

Short Communication

# Green Taxation and Environmental Sustainability in India

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**Abstract:** In recent years, every country whether developed or developing, is majorly concerned about pollution and environmental deterioration. To be noted the fact that pollution have no boundaries, it has reached every corner of the world. The guidelines given by Arthur Cecil Pigou, an English Economist, should be taxed about carbon tax has been a matter of concern. The rapid economic growth and industrialization in India, which leads to the problem of high-level carbon emission is the biggest problem faced by the Indian cities. This paper tries to analyze different policies taken by developed countries to handle the problem of pollution. The results show that along with international guidelines India also adopted some 'Green Tax Policies' such as vehicle tax, coal cess etc. to tackle the problem of pollution. This paper tries to provide a glimpse of different policies that has taken by India as a green taxation policy. This study finds that there are green taxes operating in India but these cannot be considered enough to deal with the problems of environmental pollution and attainment of sustainable development. This paper discusses different policies and challenges faced by India while implementing green tax policies. The study is based on secondary sources of information available on different internet accesses. The results find that green tax has become successful tool in developed nations for carbon emissions. The green taxes can also become the strongest equipment to combat carbon emissions in Indian cities. This paper also tries to point out some recommendations to implement green taxes successfully in India.

**Keywords:** Advantages, Carbon tax, Challenges, drawbacks, green tax, Sustainable Development

## 1. Introduction

Due to rapid growth of population and Industrial development, the environment is deteriorating all over the world. So, the federal governments all over the world are now trying to fight against the detrimental effects of environmental pollution. The focus on sustainable development has

gained immense importance in recent years as the concept of sustainable development is relatively a young one. The governments of different countries are implementing fiscal measures for sustainable development. These measures are being adopted in order to strictly enforce them to the businesses that release pollutants into the environment. Countries are attempting to implement green revolution in their taxation systems to counteract this problem of environmental degradation. Many nations have encouraged green activity and levy fees, penalties or environmental and energy taxes to deter bad behaviour and generate income for the government. To counteract environmental issues, a type of economic tool is used, known as "Green Taxes". This tool encourages the adoption of green alternatives for the industries that are polluting the environment by increasing the cost of ecologically harmful activities. Green taxes refer to those taxes which are levied on those products or industries which are harming or polluting the environment in the long run. In the international literature, green taxes are often referred as "Environmental tax," "Eco Tax," "Pollution Tax" or "Carbon Tax". So basically, green tax is an environment tax which is levied on the emission of harmful gases like carbon dioxide. These taxes are also levied on all the greenhouse gases which are harmful for our environment. These taxes can be levied on the industries which are emitting harmful gases into the environment, petrol, other fuel by depending on the content of CO<sub>2</sub>. Green taxes are also imposed on older vehicles which are considered old or specified old under specified law of a particular country. These taxes act as a disincentive for the industries which will now have to bear the additional costs of undertaking productive activities. The money then mostly used to reinstate the damages done to the environment. Imposition of taxes is such a tool through which awareness among people could be raised for environmental protection and conservation. The purpose of implementing and imposition of such taxes is to create a Healthy and Sustainable future for us and for our future generations.

Globally, this matter of green tax is looked after by OECD (Organization for Economic Co-Operation and Development). India is also a key member of OECD along with other 67 member countries. All the member countries have to compulsorily follow the instructions provided by OECD to reduce the emission of poisonous gases into the environment obviously by taxing on these gases. Almost all the member countries have introduced green taxes or environmental taxes so as to make the parties responsible for polluting or releasing poisonous gases to the environment and to make payment for the causes of the same. A study conducted by OECD revealed that most of its countries show positive effects and real evidence of green taxes. Thus, green taxes should be imposed on businesses and industries in such a manner that it would not create a new burden on the taxpayers.

## 2. Review of Literature

Mahaseth & Bhattar (2024), in their research article mentioned that green taxes or eco taxes or environmental taxes have been emerged as a new pathway to restrain the catastrophic effect done by human on the environment and also to promote environmentally friendly tasks. This paper also studies some case laws which show the implementation of these green levies. The case studies are done to

analyze the impacts of green taxes on the environment and economy, especially in India. They also tried to provide an understanding of the intricate design channels of different green taxes or mix of green taxes in India. The intention of this paper is to address the environmental concerns by promoting sustainable development in India. They also discussed the role of India in OECD and how pollution efforts of India are channelled when green levies are recommended by OECD to control pollution.

Anguralia & Singh (2024) in their research paper examined the impact of green tax policies on environmental justice of Indian automobile industry as compared to China's automobile industry. The aim of their paper was to provide a perception into the strengths and weaknesses of the green tax policies in the automotive sector of both the countries. It also aimed to understand the implications of green tax policies for achieving environmental justice. They tried to do it by analyzing the scope, enforcement, industry implications, impacts of green taxes on vulnerable communities and alignment with international commitments.

Ahmed et.al (2022) in their research paper examined the interaction between green taxes and energy intensity and consumption in four Nordic nations such as Norway, Sweden, Finland and Denmark. They found that according to the outcomes of Fully Modified Ordinary Least Square (FMOLS), Panel Dynamic Ordinary Least Square (PDOLS), and Panel Quartile Regression, the total energy consumption is reduced by a green tax imposition. Green taxes increase energy efficiency in environment related technology by motivating citizens, companies and governments. Green taxes create a more sustainable environment by increasing energy efficiency while ensuring the displacement of non-renewable resources. And green tax policies that discourage the use of non-renewable resources should be implemented in the economy.

N, Priyanka. & A M (2025) in their research article provide a comparative analysis of green tax policies of India and Maldives implemented in both the countries. The study compares the goals, the mechanisms, the challenges and the impacts of green tax policies in these countries. Their analysis also underscores the essentials of customizing green taxation mechanisms to both the Nations local ecological vulnerabilities and economic realities which ensures environmental sustainability in both the nation with social equality and economic viability.

P, Vinutha & R, Ajay (2022) studied the effectiveness and challenges of green tax in India. The paper also studied public awareness of green taxation in India. They limit their study in few states of India like Maharashtra, Tamil Nadu and Karnataka. While conducting the study, they also obtained data from these areas. To assess the awareness of people of green taxes, responses were also taken. To check the effectiveness and challenges of green taxation in the country, secondary data were collected from people who are well known with the concept of green taxation on the country and outside of India. They identified that green taxes are very effective in India but stricter rules are necessary for more effectiveness.

Morley (2012) in his article found out a significant negative relationship between taxes and pollution. But he did not find any relation between taxes and energy consumption. He used a panel of EU members and Norway. This study also used the Arellano-Bover approach to dynamic panels. This is due to account for the potential partial adjustment towards target levels of pollution and energy usage. All annual data from the year 1995 to 2006 were used. All the economies that were the then members of EU and new members who joined EU were also included.

Mohan (2024) in her article analyzed the international efforts and initiatives taken to develop the concept of green taxation. This paper also provides an understanding about all the methods and initiatives adopted by India to introduce green tax as a beginner to offset environmental pollution. This article also suggests the way forward that India should follow in order to impose green taxation for sustainable development

Torki Harchegani & Dahmardeh (2018) in their research paper simulated the effects of green taxes on Iran's health indicators such as morbidity and mortality. Standardized by Iran's Social Accounting Matrix (SAM), they used a Computable General Equilibrium Model in this paper. The results of their study showed an inverse relation between green taxes and health costs.

Saad et. Al., (2024) in their research paper proposed an alternative green framework to the current practices, which would be an optimal green tax framework. This alternative framework is based on the interviews with industry players and policy makers. To have an alternate green tax framework in Malaysia, the proposed framework should consider some factors like tax incentives and penalties, environmental education, technology and continual review of the legislation. This paper also discusses the environmental laws and policies that are imposed and implemented in India. They also discussed about the major agencies in green preservation in Malaysia.

Yang et. Al., (2024) in their paper portrayed the concept of green taxation both in narrow and broad sense, explaining its essence and potential in stimulating innovations and regional green progress. They used panel data from 30 provinces in China, which ranges from the period 2004 to 2021. They also developed a bidirectional fixed effects model for the purpose of empirical analysis. Their study revealed that green taxation encourages regional green development and speed up the process of green innovation. This study proved that green development can help in the growth of an economy by fostering regional green growth.

### **3. Methodology**

The study of this paper is descriptive in the sense that it is based on secondary sources. Secondary sources are collected from various websites and journals available on internet. This paper conducted a literature search using databases like Google Scholar by using terms like 'green taxation', 'green taxation in India', 'disadvantages of green taxation', 'green taxation and environmental sustainability'. Studies published in English language were included. These publications cover a time period from 2004 to September

2025. This research has used 23 Google Scholar journals. The journals have used different methodologies and many of the articles are based on different countries. This research has also used 10 ISSN papers. This paper used secondary data in analyzing the effects of green taxation in India, Impact of green taxation, the role of green taxation in achieving sustainable development in India.

#### **4. Discussion**

##### **(i) Background Of Green Taxation**

The inception of the idea of green taxation can be traced back to early 20th century when certain nations pioneered their tax policies. They did it so as to incentivize the adoption of cleaner and sustainable technologies. The green taxation has gained immense attention only in the 1970s when environmental concerns about the impacts of human activities and environmental movements came into the forefront. Europe in the early 1990s, saw the emergence of the concept of "ecological tax reform". This was a strategic approach to shift the tax burden from labor and capital to pollution and natural resources. This green tax reform strategy could yield dual benefits as mentioned by the advocates of this reform. One is the favourable environmental outcomes and secondly the promotion of sustainable development. Both will lead to stimulate the economic growth of a country. In 1992, Denmark also took a pioneering step for implementation of a comprehensive green tax reform program. This initiative of Denmark encompassed a spectrum of green taxes which targeted emissions from transportation, waste disposal and energy consumption. Encouraged by Denmark's initiative, other European nations like Germany, Netherlands and Sweden also followed the same suit by introducing reform measures in the late 1990s. With the emphasis given by the United Nations and other international organizations, the significance of green taxes in combating climate change issues and fostering sustainable development has got attention in the international platform. As we navigate to the 21st century, the evolution and expansion of green tax initiative taken by the countries have stood as a testament for shaping a more conscious and sustainable environment for the future.

##### **(ii) International Laws for Green Taxation**

In 1992, the concept of pollution taxes was first introduced but did not gain much attention. However, in 1990's environmental policy discussions began to attract the interest of economists. The need of global awareness for environmental sustainability grew and developed in the Rio Earth Summit in 1992. The Rio Declaration is the most essential International Environmental Law document which addresses the international obligations of UNO's member states. It is the law document for environmental protection and sustainability at the international level. One of the agreed upon documents by UNO's member states at the Rio conference is the agenda 21 of 1992. The agenda 21 sets out plans, policies, process and national strategies that are necessary to achieve its objectives while acting as a charter for the future. Another essential international document that too addresses the green taxation in the sustainable development of international law and other countries is the Johannesburg Declaration of 2002. This addresses the challenges related to multilateralism, commitments and realization of sustainable development consisting of 37 clauses. The UNEP proposal (2011) is another international document law addressing green taxation for sustainable development. Another international document

related to green taxation, environmental protection and sustainability is the final document of the Rio+20 Conference of 2012. Adopted in 2015, the 2030 Agenda for sustainable development is another important international document. It also addresses green taxation in environmental protection and in sustainable development under international law and in the domestic laws of other countries. This Agenda 2030 document was adopted by 193 countries during the UNO's General Assembly Summit. This agenda outlines the SDG to be achieved by 2030. This document included 17 broad goals and 169 specific targets for sustainable development.

### **(iii) The Green Tax Scenerio in India**

In India, the concept of an environmental tax has undergone many stages. Although the concept has been well received but there still exists the need for more powerful and popular green tax impacts among the masses. Masses need to be made aware about their ability to protect the environment at the grassroots levels. Educating the masses about environmental taxes or green taxes will be helpful for them to understand the consequences of their actions. In this way, people will be able to contribute towards sustainable development through making green taxes.

The green taxes first appeared in India in 1992 when The Ministry of Environment and Forests issued a policy statement following the recommendations of Tax Reform Committee. The need to emphasize on environmental problems through economic measures was recognized by this ministry. In 2001, The United Nations Environment Programme issued a report on environment. The report recommended the use of economic measures or economic tools as a preventive tool to internalize the costs of environmental deterioration completely. The National Environmental policy, 2006, also emphasized the role of economic measures or economic means to regulate the environment. In 2010, India implemented a carbon price system which targeted to reduce the emissions of greenhouse gas emissions like coal and its derivatives, Lignite and Peat. The Indian Government has doubled the rate of Clean Energy Cess in the 2016-17 Budget. This tax has been renamed as Clean Environment Cess levied on coal, lignite and peat. The effective rate of this clean environment tax was increased from Rs. 200 to Rs. 400 per tonne in 2016-17 Budget. It was for financing, promoting and funding research in this area of clean environment or clean energy. This clean environment cess also acts as a green tax based on the lines of polluter pays principle. India's indirect carbon tax (cess) only applies to coal, lignite and peat unlike many other Nation which impose carbon taxes on petroleum and natural gas. India's this indirect carbon tax strategy has remained consistent although other countries revised their carbon price policies following the global financial crisis of 2008. India has also reduced its subsidies on fossil fuels and raised prices on them which led to the reduction of CO2 emissions while increasing the prices of diesel and petrol. In 2012, in order to raise funds for the establishment of infrastructure for e-waste disposal, an Advance Recycling Fee on sale of electronic items was imposed by the Central govt. State and local governments have utilized economic tools to counteract environmental problems such as taxing plastic bags, levies on power usage, monthly fees on families, stores etc.

India being an emerging economy, has gradually begun integrating its green tax policies into fiscal policy framework. Although India is still evolving through this process, several taxes like coal cess, vehicle pollution tax and plastic usage charges are already implemented across different states of India. Many countries have implemented direct carbon taxes but India has implemented indirect carbon tax mechanisms like cess and duties. These indirect taxes include-

- I. Coal Cess (Clean Energy Cess): This cess was introduced in 2010. It was initially used to tax domestically produced and imported coal at Rs. 50 per tonne. Later, it was increased to Rs. 400 per tonne. Its functions are same to a carbon tax as it also targets the most carbon-intensive fuels in India.
- II. Excise Duty on Fuel: Indian government imposes heavy excise duties on petrol and diesel. Although these duties are not labeled as a carbon tax but these duties are serving the similar purpose of carbon tax. These duties discourage the use of fossil fuels and promote the conservation of energy.
- III. Pollution Tax on Vehicles: In India, the vehicles, especially the diesel-run vehicles are subject to green tax as they are more polluting. These taxes target emissions at the point of use which definitely reflect the principle of Carbon Tax India.

On 2nd February, 2021, The Ministry of Road Transport and Highways, Govt. of India released a draft of the "Guidelines for The Imposition of Green Tax" on older vehicles by state governments and union territories. One of the major contributors of air pollution is obviously the burning of fossil fuels from running of vehicles. Moreover, commercial vehicles add to this issue by contributing almost 65% to 70% of the total vehicular pollution. Additionally, one of the common or established perception is that older the vehicle is, the more pollution it causes. So, the central government aims to reduce the number of older vehicles on road by setting the threshold to the year 2000.

There was a question as whether the individual states have the competency to formulate separate green tax policies. The green tax rates were also raised before the court. In this regard, the case of K.M. Vijayan (2005) of Tamil Nadu is an important landmark. Wherein under section 3A of the Tamil Nadu Motor Vehicles Act, provided for the levying of green tax on vehicles which are 15 years old was challenged. As a result of the settled dispute between the court and K.M. Vijayan, various states and union territories of India now have green tax regime. This new tax regime has been able to collect revenue successfully for the purpose of combating air pollution in the country. The states and union territories who got green tax regime are Andhra Pradesh, Telangana, Karnataka, Maharashtra, Dadra and Nagar Haveli, Uttar Pradesh and Jharkhand, Goa, Kerala, Tamil Nadu, Uttarakhand (imposes a green cess for vehicles outside the state), Assam, Rajasthan. The rate of green taxes and rules vary state by state as this is a state subject now. The green tax is generally imposed on commercial vehicles which are older than 8 years and on private vehicles which are older than 15 years at the time of renewal of these vehicles' registration certificates or the fitness certificates. There is an exemption

of these green taxes for the vehicles which run on alternative or cleaner fuels than fossil fuels like electric, CNG, LPG, ethanol etc. Agricultural vehicles like tractors, tillers are also exempted from this tax. The revenue that are generated from these taxes are kept in separate account for monitoring and tackling environmental issues of the state.

Moreover, the attitude of government of India towards solving environmental problems driven by sustainable development goals lead to the implementation of a variety of initiatives of green taxation at different industries. Green tariffs are also addressed in several Indian State's Motor Vehicles rules such as the Tamil Nadu Motor Vehicles Rules, 1989, The Gujarat Motor Vehicles Rules, 1989, The Madhya Pradesh Motor Vehicles Taxation Act, 1991, The Karnataka Motor Vehicles Rules, 1989. So, we can say that India has established a number of green tariffs in different states of the country to minimize pollution for sustainable development. Severance taxes on minerals, energy, forestry products contribute to India's sustainable resource management. The trash disposal fees help promote effective waste disposal methods, property value taxes discourage speculation for sustainable use of land, outdoor activity license fees also help to support efforts for conservation practices.

So, in India, the first step for green tax was taken by the Tax Reforms Committee of 1992. This tax reform committee suggested for higher tax rates on some specific raw materials that could be imposed. They suggested it for the purpose of preserving and safeguarding the environment by encouraging the economy in the use of certain consumption and production activities. But no later legislation for significant consideration for these suggested reforms was able to be given. Further, in the Thirteenth Finance Commission proposal, an imposition of non-negotiable excise on all commodities was highly recommended. But decision was not taken on the imposition of a green tax on natural gases. This is because it requires a heavy research for evaluating all the aspects related to it. In India, green taxation system was introduced in the year 2010 in which the Union Finance Act imposed a clean energy cess on certain products like coal, peat and lignite. Which was later subsumed under GST compensation cess in 2017 by implementing the GST, as the GST compensation collection was ended recently. In 2001, the Energy Conservation Act was enacted for reducing the energy consumption and adopting more efficient energy measures. This act had the provision to fund for more energy efficiency in the country. With an effect from 2022, the Energy Conservation Amendment Act, focuses on the capable ways to make a transition from India's Energy Usage i. e., from petroleum and coal to implement a Carbon Credit Trading Scheme (CCTS). The prime aim of this system was to reduce carbon emission by imposing carbon tax and increasing the use of renewable energy sources. The Indian government doesn't now impose a green tax on automobiles in full amount. Certain states like are taxing older cars at higher rates due to increased carbon emissions in the air. Other initiatives taken by governments are the odd-even formula and ban on diesel cars would help reduce carbon emission in the country. These states implemented it by adding an additional amount to motor vehicles tax for vehicles more than fifteen years old. The amount and the tax provision could differ from one state to another.

In 2021, the central government took an initiative for regulating the use of older vehicles and energy consumption activities that pollute the environment. It was a proposed guideline taken by the union government. The imposition of green tax on older vehicles that causes environmental pollution to be run by state governments and union territories.

#### **(iv) Green Tax Laws of India for Environmental Sustainability**

- I. The Water (Prevention and Control of Pollution) act, 1974: This act imposes penalties including green taxes on non-compliant industries of the economy. It regulates water pollution.
- II. The Air (Prevention and Control of Pollution) Act, 1981: This act makes penalties compulsory and green taxes mandatory for the industries who violate its provisions. It addresses air pollution.
- III. The Energy Conservation Act, 2001: This act encourages energy efficiency and renewable sources of energy. For those industries with excessive energy consumption, this act allows to levy green tax on them.
- IV. The National Green Tribunal (NGT) Act, 2010: while empowering NGT to adjudicate the imposition of green taxes on polluters.
- V. The Goods and Services Tax (GST) Regime: This act imposes tax and cess on goods such as on coal, oil and plastic which harm the environment.

#### **Institutions advocating green taxes include:**

- I. Central Pollution Control Board (CPCB): This board is authorized to impose penalties on entities causing environmental pollution including green taxes.
- II. Ministry of Environment, Forest and Climate Change (MOEFCC): This ministry formulates policies for environmental conservation through green taxes.
- III. National Green Energy Fund: This is to raise funds or revenue for promoting green energy technologies through the mechanisms of green taxes on coal.

#### **(V) Green Tax Policies in India**

- I. *Vehicle Scrappage Policy:* The government of India proposed a voluntary vehicle scrappage policy to retire old and inefficient vehicles from the road. Incentives like discounts on new vehicles, road tax rebates and scrap value for old vehicles were offered to encourage people to participate in the scrappage program. As a part of this policy, a green tax was also proposed on old vehicles which should depend on the age, type of fuel and emission of a vehicle. This policy discourages the use of old and polluting vehicles while encouraging the use of new and cleaner ones which improves air quality and conserves natural resources.

- II. **Goods and Services Tax (GST):** This tax replaced multiple indirect taxes by the Indian Government in 2017. Due to low GST rates, electronic vehicles have become more affordable and widely adopted ones as compared to conventional vehicles within the country.
- III. **FAME India scheme:** The government of India launched the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) scheme for the purpose to make affordable of electric and hybrid vehicles by providing incentives to manufacturers and buyers.
- IV. **Green Cess:** A green tax or a pollution tax is imposed on vehicles with high pollution levels in some Indian states to discourage their use. The amount of cess is determined by engine capacity, age and emission.
- V. **BS-VI emission standards:** The Bharat Stage (BS-VI) emission norms were implemented across the country in April, 2020 to reduce vehicular emissions. Under this emission standard, automobile manufacturers must produce vehicles with lower emission and have cleaner engines.
- VI. **Research and development Incentives (R & D):** To encourage the development of electric and hybrid vehicles technologies in the automobile sector of the country, R&D grants and incentives are being provided by our government.

The aim of green tax policies of India is to reduce greenhouse gas emissions and pollution in the automobile sector and to encourage the adoption of environmentally friendly vehicles like hybrid and electric vehicles. There are certain rules and regulations that govern automobile sector through green taxation are-

- I. **Motor Vehicles Act, 1988:** This act governs the road transport and vehicles of India. The regulation under this act is provided for the registration, taxation of vehicles and for safety and for attaining environmental standards.
- II. **Central Motor Vehicles Rules, 1989:** Under this rule, the vehicle fuel efficiency standards, emissions regulations, and pollution control devices are included.

## 5. Results

### 1.Table: India's Green Tax Vehicle Statistics From 2021 to 2025

Year	Vehicles Taxed (in millions)	Average Tax Per Vehicle (USD)	Total Green Tax Revenue (in billion USD)
2021	15	8.0	0.12
2022	17	8.5	0.14

2023	19	9.0	0.17
2024	21	9.5	0.20
2025	24	10.0	0.24

The above table shows that over the years starting from the 2021 to 2025, the green tax revenue from vehicles taxation has increased continuously. This data also depicts that green tax has a significant impact on Indian economy to earn revenue.

## 2. Impact of Green Tax in India

- I. Green taxes generates a sizeable amount of revenue for the government which can be used to conserve and preserve the environment for prosperous economic development.
- II. When green taxes are imposed on older vehicles, this definitely acts as a setback for the vehicle owner not to use that vehicle and move to a new alternative and less polluting one.
- III. Due to inconsistent enforcement by the government and policy fragmentation, people may face various kinds of effectiveness as well.

## 3. Advantages of Green Taxation in India

- I. Drives Cleaner Energy Practices: Through green taxation when the cost of pollution increases, companies are motivated to shift toward alternate fuels or adopt cleaner fuels. Green taxation helps companies to improve energy efficiency and encourage them to invest in low carbon technologies for reducing greenhouse gas emission.
- II. Generates Green Revenue: Green taxes are one of the most important tools for achieving green revenue for an economy. The green revenue can be used for climate adaptation programs, environmental restoration and preservation, renewable energy practices and renewable projects. An OECD report estimated that green tax in India accounted for 18% of the total tax revenue.
- III. Supports Global Climate Commitments: By 2070, India has pledged to achieve net-zero carbon emission. India can achieve this only through the implementation of robust carbon tax India policy across some key sectors.

## 4. Challenges of Green Taxes in India

- I. Inflationary Effect: Green taxation system may have a tendency to increase the inflationary pressure in an economy. Green taxes are imposed on industries or businesses which increases their costs, potentially leading to increased prices in the economy.
- II. Diversion of funds: The funds generated through green taxation often face diversion or underutilization. This may happen by not investing for the purposes it was imposed.
- III. Competitiveness Impact: Green taxes create additional costs on producers or businesses which may affect their competitiveness.

IV. Provision of goods: In India, the revenue generated from these taxes are dispersed for environmental public goods to address environmental pollution. But the provision of environmental public goods may face challenges while utilizing it through green taxes. This may also happen due to the lack of a unified legal framework in the country, policy inconsistencies and diversion or non-utilization of collected funds.

V. Better Target: environmental taxes in India can focus on energy sector by taxing fuels, transport sector, and waste generation for better targeting. But this may face problems as there is no provision of uniform green taxation system in India.

VI. Environmental-Fiscal Reforms: Environmental taxes in India can be integrated into Goods and Services tax frameworks as suggested by Madras School of Economics. But this can be challenge due to complexity of administration, difficulty in defining green standards, can create tax burden on small businesses and there may be evasion of tax.

VII. Difficulty in setting an optimal tax rate: There exists a challenge for the government to set an optimal tax rate for environmental damages on the industries. If the tax rate is high, it will negatively affect the low-income groups and if the tax rate is very low, then the tax will not be able to have any behavioral impact upon the industries.

VIII. Higher costs: Extensive data about emission of firms and abatement costs is needed by the regulatory agencies to implement the green taxes efficiently. The collection of data and information of industries emission level involve higher administrative costs and complexity.

IX. Unintended consequences in the society: If green taxes are not properly implemented, a high green taxation may create some unintended circumstances in the society like potential for increased black-market activities, unsafe alternatives etc.

X. Public awareness and acceptance: An effective and successful implementation of green tax regime needs awareness and acceptance on the part of the masses. In India, common people lack knowledge about green taxation as what is it or why this is needed and so low acceptance rate.

## **5. Drawbacks of Green Taxation**

I. Regressive Impact on Low-Income Households: Green taxes on essential household goods such as on fuels and energy can create burden on the lower income groups. As lower income groups spend a portion of their income on these commodities, without the provision of proper subsidy mechanisms for the lower income groups, green tax will exacerbate the economic inequality in the society.

II. Increased costs for Industries: When green taxes are imposed on industries, the operational and production costs of industries increased. Which exacerbates industries overall costs. This may lead to loss of jobs of workers in manufacturing sector and in mining industries too.

III. Loss of Competitiveness: If Indian Government imposes strict green taxes and other countries don't, then domestic industries will lose competitive edge in the international market. All these can lead to Carbon Leakage where industries will try to find regions with lower green tax or environmental tax regime.

IV. Energy Poverty: When taxes on energy are imposed, the costs of energy increase which ultimately exacerbate energy poverty. All these lead to difficulty for lower income groups to afford their basic energy and transportation.

## **6. Recommendations for Improving Green Taxation in India**

I. To enhance compliance, India should develop a transparent and streamlined administration system.

II. Public awareness campaign should be organized by the governments to show the linkage between green tax contributions to environmental benefits.

III. The revenue generated through green taxation should be exclusively utilized for environmental projects with visible outcomes to build trust within the society.

IV. In policy formulation and implementation, integrated stakeholder engagement is necessary.

V. A uniform national legal framework for green tax mechanism is the need of the hour for Indian economy.

VI. For long run achievement with sustainability throughout the economy or across the nation, there is a need for the provision of environmental education from the basic education level in schools, which should focus not only in classroom education but in the acceptance of environmental pollution through means of human activities for economic gains and with some practical solution for future.

## **6. Conclusion**

Green tax policies have become a essential equipment for developed nations in carbon emissions and development of renewable energy sources. All these push the path of sustainable development in these countries. Developed nations are the road maker in this sense. The concept emerged there and they showed the world that green taxation can be the strongest tool to reduce carbon emission for environmental sustainability. By taking steps framed and guided by these developed nations, developing countries are also trying to impose green tax in their economies. Studies revealed that although developing nations are trying their best to combat air pollution through reduction of carbon emission, the successful implementation and attainment and achievement of this goal is still a dream for them. The two highly developing nations like China and India are also not excluded from this process. According to WHO report, India has 13 out of the 20 most polluted cities in the world. Here, it is also important to note that China is in an unenviable position of being the world's largest carbon emitter at 8320 MT, which is followed by US at 5610 MT and India at 5164 MT. India has imposed and implemented various pollution control Act and green tax policies. But success is far away from reality. Being a developing nation

and a vast nation with different states, as perspectives are different across the nation, green taxes are not successfully working. The first drawback comes from the governments as there is no uniform legal framework and no strict laws and regulations working in the country for this specific purpose. The different states are imposing different rates. The second disadvantage is the lack of awareness among masses. Thirdly, there is no provision of subjects like developing civic senses in school levels which shows our lack of knowledge regarding environmental pollution. The future success in this regard as in the case of India depends on the improvement of uniform legal framework with strict laws and regulations and implementing best practices of the green taxes across the nation.

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