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GST – Policy to Balance Eco-Taxes and Fiscal Loss for Sustainable India

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ABSTRACT
The Goods and Services Tax (GST) marked a transformative shift in India's indirect taxation by replacing a fragmented system with a single, unified framework aimed at efficiency and transparency. However, this consolidation also absorbed several environmental levies, raising critical questions about the continuity of eco-taxation for sustainable development. This study examines the constitutional, fiscal, and policy aspects of integrating environmental taxes within India's GST regime. It analyses relevant judicial interpretations and explores technological tools—particularly artificial intelligence and blockchain that can foster modernization of eco-tax governance and its implementation. It envisions evolution of GST as a tool for maintaining the balance between environmental taxation and economic growth of the country ceaselessly. Finally, it proposes the concept of an "E-GST" mechanism that balances ecological sustainability with fiscal stability. The findings emphasize that a sustainable taxation represents not a deviation, but a natural evolution toward a resilient and environmentally responsible India.
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Keywords: — GST, Eco-tax, Fiscal Policy, Sustainable Development, Environmental Law, Carbon Tax, Green Compensation Fund.
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1. INTRODUCTION:

India's rapid industrial growth has come at a substantial environmental cost, evident in rising pollution levels, loss of biodiversity, and climate-related disruptions. Fiscal instruments like eco-taxes—commonly known as "green taxes"—have long served as corrective measures in global economies to internalize environmental damage by making polluters pay for the externalities they create. These taxes not only penalize pollution but also become behavioral nudges to encourage cleaner production and consumption patterns.

However, while technological innovation and public consciousness have driven renewable energy adoption and sustainable practices, market economics reveal a key dilemma i.e. a clean, eco-friendly product often remain more expensive upfront than their conventional counterparts – be it EV cars, solar systems or recyclable goods. The introduction of GST on 1 July 2017 unified India's indirect tax system, improving compliance and ease of doing business. Yet, in doing so, it subsumed several sector-specific environmental levies such as the Clean Energy Cess and the Water Pollution Cess, both crucial funding sources for ecological initiatives. The challenge now lies in determining whether eco-taxes can be reintroduced within GST without disturbing its fiscal equilibrium. This paper explores that intersection between sustainability and tax reform in the context of India's evolving fiscal federalism.

I. Constitutional and Legal Framework

The constitutional foundation of GST lies in Article 279A which established the GST Council as body to recommend tax rates, exemptions and act as a cooperative mechanism for tax harmonization. In *Union of India v. Mohit Minerals Pvt. Ltd.*[1], the Apex Court clarified that the recommendations of the GST Council are not binding on either the Union or the States, but have persuasive value only. This interpretation underscored the principle of cooperative federalism, implying that new forms of taxation—such as eco-taxes under GST—must arise from consensus rather than unilateral imposition. In *Sesa Sterlite Ltd. & Anr. v. State of Goa*[2], the Hon'ble Bombay High Court elaborated the boundaries of legislative competence regarding cesses post-GST and affirmed that state-level cess laws may remain valid if their objectives differ from GST. This ruling reaffirms states' legislative authority to design

targeted environmental levies, provided they do not duplicate GST's scope. The Supreme Court later validated this cess, emphasizing its distinct purpose and transparent use. This decision lays the groundwork for future eco-taxes: fiscal instruments earmarked for environmental objectives can coexist with GST, as long as they remain constitutionally distinct and properly managed.

Judicial precedents provide essential guidance for designing legally sustainable eco-taxation highlighting

[1] (2022) 4 SCC 481

[2] 2024 SCC OnLine Bom 129

that taxation in the GST era must uphold the spirit of collaborative governance. These rulings collectively support a balanced approach where fiscal innovation—like environmental levies—operates within constitutional and cooperative boundaries.

To safeguard state revenues post-GST, Parliament enacted the GST (Compensation to States) Act, 2017[3], introducing a compensation cess on select goods such as coal and luxury items with the objective of compensating states for revenue shortfalls.

The Compensation Cess[4] model under GST demonstrates that revenue protection and reform can coexist if properly structured. The Clean Energy Cess (2010–2017) on coal and lignite generated substantial revenue but suffered from underutilization for renewable energy initiatives. State-level plastic waste management fees in Maharashtra and Kerala offer another instructive example. These levies were upheld by courts as regulatory fees rather than taxes, demonstrating that environmental charges can legally coexist with GST when linked to specific services or outcomes[5].

Integrating Eco-Taxes within GST: Legal and Fiscal Challenges

Integrating eco-taxes into GST requires reconciling two different tax philosophies. GST is a destination-based value-added tax applied across sectors, while environmental levies are selective and corrective, targeting pollution-intensive activities. The key challenge lies in ensuring that eco-taxes complement GST's neutrality without creating double taxation. A major concern is fiscal impact. Eco-taxes often change consumer behavior, reducing demand for polluting goods and potentially contracting the tax base. To counterbalance such losses, policymakers could establish a Green Compensation Mechanism[6] that redistributes a share of eco-tax revenues to states experiencing shortfalls. Although, harmonization could be achieved by structuring environmental levies to compliment rather than compete with the GST mechanism, aligning the Pigouvian principles by employing externalities to correct market failures to promote continual advancement must be explored.

Technology Driven Enforcement of Eco-Taxes and Eco-Governance

The evolution of eco-taxation in the twenty-first century is inseparable from the advancement of digital technologies. India's GSTN infrastructure already handles billions of transactions monthly, providing a foundation for integrating environmental data streams into fiscal governance. Advanced AI-enabled tax analytics can be utilized to identify industries with high carbon footprints and estimate pollution-related fiscal liabilities. Predictive analytics can simulate how changes in eco-tax rates might affect consumption and revenue patterns, allowing policymakers to fine-tune levies dynamically. Digital transformation offers unprecedented tools for implementing eco-taxes efficiently. Recent developments in blockchain, artificial intelligence (AI), and the Internet of Things(IoT) offer tools for real-time monitoring, transparent recordkeeping and predictive policy design where blockchain[7] technology provides immutable ledger to store emission and compliance data, IoT sensors collect live data while AI models can process these large datasets to predict pollution trends and recommend corrective fiscal measures.

Laying the groundwork for market-based carbon management, The Carbon Credit Trading Scheme (2023)[8], administered by the Bureau of Energy Efficiency[9], exemplifies this potential. By linking GST benefits, such as rate reductions or credits—to verified carbon performance, India can build an incentive-based green fiscal framework. India's GST Network (GSTN) already provides an advanced digital backbone. By integrating e-invoicing and e-way bill systems with carbon-tracking data, the government can measure environmental compliance seamlessly.

The incorporation of Environmental, Social, and Governance (ESG) report submitted by industries through the Ministry of Corporate Affairs (MCA) portal into the GST system represents another frontier of digital innovation that can be synchronized with GST filings to determine whether businesses meet sustainability criteria. Firms that comply with ESG norms could receive reduced GST rates or accelerated refunds, effectively linking sustainability with fiscal rewards.

Comparative Global Perspectives on Eco-Taxation within GST Frameworks

The integration of environmental taxation within consumption-based tax systems such as GST or VAT is not unique to India. Several developed economies have successfully aligned fiscal policy with environmental goals, providing valuable lessons for Indian policymakers.

The European Union (EU) has been a global leader in this domain. Since the early 1990s, EU member states have introduced environmentally related taxes targeting energy, transportation, and waste management. Notably, the EU's Energy Taxation Directive (2003/96/EC) links excise duties on energy products to their carbon content, thereby aligning fiscal and environmental objectives.

Countries such as Sweden and Denmark have adopted dual-rate VAT systems where environmentally harmful goods attract higher rates, while renewable energy

[3] GST (Compensation to States) Act, 2017, No. 15 of 2017

[4] GST Council Secretariat, Five-Year Review of Compensation Cess, Report (2022)

[5] State of Maharashtra v. Association of Plastic Manufacturers, 2021 SCC OnLine Bom 3124

[6] NITI Aayog, Green Fiscal Policy Framework for India (New Delhi, 2022)

[7] PAIP Blockchain Project, AI-Integrated Carbon Tracking System, Case Study (2023)

[8] MDPI, "Blockchain-Based Carbon Tracking for Industrial Sustainability," Sustainability Journal, Vol. 15 (2023)

[9] Bureau of Energy Efficiency, Carbon Credit Trading Scheme, Notification, 2023

equipment and eco-friendly technologies enjoy lower or zero rates. This structure has not only reduced carbon emissions but also ensured stable revenue streams.

Similarly, the United Kingdom introduced a Climate Change Levy alongside VAT, and established the Carbon Price Support Mechanism within its fiscal system. These examples illustrate that environmental taxes and consumption-based tax systems can be harmonized through intelligent design and targeted exemptions.

In Japan, the Global Warming Tax, introduced in 2012, coexists with the national consumption tax (Japan's equivalent of GST). Revenue collected from this carbon tax is specifically allocated to renewable energy research and energy-efficient technology development. The Japanese model underscores that eco-taxes, when transparently earmarked, can coexist harmoniously with GST-type taxes.

For India, such models indicate that the creation of an E-GST layer within the GST structure is both constitutionally feasible and economically rational. A multi-rate E-GST system could incorporate environmental considerations without breaching fiscal neutrality.

Policy Roadmap for India's E-GST by 2030

The introduction of GST was a historic reform in India's fiscal landscape, achieving simplicity, transparency, and efficiency. Eco-taxes can attract international investment as multinational corporations increasingly prioritize ESG-compliant economies (Environmental, Social, and Governance metrics) in their investment decisions. A transparent eco-tax framework signals regulatory maturity and sustainability consciousness, thus improving India's attractiveness in global supply chains.

Empirical studies have demonstrated that eco-taxes can be revenue-neutral if properly designed. The Organisation for Economic Co-operation and Development (OECD)10 has noted that environmental fiscal reforms tend to shift the tax burden away from labour and income toward pollution and resource depletion, thereby promoting sustainable growth. In India's context, this transition aligns with the government's vision of Atmanirbhar Bharat and Make in India, since it incentivizes local industries to innovate in renewable energy and circular economy practices.

A pragmatic roadmap for India's environmental taxation under GST must follow a phased approach. The first phase, from 2025 to 2027, should focus on pilot programs where selected industries such as energy, transportation, and construction can implement eco-cesses integrated with GST e-invoicing. The Central Board of Indirect Taxes and Customs (CBIC), in coordination with the Ministry of Environment, could oversee these pilots using blockchain-based monitoring tools11.

The second phase, from 2027 to 2029, should involve legislative integration to introduce an explicit levy of Environmental GST (E-GST) with the mandate of transfer of a fixed portion to a National Green Fund while ensuring that states implementing eco-taxes are fiscally protected.

By 2030, India should aim to create a fully functional E-GST ecosystem entailing automated data collection from industries via IoT sensors, real-time compliance verification through AI analytics and transparent revenue utilization tracking, thereby aligning India's fiscal policy with its international climate commitments under the Paris Agreement (2015) and COP-28 pledges for net-zero emissions.

Conclusion

GST revolutionized India's tax architecture, simplifying compliance and fostering transparency. Yet, its success has inadvertently sidelined dedicated environmental levies. Judicial interpretations confirm that eco-taxes can lawfully coexist within the GST framework, provided they are distinct in purpose and transparent in administration. Advances in digital technology now allow governments to monitor emissions, link data with fiscal instruments, and implement eco-taxes dynamically. An E-GST framework—anchored in technology, cooperative federalism, and constitutional discipline—would mark India's next great fiscal evolution. Upon strategic implementation, India's sustainable taxation model could determine that it is not adjunct to GST but its logical progression culminating to an economic policy capable of reconciling fiscal growth with ecological responsibility

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[10] OECD, Environmental Fiscal Reform for Low-Carbon Growth (Paris: OECD Publishing, 2021)

[11] GSTN, Annual Report 2024, Government of India