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“Achieving SDGs (Sustainable Development Goals) in line with the 2030 United Nations agenda."

Committee: Economic and Social Council (ECOSOC)
Agenda Item: The Economic Impact of Environmental Tax Incentives
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Introduction

The issue of environmental degradation and the continued promotion of economic growth has become one of the main challenges within the global policy agenda. Environmental tax incentives have become one of the main instruments within the policy and regulatory framework. As governments work towards reducing environmental degradation and enhancing positive

behavioral changes within the production process towards sustainability, the use of tax incentives and rates within the context of environmental policy has become common.

The effects of environmental tax incentives can be extensive from an economic perspective. On the positive side, properly structured and planned incentives can help promote and facilitate technological innovation and expand employment opportunities in new sectors. They can also create public revenues that can be used to fund new spending programs or to cut distortionary taxes in other sectors of the economy. But when incentives are not properly structured, they can result in revenue inefficiencies, distortions, and adverse effects on societal welfare.

In the global arena, there has been increasing acknowledgment from institutions and countries of the importance and usage of environmental tax incentives in achieving sustainable development goals. International and local frameworks have shown the importance and challenges surrounding the usage and application of such incentives on matters affecting competitiveness, carbon leakage, and sustainable taxation frameworks and policies. It should be noted that economies are not similar and often vary in their administrative frameworks and development levels.

The Chair Report will review the economic implications of tax incentives for the environment with case-by-case discussions of the theoretical bases for tax incentives as well as practical applications, as well as the challenges that lie therein. By understanding the economic implications of tax incentives for the environment, the delegation will be better equipped to address the issue of the environment in the context of the global market.

Definition of Significant Terms

Negative Externalities
Costs imposed on society by economic activities that are not reflected in market prices, such as environmental pollution.

Pigouvian
Related to taxes designed to correct negative externalities.

Pigouvian Taxation
A tax imposed on activities that generate negative externalities in order to embrace and accept social and environmental costs.

Distortionary

Referring to taxes that negatively affect economic efficiency by altering market behavior.

Decarbonization
The reduction of carbon intensity in economic activities.

Detailed Background of the Issue

Historical Evolution of Environmental Tax Policies:

Economists have been saying that taxing pollution is an idea since Arthur Pigous work. This is because it helps to account for the costs that pollution has on the environment.Governments began using taxes on the environment in the twentieth century. Finland was the country to introduce a tax on carbon in 1990. Then Sweden introduced a carbon tax in 1991. So did Norway. This showed a change towards using the market to help with climate policy as reported by researchers in 2023.

In the 1990s a lot of countries started to make changes, to their tax systems to help the environment. For example, Germany made some changes in 1999 with their Ecological Tax Reform. They increased taxes on fuel and electricity. They used this money to help cut social taxes as mentioned in the book Towards Sustainable Household Consumption. The European Union created a tax, for landfills in 1996. Then they started a system to trade emissions in 2005. This system is called the European Union Emissions Trading System. It now covers 40 percent of the European Union carbon dioxide emissions. The European Union Emissions Trading System covers a lot of the European Union carbon dioxide emissions. Governments also used taxes to help people use technology. They did this by giving tax incentives to encourage people to use technology and reduce European Union carbon dioxide emissions. The United States started giving money on taxes for solar and wind energy in the 1970s and 1980s. They also gave a 10 percent tax credit, which was up to $4,000 for electric vehicles in 1992.

The United States did this to help people buy vehicles. By the 2000s countries were using many different ways to help the environment. These ways included taxes on carbon and pollution permits that could be traded and money back on taxes or subsidies, for energy and efficiency. The United States and other countries used these tools to help wind energy.

Present-Day Economic Implications in Developed Economies:

Today, a lot of countries that are well developed use taxes that help the environment as part of the money they make, and studies have found that these environmental taxes really make a difference in the money they bring in and the bad things they put out into the air. If we look at OECD data from 2017, we can see that environmental taxes accounted for 2.3 percent of total

revenue in these countries, with the United States at 0.7 percent and Slovenia at 4.5 percent, according to the 2019 Revenue Statistics. More than two-thirds of this revenue comes from taxes on energy use, such as fuel excises and carbon taxes (Share of environmental taxes in total tax revenues in Europe, 2024). Carbon pricing, through taxes and emissions trading systems (ETS), now covers about 26% of global CO_2 emissions. About 6% is covered by direct carbon taxes and 20% by cap-and-trade systems (State and Trends of Carbon Pricing 2025, n.d.).

These fiscal measures have usually achieved their environmental goals without slowing economic growth. For example, Sweden's carbon tax, introduced in 1991 and now about €134 per tonne, helped the country cut greenhouse gas emissions while its economy grew. Today, Sweden puts an explicit price on over 95% of its CO_2 by combining the tax with the EU ETS (you may look at Sweden's carbon tax, 2025). Across Europe, higher fuel and vehicle taxes based on emissions have reduced oil use and encouraged efficiency. The EU ETS has also led to more investment in clean energy as permit prices have risen. In the United States, federal incentives like investment and production tax credits have supported the growth of wind and solar power, even though there is no national carbon tax. Studies show that moderate carbon taxes usually lower emissions by a significant amount, and most economists see them as a cost-effective way to meet climate goals (You may look at Systematic review and meta-analysis of ex-post evaluations on the effectiveness of carbon pricing, 2024). When green tax reforms are revenue-neutral, meaning the money is used to cut other taxes or fund green projects, they can even increase jobs and GDP (you may look at Employment- and growth effects of tax reforms, 2006, pp. 909-925).

Despite these successes, some developed countries have faced challenges. Revenues and prices need to be high enough to change behavior, but most carbon taxes in wealthy countries are still below the levels economists say are needed to meet the Paris targets (You may look at Effective Carbon Rates, 2025). Politically, carbon taxes can be unpopular if they are seen as unfair. For example, France's attempt to raise fuel taxes in 2018 led to mass protests and the cancellation of the tax increase, partly because poorer households spend a larger share of their income on fuel. To address fairness, many governments use environmental tax revenue to provide rebates to low-income households or to reduce other taxes, such as income or payroll taxes, which can create a "double dividend." Well-designed policies can even improve social welfare. For instance, Colombia found that its carbon tax affected higher-income households more than poorer ones (see Ramírez-Hassan & López-Vera, 2021).

Adoption of Incentives in Developing Countries

Emerging and developing economies are starting to use green fiscal tools, but their use is still limited. South Africa introduced a national carbon tax in 2019, covering about 80% of its emissions, with some exemptions for industry (you may look at Carbon Tax Act (Act No. 15/2019), n.d.). Several Latin American countries have also adopted carbon taxes. Mexico

started a fuel carbon tax in 2014, and Chile and Colombia followed with small CO_2 taxes on power or industrial fuels. In many Asian countries, governments prefer targeted tax incentives. For example, Mexico allows companies to write off 100% of renewable energy investments in the first year, which greatly lowers the cost of financing wind and solar projects (You may look at Accelerated Depreciation for Environmental Investment, 2005). In the 1990s, Colombia offered generous tax breaks, such as 26% VAT credits and 20–34% income-tax deductions for companies investing in clean equipment or renewables. Surveys show these incentives helped businesses move toward cleaner technology (mentioned study: The impact of a carbon tax on financial performance and innovation performance: an empirical study of the automotive industry, 2024).

Other examples from developing countries include India's coal tax for a clean environment, Japan's 2012 carbon tax on fuels, and China's pilot trading schemes, which led to a national ETS for power in 2021. Some countries, such as the Philippines, Vietnam, and Mauritius, have expanded sales-tax or duty exemptions for eco-friendly imports or machinery. However, many low- and middle-income countries still provide subsidies for fossil fuels. The IEA reports that global fossil fuel subsidies exceeded $1 trillion in 2022, mostly in emerging economies. According to Fossil Fuels Consumption Subsidies 2022 – Analysis, these subsidies reached a record $1.097 trillion in 2022, more than double the previous year, due to national energy policies and interventions ("Fossil Fuels Consumption Subsidies 2022 – Analysis"). Phasing out these subsidies or turning them into carbon taxes could free up significant government funds. While green tax incentives in developing countries show promise, they still face major challenges. Complex rules can reduce their effectiveness. For example, Colombia found that simple, upfront VAT credits were more appealing to businesses than complicated, multi-year tax deductions (you may look at the Tax Expenditures Report by the Tax Experts Commission, n.d.). Political factors are also important. In 2019, Indonesia canceled a planned carbon tax after industry opposition. Fairness is another concern, but studies show that carbon taxes are often progressive in poorer countries because wealthier households use more fuel and electricity (you may look at: What is the case for carbon taxes in developing countries?, 2021). When designed well, environmental tax incentives can attract new investment, fix market failures, and raise money for sustainable development, such as climate adaptation. As the world aims for net-zero emissions, both developed and developing countries are increasingly seeing carbon taxes and green tax incentives as key economic tools, but these must be supported by social programs and clear regulations to work.

Timeline of Key Events

Date	Description of Event
1970	The U.S. Clean Air Act encouraged cleaner production and later supported environmental tax incentives.
1990	Market-based incentives were expanded to reduce pollution at a lower economic cost with the U.S. Clean Air Act
11 December 1997	The Kyoto Protocol promoted the use of taxes and incentives to cut emissions.
2005	The EU Emissions Trading System introduced economic incentives for emission reduction
12 December 2015	The Paris Agreement encouraged green tax policies and clean-energy investment.
16 August 2022	The U.S. Inflation Reduction Act introduced major tax credits for clean energy.

Major Countries and Organizations Involved

This section should state the perspective of major countries and organizations (such as NGOs).

United States:

The United States uses environmental tax incentives mainly through federal laws like the Inflation Reduction Law (2022) which provides long term tax credits for renewable energy, electric vehicles, battery manufacturing and energy efficient buildings. Although these initiatives have lowered clean energy costs, attracted private investment, and increased domestic manufacturing they have raised concerns on high government spending

European Union:

The European Union applies environmental tax incentives through the EU Emissions Trading System, launched in 2005, which places a price on carbon emissions. Economically, this system encourages firms to reduce emissions in a cost effective way, generates government revenue for green projects, and promotes innovation, but it can increase costs for energy intensive industries.

China:

China uses environmental tax incentives through the Environmental Protection Tax Law implemented in 2018 and large subsidies for renewable energy. These policies helped China become a global leader in solar panels, batteries and electrical vehicles, boosting exports and employment. However there has been some pressure on sectors about overproduction and finance.

Japan:

Environmental tax incentives with the Carbon Tax for Climate Change Mitigation and tax benefits for energy efficient products have been combined by Japan. So that these policies can support technological innovation, reduce energy imports and improve efficiency, but overall Japan's economical impact has been limited due to relatively low tax rates.

United Nations (UN)

The UN promotes environmental tax through international frameworks, one of the most important being the Sustainable Development Goals. These frameworks encourage countries to shift investment towards green industries and reduce long term climate related economic risks even though the UN does not directly set taxes.

OECD

The support done to environmental tax incentives by providing data, analysis and policy recommendations such as reports on effective carbon rates are supported by the OECD. This guidance helps governments design tax systems that reduce pollution efficiently while protecting economic income.

World Bank

The World Bank sets carbon pricing initiatives and fuel subsidy reforms especially in developing countries in order to support environmental tax incentives. Causing the increase in public revenue, reduction in inefficient spending and supporting sustainable investments, although they may raise prices if not carefully managed.

Previous Attempts to Solve the Issue

Since the late 20th century, governments have increasingly turned to environmental tax incentives as a policy tool to address environmental degradation while limiting negative economic impacts. Early approaches focused on controlling regulations, which slowed economic activities. As a result, policymakers started looking at market-based tools to deal with environmental problems more effectively.

One of the earliest and most significant developments was the introduction of carbon and energy taxes in several European countries during the 1990s. These taxes aimed to internalize environmental costs by placing a price on pollution while encouraging cleaner production methods. Countries such as Sweden and Denmark paired environmental taxes with reductions in labor or income taxes. This approach proved that environmental taxation could exist together with economic growth when designed carefully.

At the international level, institutions such as the IMF, OECD, and UNEP promoted Environmental Fiscal Reform as a way to align fiscal policy with sustainable development goals. These reforms emphasized the use of tax incentives to promote green investments and innovations. Over time, evidence suggested that well-targeted incentives could crowd in private investment, support technological development, and create employment opportunities without significantly harming economic growth.

However, past solutions have also revealed important limitations. In some cases, poorly designed tax incentives led to profit losses. Additionally, the inconsistent adoption of environmental taxes across countries contributed to concerns over competitiveness and carbon leakage. Despite these challenges, existing solutions have laid the foundation for current policy frameworks by demonstrating that environmental tax incentives can be an effective economic tool when combined with earning recycling and international coordination.

Alternative Solutions

Challenges identified in the past are mostly concerning the application of environmental taxes. Governments and international bodies began to search for different methods of enhancing the economic efficiency of tax incentives in the area of climate change. It was not enough to pursue a standardized carbon taxation approach, but it had to be differentiated based on sectoral circumstances, especially in the case of energy-intensive sectors.

Another suggested response to the issue would be to ensure greater effectiveness of revenue recycling policies as a means of tackling issues related to distributional impact. Using taxes related to the environment to fund social protection measures, cuts in working taxes, and other subsidies for poorer people can help offset such negative effects and improve their acceptability. This would enable environmental tax incentives to serve as instruments of economic policy as well as environmental policy tools.

There is also the issue of international coordination, which is emerging as another alternative to unilateral approaches to tax policies. There is a need to ensure conformity in the carbon pricing mechanisms and best practices offered by institutions such as the OECD and UN. There also

arises the concept of border adjustment mechanisms in relation to tax policies and environmental integrity.

Useful Links

https://www.unep.org/topics/finance-and-economic-transformations/transforming-economies/public-finance-and-fiscal?utm_source

https://financing.desa.un.org/what-we-do/ECOSOC/tax-committee/thematic-areas/environmental-taxation?utm_source=

https://www.oecd.org/en/topics/environmental-policies-and-evaluation.html

https://www.worldbank.org/en/programs/the-global-tax-program/environmental-taxes?utm_source

https://documents1.worldbank.org/curated/en/961431636143370523/pdf/Fiscal-Incentives-for-Green-Private-Investment.pdf?utm_source

https://carbonpricingdashboard.worldbank.org/ Karbon Fiyatlandırma Panosu

https://ourworldindata.org/carbon-pricing Our World in Data

https://ourworldindata.org/how-much-subsidies-fossil-fuels Our World in Data

https://www.oecd.org/en/topics/tax-and-the-environment.html OECD

https://www.oecd.org/en/data/indicators/environmental-tax.html OECD

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United Nations Department of Economic and Social Affairs. *Environmental Taxation*. United Nations, financing.desa.un.org/what-we-do/ECOSOC/tax-committee/thematic-areas/environmental-taxation.

Organisation for Economic Co-operation and Development. *Effective Carbon Rates*. OECD, www.oecd.org/environment/tools-evaluation/effective-carbon-rates.htm.

World Bank. *Environmental Taxes*. World Bank Group, www.worldbank.org/en/programs/the-global-tax-program/environmental-taxes.

Inflation Reduction Act (Clean Energy Tax Incentives)
https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/

EU Emissions Trading System
https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets_en

Environmental Protection Tax Law
https://www.chinatax.gov.cn/eng/c101280/c101287/

Carbon Tax for Climate Change Mitigation
https://www.env.go.jp/en/policy/tax/

Paris Agreement
https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement