

# INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS



Open Access, Refereed Journal Multi-Disciplinary  
Peer Reviewed

[www.ijlra.com](http://www.ijlra.com)

## **DISCLAIMER**

No part of this publication may be reproduced or copied in any form by any means without prior written permission of Managing Editor of IJLRA. The views expressed in this publication are purely personal opinions of the authors and do not reflect the views of the Editorial Team of IJLRA.

Though every effort has been made to ensure that the information in Volume II Issue 7 is accurate and appropriately cited/referenced, neither the Editorial Board nor IJLRA shall be held liable or responsible in any manner what sever for any consequences for any action taken by anyone on the basis of information in the Journal.

Copyright © International Journal for Legal Research & Analysis

## EDITORIALTEAM

### EDITORS

#### **Dr. Samrat Datta**

*Dr. Samrat Datta Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Samrat Datta is currently associated with Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Datta has completed his graduation i.e., B.A.LL.B. from Law College Dehradun, Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand. He is an alumnus of KIIT University, Bhubaneswar where he pursued his post-graduation (LL.M.) in Criminal Law and subsequently completed his Ph.D. in Police Law and Information Technology from the Pacific Academy of Higher Education and Research University, Udaipur in 2020. His area of interest and research is Criminal and Police Law. Dr. Datta has a teaching experience of 7 years in various law schools across North India and has held administrative positions like Academic Coordinator, Centre Superintendent for Examinations, Deputy Controller of Examinations, Member of the Proctorial Board*



#### **Dr. Namita Jain**



*Head & Associate Professor*

*School of Law, JECRC University, Jaipur Ph.D. (Commercial Law) LL.M., UGC-NET Post Graduation Diploma in Taxation law and Practice, Bachelor of Commerce.*

*Teaching Experience: 12 years, AWARDS AND RECOGNITION of Dr. Namita Jain are - ICF Global Excellence Award 2020 in the category of educationalist by I Can Foundation, India. India Women Empowerment Award in the category of "Emerging Excellence in Academics by Prime Time & Utkrish Bharat Foundation, New Delhi. (2020). Conferred in FL Book of Top 21 Record Holders in the category of education by Fashion Lifestyle Magazine, New Delhi. (2020). Certificate of Appreciation for organizing and managing the Professional Development Training Program on IPR in Collaboration with Trade Innovations Services, Jaipur on March 14th, 2019*

## Mrs.S.Kalpana

Assistant professor of Law

*Mrs.S.Kalpana, presently Assistant professor of Law, VelTech Rangarajan Dr.Sagunthala R & D Institute of Science and Technology, Avadi. Formerly Assistant professor of Law,Vels University in the year 2019 to 2020, Worked as Guest Faculty, Chennai Dr.Ambedkar Law College, Pudupakkam. Published one book. Published 8Articles in various reputed Law Journals. Conducted 1Moot court competition and participated in nearly 80 National and International seminars and webinars conducted on various subjects of Law. Did ML in Criminal Law and Criminal Justice Administration.10 paper presentations in various National and International seminars. Attended more than 10 FDP programs. Ph.D. in Law pursuing.*



## Avinash Kumar



*Avinash Kumar has completed his Ph.D. in International Investment Law from the Dept. of Law & Governance, Central University of South Bihar. His research work is on "International Investment Agreement and State's right to regulate Foreign Investment." He qualified UGC-NET and has been selected for the prestigious ICSSR Doctoral Fellowship. He is an alumnus of the Faculty of Law, University of Delhi. Formerly he has been elected as Students Union President of Law Centre-1, University of Delhi. Moreover, he completed his LL.M. from the University of Delhi (2014-16), dissertation on "Cross-border Merger & Acquisition"; LL.B. from the University of Delhi (2011-14), and B.A. (Hons.) from Maharaja Agrasen College, University of Delhi. He has also obtained P.G. Diploma in IPR from the Indian Society of International Law, New Delhi. He has qualified UGC – NET examination and has been awarded ICSSR – Doctoral Fellowship. He has published six-plus articles and presented 9 plus papers in national and international seminars/conferences. He participated in several workshops on research methodology and teaching and learning.*

## **ABOUT US**

INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS ISSN- 2582-6433 is an Online Journal is Monthly, Peer Review, Academic Journal, Published online, that seeks to provide an interactive platform for the publication of Short Articles, Long Articles, Book Review, Case Comments, Research Papers, Essay in the field of Law & Multidisciplinary issue. Our aim is to upgrade the level of interaction and discourse about contemporary issues of law. We are eager to become a highly cited academic publication, through quality contributions from students, academics, professionals from the industry, the bar and the bench. INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS ISSN 2582-6433 welcomes contributions from all legal branches, as long as the work is original, unpublished and is in consonance with the submission guidelines.

# **ENVIRONMENTAL SUSTAINABILITY AND GREEN TAXATION: EFFECTIVENESS, CHALLENGES & COMPARATIVE ANALYSIS OF INDIA WITH CHINA, NEW ZEALAND, AND GERMANY**

AUTHORED BY - NILISHA CHATTERJEE

BA. LLB.

## **CHAPTER- 1: INTRODUCTION**

### **A. Abstract:**

The Green Tax process is one of the key aspects of environmental governance, which constitutes an essential path to internalize pollution costs and engender sustainable forms of economic upliftment. Many countries have developed structured regimes to realize specific fiscal measures within the environmental and ecological contexts. In India, the position is tenuous, as a structured regime is weakly enforced across environmental and fiscal goals, initiatives such as the 2021 guidelines of taxes applied on any motor vehicle older than fifteen years, and the commitments made in the 2022 Nationally Determined Contribution (NDC) to the UNFCCC<sup>1</sup> represents incremental progress. However, India consistently ranks low on various global environmental performance indices. Issues related to vehicular emissions, industrial pollution, and financial opacity continue to prevail and exemplify the insufficient nature of India's system.

This research article argues that India's green tax system has failed to reduce pollution or promote environmentally sustainable development. By comparison, the Environmental Protection Tax of China, New Zealand's Carbon Pricing experiments, and Germany's integrated Carbon Tax and emissions trading schemes are more coherent and enforceable. This article also argues that India's regime can only be a serious environmental governance instrument if it undergoes structural reform, establishes transparency in the use of revenue, and leverages successful international practices to the local context of India.

---

<sup>1</sup> India's Updated First Nationally Determined Contribution Under Paris Agreement; <https://unfccc.int/sites/default/files/NDC/202208/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf>.

**B. Keywords:**

Green Tax, Polluter Pays Principle, Carbon Pricing, Fiscal Reform, Environmental Protection.

**C. Research Problem:**

Environmental challenges arise because of India's rapid industrialization, economic development, and urbanization. To combat environmental degradation, India has made strides in creating provisions for green taxation. These provisions, however, remain to be assessed with regard to the environmental justice system.

In this research problem, green taxation systems for ecological upliftment are studied and compared with countries like China, New Zealand, and Germany.

**D. Research Objectives:**

1. Firstly, to explore the definition, concept, scope, and legal regime of green tax in India.
2. Secondly, to critically evaluate the effectiveness and challenges of the Indian green tax system in the attainment of sustainable environmental development.
3. Thirdly, to undertake a comparative analysis of the Indian green tax system with China, New Zealand, and Germany.
4. Fourthly, to develop best practice models from countries globally and evaluate their potential application within the Indian legal & socio-economic context.
5. Fifthly, to formulate recommendations to strengthen the green tax policies of India while maintaining appropriate balances between environmental protection and economic growth.

**E. Research Questions:**

1. To what extent, the green taxation policies of India able to decrease pollution and promote environmental protection?
2. What is the extent of the differences in the designs and effectiveness of green taxes in China, New Zealand, and Germany relative to India?
3. What reforms and policy recommendations can be put forward for India that take into account global best practices but also India's own distinctive socio-economic circumstances?

**F. Hypothesis:**

Although based on constitutional and legal principles, the Indian Green Tax framework suffers

from impaired structural formulation, ineffective implementation, and a lack of fiscal clarity, which impedes the system from realizing its environmental aspirations. Countries such as China, New Zealand, and Germany have created broader and more robust mechanisms that not only coordinate their taxation systems with Global Ecological Objectives.

Consequently, it can be hypothesised that the green tax framework of India can only be an effective instrument of environmental governance if it adopts a re-organisational approach that ensures equitable distribution of responsibilities, aligns the fiscal policies with sustainable development objectives, and selectively references global best practices.

### **G. Research Methodology:**

This study adopts doctrinal and analytical research, relying on secondary data, which includes academic articles, government reports, international policy reports, and publications by organizations such as UNFCCC, OECD, and World Bank. This research is qualitative and reviews the legal framework, as well as the policy and judicial interpretations, regarding the green taxation system of India. An interdisciplinary approach is used, which combines legal, economic, and policy perspectives. Additionally, this research uses a comparative method between India's framework with the green tax frameworks of China, New Zealand, and Germany for the identification of gaps and best practices for reform.

## **CHAPTER- 2: CONCEPT AND LEGAL FRAMEWORK OF GREEN TAX IN INDIA**

### **A. Meaning of Green Tax:**

A Green tax, which is also named a pollution tax or environmental tax, applies to certain activities, goods, or services that injure society's environment. The tax system is fundamentally based on the principle of 'The Polluter Pays', meaning the polluter must pay the charges for the recovery of environmental pollution. From an economic perspective, a green tax system is a pigovian tax that internalizes the externalities of polluting behaviour by increasing its cost to a greater extent and providing incentives to behave sustainably<sup>2</sup>.

In India, the concept of green tax is primarily concentrated on vehicle emissions, as transport is one of the largest sources of air pollution in urban cities. Generally, green taxes are levied

---

<sup>2</sup> Sonali Singh & Minali Deshwal, Green Tax and its effectuation in India (SSRN Working Paper 2012). [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2049504](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2049504).

on vehicles older than a certain specific time period, such as 15 years old for private vehicles, and 8 years old for commercial vehicles, because they disproportionately contribute to environmental damage<sup>3</sup>. Conceptually, green taxes reach beyond motor vehicles into the consumption of fossil fuels, carbon emissions, waste management, and other environmentally relevant tax bases<sup>4</sup>.

Worldwide, the Organization for Economic Co-operation and Development (OECD) categorizes pollution taxes as a mandatory form of payment assigned to tax bases proven to harm the environment, such as motor vehicles, energy, natural resources, and emissions. The government of India, as a state party under OECD, has made attempts to align its practices with these principles and frameworks. However, comparatively, there remain significant gaps in enforcement mechanisms when juxtaposed with OECD member countries<sup>5</sup>.

A green tax has a dual purpose. Firstly, to prevent behaviour like environmental damage by increasing the cost through tax, and secondly, to raise resources for earmarked environmental projects such as the clean energy transition, public health funding, and solid waste management systems. Therefore, it can be said that a green tax operates concurrently as a key to environmental governance and a crucial element of fiscal governance<sup>6</sup>.

## **B. Background of Green Tax:**

The intellectual underpinnings of Environmental Tax were identified from Arthur Cecil Pigou's Economic Theory (1920). Pigou stated that forcing a person who is damaging the Environment to pay a tax will force them to internalize social costs instead, enabling private conduct to align with societal welfare<sup>7</sup>. Pigou's theory encouraged the development of pigovian taxes sparked intended to curtail harmful externalities, such as greenhouse gas emissions, pollution, and excessive consumption of natural resources.

---

<sup>3</sup> Vinutha P. & Ajay R., A study on Green Tax in India: Its Effectiveness and Challenges, 15 Seybold J. 1798 (2022).

[https://www.researchgate.net/publication/361389682\\_A\\_Study\\_on\\_Green\\_Tax\\_in\\_India\\_-\\_Its\\_Effectiveness\\_and\\_Challenges](https://www.researchgate.net/publication/361389682_A_Study_on_Green_Tax_in_India_-_Its_Effectiveness_and_Challenges).

<sup>4</sup> A. Jayakumar & K. Beemabai, Impact of Green Tax Reforms in India, 6 J. Emerging Tech. & innovative Res. 219 (2019). <https://www.jetir.org/papers/JETIRX006043.pdf>.

<sup>5</sup> OECD, Environmental Tax Policy Review of India (2017). [https://www.oecd.org/en/publications/2017/02/oecd-economic-surveys-india-2017\\_g1g75488.html](https://www.oecd.org/en/publications/2017/02/oecd-economic-surveys-india-2017_g1g75488.html).

<sup>6</sup> Naresh Anguralia & Shamsher Singh, A Comparative Study on India's Green Tax Policies Vis-à-vis China with Reference to Environmental Justice in the Automobile Industry, 23 Nature Env't & Pollution Tech. 2283 (2024). [https://neptjournal.com/upload-images/\(32\)B-4178.pdf](https://neptjournal.com/upload-images/(32)B-4178.pdf).

<sup>7</sup> A.C. Pigou, The Economics of Welfare (1920).

The modern global green tax legislation era began in the European Union during the early 1990s. Finland introduced its carbon tax system in 1990, followed by the Netherlands and Norway, and established that environmental tax could lead to lower emissions while still providing governments with an income stream. In recent days, the majority of state parties under OECD apply a range of green tax policies and taxes related to carbon emissions, energy, vehicle usage, and waste<sup>8</sup>.

In India, the green tax history is a relatively new concept. *The Motor Vehicles Act, 1988*, as well as state-level tax legislation, are a few of the relevant laws that apply to taxing older vehicles<sup>9</sup>. Maharashtra was one of the first states to implement a green tax system in 2010. It charged different rates for different vehicle types, exempting electronic vehicles. Tamil Nadu and Karnataka followed with the same tax systems on older two-wheelers, autos, and other commercial vehicles<sup>10</sup>.

The Indian Court of Law played a key role in the evolution of the green tax system. The Supreme Court of India, in *MC MEHTA vs. Union of India, 1986*, affirmed the right to a clean environment without pollution under Article 21 of the Indian Constitution<sup>11</sup>. Indian jurisprudence allowed for both legal and moral jurisdiction for introducing a new environmental tax system, articulating the duty of the state to facilitate economic growth and improvements to human welfare in the context of re-investing in the ecology.

Recently, green tax policy frameworks have sought a better alignment of domestic angles of green taxation instruments with various international commitments. India's Nationally Determined Contributions (NDCs) to the Paris Agreement (2022) spotlighted carbon intensity reductions and low- or zero-emissions modes for transport, influencing domestic Chinese fiscal tools, like green cesses, and carbon pricing<sup>12</sup>. Other fiscal measures, like the Coal Cess, were enacted under the Finance Act of 2010 (often known as the Clean Energy Cess), which signifies the efforts for integration of fiscal measures into environmental governance.

---

<sup>8</sup> OECD, Environmental Tax Policy Review of India (2017).

<sup>9</sup> Motor Vehicle Act, No. 59 of 1988, India.

<sup>10</sup> Vinutha P. & Ajay R., A study on Green Tax in India: Its Effectiveness and Challenges, 15 Seybold J. 1798 (2022).

<sup>11</sup> M.C. Mehta & Anr. Etc. vs. Union of India & Ors. Etc., 1986 (2) SCC 176.

<sup>12</sup> UNFCCC, India's Updated Nationally Determined Contribution (2022). <https://unfccc.int/sites/default/files/NDC/2022-08/India%20Updated%20First%20Nationally%20Determined%20Contrib.pdf>.

An Indian Green Tax policy framework is still lacking in breadth in comparison with provisions in other countries. For instance, Germany has integrated carbon taxes with emissions trading, and New Zealand has even been seen as a leader of the carbon pricing system. Meanwhile, India is still based on a limited reliance on in-vehicle or vehicular-based levies. Additionally, scholars have identified that effectiveness is influenced not only by the design of the measure but also transparent use of revenues collected from those areas where India has consistently struggled.<sup>13</sup>

### C. Theoretical Aspect of Green Taxation System:

The theoretical justification of the green taxation system is dependent on economic, legal, and environmental theories, which support its use as a corrective fiscal instrument. Those theories illustrate how they work and demonstrate the complications they would create.

1. *Polluter Pays Principle*: The Green Taxation system has theoretical legitimacy in the Polluter Pays Principle (PPP), which is a fundamental principle under international environmental law as articulated in instruments such as the 1992 Rio Declaration on Environment and Development<sup>14</sup>. In India, this principle has been accepted and acknowledged through the judiciary as a right to a clean environment under Article 21 of the Indian Constitution<sup>15</sup>. The green taxation system gives effect to this principle by guaranteeing that the polluter will pay charges to maintain the cleanliness of nature, either directly by designated taxes or indirectly, as a humanitarian and social fiscal instrument.
2. *Pigovian Taxation Theory*: The Pigovian taxation theory posits that when an economic activity imposes a cost on a third party (for example, an externality), such as pollution, the market does not allocate resources efficiently. A corrective taxation mechanism that would link taxes to marginal external costs, then it would force producers and consumers to account for the true social cost in their consumption decisions<sup>16</sup>. Environmental law uses green targeting taxes to close the gap between social marginal

---

<sup>13</sup> A. Jayakumar & K. Beemabai, Impact of Green Tax Reforms in India, 6 J. Emerging Tech. & innovative Res. 219 (2019).

<sup>14</sup> Rio Declaration on Environment and Development, June 14, 1992, 31 I.L.M. 874. [https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A\\_CONF.151\\_26\\_Vol.I\\_Declaration.pdf](https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf).

<sup>15</sup> Indian Council for Enviro-Legal Action vs. Union of India, 1996 SCC (3) 212.

<sup>16</sup> Sonali Singh & Minali Deshwal, Green Tax and its effectuation in India (2012).

cost and private marginal cost to prevent over-consumption of polluting goods and motivate for the consumption of environmentally friendly alternatives<sup>17</sup>.

3. Modernized Ecological Theory: In accordance with the sociological viewpoint, ecological modernization theory claims that fiscal policies, such as environmental taxes, stimulate innovation and new technology relevant to the environmental justice issues by increasing pollution-intensive activities.<sup>18</sup>. Hence, ecological modernization policy structures taxes not simply as punitive but, instead, as a positive condition that can induce a sustainable restructuring of industry.
4. Double Dividend Hypothesis: Multiple economists formulated the double dividend theory, which contends that pollution taxes can induce benefits from two dimensions. Firstly, by enhancing environmental and economic benefits through reducing environmental damage. Secondly, by producing revenue from a green tax system that can offset distortionary taxes or fund environmental initiatives to make a healthy society<sup>19</sup>. For example, a coal Cess would reduce the incentive to invest in carbon-intensive energy while generating resources for funding the transition to renewable energy.

#### **D. Statutory Framework in India:**

In India, the statutory structure surrounding the pollution tax procedure is not specifically codified anywhere. Instead of that, it takes an appropriate shape through a variety of fiscal statutes, laws related to the environment. These arrangements incorporate the tax process as an essential key of environmental governance.

1. Motor Vehicle Act, 1988: This statute authorizes the states to impose extra taxes on old vehicles. Some specific states, like Maharashtra, Karnataka, and Tamil Nadu, impose environmental taxes on private vehicles over 15 years of age and commercial vehicles over 8 years of age, interpreting that vehicular emissions represent a primary source of pollution<sup>20</sup>.
2. Finance Act & Clean Energy Cess of 2010: The Finance Act of 2010 was a crucial key in the green taxation system when it introduced a Clean Energy Cess on coal, lignite,

<sup>17</sup> OECD, Environmental Tax Policy Review of India (2017).

<sup>18</sup> Naresh Anguralia & Shamsheer Singh, A Comparative Study on India's Green Tax Policies Vis-à-vis China with Reference to Environmental Justice in the Automobile Industry, 23 Nature Env't & Pollution Tech. 2283 (2024).

<sup>19</sup> World Bank, Environmental Fiscal Reform: What Should Be Done and How to Achieve It (2005). <https://www.cbd.int/financial/fiscalenviron/g-fiscalreform-worldbank.pdf>.

<sup>20</sup> Motor Vehicle Act, No. 59 of 1988, India.

and peat, generating revenue for the National Clean Energy Fund. Although in recent days it has come under the GST Compensation Cess, this represented the first national fiscal measure that was explicitly related to environmental objectives in India<sup>21</sup>.

3. Laws related to Pollution Control & Protection for Environment: The Environmental Protection Act, 1986 (EPA) authorizes the central government of India with extensive powers to reduce damage related to the environment and implement the statutory basis for things like the imposition of an environmental compensation charge on commercial trucks in Delhi<sup>22</sup>. There are also a few laws, like the 1981 Act of Air (Prevention and Control of Pollution)<sup>23</sup> and Water (Prevention and Control of Pollution) Acts of 1974<sup>24</sup>, which authorize the appropriate authority to charge fines and fees from polluters, indirectly reinforcing the fiscal aspects of environmental governance.
4. Judicial Precedent: The Indian Judiciary has played a key role in sanctioning fiscal measures. *In the M.C. Mehta Case*, the Hon'ble SC expanded the scope of Article 21 by recognizing a right to a pollution-free and healthy environment<sup>25</sup>. In 2015, the Indian government mandated an environmental compensation charge for trucks entering Delhi to operationalize the '*Polluter Pays Principle*'. In the *Indian Council for Enviro-Legal Action vs. Union of India (1996) case*, industries were considered liable for damage to ecological resources, further embedding the 'polluter pays principle' in the Indian Legal Context.
5. Constitutional support: the framework for providing a healthy environment is mentioned under constitutional provisions, such as the right to a clean and healthy environment under Article 21, the State's duty to protect the environment under Article 48A, and the duty of every citizen to protect and improve the natural environment under Article 51A(g). These provisions ensure legitimacy for an integrated taxation and ecological protection regime.
6. National Green Tribunal Act of 2010: The NGT of 2010 has expanded the range of fiscal accountability. It has imposed compensation charges on industries and waste violators, thus reinforcing the deterrent function of the green taxation system<sup>26</sup>.

<sup>21</sup> OECD, Environmental Tax Policy Review of India (2017).

<sup>22</sup> Environment Protection Act, No. 29 of 1986, India.

<sup>23</sup> Air (Prevention and Control of Pollution) Act, No. 14 of 1981, India.

<sup>24</sup> Water (Prevention and Control of Pollution) Act, No. 6 of 1974.

<sup>25</sup> M.C. Mehta & Anr. Etc. vs. Union of India & Ors. Etc., 1986 (2) SCC 176.

<sup>26</sup> National Green Tribunal Act, No. 19 of 2010, India.

## CHAPTER- 3: EFFECTIVENESS AND CHALLENGES OF THE GREEN TAX SYSTEM IN INDIA

### A. Effectiveness of the Green Taxation System in India

1. Policy Recognition of Environmental Externalities: Although there are few Indian Green taxes, they formally illustrate a recognition of the underlying principle of the polluter taxes levied on old vehicles, the Clean Energy Cess on Coal production, and compensation charges imposed on commercial trucks entering Delhi are all fiscal attempts to internalize the costs of pollution<sup>27</sup>. The judiciary has also upheld this reasoning, as seen when the SC in *the M.C. Mehta case* ordered the imposition of environmental compensation charges on diesel trucks entering Delhi, thus enforcing the principle of PPP<sup>28</sup>.
2. Environmental Funds & Sources of Revenue: The Clean Cess was introduced under the Finance Act of 2010, and has produced substantial revenue for the National Clean Energy Fund<sup>29</sup>. The Green Taxes on vehicles also produce revenue for states on an ongoing basis. Funds generated from taxes on pollution could theoretically be used to support renewable energy transitions, public health programs, and sustainable infrastructure, producing a ‘double dividend’ of environmental and fiscal benefits<sup>30</sup>.
3. Judicial Intervention and NGT – not a conference: Judicial intervention has magnified the deterrent effect of the original green taxes. In *Indian Council for Enviro-Legal Action vs. Union of India (1996)*, industries were assessed liability for damage to the environment, stimulating recognition of social responsibility and embedding PPP into Indian Jurisprudence<sup>31</sup>. In furtherance of these goals, the National Green Tribunal (NGT) has also imposed compensation charges on polluting industries intended to maintain a sense of fiscal responsibility to the environment that would not be imposed through traditional tax laws<sup>32</sup>. The procedure of compensation charges also highlights the judiciary’s role in filling gaps of tax laws.

<sup>27</sup> Vinutha P. & Ajay R., A study on Green Tax in India: Its Effectiveness and Challenges, (2022).

<sup>28</sup> M.C. Mehta & Anr. Etc. vs. Union of India & Ors. Etc, 1986 (2) SCC 176.

<sup>29</sup> Finance Act, No. 25 of 2010, India.

<sup>30</sup> David Pearce, The Role of Carbon Taxes in Adjusting to Global Warming, 101 Econ. J. 938-948, (1991).

<sup>31</sup> Indian Council for Enviro-Legal Action vs. Union of India and Ors. Etc., 1996 SCC (3) 212.

<sup>32</sup> National Green Tribunal Act, No. 19 of 2010, India.

## B. Challenges of the Green Taxation System in India

1. *Fragmented Policies & Legal Framework:* In India, there does not exist a standalone environmental taxation framework. Rather, pollution taxation systems are fragmented, scattered across various laws, including the Motor Vehicles Act, Finance Acts, and pollution control legislation. These fragmented systems lead to inconsistency in the application and use of pollution taxes, which reduces the predictability and reliability of pollution taxation between different states.
2. *Limitation on Scope for Application:* The scope and application of green taxation in India is quite narrow when viewed in relation to the carbon taxes of Germany's emissions trading scheme or New Zealand's carbon pricing framework. In India, the green tax has only been developed with respect to the emissions of motor vehicles and the Coal Cess, while the potential for taxes related to broader tax bases, such as industrial emissions, resource extraction taxation, and the collection and management of waste, has yet to be developed.
3. *Weak Compliance & Implementation:* Green Taxation in India also has weaknesses in administrative enforcement. For Example, in Delhi, when the 'environment compensation charge' was implemented, the assumption that 40% of the trucks will not pay is based on the fact that such trucks will find ways around the city or will use the periphery highways to avoid pollution tax. If states begin to start to implement a pollution tax for older vehicles, there is little capacity behind the mechanisms to comply reliably across the states.
4. *Fiscal Transparency and Misallocation of Revenue:* The main issue is how much of the revenue generated from green taxes is spent transparently. for example. Although the Clean Energy Cess raised a significant amount in revenues, the parliamentary reports showed that a great fraction of the money had not been spent or had been diverted to non-environmental purposes. Questions about the credibility of the entire green taxation scheme and thus eroded public trust.
5. *Political Economy & its influence:* The Green Taxation system is resisted by industry lobby groups and political actors aimed at increasing energy prices. For instance, when certain actors in India attempted to implement a higher Coal Cess, this was branded as an increase in power tariffs that would undermine industrial competitiveness. In general terms, this environment of political resistance to green taxation will limit the overall ambitions for India's fiscal environmental reforms.

India's green taxation approach embodies a paradox, that it is characterized by a

progressive representation of environmental governance, but has reached this view while adhering to a fragmented institutional framework and enforcement which is weak. In fact, the green taxation system is largely reactive and piecemeal, and is largely the result of continuous prodding from the judiciary as opposed to planned legislative design. A major weakness is the lack of a single statute on the green tax (compared to global blueprints such as Germany's eco-tax reforms, New Zealand's enactment of carbon-pricing). Transparency in how revenue from green taxation is allocated is also a major concern, which diminishes the 'double dividend' weight many green taxes carry.

Additionally, a lack of distributional measures for low-income or low-career groups presents an increased risk of exacerbating socio-economic inequalities, as the issue of fairness becomes an issue of efficiency in the long run. Judicial action has opened up space for public taxation to environmental governance will come from reforming the scope of the programs, the transparency in how revenue is used, and about equity. Without those key ideas, the promise of green taxation is likely to remain too symbolic to be effective.

## **CHAPTER- 4: COMPARATIVE ANALYSIS OF GREEN TAX SYSTEM** **IN GLOBAL CONTEXT**

There are crucial differences in the design and implementation of the green taxation system across jurisdictions. Comparing China, New Zealand, and Germany with India illustrates both the interest of a comprehensive system and the disadvantages of India's ad hoc and fragmented system.

### **A. China - Codification & Nationwide Application:**

China is an explicit example of codification. The Environmental Protection Tax Law (2018) has reinstated a fee-based process and implemented a statutory tax on air, solid waste, noise, and water emissions<sup>33</sup>. The liability is linked to pollution intensity, providing administrative consistency and discouraging high-polluting ventures.

China has also progressed in the realm of market-driven instruments. Within China's National Emissions Trading System (ETS) of 2021, it started to focus on the power sector and now

---

<sup>33</sup> Environmental Protection Tax Law of the People's Republic of China (2018).

covers additional sectors<sup>34</sup>. Ultimately, China has expanded a dual procedure to ensure that both the trading system and the taxation system can operate to provide fiscal revenue and achieve emissions reductions.

In contrast, India has no equivalent codified act and continues to depend on numerous ad hoc measures. The Chinese model manifests how a single nationwide law can furnish predictability and coherence, and therefore continues to be the ideal sought by India that has not yet been achieved through its ad hoc and disintegrated system.

### **B. New Zealand - Transparency & Carbon Pricing System:**

New Zealand is frequently seen as a leader in the carbon pricing system, where the New Zealand Emissions Trading Scheme (NZ ETS) of 2008 is a foremost example<sup>35</sup>. The NZ ETS covers energy, forestry, and industrial procedures, and is now beginning to encompass the agricultural sector, which is a crucial part of New Zealand's emissions system.

A distinguishing feature of New Zealand's approach is the transparency of revenue use. Revenue is tagged for climate alteration, forestry incentives, and renewable energy schemes, among others, showing a measurable connection within the taxation system and sustainability outcomes<sup>36</sup>. The transparency reinforces compliance and public trust.

The Green Taxation system of India, such as the Clean Energy Cess, has experienced little legitimacy because of revenue misuse and misappropriation. In multiple parliamentary reports, there were accounts of the government using the revenues for unrelated reasons, undermining any legitimacy<sup>37</sup>. New Zealand demonstrates how transparency in revenue use can shift green tax policies from symbolic to a trusted key of governance.

### **C. Germany – Integration & Social Equity:**

Germany was the first country to enact an eco-tax reform in 1999, which taxes energy use, electricity, and fossil fuels<sup>38</sup>. The reform has the special nuance of being combined with social policies, that the revenue from the tax reform was used to decrease pension contributions,

---

<sup>34</sup> International Carbon Action Partnership (ICAP), China's National ETS Factsheet (2021). [https://icapcarbonaction.com/system/files/ets\\_pdfs/icap-etsmap-factsheet-55.pdf](https://icapcarbonaction.com/system/files/ets_pdfs/icap-etsmap-factsheet-55.pdf).

<sup>35</sup> Ministry for the Environment (New Zealand), New Zealand Emissions Trading Scheme (NZ ETS) (2020). <https://www.epa.govt.nz/industry-areas/emissions-trading-scheme/changes-to-the-ets/>.

<sup>36</sup> OECD, Environment Taxation and Carbon Pricing in New Zealand (2019). [https://www.oecd.org/content/dam/oecd/en/publications/reports/2019/10/taxing-energy-use-2019\\_e4652396/058ca239-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2019/10/taxing-energy-use-2019_e4652396/058ca239-en.pdf).

<sup>37</sup> Comptroller & Auditor General of India (CAG), Report on Clean Energy Fund (2017). <https://cag.gov.in/en/audit-report/details/122511>.

<sup>38</sup> German Federal Ministry of Finance, Germany's Eco-Tax Reform (1999-2003). <https://foes.de/pdf/GBG-GreenEssay-2005-03-Goerres-Germanys-ecotax-reform-1999-2003.pdf>.

mitigating rigid effects. The reforms made a 'Double Dividend' where environmental benefits are amalgamated with economic benefits.

Additionally, Germany is a part of the European Union Emissions Trading System (EU-ETS), which adds a cap-and-trade elasticity to the carbon tax<sup>39</sup>. Together, both policies ensure a pursuit of fiscal solidity and market efficiency.

India's green taxation system has not attempted such a combination, where the taxes on Motor Vehicles (cars) and a Coal Cess exist independently from each other. Neither of the taxes has any kind of redistribution system for equity purposes. The German model raises the issue of the need to combine its pollution taxation policy with broader fiscal policies and social policy, with a more robust system in India.

#### **D. India – Splintering & Reliance on Court of Law:**

The pollution taxation system in India is indeed narrow in concept. Taxes have basically concentrated on transportation taxes, pursuant to the Motor Vehicles Act of 1988, and the Clean Energy Cess on Coal as enacted by the Finance Act of 2010<sup>40</sup>. There are no broader classifications of pollutants, such as industrial emissions, extraction of natural resources, or waste.

Frequently, the enforcement has depended on the courts of law. For example, in the *M.C. Mehta case (2015)*, the SC of India overturned and reinstated an order to impose an environmental compensation charge for diesel trucks entering Delhi<sup>41</sup>. While functioning in limited cases, reliance on the court system to ascertain charges usually signifies a deficiency of meaningful legislative structure.

Another weakness is the fiscal density. While the revenue from Coal Cess might be extensive, the Comptroller and Auditor General exposed that these funds often appeared to be unspent or redirected. Without compliance to generate revenue, green taxation would be subject to existential questioning, like any tax system used to fund the environment.

The international comparison draws strong diversity in the structures of the polycentric system. China has codified its pollution taxes and created a level of uniformity across the country, while New Zealand's pollution tax regime is premised on transparency, and Germany's on integration into social welfare. Taken together, this array of systems speaks to a conscious, system-based approach to a green taxation system.

<sup>39</sup> European Commission, EU Emissions Trading System (EU ETS) (2022). <https://icapcarbonaction.com/en/ets/eu-emissions-trading-system-eu-ets>.

<sup>40</sup> Finance Act, No. 25 of 2010, India; Motor Vehicles Act, No. 59 of 1988, India.

<sup>41</sup> M.C. Mehta & Anr. Etc. vs. Union of India & Ors. Etc., 1986 (2) SCC 176.

India's green taxation structure, by contrast, is more of a fragmented, reactionary system. India utilizes disparate statutory provisions and judicial orders, and does not engage in revenue recycling to attend to issues of distributive justice. The absence of this means compromising both efficiency and legitimacy.

The international comparison argues for the changes that have already been prefigured, that India needs to create a national law which would go beyond multiple pollutants, that is a system of enhanced and genuine transparency of the market-based instruments, only supplemented with taxes. Absent those characteristics, the Indian system of taxation, especially pollution taxes, will remain a largely symbolic and ineffective comparison to peddled measures from other jurisdictions, where it seems systemic legitimacy is at work.

## **CHAPTER- 5: POLICY REFORMS & CONCLUSION**

### **Policy Recommendations:**

1. *The establishment of an exhaustive Green Tax Code*: India recently relied on separate pieces of legislation like the *Motor Vehicle Act, 1988*, the *Finance Tax Act, 2010*, along with other component laws, regarding pollution tax<sup>42</sup>. There will be greater clarity, consistency in administration, and predictability in a codified national law to address green taxation based on multiple pollutants, like air, water, waste, and resource extraction. For example, China established an Environmental Protection Tax to codify a national green tax law.<sup>43</sup>
2. *Transparency and designation of Revenues*: Diversion of revenues of Coal Cess has eroded trustworthiness<sup>44</sup>. There should be a clear statutory provision for specifying the revenues for renewable energy, pollution control measures, and climate adaptation projects alone. Based on New Zealand's model, revenue reports should be publicly disclosed in order to certify obedience<sup>45</sup>.
3. *Amalgamation of Social and Economic Policy*: To prevent regressivity, pollution tax revenues must be recycled into social welfare policies, for instance, subsidies on electric vehicles or labour tax. Germany's eco-tax reform states that linking with social policy maximizes both legitimacy and efficacy<sup>46</sup>.

<sup>42</sup> Finance Act, No. 25 of 2010, India; Motor Vehicles Act, No. 59 of 1988, India.

<sup>43</sup> Environmental Protection Tax Law of the People's Republic of China (2018).

<sup>44</sup> Comptroller & Auditor General of India (CAG), Report on Clean Energy Fund (2017).

<sup>45</sup> OECD, Environment Taxation and Carbon Pricing in New Zealand (2019).

<sup>46</sup> German Federal Ministry of Finance, Germany's Eco-Tax Reform (1999-2003).

4. *Expansion to market-based instruments*: India needs to move beyond traditional and static forms of taxation to additional measures to capture the pollution tax rent. There should be the inclusion of carbon pricing and emissions trading in the green tax regime in India. A tax/market instrument model, such as seen in China and Germany, will allow for flexibility in the green taxation regime, and establish new revenues for government expenditures, while providing an operating framework for fiscal responsibility<sup>47</sup>.

## **Conclusion**

The results indicate that the Indian Green taxation policy is fragmented, selective, and often determined by the courts of law, despite a requirement of being economically and constitutionally grounded. While the Clean Energy Cess and payments made for an old-vehicles could be viewed as reasonable first steps, they do not signify actual steps toward creating a substantive legal basis that addresses the magnitude of environmental pollution in India.

In Contrast, the experiences in China, New Zealand, and Germany show how legal codification, fiscal transparency, and convergence with social policies and hybrid fiscal-market institutions have facilitated the emergence of a green taxation mechanism as an instrument of governance. The way forward in India to institutionalize a green tax regime lies in creating a National Green Tax Act, including the identification of reporting of revenue sources, establishing a carbon price, and aligning tax and welfare policies, which can create the required fairness. Absent a commitment to those reforms, India's green tax regime may be nothing more than symbolic.

---

<sup>47</sup> European Commission, EU Emissions Trading System (EU ETS) (2022).