrial practices with regard to possible economic advantages as well as difficulties through such changes. Giving special attention will be directed towards learning the way the intellectual property rights regime in India is being adjusted to adaptive to the green technologies and innovations, especially to meet international environmental requirements. The paper shall also discuss how India as a responsible stakeholder in climate change mitigation as such has taken the initiative to protect the environment through its constitution in addition to various legislations that it has passed to protect the environment. This will involve the revolver of convoluting the green barriers set up by developed nations in terms of trade which requires planned reactions to ensure that markets are not shut and economic growth is promoted. This paper also looks at how these EU regulations, although claimed to favor sustainability actually impose a non-tariff barrier to trade thus affecting the competitiveness of Indian exports and forcing it to review its trade policies. Furthermore, this paper will examine whether such regulations like the ones implemented promote a shift towards the green economy in India in terms of stimulating sustainable patterns of production and consumption, or whether they trigger economic dislocation that is not compensated by a corresponding positive effect on the environment. Furthermore, it will determine whether these regulatory frameworks will help adopt cleaner technologies and practices among Indian industries most especially industries that are extensively engaged in international trade. The changing legal foundations of the environmental, social and governance models, especially in the EU, and the following effects on Indian businesses and regulatory trends shall also be examined.

2. Conceptual Framework

2.1. Green Law and Policy

Green Law as a conception includes a collection of statutes, rules, treaties and common law principles to safeguard the environment and enhance sustainable resource management, sometimes inspired by international standards of the environmental agreement and constitutional provisions. This framework, in the Indian context, spills over to judicial interpretations that implement the international climate obligations and promote environmental jurisprudence. This is buttressed by the constitutional mandate of the State and the citizenry to conserve the environment and improve it as an indicator of a long-established feeling of ecological preservation and well-being. However the reality of environmental policies and legislation implementation of these laws in India is often met with immense challenges, and they are at times in the form of incoherence in regulations as to implementation and monitoring issue.

2.2. Green Growth Paradigm

Green Growth paradigm, in its turn, addresses itself to economic growth that will both embolden environmental sustainability and be decoupled with the degradation of economic growth as the loss of resources, the development of pollution and foster innovation in the sphere of green technologies. This is a strategy that uses environmental aspects in making economic decisions whereby the goals of sustainable development are achieved through efficient use of resources and scant environmental implication. It fosters symbiosic relationship between ecological sustainability and economic success wherein the economic processes of an individual should be so designed that they would enhance natural capital rather than deteriorating it. This could be by promoting renewable power generation, eco-innovation and formation of policies to promote sustainable practices in every sector and this can involve complex interplay between the national and international regulatory systems. The broad activities they undertake can be downloaded in this framework by the European Union to facilitate the establishment of a green business to ensure that financial markets are in line with sustainability proposals that run deep in formulating green growth aspirations all over the world.

2.3. Economic Impact Assessment Frameworks

These frameworks are essential in the constant evaluation of the forecasted or actual economic performance of the environmental policies and regulations, hence present in the decision process and offer a balanced understanding of the

environment and economical growth. To quantify the effect to the economy in the form of direct or indirect impact on industries, employment, and national income, these assessments normally utilize different methodologies such as cost-benefit analysis, input-output modelling and econometric models. This will help the policymakers to figure out trade-offs and optimize regulation design to achieve the maximum environmental benefits with minimum negative economic effects. Moreover, these models frequently include the measurements of the impacts of innovation inducement and competitiveness impact mindful of the fact that environmental policies have the capability to enhance technological development and transform market conditions. An example is the European Union which has widely applied such framework to appraise the economic implications of its environmental guidelines and give a model to follow or to modify the usefulness of such stringent analysis in policy making.

3. EU Environmental Regulations: An Overview

3.1. Key EU Environmental Directives and Regulations

EU has passed an elaborate package of environmental laws focusing on air quality, water control, waste disposal and industry discharges, among others, aimed at attaining high standards of environmental conservation among member countries. The principles believe the precautionary principle and the polluter pays principle are the foundation of these regulations focusing on the integration of the environment into all the policies of the sectors and the sustainable development. One of such examples is the European version, the European Green Deal passed in 2020, which provides a detailed plan to have the whole of Europe climate neutral by 2050 through strict laws on emissions and resource use and clean energy transition. This general plan also includes the circle economy action plan, the purpose of which is to minimize the waste and encourage sustainable use of resources in sectors. The EU regulatory ambition goes further to the requirement of environmental impact assessment NI of the large-scale projects, increasing environmental protection into economic development further.

3.2. Mechanisms of Influence on Non-EU Countries

The sphere of the European Union is wider than the territory because it offers a number of different mechanisms by which it can influence the environment, such as trade agreements which frequently cover an environmental aspect, the diplomatic work that helps to establish global environmental regulation and the establishment of de facto world-wide standards through its strict set of rules. This is especially true in areas like energy where the policies of EU on renewable energy and eco-innovation can influence associated countries to share the same attitude in order to remain in the market and be competitive. The fact that the EU is such a strong global actor, a signatory to many environmental agreements and it enjoys the market power makes it impose its own environmental standards on other regions such as India, which has been commonly known as the Brussels effect. This outward aspect of the European Green Deal, as an example, indicates the interest of the EU to raise its global environmental policy agenda, which affects the international environmental policy and laws in areas beyond its direct clinical jurisdiction.

3.3. Historical Context of EU-India Environmental Relations

The role of the EU and India in the environmental issues has changed through the initial cooperative discussions to more formal collaborations; this has changed because India has a constitutional obligation to protect the environment and has even accepted international environmental laws. These partnerships are taking on more of a broad interest in climate change mitigation, biodiversity conservation, and sustainable resource management, as these partnerships see common objectives and urgent global issues. Through this collaboration, there have been collaborative efforts to promote green development and the introduction of environmental impact assessment to ensure that development objectives are pursued in line with the sustainability goals. There is also a history of the strategic efforts of the EU, the so-called Global Europe strategy, to strengthen its environmental stance in multilateral negotiations, as opposed to bilateral strategies and proposing cooperative global environmental governance.

4. India's Environmental Policy Landscape

4.1. Evolution of Environmental Laws in India

The environmental legislation in India has experienced major developmental efforts since the 1970s, as a result of constitutional reforms and increased concern over the developing ecological degradation, which have triggered the enactment of the basic acts such as Water Act in 1974 and the Environment Act in 1986. These acts established using

legislation to control pollution, control the environs and required large scale ventures to conduct an environmental impact assessment, and stipulated what the central and state pollution control boards can do. The restructuring of the international economic forces, especially the formation of multilateral environmental accord and international trade dynamics have in turn impacted the way the system of environmental management in India has been traced. This development shows India shifting away more towards reactive position and more towards proactive role in the management of the environment globally participating in the creation of international actions and not merely in response to them.

4.2. Alignment and Divergence with International Standards

Although the practice of the EIA has been severally known to be important in creating sustainable developments in the world, the imperial practices of the environmental impact assessment in India have been characterized by peculiarity with both international views and national peculiarity. To give an example, India has taken credible steps in the efforts to deal with the issue of climate change through policies and measures in the field of sustainable development by being an active participant in global climate negotiations such as the Kyoto Protocol and the Paris Agreement. Nonetheless, the difference of priorities in socio-economic priorities in India and the challenges of development in India, may lead to divergences, and a fine line between the state of the environment and economic development may be required. The resultant situation usually gives India a bargaining advantage in the multilateral environmental negotiations with the kind of ambidextrous position that it played at the time of the Kigali Amendment of the Montreal Protocol. The method shows how India as a developing country copes with the international environmental policy according to its development policy and political institute which in most cases seems to produce a different position on the same issue as that of other emerging power giants, such as China.

4.3. Government Initiatives for Green Growth in India

Nevertheless, in achieving the necessity of sustainable development, the Indian government has initiated a few programs which aim at promoting green growth including policies which would promote renewable energy, sustainable agriculture and environmentally friendly industrial activities. The inadequacy of regulatory structures and reporting measures, such as those of ESG are all reinforced by the efforts aimed at ensuring that business entities are steered to operating sustainably. Moreover, these projects are oriented to Environmental Impact Assessments that emphasize the inclusion of environmental aspects into the process of development and implementation of the development projects in the best international practices in terms of sustainable development. The point that is significant about all these attempts is the ambitious targets on bringing renewable energy power and reduction of carbon emissions that prove the great commitment to the green future. The future success of India is based on the achievement of a compromise between long-term growth and the process of carbon emissions reduction, and the development of green finance is the key to triggering the process of investment in renewable energy and sustainable infrastructure. Green finance mechanisms therefore play a significant role in facilitating the attainment of green objectives by India and at the same time support economic growth.

5. Economic Channels of EU Regulations' Influence on India

5.1. Trade and Market Access Implications

The strict environmental standards set by the EU, especially those contained in the trade policies have the potential to greatly affect the export-dependent sectors of India by creating new compliance expenses as well as modifying terms of entry into the market. With this dynamic, Indian industries will have to make changes to the production process and embrace greener technologies so as to remain competitive in the European market. These changes could include massive capital expenditure on cleaner production technology and streamlining of the supply chain, which will be felt in the total trade balance and the economics of India in general. In addition, the spread of green finance tools, such as green bonds and sustainability-linked loans, is increasingly considered one of the most important facilitators of Indian businesses to finance such transitions, providing favourable conditions to environmentally superior projects. India needs to establish strong green fintech policies, such as AI-led ESG evaluations, blockchain use in carbon credit trading among others, to ensure that it can lure responsible investments and improve transparency in its green financial market.

5.2. Foreign Direct Investment and Technology Transfer

There is also the impact of environment regulations of EU on India by inflows of foreign direct investments and transfer of green technologies since European firms tend to export their environmental safety regulations and sustainable

practices to their Indian partners. Not only does this transfer of technology and expertise boost environmental performance in India, it also supports innovation in the production process that are more sustainable, which can eventually be extended to industrial transformation more widespread. Green finance and consumption of renewable energy further help in defining the priorities of the Indian climate action, even though the non-linear connection between finance and the ecology in the Indian context is explored. Such a complex interaction is why a thorough framework of policies is needed that can successfully use the development of finances and the advancement of green technologies to improve the quality of environment in India. Further, the Carbon Border Adjustment Mechanism by EU is an example of direct regulatory channel that affects Indian industries especially those involving iron and steel through imposing cost of carbon on imported goods and the likelihood of Brussels Effect where Indian manufacturers switch to use low-emission technology to stay competitive in the European market.

5.3. Supply Chain Adaptation and Compliance Costs

The growing global connectedness requires that Indian suppliers in EU confronting supply chains should meet high standards of environmental, social, and governance practices, which impose high compliance expenses and operational changes. These changes are usually characterized by the investment in more sustainable raw materials, less energy consuming production procedures and more efficient waste management systems to comply with the regulation requirements that European customers have provided. Such tensions typically drive technological revolutions and optimization of processes within the Indian companies, its general performance on environmental grounds and consequently new export markets associated with green goods and services can be created. It is also a dynamic that enhances better transparency and traceability along the supply chains and to achieve it, a strong data collection and reporting structure will be required to demonstrate that EU environmental directives have been observed. Additionally, there exist more complexities introduced by strategic flocking of industrialization activity out of China to India with a perception that India becomes an international manufacturing center that necessitates the further enforcement of EU environmental regulations particularly in regard to carbon cutting activities.

5.4. Innovation and Competitiveness Effects

EU instituted environmental standards normally act like an innovation catalyst to the industries of India that force companies to become innovative and apply cleaner technologies, sustainable production processes and environmentally-friendly production in order to maintain their competitiveness in the international market. This dynamic can be attributed to the Porter hypothesis, which suggests that stringent environmental policy can lead to innovation and productivity particularly the development of green technologies, which can be cost saving. It can result in the creation of new sectors and markets targeting sustainable solutions, which will strengthen the economic resilience and competitiveness of India even further. Nevertheless, the introduction of these green practices in India, particularly among small and medium-sized businesses, is frequently undermined by the lack of resources and specifications when their assistance is crucially needed in the manufacturing industry. On the contrary, certain empirical evidence has indicated that environmental regulations may place a big burden on businesses resulting in less competitiveness and economic loss and specifically on primary exports which find it difficult to internalize the compliance cost in the short run.

6. Case Studies of EU Regulatory Impact

6.1. Sector-Specific Analysis (e.g., textiles, automotive, chemicals)

An example of such indirect effects was the leather and textile industry, which was directly affected by the 1994 German ban on azo-dyes, leading to large-scale investments in innovation in India by the manufacturers of the upstream azo-dyes. Equally, the Restriction of Hazardous Substances and Waste Electrical and Electronic Equipment directives have also had significant effects on the Indian electronics manufacturing industry and compelled products and processes to be re-engineered to omit restricted substances and enable the end-of-life recycling. This has put a lot of pressure on the original equipment manufacturers in India to dispose the waste properly and adopt relevant disposal systems. Although these rules were originally developed in the EU, they tend to establish de facto international guidelines because supply chains are interconnected, and Indian companies have to invest in high-quality environmental control mechanisms and environmentally friendly production approaches in order to remain in the market. This tends to cause the race to the top phenomena whereby Indian companies voluntarily embrace a higher level of environmental standards to pre-empt future regulation changes and secure their status in the global value chains.

6.2. Impact on Small and Medium Enterprises (SMEs)

Though the contribution of Small and Medium Enterprises in India towards economic development and creation of jobs is important, limited resources and expertise frequently make them suffer disproportionately when it comes to complying with EU environmental standards. This is of struggle especially since environmental sustainability practices though attained by large corporations, in general, are absent in these smaller corporations. Therefore, unless these SMEs are supported properly like through financial incentives or through technical support, these SMEs may find it difficult to integrate themselves in global supply chains, which have strict EU environmental guidelines of operation and hence stifle their development and general growth of the economy. The economic policy uncertainty worsens this vulnerability, making it more difficult to participate in trade and be resilient in global supply chains by Indian SMEs. Hence, specific policy proposals are necessary to encourage more imports and inward foreign direct investment, thus, boosting trade integration of smaller firms in times of economic turmoil. The lack of sound environmental management systems and circular economy among a significant number of SMEs, particularly in the area of fruit and vegetable processing, demonstrates an acute sunset in sustainable development, which must be addressed to through targeted interventions.

6.3. Regional Disparities in Adaptation and Growth

Different capacities of compliance and innovation with the EU environmental norms caused by divergent rates of industrialization and environmental regulation in different states in India result in differences in the unified ability to adhere to the rules. States with more developed industrial base, proactive environmental policies enjoy the chances of following sustainable manufacturing patterns and creating foreign direct investment, whereas other states are destroyed by the absence of funds and insufficient understanding. This unfairness can be used to intensify the presence of the regional inequalities whereby few regions are reduced to offering the growth of the green industrial activities whilst the other are left struggling to meet the minimum environmental standards thus, influencing the cohesiveness of the entire national economy. The significance of the policy interventions and capacity-building efforts on these imbalances in the region lies in the fact that they would develop a more harmonious and sustainable nation in response to the global environmental challenges. Furthermore, organized at national level system of environmental control, in conjunction with support possibilities of technological modernization and financial support may be applied to help creating the discordance of these regional differences and ensuring the even greater adherence to green grow policies in India. This structure would enable the Indian SMEs that contribute significantly to the GDP and export in this country to overcome challenges like accessibility to finance and technological integration which would in turn make these agile and innovative firms in the international markets. Moreover, the development of green export has also received institutional support, green innovation, and green export activities which is significant in creating green export strategies that are useful in improving the export performance and the competitiveness of the SMEs. This necessitates an additional research on specific tools of policy that can be employed to motivate the adoption of green technology as well as raise the competitiveness of Indian SMEs as exporters of products in the face of the evolving European environmental laws.

7. Challenges and Opportunities for India's Green Growth

7.1. Regulatory Harmonization and Compliance Burden

The complexity and diversification of environmental regulations across different jurisdictions constitutes an enormity of compliance burden to the Indian industries that occasionally require significant investment of new technologies and processes to comply with the international standards. This burden is especially on Micro, Small and Medium Enterprises which are usually both financially and technically constrained to navigate such complicated regulatory environments and exercise necessary green industrialization approaches. It will also involve a re-evaluation of the existing labor laws and monetary policies and a thorough effort to be undertaken in regards to infrastructural development and employees capacity building so as to accommodate the mass adoption of smart manufacturing solutions and sustainable best practices throughout the industrial spectrum. Moreover, the regulatory framework that is already made simple and streamlined and supported by efficient enforcement schemes could help reduce administrative overheads considerably and create a more favorable climate of green investments and technological advances in the Indian industrial environment.

7.2. Technological Upgradation and Capacity Building

One key issue that faces India with regard to green growth agenda is the need to close technology divide between the current industry operation in India with the high level of the respective environmental requirements by EU laws and the already large SME industry in the country. This disparity requires that large funds go into research and development, technology transfers policies and large capacity-building to allow the use of cleaner production technologies and eco-innovations. These are important measures to improve the competitiveness of Indian SMEs in the international markets and reduce the environmental footprint of industrial operations especially considering the ecologically forward-looking solutions that are usually invented by the SMEs. The efficient deployment of these technologies is however normally hampered by poor infrastructure and shortage of qualified personnel.

7.3. Sustainable Development Goals and Green Transition

The shift to a green economy in India with the necessity to achieve the Sustainable Development Goals encounters serious obstacles, especially to SMEs that do not have the necessary financial support and technical skills to implement cleaner technology. It is also enhanced by the fact that there is slow diffusion of the advanced technologies and little evidence of empirical research on the effects of the supporting policies, all of which hinder their wide use. In addition, to attain a low-carbon economy and at the same time attain high growth rates, means having to make prudent investment choices and avoid the events of likely socio-economic shocks like the loss of jobs especially in carbon intensive industries. To achieve this change, there should be ongoing scrutiny of the climate policies and massive investments in research and development to create technological and disruption and guarantee fair transition of the workforce. This strategy is also associated with creating awareness among the population and developing management capacity to increase energy efficiency and promote green technology to the industrial sector.

7.4. Potential for Green Job Creation and Economic Diversification

The emerging green economy in India is a huge potential on the development of new employment opportunities, and diversification of its economy especially on renewable energy, sustainable agriculture, and environmental tourism investments. This shift can lead to production of a highly skilled green workforce that will be in a position to drive innovation and green progress in various sectors, thereby generating an economic sustainability and inclusive growth. In addition, it can also enhance its status in the global trade and raise foreign direct investment on green technology industries through cross-alignment on the global green agendas. Therewith, diversification can also adequately address environmental concerns and simultaneously promote economic growth and social justice. This requires a vigorous retraining and upskilling of the work force to adapt to the green sectors together with the other successful changes made elsewhere in the economy.

8. Conclusion

This review has critically unravelled the multifaceted implication of the EU environment regulations to the green growth path of India that reflects that there are indeed very daunting obstacles, but equally great opportunities to sustainable development. Despite the change over to a low-carbon economy having the potential to replace the workforce in the simple fossil fuel sector, there is enormous potential of placing and creating more jobs in addition to, highly inventive in the more ecological and green power sector. The new paradigm is also requiring strategic investments in green technology and infrastructure, and solid policy framework to ease a fair transition of the people involved. The push towards green manufacturing and an Affordable Energy Action Plan can also help India to attain its target to expand its manufacturing share in value added in its move towards a decarbonized growth model along the Beijing lines. This comparison brings out the need to have a balance between economic growth and environmental protection, particularly as India attempts to expand its manufacturing as well as win more competitiveness in the global market. This is the rationale as to why an inclusive and sustainable policy framework is required immediately in order to utilize these opportunities in the way that economic growth becomes inclusive and environmental friendly. Such a structure should have included the incentive to the developed engineering manufacturing technologies and special purpose human resource development to endorse the competitiveness of the new Indian electric vehicle industry. Even better, the strategic policy interventions are required to internalise the foreign direct investment to the green manufacturing, it will lead to the transfer of the technologies, and the quick spread of sustainable production to various regions. Such interventions would also be critical in increasing the skill base of the Indian work force which is currently 50 percent in

the advanced production to global leaders and is in the frontiers of electric mobility. Moreover, more engagement in either activities like the Silk Road Economic Belt can facilitate more technology transfers of the European Union which will further accelerate the process of green industrialization in India.

References

1. Agarwal, S., & Padhi, P. (2025). Greening the Nation: India's Path Towards Sustainable Future. Energy RESEARCH LETTERS, 6. https://doi.org/10.46557/001c.132426
2. Banswal, B., Sharma, S., & Arora, R. (2025). Exploring green provisions in international trade agreements for economic sustainability through promoting trade flows. Discover Sustainability, 6(1). https://doi.org/10.1007/s43621-025-01801-w
3. Basu, R., Anderson, E., Deval, C., Herndon, K. E., Markert, A., Pransky, L., Cherrington, E., Phalke, A., & Sayeed, A. (2024). Serving economic prosperity: economic impact assessments (EIA) on Earth observation-based services and tools by SERVIR. arXiv (Cornell University). https://doi.org/10.48550/arxiv.2405.15672
4. Budde, S., Agrawal, S., & Chani, P. S. (2025). Enhancing Environmental Impact Assessment Practices: A Comparative Analysis of International and National Approaches Focusing on India. In Advances in geographic information science (p. 119). Springer Nature. https://doi.org/10.1007/978-3-031-94078-1_7
5. Chakraborty, P., & Chatterjee, C. (2017). Does environmental regulation indirectly induce upstream innovation? New evidence from India. Research Policy, 46(5), 939. https://doi.org/10.1016/j.respol.2017.03.004
6. Chavda, P., & Mehta, D. (2025). Impact of Green Trade and Renewable Energy on Ecological Footprint in India. Journal of Quantitative Economics. https://doi.org/10.1007/s40953-025-00477-3
7. Chaudhary, A., Asudani, V. H., Mishra, A., Deshpande, A., & Batar, S. (2023). NRI MARRIAGES–WOMEN VICTIMS AND SCAPEGOAT FAMILIES. Russian Law Journal, 11(5S), 132-136.
8. Das, K., & Bandyopadhyay, K. R. (2025). Impact of carbon border adjustment mechanism (CBAM) on steel decarbonization in India: a multi-stakeholder perspective on ambition vs. equity. International Environmental Agreements Politics Law and Economics. https://doi.org/10.1007/s10784-025-09662-4
9. Gupta, D., Ghersi, F., Vishwanathan, S. S., & Garg, A. (2019). Achieving sustainable development in India along low carbon pathways: Macroeconomic assessment. World Development, 123, 104623. https://doi.org/10.1016/j.worlddev.2019.104623
10. Kaur, N. (2024). The Impact of International Environmental Law on Constitutional Provisions of India Related to Environmental Protection and Sustainable Development. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4697849
11. Kumar, A., & Dwidvedi, A. K. (2023). The Development and Effects of Environmental Law on Green Governance. Journal of Law and Sustainable Development, 11(6). https://doi.org/10.55908/sdgs.v11i6.1182
12. Kumar, R., Yadav, J., & Sharma, S. (2025). Green Intellectual Property Rights in India: Addressing Greenwashing, Innovation, and Legal Challenges for Sustainable Development. https://doi.org/10.20944/preprints202509.0632.v1
13. Kusumawardani, S. D. A., Kurnani, T. B. A., Astari, A. J., & Sunardi, S. (2024). Readiness in implementing green industry standard for SMEs: Case of Indonesia's batik industry. Heliyon, 10(16). https://doi.org/10.1016/j.heliyon.2024.e36045
14. Mishra, M. K. (2023). The emerging role of corporate governance on environmental sustainability. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4656662
15. Mishra, T., Datta, P., & Behera, B. (2024). Corporate environmental responsibility, financial performance and environmental outcomes in India: a review [Review of Corporate environmental responsibility, financial performance and environmental outcomes in India: a review]. Discover Sustainability, 5(1). Springer Nature. https://doi.org/10.1007/s43621-024-00421-0

16. Mohan, A. (2017). From Rio to Paris: India in Global Climate Politics. Rising Powers Quarterly, 1(3), 39. https://epub.wupperinst.org/files/6910/6910_Mohan.pdf

17. Mukherjee, I. (2025). Green Growth: India's Strategy for a Sustainable Future (p. 163). https://doi.org/10.1007/978-3-031-75405-0_17

18. Prakash, R. (2024). ENVIRONMENTAL POLICIES IN MODERN INDIA: HISTORICAL CONTEXT AND IMPACT. EPRA International Journal of Multidisciplinary Research (IJMR), 238. https://doi.org/10.36713/epra19338

19. Rajendran, S., Prakash, C., Shakir, M., Alwetaishi, M., Dhairiyasamy, R., Rajendran, P., & Lee, I. E. (2025). Enhancing competitiveness in India's electric vehicle industry: impact of advanced manufacturing technologies and workforce development. Scientific Reports, 15(1). https://doi.org/10.1038/s41598-025-97679-9

20. Rani, Dr. P. J., & Nedumaran, Dr. G. (2025). Green Fintech Policies: A Roadmap for Sustainable Financial Innovation. International Journal of Research Publication and Reviews, 6(3), 6962. https://doi.org/10.55248/gengpi.6.0325.12119

21. Sahay, A. (2006). Environmental policy and corporate environmental behaviour in India: social, economic and legal aspects. Progress in Industrial Ecology An International Journal, 3(6), 559. https://doi.org/10.1504/pie.2006.012753

22. Sajeev, A., & Kaur, S. (2020). Environmental sustainability, trade and economic growth in India: implications for public policy. International Trade Politics and Development, 4(2), 141. https://doi.org/10.1108/itpd-09-2020-0079

23. Shahbaz, M., Sharma, R., Sinha, A., & Jiao, Z. (2020). Analyzing nonlinear impact of economic growth drivers on CO2 emissions: Designing an SDG framework for India. Energy Policy, 148, 111965. https://doi.org/10.1016/j.enpol.2020.111965

24. Shareef, M. A., Ahmad, W., & Ansari, S. (2025). ASSESSING FINANCIAL DEVELOPMENT'S AND GREEN TECHNOLOGICAL INNOVATION IMPACT ON ENVIRONMENTAL QUALITY IN INDIA: A MODEL-BASED APPROACH. INTERNATIONAL JOURNAL OF MANAGEMENT, 16(1), 203. https://doi.org/10.34218/ijm_16_01_014

25. Shrivastava, A., & Gurpur, S. (2024). Critical Evaluation of EIA Notification 2020 in India w.r.t Sustainable Development Goals and European Union Best Practices in Climate Change Policy. E3S Web of Conferences, 491, 1008. https://doi.org/10.1051/e3sconf/202449101008

26. Singh, R., Siddiqui, A. A., & Prasad, S. S. (2025). EU deforestation regulation and green disclosures: India's evolving governance architecture. International Journal of Disclosure and Governance. https://doi.org/10.1057/s41310-025-00316-0

27. Singh, V. K., Keshari, A., Singh, D., Singh, P. C., & Gautam, A. (2024). Green export strategies and SMEs export performance: mediating roles of innovation, readiness, and activities. Journal of Innovation and Entrepreneurship, 13(1). https://doi.org/10.1186/s13731-024-00451-y

28. Siriman, N., Ali, M. S., Siddiqui, T. A., Rohin, G., Vejju, B., & Cherupelly, N. (2025). Green Finance and AI in India: A Synergistic Approach to Sustainable Development and Climate Resilience. International Journal of Environmental Sciences, 11(1), 207. https://doi.org/10.64252/mt7jkk84

29. Sreenu, N., & Mishra, S. (2023). Impact of green finance and fintech on sustainable economic growth: Empirical evidence from India. Heliyon, 9(5). https://doi.org/10.1016/j.heliyon.2023.e16301

30. Sharma, A., Bhardwaj, P., Gupta, M. S., Dubey, M. B., Pattnaik, T., & Batar, M. S. The Role Of International Law In Addressing Climate Change.

31. Shettigar, R., Kulkarni, N., Radhi, M. N. M., Batar, M. S., & Sheikh, S. (2025). Gamified Learning through ICT: Transforming Student Engagement in the 21st Century. Advances in Consumer Research, 2(4).

32. Sundar, S. B. (2024). Challenges in Implementing Environmental Laws and Policies in India. Current World Environment, 18(3), 1249. https://doi.org/10.12944/cwe.18.3.27

33. Tandon, A., & Singh, K. (2025). Analysis of Performance and Challenges of India's Manufacturing Sector In The Global Market. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.5070746

34. Wang, H. (2022). Analysis of the Role of Promoting Sustainable Green Growth through Government Agencies in a Legal Context. Journal of Environmental and Public Health, 2022(1). https://doi.org/10.1155/2022/6744525

35. Wang, Z., Meng, J., Zheng, H., Shao, S., Wang, D., Mi, Z., & Guan, D. (2018). Temporal change in India's imbalance of carbon emissions embodied in international trade. Applied Energy, 231, 914. https://doi.org/10.1016/j.apenergy.2018.09.172

36. Yang, S. (2022). Growing Apart: China and India at the Kigali Amendment to the Montreal Protocol. Global Environmental Politics, 23(2), 74. https://doi.org/10.1162/glep_a_00698

37. Zhao, R. (2024). Green Trade Barriers in Global Play: Legal Challenges and Strategic Opportunities for Developing Countries. Journal of Education Humanities and Social Sciences, 39, 48. https://doi.org/10.54097/kz926p47