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Green Taxes and Their Role in Shaping Sustainable Consumption

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Abstract

This paper looks into the awareness & attitude of the public for green tax as an instrument to popularize the concepts of circular economy and sustainable development in Bangalore. Environmental tax is a double edged sword, it discourages environmentally harmful activities and it encourages environmentally friendly consumption and production habits. 101 respondents were selected and data were collected through a questionnaire that collected the demographic profile, green tax awareness and green tax effectiveness attitude of the selected respondents. The findings indicate that there was a lot of variation in awareness and acceptance, and that respondents generally believed that there was a potential to reduce pollution with these taxes, but there were significant concerns about the long-term economic impact of these taxes. Chi-square tests and one-way ANOVA (Welch's) were used to investigate the relationship between green tax awareness and consumer behavior, customer purchases and long-term environment. The study reveals a significant gap in public awareness and in the communication structure available for this, highlighting the need for policy makers to be able to use the green taxes as a tool to promote sustainable consumption in the context of a circular economy.

Keywords: Environment tax, Green tax policy, Public Perception, Social equity, Sustainable behaviours

Introduction

The world has faced a series of environmental problems, such as climate change, air pollution, and rapid consumption of natural resources, which has added pressure to the governments and the policymakers to find out the effective routes for sustainable development. At a more general level, sustainable development involves creating a delicate balance between economic development, environmental protection and social equity, so as to satisfy both the needs of the present and the future generations. (World Commission on Environment and Development,

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1987). Green taxes, as a policy instrument in this context, have become a key policy instrument in the process of internalizing the external costs of pollution and resource over-consumption.

In general, green taxes or environmental or eco-taxes, are tax levies on the goods, services or the activities that produce detrimental side effects, like carbon emissions, solid waste or water pollution. These levies are intended to incentivize behavioral change, both in production and in consumption, toward more sustainable options, by making costs of environmentally harmful activities more expensive. (Mahapatra, 2013). The logic behind this, as explained by Nobanee and Ullah (2023), is that the price of environmental damage should be factored into economic decisions, which can encourage significant decreases in environmental harm and bring about a better environment. Making sense of citizens' experiences of these fiscal tools is a key step in formulating effective and acceptable policies in fast-developing cities such as Bangalore in India.

2. Review of Literature

The design, implementation and socioeconomic effects of green taxation have been explored by a growing international literatures. The following research studies are important to the current research.

A. **Environmental Taxes in European Economies:** Huttmanová and Mikča (2024) Compared the environment tax instruments implemented in EU countries, in accordance with the European Union’s medium- and long-term sustainability priorities. They conclude that these taxes must not only be well designed, but also well understood in the context of different countries and various country-specific applications, such as in the context of 2030 Sustainable Development Goals.

B. **Millennial and Gen Z Perceptions:** Giridhar (2024) To examine the Environment Tax Literacy of Millennials and Generation Z, a mixed methods research design, which included qualitative interviews and quantitative survey instruments, was used. The study investigated their level of awareness of green taxation, their perceptions of effectiveness in achieving sustainable development, and the factors influencing their pro or anti perspectives. The study offers policy-relevant recommendations to improve acceptance of younger audiences.

C. **Green Investment and Fiscal Policy Linkages:** Yan, Qamruzzaman, and Kor (2023) examined clean energy consumption in Cambodia from 1990 to 2021 and its impact on green investment, fiscal policy, environmental taxes, energy prices, and natural resources. The study shows the role fiscal instruments and environmental taxes can play to encourage the use of renewable energy by drawing investment and by capturing the external impacts of polluting activities. It also covers the role, variability of energy prices, resource rents in this transition and its implications to achieve economic.

D. **Green Taxes and Economic Development:** Siregar and Rahman (2024) position green taxes in the broader perspective of the green economy, by examining the rationale. They place green tax in the scope of green economy and examine the logic.The study concludes from the case studies from the countries that have a green tax system in place that green tax

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can act as a catalyst to sustainable economic growth while providing a balance of development and conservation of the environment.

E. **Industrial Green Transformation in China:** Shen (2022) Based on the panel data of 2004–2020, this study used the Slack based measure-Global Malmquist Luenberger index and the two-way fixed-effects model and instrumental variable technique to examine the effect on industrial green transformation under the influence of environmental taxes in China. The findings showed that a broad interpretation of environmental taxation has a positive impact on green industrial transformation. These key transmission channels encompass credit governance, concentration of producer services and co-agglomeration with manufacturing activities, in particular, and credit governance is found to be a most important channel for combating pollution, mobilizing green investment and enhancing production processes.

F. **Innovation and Performance Effects:** Wang and Zhu (2022) Compared effect of the environment tax reforms in China (2016–2020) on polluting industries by adopting the difference-in-differences method. Despite the problems of financial constraints to green infrastructure improvements and geographical differences in taxes, their analysis shows that environmental taxes provided a considerable boost to both the economy and technological innovation in specific areas. The authors' recommendations include: adjusting tax rates to regional economies; improving enforcement with cutting-edge monitoring technology; and strengthening regulatory mechanisms to achieve best outcomes for sustainability.

G. **Total Factor Productivity and Green Taxation:** Hu (2019) Conducted a review of theoretical and empirical literature on the relationship between "green taxation, pollution control and total factor productivity (TFP)". The study presents the current discussion on the macroeconomic impacts of environmental taxation and suggests a package of policy options, such as calibrated tax burden, industry-differentiated tax rates and flexible tax structures to reconcile environmental goals with an economically sustainable taxation regime.

3. Objectives

The study is guided by the following research objectives:

1. Explore public perception and the possible implementation processes of green taxes.
2. Evaluate the efficacy of different communication channels in spreading information of green tax.
3. Understand perceptions of the respondents on the environment and economic impact of green taxes.
4. Propose evidence-based recommendations to improve the design of green tax policy based on the public interest.

4. Data Source

A. **Primary:** An open ended questionnaire was shred with 101 respondents in Bengaluru Urban District. The instrument is designed to reflect participants' perceptions, awareness levels and views about Green taxes including attributes like awareness, influence on behavior and attitude towards the effectiveness of the policy.

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B. **Secondary Data:** Academic papers, peer-reviewed journals and government reports were examined to provide background to the existing policies frameworks for green tax and their mention in programs for sustainable development in India and globally.

5. Data Analysis

A. Demographic Profile of Respondents: Table I summarizes the demographic distribution of the 101 survey participants across gender, age group, educational attainment, occupational category, and annual income bracket.

Table 1. Demographic Profile of Respondents

Particulars	Category	Frequency	Percent (%)
Gender	Male	50	50.5
	Female	51	49.5
Age	Below 25	22	21.8
	25–34	20	19.8
	35–44	21	20.8
	45–54	21	20.8
	55 and above	17	16.8
Education	High School	10	9.9
	Undergraduate	61	60.4
	Postgraduate	30	29.7
Occupation	Student	24	23.8
	Employed	44	43.6
	Self-employed	22	21.8

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	Retired	11	10.9
Income Level	Below ₹3 Lakh	27	26.7
	₹3–5 Lakh	19	18.8
	₹5–10 Lakh	20	19.8
	Above ₹10 Lakh	35	34.7

This sample is balanced to allow for the analysis to be undertaken in a gender-neutral manner, 50.5% of the respondents being male and 49.5% female. The age distribution is interestingly heterogeneous with persons in five age cohorts.

The groups are divided under the age group of 25-55 years old for easier intergenerational comparisons. Most respondents are undergraduates (60.4%) or post-graduates (29.7%) thus making it a reasonably educated sample. Most of the respondents are employed (43.6%) with a substantial number of respondents (42.3%) being students, and a further 13.4% being in the unemployed category.

The majority, (34.7%) have an income over ₹10 lakh per annum, while the rest are fit into the lower bands income brackets.

The sample is balanced so that the analysis can be done in a gender-neutral approach, with 50.5% of the respondents being male and 49.5% female. The age distribution is interestingly heterogeneous, with people in five age cohorts from under 25 to over 55 years old, making it easier to make comparisons across generations. Most respondents have undergraduate (60.4%) or postgraduate (29.7%) qualifications, indicating that this is a fairly educated sample. The majority of the respondents belong to the employed category, accounting for 43.6%, while a significant number (34.7%) earn above ₹10 lakh per annum which is the highest income bracket, with the rest spread across the lower income brackets.

B. Perceived Purpose of Green Taxes: The respondents' opinion on main purpose of green tax was bipolar. There was a high level of unaware of the purpose (28.71%), and had a lot of people who were unsure. Of the people who had a awareness on green tax, the most (26.73 %) were for pollution reduction, promoting sustainable practices (22.77 %), and environmental (20.36 %), were common reasons project funding (21.78 %). Although large numbers of the responses were "not sure," this emphasizes the importance for specific public education and communication strategies to support informed public support for green tax programs.

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Table 2. Perceived Purpose of Green Taxes

Perceived Purpose	Count	% of Total
Reduction of environmental pollution	27	26.73
Encouragement for sustainable practices	23	22.77
Funding environmental projects	22	21.78
Not sure	29	28.71

C. Influence of Awareness on Behavioral Dimensions

Table 3. Descriptive Statistics – Awareness and Perception on Behaviour (Scale: 1–5)

Variable	N	Mean	SD	Min	Max
Energy Consumption Awareness	101	3.29	1.10	1	5
Carbon Footprint Awareness	101	2.90	1.01	1	5
Influence on Purchase	101	3.12	1.00	1	5
Support for Sustainable Business	101	2.53	0.795	1	5

Moderate levels of awareness driven behaviour are reflected in the descriptive statistics. The mean score for Energy consumption awareness was highest (M = 3.29, SD = 1.10), indicating a fairly good understanding of energy usage and its environmental impact. The carbon footprint awareness was found to be lowest (M = 2.90, SD = 1.01, highlighting the

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need for targeted educational outreach. The moderate score for influence on purchasing decisions (M = 3.12, SD = 1.00) indicates that green tax awareness has some but limited influence for consumers' buying decisions. The mean value score for support for sustainable businesses was the lowest (M = 2.53, SD = 0.795), and this measure was not as reliable as awareness in predicting actual economic advocacy for sustainable businesses.

D. Long-term Environmental and Economic Perceptions:

Table 4. Descriptive Statistics – Long-Term Environmental and Economic Impacts (Scale: 1–5)

Variable	N	Mean	SD	Min	Max
Long-term Environmental Benefits	101	2.16	0.977	1	5
Economic Impact	101	2.10	1.05	1	5
Economic Growth Necessity	101	2.07	1.00	1	5
Cost-Benefit Perspective	101	2.20	1.14	1	5
Cleaner Environment	101	1.92	1.17	1	5

The general perception of long term impact is low on all dimensions. Long-term environmental benefits earned a mean score of 2.16 (SD = 0.977) and the expected economic impact scored a mean score of 2.10 (SD = 1.05), indicating skepticism. The necessity dimension of economic growth was an average of 2.07 (SD = 1.00) and the cost-benefit perspective was an average of 2.20 (SD = 1.14), reflecting uncertainty about the expected benefits when compared with the costs of implementation. The variable that had the lowest score was the belief that better environment follows green taxes (M = 1.92, SD = 1.17), indicating that respondents do not feel there are definite benefits to the environment. These results all point to the difficulty of establishing long-term effectiveness of public confidence in green taxation.

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E. Communication Channel Effectiveness

Table 5. Descriptive Statistics – Effectiveness of Communication Channels (Scale: 1–5)

Communication Channel	N	Mean	SD	Min	Max
Campaigns & Media Influence	101	3.23	1.11	1	5
Printed Materials Effectiveness	101	3.62	1.07	1	5
NGO & Social Media Influence	101	3.35	1.00	1	5

The highest effectiveness rating was printed media (M = 3.62, SD = 1.07) among the three communication channels examined, indicating that respondents have more trust in printed information media. NGO channels and social media got an average score (M = 3.35, SD = 1.00), suggesting that engagement with civil society and digital communication were seen as being reasonably effective. The mean score (M = 3.23, SD = 1.11) for conventional advertising campaigns and mass media were lowest, indicating that conventional advertising via the mass media may not produce additional returns. Policymakers could then do well to focus on the informational materials in print and community outreach by NGOs to increase the public's response to the green tax message.

F. Perceived Effectiveness of Green Taxes

Table 6. Descriptive Statistics – Perceived Effectiveness Of Green Taxes (Scale: 1–5)

Dimension	N	Mean	SD	Min	Max
Pollution Reduction Effectiveness	101	3.02	1.14	1	5
Promotion of Renewable Energy	101	2.29	0.739	1	4

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Sustainability Tool	101	1.99	1.14	1	5
Implementation Effectiveness	101	3.79	1.20	1	5
Support to raisre Green Tax	101	1.96	1.22	1	5

The respondents were moderately favorable about green taxes as a tool to control pollution (M = 3.02, SD = 1.14), but a much lower level in providing impetus to use renewable energy (M = 2.29, SD = 0.739). Green taxes as a broader sustainability instrument was less well perceived (M = 1.99, SD = 1.14). Notably, the mean score for the implementation effectiveness is the highest of this cluster (M = 3.79, SD = 1.20), which suggests that respondents have greater confidence in how taxes are administered than in the environmental effects of tax administration. Last, there was the lowest level of support for increases in green tax rates (M = 1.96, SD = 1.22), which indicates that green tax rates are still not popular enough due to a concern about an additional financial burden, and highlights the need to make green taxes more effective to encourage further fiscal action through escalation.

6. Hypothesis Testing

A. H0: Information sources have no significant effect on awareness and perception for green tax.

Table 7. One-Way Anova (Welch's) – Information Sources and Awareness

Variable	F-statistic	df1	df2	p-value
Awareness and Perception for green tax	0.0346	2	39.9	0.966

This results in an F-statistic of 0.0346 and a p-value of 0.966, which is far greater than the typical significance level of $\alpha = 0.05$. Thus, the null hypothesis is accepted. Overall, this finding suggests that none of the information sources (peer networks, social media, or government campaigns) had a statistically significant ability to inform or influence

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respondents' knowledge about green taxes. The lack of differentiation among the sources suggests a lack of systematic differentiation in the current communications efforts, and requires planning more carefully of communications to create awareness.

B. Public Perception of Long-term Environmental Benefits

H0: There is no significant support for the belief that green taxes will generate substantial long-term environmental benefits.

Table 8. One-Way ANOVA (WELCH'S) – Long-Term Environmental and Economic Impacts

Variable	F-statistic	df1	df2	p-value
Long-term Environment and Economic Impacts	35.8	4	10.4	< .001

The one-way ANOVA test for long-term perceptions of environmental and economic impacts yielded an F-value of 35.8 and a p-value of < 0.001, which is far less than the $\alpha = 0.05$ threshold for significance as a result the null hypothesis is rejected. This implies that there is a significant difference in public perception on each of the five long-term impact dimensions measured and offers evidence that people do differentiate their views on green taxes' potential for long-term environmental impact. Interestingly, the results indicate that a significant proportion of the population believe that the green tax has a significant potential of providing for sustainable environmental improvement, although this is not the case for everyone.

7. Findings

A. **Awareness Levels:** There is low public awareness of green taxes, and many of those that are aware struggle to correctly define its purpose and range. There is a generally higher level of awareness among the people who have access to more formal education and information sources, but there remains significant content difference even within the well-educated group of participants.

B. **Behavioral Influence:** Awareness about green tax has a reasonable influence on sustainable behaviours, especially on the management of energy consumption and the buying of eco-friendly products. However, this awareness does not necessarily translate into a commitment to sustainable businesses or a call for policy shift.

C. **Communication Effectiveness:** There is a relatively low reach and credibility with the respondents for government led mass media communication (MMC) whereas, informal and tangible communication channels like printed materials and NGO led communication are more effective in communicating green tax information.

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D. **Long-term Skepticism:** A high level of scepticism was expressed about the long-term economic and environmental effects of green taxes, while it was acknowledged that green taxes can be effective in reducing pollution. This doubt is especially strong when it comes to the effectiveness of green taxes in producing a quantifiably cleaner environment, or in giving a "green boost" to the economy.

8. Conclusion

The study sheds light on the complexities of public awareness and communication strategies and behavioural responses to green taxation in Bangalore. In theory, the use of environmental taxes as instruments to support circular economy principles and to reduce environmental impacts is vast, however there are still many public awareness gaps and a lack of belief in the long term impacts.There is clear evidence that the current communication paradigm of governments must change and that a 'culture of investing' in evidence-based education campaigns, embedded in the community, demanding clear articulation of the direct and indirect impacts of green taxes for urban citizens, is needed.

Green tax policy should be formulated to be both contextually appropriate to local economic conditions and be equitable and transparent in order to be most effective in influencing policy. For public support and compliance, it is important to make clear and convincing connections to the benefits of these revenue policies, such as better air quality, better waste management, and larger green spaces. Engaging with civil society organizations and providing easily accessible printed communication material is a potential way of addressing this knowledge gap in a sustained manner. Policymakers in India have the opportunity to highlight green taxes as a key policy lever in the sustainable development of cities and the broader transition to a circular economy by fixing these structural weaknesses.

References

[1] Huttmanová, E., & Mikča, R. (2024). Environmental taxes as a path to a green transition. European Journal of Sustainable Development, 13(3), 113. https://doi.org/10.14207/ejsd.2024.v13n3p113

[2] Siregar, I. N. L., & Rahman, A. (2024). Green tax as representation of green economy for economic development. EAI ICAS. https://doi.org/10.4108/eai.29-11-2023.2347697

[3] Yan, H., Qamruzzaman, M., & Kor, S. (2023). Nexus between green investment, fiscal policy, environmental tax, and clean energy inclusion. Sustainability, 15(18), 13591. https://www.mdpi.com/2071-1050/15/18/13591

[4] Giridhar, M. (2024). Mindsets and understanding of Millennials and Generation Z regarding environmental taxation. International Journal of Research Publication and Reviews, 5(2), 3617–3624.

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[5] Mahapatra, S. (2013). A study on consumer's perception for green products: An empirical study from India. International Journal of Marketing & Business Communication, 2(1), 30–43.

[6] Nobanee, H., & Ullah, S. (2023). Mapping green tax: A bibliometric analysis and visualization of relevant research. Sustainable Future, 6, 100129. https://doi.org/10.1016/j.sftr.2023.100129

[7] Hu, Z. (2019). Green taxation and total factor productivity. Modern Economy, 10(3), 698–706. https://doi.org/10.4236/me.2019.103047

[8] Shen, Y., & Zhang, X. (2022). Study on the impact of environmental tax on industrial green transformation. International Journal of Environmental Research and Public Health, 19(24), 16749. https://doi.org/10.3390/ijerph192416749

[9] Wang, Z., Zhu, N., Wang, J., Hu, Y., & Nkana, M. (2022). The impact of environmental taxes on economic benefits and technology innovation in heavily polluting industries in China. Frontiers in Environmental Science, 10, 959939. https://doi.org/10.3389/fenvs.2022.959939

[10] World Commission on Environment and Development. (1987). Our common future. Oxford University Press.