



Taxation As a Climate Financing Instrument in Zimbabwe: Motivations, Barriers, And Policy Options

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Abstract: This research aimed to evaluate the role of taxation as a complementary climate financing instrument to bolster climate mitigation and adaptation efforts in the Zimbabwean context. The study employed a critical documentary review, analysing academic journals, legislative frameworks, international reports, and other publications on climate financing. Documentary sources were complemented by insights from interviews done with key informants in the environment and climate sector. The research findings revealed that Zimbabwe has been implementing carbon taxation over the years, but its effectiveness in driving significant emissions reductions and funding targeted climate interventions has remained very limited. Specifically, there are concerns regarding its limited scope, integration into the consolidated revenue fund, and fundamental questions about its efficacy in achieving national climate goals. Overall, the study observed volatility in climate-related revenue streams on the one hand and discrepancies between policy mandates and actual fiscal allocations to finance climate action on the other. With these observations, the study recommends that the government formulate a comprehensive national climate finance policy, supported by an enabling act of parliament, to link tax systems to climate resilience explicitly. Such a policy should be expected to mandate the strategic allocation of carbon tax and other climate-related revenues to dedicated climate funds in a transparent and accountable manner. Furthermore, there should be clear, measurable targets for climate resilience, coupled with strict monitoring and oversight of tax resource utilisation to maximise the effectiveness of financial resources in strengthening Zimbabwe's capacity for climate action.

Keywords: Climate change, climate financing, taxation, Zimbabwe

Introduction And Background

Climate change poses a significant and escalating threat to developing countries in the 21st century, exacerbating ecological and humanitarian crises. Mitigating the impacts of greenhouse gas emissions, rising temperatures and related effects requires substantial investment in mitigation and adaptation strategies—collectively termed ‘climate action’. While international financing mechanisms, such as those established under Kyoto Protocol, the 2009 Copenhagen Accord (which also established the Green Climate Fund), and the 2015 Paris Agreement have all played a crucial role, a growing body of literature emphasises the importance of complementary domestic resource mobilisation, particularly for developing countries such as Zimbabwe (Catalano et al., 2020; Hong et al., 2020; Ferrari & Pagliari, 2021). The Paris Agreement, recognising the increasing vulnerability of populations in disaster-prone areas due to population growth and human-induced environmental degradation, underscores the need for collective global action. This recognition is driven by the understanding that climate change and environmental disasters significantly strain national fiscal resources and hinder development (Köppel & Schratzenstaller, 2021).

Despite international funding streams, countries such as Zimbabwe face significant barriers to accessing them effectively, including stringent eligibility criteria, limited local capacity, and administrative complexities. Limited access to external funding has necessitated exploring the potential of domestic instruments, such as taxation, as

alternative sources of climate finance. While some Southern African nations, including Namibia and South Africa (the latter having implemented a carbon tax in 2019 to fund climate resilience initiatives, Kalaba, 2020), are actively pursuing renewable energy projects under the United Nations Framework Convention on Climate Change (UNFCCC) framework, there is a relative scarcity of research specifically examining the role of tax policies and systems in building climate resilience within the region. Existing studies have focused on technology transfer and trade opportunities in renewable energy (Anbumozhi et al., 2016; Haselip et al., 2011; Nguyen & Kalirajan, 2016; World Bank, 2008). A significant research gap remains in understanding how taxation can be leveraged as a fiscal instrument for climate change mitigation and adaptation.

This paper addresses this crucial gap by investigating the role of taxation in building resilience to climate change and environmental disasters in Africa, with a particular focus on Zimbabwe. Specifically, it explores the effectiveness of existing tax systems in strengthening national climate resilience, identifies impediments to their performance, and develops a clear pathway for African countries to utilise tax revenues for climate change mitigation and adaptation effectively. This research aims to contribute to accelerated global climate action by providing practical strategies for enhancing domestic climate finance in the context of increasing climate vulnerability. The paper advances that, while international climate finance remains crucial for effective climate action in Zimbabwe, domestic fiscal instruments like taxes could bolster the climate finance base and act as a complementary mechanism towards the climate action goals. The following research questions capture the locus of this paper: What are the motivations for considering taxation as a climate finance instrument in Zimbabwe? What benefits and challenges are associated with taxation as a climate finance instrument in Zimbabwe? What policy options can be adopted to bolster the effectiveness of taxation as a climate finance instrument in Zimbabwe?

Research Methodology

This study was guided by the interpretivist paradigm in exploring the potential of tax resources for enhancing climate resilience in Zimbabwe. This paradigm was followed because of its focus on understanding social phenomena, subjective meanings, and experiences within specific contexts. In other words, it permits the solicitation of answers to the “what”, “why”, and “how” around the phenomena of interest (Wiesner, 2022). The study therefore adopted the case study approach, using Zimbabwe as a unit of analysis to examine the subject of ‘taxation for climate action’ in greater depth. Data collection involved two primary methods: a critical documentary review and key informant interviews. Combining these two methods was done with full acknowledgement of potential biases, especially those associated with third-party sources, such as reports published by governmental and non-governmental organisations. Hence, third-party sources were complemented with key informant interviews as a way of mitigating potential biases and enhancing the rigour and credibility of the research data. Documentary review encompassed a wide range of sources, including academic journals accessed through databases such as JSTOR, Google Scholar, Scopus, and Taylor & Francis, as well as national legislative frameworks, international reports, and other relevant publications. In addition to the documentary review, six key informant interviews were conducted to gather expert perspectives. Participants were strategically selected to represent diverse stakeholder groups, including individuals from the Climate Change Management Department, the Ministry of Finance, academia, and the banking sector. Since the study used a qualitative approach, the six respondents who participated in the key informant interviews were chosen through purposive sampling, which involved deliberately selecting specific units based on their relevance, knowledge, and/or expertise on the topic of climate action. Data collection concluded after the sixth interviewee, when responses began to repeat and no new insights emerged, indicating that we had reached data saturation. This is a point where no new information or themes are emerging from the interviews. Data were analysed using content analysis to provide detailed descriptions of the prospects and challenges associated with using taxation to enhance capacity for combating climate change and environmentally induced disasters.

Theoretical Framing of the Study

Pigouvian Taxes Theory

Pigouvian taxation, as theorised by Arthur Pigou (1920), offers a compelling framework for addressing the negative externalities associated with environmentally damaging activities, making it a potentially valuable instrument for climate finance in Zimbabwe. The core principle of Pigouvian taxation is to internalise the external costs imposed on third parties—those not involved in the original transaction—by making the entity responsible for the externality bear the financial burden. This internalised cost, typically in the form of a tax, incentivises the responsible party to reduce the harmful activity to a socially optimal level. In the context of climate change, this could translate to taxes on carbon emissions, deforestation, or other activities that contribute to greenhouse gas emissions. The revenue generated from these taxes can then be strategically allocated towards climate mitigation and adaptation efforts, providing a dedicated

stream of climate finance. However, translating the theoretical elegance of Pigouvian taxation into practical policy in Zimbabwe faces several challenges. Accurately quantifying the external costs associated with specific activities (a prerequisite for determining the appropriate tax level) can be complex and subject to uncertainties; for example, it is quite difficult to estimate the full social cost of a ton of carbon dioxide emitted in Zimbabwe, considering its impact on public health, agriculture, and future generations. Miscalculations can lead to either under-correction, where the tax is insufficient to incentivise change, or over-correction, where the tax unduly burdens businesses and potentially hinders economic growth. Furthermore, as highlighted by critics, the regressive nature of some environmental taxes is a crucial consideration. Taxes on fuel or electricity, for example, can disproportionately impact low-income households in Zimbabwe, exacerbating existing inequalities. Therefore, designing and implementing taxes for climate finance in Zimbabwe requires careful consideration of political and social factors alongside economic principles. Policy options must, therefore, address potential regressivity through targeted rebates, subsidies, or exemptions for vulnerable populations. The revenue generated should be used transparently and effectively to fund climate-related projects that benefit all segments of society, fostering public acceptance and ensuring the long-term sustainability of the tax as a climate finance instrument.

Literature Review

Understanding climate change

Climate change, driven by human activities such as burning fossil fuels and deforestation, leading to increased atmospheric greenhouse gas concentrations, poses a significant and growing threat to global populations and ecosystems. This phenomenon, defined by the UNFCCC (2020) as changes in climate directly or indirectly attributable to human activity, is also described by the Intergovernmental Panel on Climate Change (IPCC, 2018) as long-term shifts in weather patterns, regardless of cause. These changes profoundly impact livelihoods worldwide, underscoring the need for effective responses from governments, communities, and individuals.

The IPCC's (2020) projections paint a stark picture of future climate impacts, including rising sea levels, increased global temperatures, ocean acidification, more frequent heat waves, and intensified extreme weather events such as typhoons and cyclones, as corroborated by the United Nations Office for Disaster Risk Reduction (UNDRR, 2020). Recent events, such as the increased frequency of cyclones in Africa and extreme weather events in Japan, Kashmir, and Bangladesh (UNFCCC, 2022), underscore the urgency of addressing this crisis. This necessitates not only a redefinition of human security in the context of climate change but also the development of effective financing mechanisms for climate action.

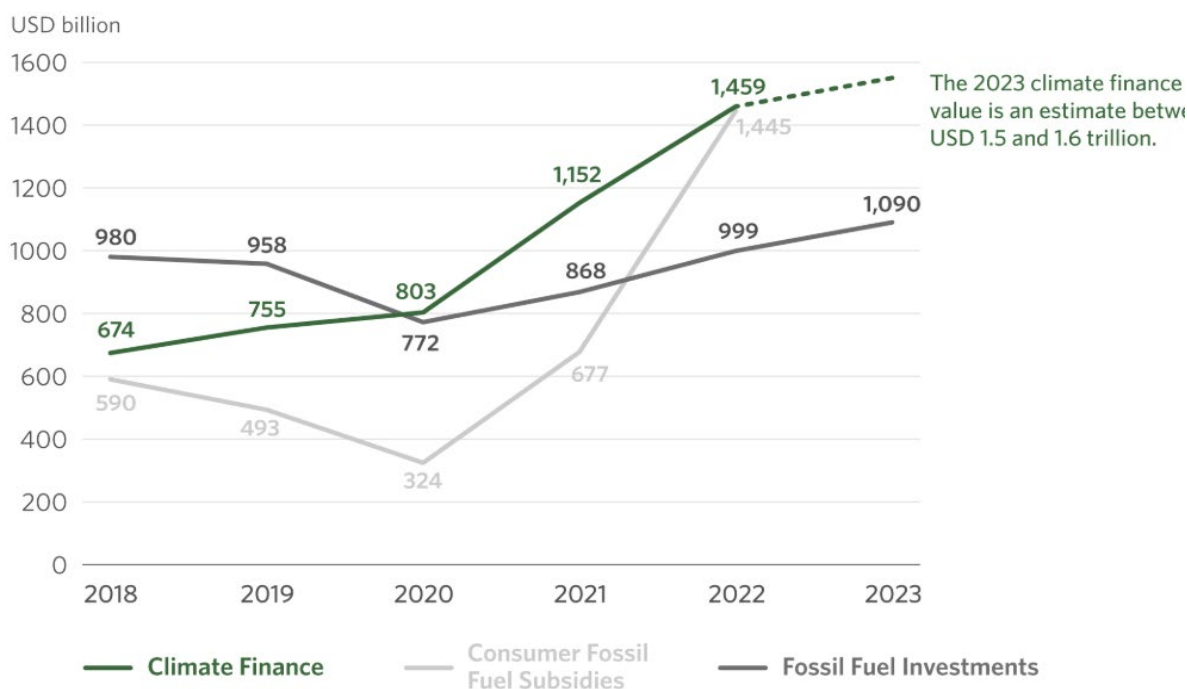
While international efforts, including the IPCC's Sixth Assessment Report (Lawrie et al., 2021) emphasise the need for decarbonisation, particularly in Sub-Saharan Africa given its vulnerability to floods and droughts, and while mechanisms like carbon taxes are increasingly recognised as tools to reduce greenhouse gas emissions (Mofokeng, 2022; Shinde, 2021), there remains a critical gap in the literature regarding the specific role of taxation in building climate resilience in African countries, particularly at the community level. Existing research has explored technology transfer and trade opportunities related to renewable energy (Anbumozhi et al., 2016; Haselip et al., 2011; Nguyen & Kalirajan, 2016; World Bank, 2008), but the potential of tax revenue to strengthen local adaptive capacity by financing climate-related interventions remains underexplored. This study addresses this gap by assessing the role of taxation in enhancing climate resilience in African countries, with a particular focus on Zimbabwe. It investigates the effectiveness of various tax sources in mitigating climate change impacts and develops a framework for leveraging tax revenues to bolster community-level resilience against climate-related disasters. This analysis is crucial for ensuring that African nations are better prepared to address the escalating impacts of climate change.

The global climate finance landscape

COP29 in 2024 yielded several key agreements on mobilising global climate finance. Participating nations committed to substantially increasing international climate finance, tripling the previous target of USD 100 billion annually to USD 300 billion by 2035. This increased funding is intended to support developing countries in financing their climate action efforts, recognising their heightened need for financial assistance to address the adverse impacts of climate change. Furthermore, a new quantified collective goal was established to mobilise at least USD 1.3 trillion annually by 2035 from all public and private sources to support climate action initiatives worldwide. This ambitious target reflects the growing financial requirements for tackling the escalating effects of climate change. These global-level fiscal policy decisions set the stage for developing and exploring new and innovative climate financing instruments

by both developed and developing countries. This exploration is crucial for ensuring climate change funding extends beyond traditional public financing mechanisms.

Figure 1.1: Global climate finance landscape



Source: Climate Policy Initiative

Source: Climate Policy Initiative (2024)

Figure 1.1 illustrates the trend in mobilised global tracked climate finance, which fluctuated between USD 1.5 and 1.6 trillion from 2018 to 2023. However, this financing level falls drastically short of what is required to achieve the 2050 global net-zero and 2030 climate targets. Estimates suggest that climate finance must increase fivefold, reaching USD 7.4 trillion annually by 2030, to address these goals adequately. While adaptation finance has more than doubled between 2018 and 2022, reaching USD 76 billion (Climate Policy Initiative, 2024), current annual flows represent only one-third of the estimated volume needed annually from 2024 to 2030 for Emerging Markets and Developing Economies (EMDEs) alone. This substantial funding gap underscores the urgent need for developed and developing countries to explore innovative climate finance mechanisms to contribute to this global mobilisation effort.

Climate finance in developing countries

Despite a documented increase in globally tracked climate finance flows between 2018 and 2022 (CPI, 2024), climate finance flows to developing countries, particularly in Sub-Saharan Africa, remain insufficient. While COP29 agreements committed to scaling up funding for developing countries from USD 100 billion annually to USD 300 billion, aiming to facilitate a just transition through improved access to climate finance (OECD, 2024; CPI, 2024), significant gaps persist. Modelled projections using the United Nations Global Policy Model indicate that developing countries will require approximately \$1.1 trillion in climate finance by 2025 and \$1.8 trillion by 2030 (UNCTAD, 2024). This suggests that developed countries must provide between \$0.89 trillion and \$1.46 trillion annually from 2025 to 2030 (UNCTAD, 2024). However, developing countries face substantial challenges in mobilising and accessing these crucial funds from bilateral and multilateral sources. Historical trends reveal that African nations' access to external climate finance has predominantly relied on grants and loans. Unfortunately, the prevalence of loans has often negatively impacted the financial stability of many developing economies. Specifically, the accumulation of climate-related loans has expanded external debt stocks, consequently shrinking fiscal space and limiting public

investment in further climate projects (Mateko, Maiwasha & Tsara, 2025). Thus, while loans might address some quantitative aspects of climate finance, they fail to address developing nations' qualitative needs adequately. Critically, the debt approach does not provide the financial flexibility necessary for effective climate action. Therefore, despite developed countries' pledges for financial assistance, developing nations like Zimbabwe must explore alternative fiscal instruments to mobilise the crucial climate finance required to meet the 2030 climate goals. Hence, there is a need to explore the viability of taxation as an instrument to bolster the climate finance flows in developing countries like Zimbabwe.

The taxation-climate finance nexus

The need for proactive disaster preparedness, rather than solely reactive responses, is increasingly recognised as crucial for mitigating the impacts of climate change and environmentally induced disasters (ADB, 2020). As the ADB (2020) argues, preventative measures are significantly more effective than post-disaster interventions. This includes proactive measures such as relocating populations from high-risk areas like flood plains and unstable mountain slopes and investing in infrastructure and early warning systems. Establishing dedicated funds for disaster preparedness and response, similar to risk insurance mechanisms, is essential, particularly for developing countries often operating with limited fiscal space. Such funds can provide immediate resources for disaster relief, reconstruction, and other essential needs (ADB, 2020), freeing up other state resources for development activities and improving response times.

However, implementing tax-based funding mechanisms for disaster preparedness raises important considerations regarding equity and fairness. Tax policies must carefully consider taxpayers' ability to pay and ensure vertical equity (Bobek & Hatfield, 2001; American Institute of Certified Public Accountants, 2007). This means avoiding disproportionate burdens on low-income individuals and households. Simultaneously, tax systems should strive for exchange equity, ensuring that taxes contribute to public goods and services that benefit taxpayers (Gillian & Richardson, 2005). This aligns with the sovereign thesis theory, which emphasises the role of tax revenue in supporting essential government functions, including social welfare and public health (Cotrell & Falcao, 2018). Balancing these competing equity considerations is a crucial challenge for African countries seeking to utilise taxation for climate resilience.

While the ADB (2020) highlights the benefits of risk insurance funds, drawing examples from countries like Bangladesh, Madagascar, and Taiwan, the application of such mechanisms in the specific context of building climate resilience in Southern Africa, mainly through taxation, remains a significant gap in the academic literature. This study addresses this gap by investigating how African countries, especially Zimbabwe, can effectively utilise taxation to enhance resilience to climate change and environmentally induced disasters, considering the critical balance between revenue generation and equitable tax burdens.

Climate-based taxes in different countries

Several countries have implemented innovative policies to address climate change and enhance resilience to its impacts. For example, Finland has pioneered using carbon taxation to reduce reliance on fossil fuels. Introduced in 1990, Finland's carbon tax, initially set at EUR 1.12 (USD 1.41) per tonne of CO₂, has been progressively increased and integrated with energy taxes (The Global Legislation Study, 2015). By 2018, the tax covered 97% of carbon emissions from energy use (OECD, 2021), demonstrating a strong commitment to using fiscal instruments to drive decarbonisation and mitigate climate change. This approach highlights the potential of taxation to incentivise a shift towards renewable energy sources and reduce emissions.

The United States has adopted a different approach, focusing on disaster preparedness and response through research funding and federal disaster assistance. The National Institute of Standards and Technology (2022) has invested substantial funds in disaster resilience research, supporting evidence-based policymaking. The Stafford Act of 1988 provides a framework for federal disaster relief, with the federal government covering a significant portion of disaster-related expenses (Kirschner et al., 2018). While this system relies heavily on federal funding, it demonstrates a commitment to financial preparedness for disasters. The US also utilises other mechanisms, such as carbon pricing and development aid (Wirsenius et al., 2011; Lawrence et al., 2013; Zhang et al., 2020), to address climate change.

These examples illustrate countries' diverse approaches to addressing climate change and enhancing resilience through taxation. However, the applicability of these models to the specific context of African countries, with their unique economic, social, and institutional challenges, requires careful consideration. Many African nations face tax capacity and fiscal space constraints unlike Finland's developed economy and robust tax administration. Similarly, the US's

federal disaster relief system may not be easily replicable in countries with more decentralised governance structures and limited resources. Therefore, it is crucial to examine how tax policies can be effectively tailored to the specific circumstances of African countries, particularly in promoting community-level resilience to climate change. This study addresses this need by focusing on Zimbabwe, exploring how its tax system can be leveraged to enhance climate resilience within its specific context.

South Africa has emerged as a leader in Africa in utilising taxation to address climate change, primarily through the Carbon Tax Act No. 15 of 2019 (Brooks, 2022; Steenkamp, 2022). This legislation operationalises the “polluter-pays principle” by imposing a tax on large emitters, incentivising them to consider the environmental costs (externalities) of their production and consumption decisions and to adopt cleaner technologies. The tax design incorporates various tax-free emission allowances, ranging from 60% to 95% in its initial phase, including allowances for basic emissions, process emissions, carbon offsets, improved emissions intensity, reporting compliance, and trade-exposed sectors (IRENA Renewables Policies Database, 2020; Swart, 2022). This combination of taxation and incentives aims to promote a transition towards climate-friendly energy sources and discourage environmentally harmful practices.

Since its introduction, South Africa’s carbon tax has increased the proportion of CO₂ emissions covered by explicit carbon pricing. In 2021, 41.6% of CO₂ emissions from energy use were priced, a significant increase from 14.3% in 2018 (World Bank Group, 2021; OECD, 2021). This increase reflects the impact of the carbon tax as a policy tool for mitigating climate change despite initial resistance from some sectors (Steenkamp, 2022). The tax is a behavioural intervention, encouraging both industries and consumers to reduce emissions. However, the effectiveness of South Africa’s carbon tax in achieving significant emissions reductions and building climate resilience is debated. While the government has announced plans to increase the carbon tax rate to R144 in 2022 and further to at least US\$30 by 2030 and US\$120 by 2050 (Steenkamp, 2022; Swart, 2022), some argue that the current tax levels are insufficient. Brooks (2022) points out that the tax rates are still below the US\$40-\$100/mt CO₂e range recommended by environmental experts for meaningful climate action. This raises concerns about the tax’s ability to drive the necessary scale of change. Despite the policy’s intent and the observed increase in emissions coverage, the impact on climate financing in Southern Africa remains to be seen.

Namibia has also committed to addressing climate change through various policy initiatives, including adopting renewable energy projects aligned with the UNFCCC agenda (Munday et al., 2011). A key component of Namibia’s strategy is using environmental taxation to generate revenue for climate action. The country has established Namibia’s Environmental Investment Fund (EIF), which, by 2020, had accumulated approximately N\$31 million from environmental taxes dedicated to mitigating climate change and related disasters (Shikongo, 2020; Koch, 2021). These taxes include a carbon tax, an environmental tax on motor vehicles, and a vehicle carbon emission tax (Kaira, 2019; Shikongo, 2020; Koch, 2021).

These efforts demonstrate Namibia’s commitment to global climate action goals and contribute to building national resilience. However, while Namibia’s approach highlights the potential of environmental taxation as a funding mechanism, it is important to consider the broader context of climate finance. Global investment in green bonds and climate finance has increased significantly (OECD, 2022), indicating a growing international focus on mobilising resources for climate action. However, the effectiveness of Namibia’s specific tax measures in achieving significant climate resilience at the community level requires further investigation.

Findings and Discussion

This section presents the findings on the role of taxation in financing climate action in Zimbabwe. It presents the motivations for adopting climate-based taxes in Zimbabwe, the potential benefits, challenges, opportunities, and the way forward.

Motivations for taxation as climate finance in Zimbabwe

Numerous reasons account for the need to consider taxation as a form of climate finance in Zimbabwe. These include the need for robust domestic revenue mobilisation by expanding the fiscal space and incentivising the swift transition to clean energy. Zimbabwe’s economic resilience has been eroded by years of mounting inflation, a high cost of living, diminished exports, and restricted fiscal capacity. This vulnerability is further exacerbated by the growing urgency to invest heavily in climate change adaptation and mitigation. The 2023/2024 agricultural season, which was seriously affected by the El Niño-induced drought and erratic rainfall, is a stark reminder of the immediate threat to food security and economic stability. Addressing this crisis requires closing the critical climate finance gap, enabling Zimbabwe to future-proof its vital sectors against the escalating impacts of climate variability.

Zimbabwe's climate finance challenges are illustrated by the US\$3 billion loss from Cyclone Idai in 2019, representing 19.6% of its GDP. To address climate change mitigation and adaptation, the nation requires US\$7.88 billion by 2030, yet faces a substantial funding shortfall (Makwanya, 2021) which can be exemplified by the allocation of a mere ZWL\$54 billion complemented by US\$850.2 million from development partners in 2022. Compounding the issue, Zimbabwe's reliance on concessional loans for climate funds adds to its debt burden, restricting its capacity to handle climate-related disasters. Despite stated policy goals of 10% national budget contribution and 90% external funding, Zimbabwe consistently encounters significant barriers to securing the necessary financial resources for climate resilience. Traditional funding modalities like grants and concessional loans appear insufficient to address Zimbabwe's climate action funding gap. Empirical studies have not examined the potential contribution of climate-based taxes toward complementing climate finances in Zimbabwe.

Carbon tax collections in recent years

Zimbabwe has taken steps to address climate change, including implementing a carbon tax based on the polluter-pays principle (Tonderayi, 2012). Initially collected separately, the tax was later incorporated into fuel prices, varying according to engine size (Tonderayi, 2012). The carbon tax is levied in foreign currency at US\$0.03 per litre of petrol and diesel, or 5% of the cost, insurance, and freight value (defined in the Customs and Excise Act [Chapter 23:02]). Table 1.1 shows the contributions of the carbon tax and Tobacco levy towards the national fiscus.

Table 1.1: Climate-Based Taxes' Contributions from 2019-2023

<i>Year</i>	<i>Carbon Tax Collected (USD Million)</i>	<i>Tobacco Levy Collected (USD Million)</i>
2019	USD 3.3	USD 3.6
2020	USD 15.9	USD 4.9
2021	USD 46	USD 9.3
2022	USD 28	USD 42.7
2023	USD 47	USD 6.9
Total	USD 140.2	USD 67.4

Source: Zimbabwe Revenue Authority Reports (2019; 2020; 2021; 2022; 2023)

Table 1.1 illustrates that the carbon tax generated USD 140.2 million over five years (2019-2023), while the tobacco levy yielded USD 67.4 million. While seemingly substantial, these figures raise critical questions regarding their adequacy for meeting Zimbabwe's national climate budget expenditures. Given the observed volatility in both revenue streams, particularly the significant fluctuation in tobacco levy collections in 2022, the reliability of these sources for consistent climate finance is uncertain. Although Zimbabwe has made strides towards climate-inclusive budgeting, the collected revenues appear insufficient to fund the necessary climate-related interventions fully. This disparity underscores the potential disconnect between environmentally focused tax policies and their practical contribution to addressing the nation's pressing climate funding needs. It warrants a deeper investigation into revenue collection efficiency and expenditure allocation.

Insights from interviews with key stakeholders further reveal this uncertainty. A respondent from an NGO expressed concern that depositing climate-based receipts, such as carbon tax revenue, into Zimbabwe's consolidated revenue fund, as mandated by section 302 of the Constitution of Zimbabwe Amendment Act No. 20 of 2013, undermines the government's intent to leverage these funds for climate action: "This approach, where environmental taxes are not designated for climate-specific projects, suggests they are treated as standard revenue sources, failing to address the pressing climate funding gap strategically" (Respondent N). This observation aligns with the finding that despite a national budget mandate to allocate 10% for climate-specific programming, actual disbursements have been significantly lower, averaging as little as 0.2% in the 2024 budget. This discrepancy between policy and practice is

echoed by a Climate Change Management Department representative who noted that “[a]t times, the national budget allocates funds for climate action, but the disbursements may not come as promised.”

The combination of the financial data and the interview insights reveals a critical disconnect. While Zimbabwe has policy provisions for mobilising climate action funding through taxes and budgetary allocations, significant policy gaps exist in allocating and utilising these funds for specific climate-related programming. The practice of general revenue consolidation and inconsistent disbursement of allocated funds effectively undermines the country’s efforts to finance climate action. The raw potential of the carbon tax and tobacco levy, as evidenced by their cumulative totals, is not translated into tangible climate action, highlighting the need for systemic reforms to ensure that environmental taxes are strategically directed toward addressing the pressing climate funding gap.

Beyond the issues of revenue consolidation and disbursement, further interviews revealed critical perspectives on the carbon tax itself. One participant, Respondent Q, highlighted a significant limitation, explaining that “[t]he carbon tax remains low since it does not cover all sectors from which emissions come. It only covers emissions from fuel but ignores other sectors like mining, which have a considerable percentage of emissions”. This narrow scope limits the tax’s potential to generate substantial climate finance. Moreover, the very nature of the carbon tax was questioned. One participant (Respondent G) argued that, given Zimbabwe’s heavy tax burden, “carbon taxes ought to be removed, and climate funding should be raised from critical minerals mined in the country”. This perspective suggests a desire for alternative revenue streams that might be perceived as more equitable or sustainable.

Adding to the critique, another participant expressed concern that “carbon taxes do not provide anything to fight mitigation and adaptation as they worsen the situation. Why allow people to emit and pay? Is the tax commensurate with the rate of emissions? Otherwise, we will never reach the NDC goal for a 33% reduction in emissions by 2030” (Respondent F). This viewpoint underscores the concern that the carbon tax, as currently implemented, may be insufficient to drive meaningful emissions reduction and could even be counterproductive.

The financial data and the multifaceted interview insights reveal a critical disconnect between policy provisions and funding for climate action in Zimbabwe. While Zimbabwe has policy provisions for mobilising climate action funding through taxes and budgetary allocations, significant policy gaps exist in allocating and utilising these funds for specific climate-related programming. The practice of general revenue consolidation, inconsistent disbursement, a limited carbon tax scope, and fundamental concerns about the tax’s efficacy undermine the country’s efforts to finance climate action.

Barriers associated with taxation for climate financing

Despite the efforts being made by Zimbabwe, its approach to climate finance faces significant challenges. While fuel consumption in Zimbabwe increased by nearly 150% between 2009 and 2015, suggesting a potential increase in carbon tax revenue, there is no clear evidence from the Zimbabwe Revenue Authority (ZIMRA) to confirm this (Gogo, 2017; Chirisa et al., 2021). Furthermore, the current carbon tax rate, equivalent to approximately US\$13 per tonne of CO₂ equivalent for petrol and US\$11 for diesel (Gogo, 2017), falls significantly below the US\$40-US\$80 per tonne range recommended by experts for achieving substantial emissions reductions (Gogo, 2017). This indicates that the carbon tax, in its current form, is likely insufficient to mobilise resources for climate action or significantly deter emissions effectively. The devastating impact of Cyclone Idai in 2019, which caused an estimated US\$773 million in damage in Zimbabwe, Mozambique, and Malawi (Mapakame, 2022), further underscores the urgent need for enhanced climate resilience and adaptation measures.

This reliance on external funding and the apparent underutilisation of the carbon tax highlights a critical gap in Zimbabwe’s climate finance strategy. While taxation has been effectively used in other countries, such as Finland and the USA, to mobilise funds for climate action (as discussed earlier), its potential in Zimbabwe remains largely untapped.

The combination of the financial data, the multifaceted interview insights, and these identified barriers reveals a critical disconnect. While Zimbabwe has policy provisions for mobilising climate action funding through taxes and budgetary allocations, significant policy gaps exist in allocating and utilising these funds for specific climate-related programming. The practice of general revenue consolidation, inconsistent disbursement, a limited carbon tax scope, fundamental concerns about the tax’s efficacy, and the identified barriers effectively undermine the country’s efforts to finance climate action. The potential of the carbon tax and tobacco levy, as evidenced by their cumulative totals, is not translated into tangible climate action, highlighting the need for systemic reforms to ensure that environmental taxes are strategically directed towards addressing the pressing climate funding gap.

Discussion

Taxation offers several potential benefits for governments seeking to address climate change and enhance disaster preparedness. By generating dedicated revenue streams, climate-related taxes can provide crucial funding for post-disaster relief and reconstruction efforts, particularly in countries with limited fiscal space. This financial capacity allows governments to provide essential services such as infrastructure repair, medical care, and emergency assistance to affected populations. Furthermore, as the UNFCCC (2020) and the ADB (2020) noted, proactive investment in disaster preparedness, such as building hospitals and clinics strategically, can significantly reduce casualties and property damage by enabling more rapid and effective responses. In this sense, climate-related taxation represents a form of financial innovation, creating new funding mechanisms for addressing the challenges posed by climate change. These taxes offer a “double dividend” by correcting negative externalities (e.g., carbon emissions) and generating public funds for climate action.

However, the effectiveness of taxation as a tool for building climate resilience depends on several factors. While Zimbabwe, South Africa, and Namibia have implemented carbon taxes, their impact on reducing emissions and building resilience has been limited. As noted earlier, Zimbabwe’s carbon tax rates are significantly below the levels recommended by experts (Gogo, 2017), suggesting that the tax primarily functions as a revenue source rather than a strong emission disincentive. This highlights the crucial challenge of ensuring climate-related taxes are designed and implemented effectively to achieve their intended environmental and fiscal objectives. Simply introducing a tax is insufficient; careful consideration must be given to tax rates, revenue allocation, and complementary policies to maximise their impact on climate resilience.

Furthermore, the Zimbabwean context demands a nuanced approach that acknowledges the nation's economic vulnerabilities and the potential for unintended consequences. For instance, the discussion around whether the carbon tax should be removed and replaced with mineral-based funding, as highlighted in interviews, demonstrates the need for a tax regime that aligns with the nation’s economic realities. The challenge lies in balancing the need for climate finance with the imperative of fostering sustainable economic development. Addressing these complexities requires a comprehensive, evidence-based approach that engages all stakeholders and prioritises environmental integrity and economic viability.

Conclusions

The paper sought to unpack taxation as a climate financing mechanism in Zimbabwe, focusing on the motivations, barriers, and available policy options. It adopts a qualitative approach underpinned by the use of documentary evidence and key informant interviews. To mitigate potential biases in the data collected for the study, the study used data triangulation, which combined third-party sources with key informant interviews. Data triangulation presented an opportunity for cross-verification of facts and counterbalancing the weaknesses of one method with the strengths of another. This, overall, helped enhance the credibility and validity of the qualitative data gathered, and ultimately strengthened the study’s conclusions. The study notes that despite Zimbabwe's adoption of taxation mechanisms, such as the carbon tax and tobacco levy to bolster climate resilience, their effectiveness in achieving significant emissions reductions and funding targeted climate interventions remains questionable. The analysis reveals that these taxes have functioned mainly as general revenue sources rather than being strategically allocated to address the pressing climate funding gap. This is evidenced by the discrepancy between policy provisions, such as the mandated 10% climate allocation in the national budget, and actual disbursements, which have been as low as 0.2% in the 2024 budget. Furthermore, interview insights highlight concerns regarding the limited scope of the carbon tax, its integration into the consolidated revenue fund, and fundamental questions about its efficacy in driving emissions reduction. The observed volatility in revenue streams and inconsistent allocated funds disbursements undermine the country's efforts to finance climate action effectively. The current carbon tax rate also falls significantly below expert recommendations, further hindering its potential impact.

Policy Recommendations

Strategic allocation of climate-related tax revenues

In collaboration with the Ministry of Finance, the Ministry of Environment, Climate, Tourism, and Hospitality Industry, should establish a dedicated climate fund to ensure that revenues from the carbon tax and other climate-related taxes are directly allocated to specific climate mitigation and adaptation projects. It is further necessary to implement a transparent tracking and reporting system to monitor the disbursement and utilisation of these funds.

Development of a comprehensive climate finance policy

Zimbabwe should develop a comprehensive national climate finance policy that outlines diverse mechanisms for pooling funds for climate mitigation and resilience. This policy should address the integration of climate finance into national budgeting processes, define clear criteria for project funding, and explore innovative financing mechanisms, including leveraging critical mineral resources as suggested by interview participants.

Strengthening inter-ministerial coordination and stakeholder engagement

The government should enhance collaboration and interoperability between its ministries, departments, and agencies involved in climate action. It is also important to establish a multi-stakeholder platform to facilitate dialogue, knowledge sharing, and coordinated action among government, civil society, the private sector, and local communities.

Revision and expansion of the carbon tax framework

The government should also conduct a thorough review of the current carbon tax framework to expand its scope to include all significant emitting sectors, particularly mining. The carbon tax rate should be aligned with expert recommendations to effectively serve as a disincentive for emissions and a robust source of climate finance. Further, the government should set clear carbon tax revenue generation and utilisation targets, linking them to specific climate action goals, such as achieving the NDC target of a 33% emissions reduction by 2030.

Diversification of climate finance sources

Alternative climate finance sources should be explored, including leveraging the country's critical mineral resources, as suggested by interview participants, while ensuring sustainable and equitable resource management. Reliance on volatile international funding should be reduced by strengthening domestic resource mobilisation.

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