

Prospects of Green Tax Instruments in Uzbekistan And Their Influence on The Economy

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Abstract: Environmental taxation plays a pivotal role in addressing environmental challenges by incentivizing sustainable behavior and discouraging detrimental practices. Governments worldwide are increasingly adopting environmental taxes as a means to mitigate climate change effects, pollution, and resource depletion. These levies internalize the environmental costs associated with consumption and production, thereby prompting individuals and enterprises to opt for eco-friendly alternatives. Moreover, they yield revenue that can be allocated to environmental conservation endeavors or ameliorating the societal ramifications of transitioning to a more environmentally conscious economy. Consequently, environmental taxes are instrumental in fostering a sustainable and equitable trajectory for the future.

Keywords: Green economy, globalization, green tax instruments, water, transport, energy, resources, carbon emissions, excise tax.

1. INTRODUCTION.

As per Decree No. PF-158 dated 11.09.2023 issued by the President of the Republic of Uzbekistan, underscored in the "UZBEKISTAN - 2030" Strategy, the prioritization of fiscal stability and efficient management of state obligations stands as a cornerstone of Uzbekistan's political agenda. Addressing the imperative of broadening the tax base through the curtailment of the informal economy and enhancing the efficacy of tax administration systems by bolstering marking and digitalization mechanisms emerges as a pivotal endeavor.

Aligned with Presidential Decree No. PQ-171 dated 31.05.2023, effective from January 1, 2024, within ecologically sensitive regions, the establishment and operation of sanitary-hygiene facilities according to model projects outlined by the Ministry and the Ministry of Construction and Housing and Communal Economy are subject to a noteworthy incentive. Notably, 75 percent of the profit tax, land tax, and property tax remitted by corporate entities engaged in such endeavors will be reimbursed from relevant budgets. Moreover, there is a discernible emphasis on enacting a legislative framework conducive to the incorporation of "green economy" and "green financing" mechanisms, alongside the integration of environmental, social, and corporate governance (ESG) principles into national legislation, with active involvement from domestic and international experts.

Furthermore, proposals have been advanced for the establishment of a legal framework introducing a "green tariff" scheme applicable to electricity generated through household waste disposal and biogas processing within the country. This initiative entails the recognition of electricity derived from household waste disposal as a form of renewable energy, alongside the implementation of a "green tariff" for electricity sourced from renewable energy outlets and generated through household waste disposal and biogas processing. To this end, envisaging the formulation of a draft law mandating the guaranteed purchase of electricity under the "green tariff" for an extended duration, not less than the project's lifespan, is deemed imperative.

In line with Cabinet of Ministers Decision No. 375 dated June 15, 2017, and subsequent Decision No. 666 dated November 23, 2022, compensation payments related to environmental pollution and waste disposal, as well as fines and penalties levied on individuals and entities for breaches of environmental legislation, are channeled to the Ministry of Ecology's fund, which operates independently from the state budget.

To establish infrastructure for the regulation of greenhouse gas emissions during the period of 2022-2026, collaborative efforts are underway among the State Committee for Ecology and Environmental Protection, the Ministry of Energy, the Ministry of Finance, the Hydrometeorological Service Center, and other relevant ministries and agencies. A key objective entails the development and submission of the draft law "On Limitation of Greenhouse Gas Emissions of the Republic of Uzbekistan" to the Cabinet of Ministers, scheduled for completion between January 2022 and May 2026.

Furthermore, the State Committee for Ecology and Environmental Protection, in conjunction with the Ministry of Economic Development and Poverty Alleviation and the Ministry of Housing and Communal Services, has been tasked with implementing the "polluter pays" principle by July 1, 2023. This initiative involves drafting regulatory

legislation to facilitate direct imposition and enhancement of pollution fees, encompassing an augmented collection rate for pollution and an expanded roster of pollutants. Substantial progress has been made in this regard through ongoing initiatives.

2. LITERATURE REVIEW

This study delves into the significance of environmental or green taxes within the economic framework. Global deliberations persist regarding the adoption of environmental taxes and levies owing to their cost-efficient nature in mitigating environmental repercussions. Nonetheless, these fiscal measures may occasionally exert a disproportionate burden on low-income households, rendering them politically contentious and socially inequitable.

3. ANALYSIS AND RESULTS

The analysis concentrates on environmental taxes or levies targeting four primary domains: household energy consumption, water usage, transportation, and household waste production.

Within the realm of "Environmental Taxes and Fees," three distinct categories emerge:

a) Upstream charges for resource use or environmental emissions: These levies are imposed early in the production process, such as those levied on entities like oil refineries or energy producers.

b) Downstream charges for resource use: These charges are transferred to the end consumer, notably households, as extensively discussed within this discourse.

c) Downstream charges for environmental emissions: This category targets emissions stemming from final consumer activities.

The delineation between these various types of environmental taxes and levies holds significance as it dictates their impact on behavioral patterns. Economic instruments operate through two primary mechanisms: firstly, they can prompt a reduction in the overall consumption of a designated commodity, or alternatively, they can incentivize a transition from environmentally detrimental variants of the commodity to less harmful alternatives. Behavioral shifts can manifest both upstream and downstream, with reductions in consumption predominantly observed downstream.

Table 1 below provides examples of potential environmental taxes and levies for the four areas considered. It should be noted here that not all theoretical options for environmental taxes can be implemented. For example, it is not appropriate to charge households for water waste, because there is no acceptable way to identify and measure this waste for all households.

Table 1. Classification of potential environmental taxes and fees.

	HIGH FLOW RATE OR ENVIRONMENTAL EMISSIONS AT THE RESOURCE	DOWNSTREAM USE OF RESOURCES	DOWNSTREAM ENVIRONMENTAL EMISSIONS
ENERGY	A carbon tax on primary energy	Energy tax	Differentiated energy tax on fuel carbon content
WATER	Payments on abstractions or emissions by water utilities	Calculated water payments	Not allowed
TRANSPORTATION	A carbon tax on oil manufacturers	Fuel tax	Fuel tax or car excise tax is different from emissions
WASTE	Waste tax	Volumetric waste charges	Fees for waste distribution

Impact and Importance of Environmental Taxes and Fees:

Downstream consumers respond to upstream environmental charges primarily by curtailing their consumption of goods that become costlier due to these charges. If the environmental damage correlates directly with this consumption, it yields environmental benefits.

Three primary facets delineate the potential impact of an environmental tax or levy, particularly concerning its ramifications for low-income households and their potential responses:

1. **Incremental Cost:** Imposing a tax or fee escalates the cost of a unit of resource (e.g., by 20 percent per unit of energy), thus fostering a robust incentive for resource conservation. While forecasting the extent to which consumers will curtail their resource usage in response to these fiscal measures poses challenges, this report engages in relevant discussions. However, financial impact modeling typically assumes consumers maintain their resource consumption levels, representing a worst-case scenario in terms of financial ramifications despite the unrealistic nature of this assumption. Consumers have the potential to mitigate impacts by reducing their resource consumption.
2. **Impact on Low-Income Consumers:** Low-income consumers may already limit their utilization of essential resources, such as energy, to economize, sometimes at the expense of their well-being. Environmental taxes further incentivize this behavior, potentially conserving energy but at an unacceptable social cost. In such instances, it becomes imperative to explore avenues for enhancing consumption efficiency, ensuring that service quality is upheld or enhanced using fewer resources. For instance, the report scrutinizes incentives aimed at bolstering home insulation.
3. **Social and Economic Considerations:** It is paramount to contemplate the broader social and economic repercussions of environmental taxes and levies. While these measures target mitigating environmental degradation, their design must not exacerbate social disparities or impose undue hardship on vulnerable demographics. In addition to economic efficiency, carbon taxes raise important political considerations regarding their distributional impact.

A major concern centers around the regressive nature of environmental taxation, with the tax burden expected to disproportionately affect low-income households. Scientist Fullerton identifies six distributive effects arising from the carbon permit system, which are shown as follows [1] .

1. Scholar Fullerton introduces the concept of the "use-side" and "source-side" phenomena in environmental taxation. The "use-side" phenomenon pertains to the distributional impact of an environmental tax via alterations in the prices of goods. Typically, this results in a regressive effect, wherein the burden disproportionately affects lower-income individuals [2] .
2. In the context of environmental taxation, a "source-side event" denotes the distributional impact arising from changes in factor prices. For instance, if capital serves as the primary source of income for affluent households, while poorer households rely on labor income, capital-intensive industries involved in pollution may experience a progressive effect. However, it's important to note that under specific conditions, a source-side event can also exhibit regressive characteristics.
3. "Scarcity rent" emerges when the production of polluting goods diminishes, resulting in an increase in their value. If the government enforces a pollution tax or auctions permits, these rents manifest as elevated revenue. Conversely, if polluting firms restrict the quantity of goods they sell, they accrue scarcity rents.
4. Enhancements in environmental quality resulting from climate policies can yield diverse distributional effects. For instance, reductions in global warming can be particularly advantageous for the poorest nations, as they may experience amplified agricultural productivity, particularly in regions prone to high temperatures.
5. In practical economic contexts, factors of production often lack complete mobility across industries, giving rise to substantial adjustment costs during reallocation. For instance, environmental tax reforms might exert a detrimental influence on employment, necessitating the contemplation of adjustment costs stemming from environmental policies.

"Capitalization effects" refer to the phenomenon where environmental enhancements, such as improved air quality, may not directly advantage low-income renters. Instead, they could result in elevated rents for property owners.

The influence of pollution and the substitution of production factors extends beyond the economic efficiency of

environmental tax reforms, significantly impacting income distribution as well. Fullerton and Heutel undertake an examination of the distributional effects of environmental taxes, employing a direct general equilibrium model pioneered by Harberger. [2] .

The main conclusions are as follows:

- i. The implementation of a carbon tax typically results in an increase in wages relative to the return on capital, particularly in scenarios where there is a higher degree of substitutability between labor and pollution compared to between capital and pollution, or if the polluting sector exhibits a surplus of capital. This suggests that the "substitution effect" places a lighter tax burden on factors that can be readily substituted by pollution, while the "exit effect" imposes a heavier tax burden on factors extensively utilized in the polluting sector. [3] .
- ii. Sensitivity analyses indicate that the impacts of substitution elasticities between pollution, capital, and labor outweigh the effects of factor intensity. In a comprehensive review of empirical studies on the distributional consequences of environmental taxes, Ekins and colleagues find that such taxes typically exhibit a regressive effect on households. Specifically, taxes on total household energy consumption tend to display a pronounced regressive tendency, although taxes on petroleum products may occasionally demonstrate a progressive effect due to the limited car ownership among low-income households. Despite the regressive nature of environmental taxes, simulation outcomes suggest that environmental tax reforms in Europe lead to augmented real incomes and generally do not exacerbate income inequality. [4] .

Furthermore, American researchers West and Williams conduct an examination of the distributional impacts associated with the gasoline tax. Their findings suggest that without reinvestment of revenues, a gasoline tax would exhibit regressive tendencies. However, the regressivity of such a tax could be significantly alleviated if the generated revenues were redirected through reductions in labor taxes. Moreover, it is posited that the tax could potentially even become progressive if the revenues from the gasoline tax were distributed to households as a lump sum. Olime Metcalf contends that while an environmental tax may initially have regressive consequences, the introduction of environmental tax reform has the potential to foster progressivity contingent upon the redistribution of revenues. [5] .

4. SUMMARY

In conclusion, the typically observed regressivity associated with environmental taxes and fees can be alleviated through strategic tariff/fee structures or targeted compensation programs. However, within any given income bracket, the consumption of essential environmental resources tends to hover around the average. Consequently, under practical compensation systems (assuming no alterations in household behavior), while the majority of low-income households may benefit notably, there will inevitably be some low-income households that experience a net loss.

For each of the four environmental domains considered—energy, water, transportation, and domestic waste utilization—the distributional implications of various fee or taxation systems and the methods for mitigating or eradicating regressivity are distinct. The correlation between the utilization of environmental resources and income remains relatively weak. This relationship is virtually non-existent concerning waste generation and minimal in the contexts of water and energy consumption. Although more pronounced for transportation, many low-income households, particularly in rural areas, possess vehicles. This underscores the necessity for environmental taxes and fees to consistently account for and offset their impact on low-income households to prevent regressive outcomes.

While the issue of mean regressivity can be addressed through adept tariff/fee design or targeted compensation initiatives, some low-income households may still face potential disadvantages. Providing compensation to resource-intensive households would necessitate a predefined threshold level, which could pose administrative challenges or entail substantial income redistribution among deciles, potentially sparking political contention.

REFERENCES

- [1] P. Ekins and S. Dresner, "Green taxes and charges: Reducing their impact on low-income households."
- [2] LH Goulder, MAC Hafstead, GR Kim, and X. Long, "Impacts of a carbon tax across US household income groups: What are the equity-efficiency trade-offs?," *J. Public Econ.* , vol. 175, pp. 44–64, 2019, doi: 10.1016/j.jpubeco.2019.04.002.
- [3] PB Brito, "Optimal taxation : Chamley-Judd-Ramsey taxation model," pp. 2018–2019, 2019.
- [4] S. Withana, P. Ten Brink, A. Illes, S. Nanni, and E. Watkins, "Environmental Tax Reform in Europe: Opportunities for the future Final report Report for: The Netherlands Ministry of Infrastructure and the Environment," no. May, 2014, [Online]. Available: www.ieep.eu

- [5] IWH Parry, J. Norregaard, and D. Heine, "Environmental Tax Reform: Principles from Theory and Practice to Date," IMF Work. Pap. , vol. 12, no. 180, p. 1, 2012, doi: 10.5089/9781475505283.001.