

ENVIRONMENT MANAGEMENT: GREEN TAXES

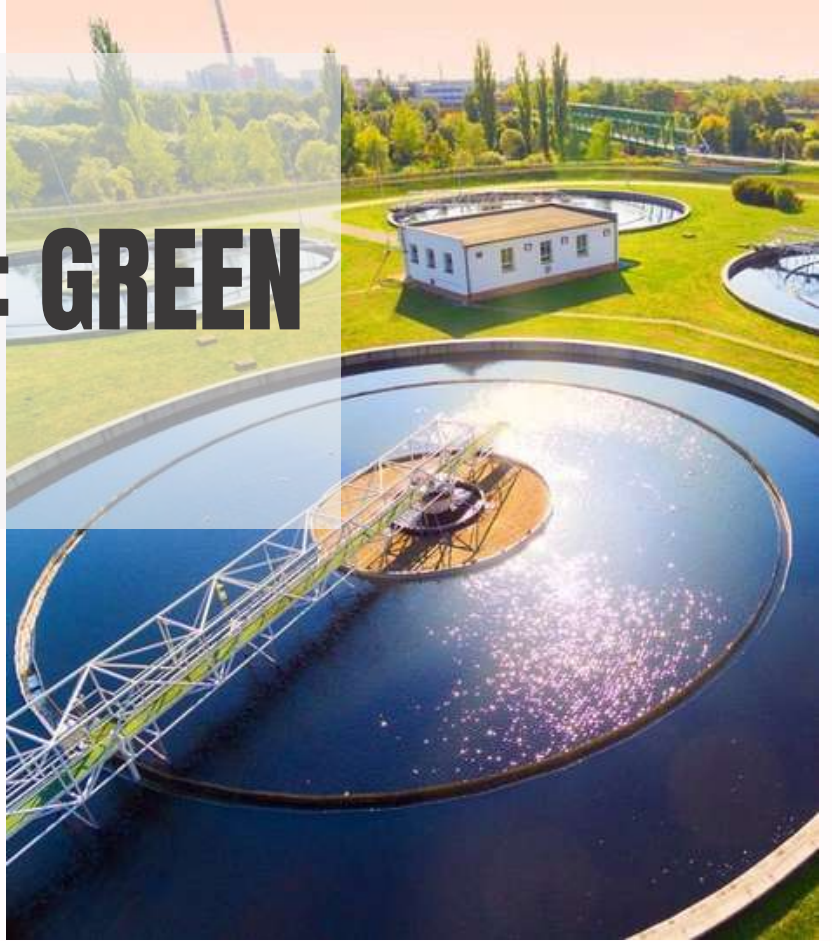
Semanti Deb,
USEM, USEM, Guru Govind Singh
Indraprastha University, New Delhi

WHAT ARE GREEN TAXES?

International bodies such as the International Monetary Fund and environmental organizations support the idea that environmental taxation, also known as green taxes or eco-taxes, is an effective approach to combat climate change.

These taxes are imposed on activities that harm the environment, with the tax base being a physical unit or similar measure of the specific environmental impact. For example, a carbon tax penalizes industries and organizations that emit harmful carbon dioxide gas. Proponents of green taxes highlight their effectiveness in reducing pollution, generating government revenue, and fostering the development of green technologies. However, critics raise concerns about the increased costs for certain industries and the lack of standardized definitions and implementations for such taxes.

The push for direct green taxes emerged during the 1970s as environmental issues became more prominent in public awareness. However, the challenge of dealing with industries that heavily relied on fossil fuels hindered governments from implementing comprehensive measures against pollution. Green taxes encompass various forms, such as carbon taxes, noise taxes, and fuel efficiency taxes, to name a few.



The "polluter pay principle" is a concept that advocates for the idea that those who cause pollution should bear the costs associated with it. In the context of green taxes, this principle implies that the costs of environmental damage caused by certain activities should be reflected in the prices of the goods and services produced by the polluters. Green taxes are a way to implement the polluter pay principle by imposing taxes on activities that pollute or harm the environment. By levying these taxes, the aim is to incentivize polluters to reduce their harmful emissions and encourage the adoption of cleaner and more sustainable practices. The revenue generated from these taxes can also be used to mitigate the environmental impact or invest in environmental initiatives. Overall, the polluter pay principle serves as a guiding principle for the design and implementation of green taxes, ensuring that those responsible for environmental damage take responsibility and contribute to environmental protection.

These taxes aim to make polluters financially accountable for the negative impacts they generate.

By paying taxes proportional to the level of pollution they cause, companies and industries are expected to internalize the costs associated with the harm they inflict on their surroundings. However, green taxes can lead to increased production costs for these industries. The concept of green taxes originated in Finland in 1990, with the proposal of a carbon tax, followed by Sweden and Denmark. Currently, 16 European countries impose a carbon tax on polluting industries. Some countries, like France, have expanded the scope of green taxes to include other forms of pollution, such as noise pollution, by implementing a noise tax on airport operators. Green taxes can be applied to various types of pollution and industries, including air pollution, waste management, energy production, mining, and noise pollution.

BENEFITS OF ENVIRONMENTAL TAXES:

One of the advantages of green taxes is that they provide incentives for investment in alternative technologies. As green taxes make conventional fossil fuel technologies less economically viable for both producers and consumers, it creates a financial incentive to explore and adopt alternative, more environmentally friendly technologies.

This shift towards cleaner and more sustainable technologies can lead to advancements in renewable energy, energy efficiency, and other green solutions. Ultimately, this promotes innovation and supports the transition to a greener and more sustainable economy. Additionally, these taxes generate revenue for governments, enabling them to reduce other taxes and invest in environmental initiatives. Green taxes have several advantages. They incentivize individuals and corporations to adopt sustainable practices and reduce pollution, facilitating the transition to a renewable energy-driven green economy. Finland has successfully reduced its per capita carbon dioxide emissions over the years. Carbon taxes have become a significant and growing revenue source for governments globally, particularly in developing nations. In the European Union, the energy sector and transportation industry are the main contributors to green tax collections. The revenue generated from green taxes can be used to fund social welfare programs, with many countries utilizing the proceeds from carbon taxes to support initiatives aimed at assisting economically disadvantaged segments of society.



Figure 1(Source: OECD: Online)

ON WHAT ARE ENVIRONMENTAL TAXES APPLIED:

Green taxes are applied to various activities and industries that contribute to pollution. These include emissions from combustion vehicles, such as nitrogen monoxide (NO) and nitrogen dioxide (NO₂). The combustion of petroleum and coal, which results in sulfur dioxide (SO₂) emissions and contributes to acid rain, is another target of green taxes. Waste management practices, noise pollution from aircraft, and the use and combustion of energy products like petrol, diesel, natural gas, and coal, leading to carbon dioxide (CO₂) emissions, are also subject to green taxes. Additionally, green taxes can be applied to address water pollution caused by pesticides, artificial fertilizers, and acidic substances. Activities involving earth manipulation and the extraction of natural resources are further areas targeted for green taxes. Lastly, the emission of CO₂ and the use of ozone-depleting products, as well as transportation activities such as vehicle registration, usage, import, or sales, are also included in the scope of green taxes.

According to EU data, energy taxes always had the largest share among transport and pollution and resource use taxes.

By country and %GDP, Greece has the highest collection of environmental tax.

Countries like the United States generally have minimal or no carbon taxes in place, whereas in Sweden and Finland, carbon taxes serve as the primary source of green taxes.

This is used to absorb contaminants from polluted sites. It converts them into volatile compounds. Phytovolatilization uses plants for contaminants like mercury (Hg).

GREEN TAXES IN INDIA:

Green taxes in India have become increasingly important in balancing economic growth and environmental sustainability.

The Goods and Services Tax (GST) includes a specific cess on environmentally harmful products like coal, encouraging the use of cleaner alternatives. The Clean Energy Cess is imposed on coal extraction and production, with the revenue supporting renewable energy projects. The Swachh Bharat Cess funds sanitation and waste management initiatives. Additionally, a green tax on fossil fuel-based vehicles and reduced taxes on electric vehicles promote cleaner transportation and reduce carbon emissions.

DRAWBACKS OF GREEN TAXES:

The lack of standardized definitions for green taxes has led to inconsistent implementation practices, as seen in the varied approaches taken by different countries when implementing carbon taxes. For instance, while the United States emitted four times more CO₂ than Sweden in 2016, it currently does not have a carbon tax in place. Developing countries like India and China face a complex challenge as they balance economic development with environmental concerns. Due to their reliance on coal as a primary energy source, green taxes in these countries often undergo compromises to avoid hindering industrial growth, resulting in diluted penalties for the industry. Green taxes can increase manufacturing costs, leading to higher product prices, as companies pass on the tax burden associated with fossil fuel reliance to customers. Such price hikes disproportionately affect individuals with lower incomes and can have a significant impact on social welfare initiatives. For example, Finland's carbon taxes have shown a net negative impact on its social welfare spending, with an estimated loss of approximately \$3.5 billion if these taxes were applied to welfare programs.

Environmental taxation is widely recognized as a crucial factor in mitigating the effects of climate change.

Environmental taxes, 2019

(% of total revenue from taxes and social contributions)



Figure 3 Environmental taxes (Source: EU_Eurostat: Online)

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INTERESTING FACTS

Fact 1: Cows ‘destroy’ the environment. Each cow can release between 200 and 400 pounds of methane gas through burps and farts each year. These levels are very high and are twenty-times more powerful than carbon dioxide gas. It has actually led a French company called Valorex SAS to try and convince farmers to feed their cows with alfalfa and flax seeds, which resulted in 25% less methane gas released through flatulence.

Fact 2: The earth has a lot of water. About 71% of the planet’s surface constitutes water. The interesting this is that the amount of water is constant and is recycled throughout. It, therefore, means some of the water you drink today, at one point in the past may have passed through some of the extinct species or even a dinosaur!

Fact 3: Humans use only 1% of all available water. As already mentioned, about 71% of the earth is water. The oceans hold approximately 96.5% of all the water on earth, and the ice caps hold about 2%. The remaining exists in rivers, ponds, glaciers, ice caps, lakes, as water vapor and our taps, among other water bodies. Interestingly, only 1% of all that water can be used by human beings