

THE TANGA UWASA WATER INFRASTRUCTURE GREEN BOND:

Innovative Financing or Foreign Financial Dependence?

Executive Summary

African non-central governments (NCGs) (i.e., sub-states, regions, cities, municipalities, local governments, etc.) are increasingly vulnerable to climate-induced impacts. This vulnerability has precipitated a shift towards climate finance instruments to meet the funding deficit for local adaptation and mitigation projects. A case in point is the Tanga (Tanzania) UWASA Green Bond—an instrument that raises critical questions about debt responsibility, the prioritization of bankable projects over community needs, and the risk of financialization of essential public utilities.

In their 2024 study, Ohiocheoya Omiunu and Ifeanyichukwu Azuka Aniyie explore whether the Tanga UWASA bond represents true domestic capital mobilization or entrenchment of foreign financial dependence. The researchers argue that the Tanga UWASA bond exemplifies the promise and pitfalls of innovative climate finance in Africa, revealing the complexities facing African subnational governments (SNGs) as they navigate global financial architectures that may serve external interests over and above local development needs.



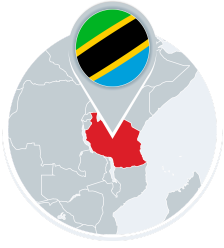
In Tanga's case, the green bond mechanism may offer a short-term solution to financing water infrastructure, but it risks entrenching a system that prioritizes investor returns over long-term sustainability, amplifying Tanzania's debt burden and potentially undermining the socio-economic stability of the very communities the project is intended to serve.

What is a Green Bond?

Like conventional bonds, green bonds represent a loan from multiple investors simultaneously to the issuer who commits to repaying the principal at the maturity of the bond along with fixed or variable interest during the bond's tenure or maturity or at a specified maturity date. A key feature of green bonds is that they broaden issuers' investor base and provide environmental credentials that make issuers attractive to investors who prioritize environmental, social, and governance factors.

In the African context, green bonds can be associated with their potential to unlock vast economic opportunities, avoiding severe economic losses and minimizing catastrophic social and developmental consequences. While green bonds present a potential pathway to driving economic expansion and catalyzing taxable growth, it is crucial to approach their issuance with caution. As debt instruments, they impose repayment obligations that, if poorly managed, can offset their economic benefits and place significant financial burdens on the issuing entity.





What is the Tanga UWASA Green Bond?

The Tanga Urban Water Supply and Sanitation (UWASA) Bond is East Africa's first subnational water infrastructure green bond.¹ Issued in 2024, it is a unique case of subnational government (SNG) revenue mobilization via the capital market. The project is a consequence of Tanga UWASA's environmental and social commitments and is aimed at addressing critical water and sanitation challenges facing Tanzania's Tanga region, which encompasses Tanga City and the Muheza and Pangani townships.

The Tanga UWASA Green Bond carries a fixed interest rate of 13.50% per annum, payable semiannually in arrears, while the principal amount is redeemable at par upon maturity in 2034. This predictable, periodic interest payment qualifies the Tanga UWASA bond as a coupon bond.² The bond is listed on the Dar es Salaam Stock Exchange (DSE) and was recently listed on the Luxembourg Stock Exchange (LuxSE).

The Climate Vulnerabilities of African NCGs

The vulnerability of African urban centers to the impacts of climate change includes rising sea levels, more frequent and intense weather events, and the strain on already overburdened public infrastructure and services that pose serious threats to millions of residents' livelihoods and well-being.³

Local actors, however, often lack a comprehensive understanding of the climate finance landscape, along with the technical capacity to meet the stringent and sometimes opaque fiduciary requirements associated with many funding mechanisms, as well as the capacity to identify and package projects that are compatible with market standards and large institutional investors' investment requirements.⁴ This extends to the crafting of strong eligibility criteria or ambitious sustainability targets that align with the environmental, social, and governance (ESG) expectations of global investors while remaining a bankable project.⁵ As such, there is a growing emphasis on innovative financial products targeted to meet the unique needs of African NCGs.⁶

Facts about the Tanga UWASA Bond

- Ten-year water infrastructure green revenue bond valued at TZS 53.12 billion (US \$21 million).
- Built on Tanzania's Alternative Project Financing Strategy—a national strategy developed to support the implementation of a Five-Year Development Plan (FYDP-III) that focuses on mobilizing domestic resources to finance infrastructure development and public service projects.
- Historic, first-of-its-kind, subnational water green bond in Tanzania's and East Africa's histories.
- Issued twice in one year without a sovereign guarantee.

1. See UNCDF, Tanga UWASA Issues Historic Water Infrastructure Green Bond Valued at TZS 53.12 Billion, News (Feb. 22, 2024), <https://www.uncdf.org/article/8664/tanga-uwasa-issues-historic-water-infrastructure-green-bond-valued-at-tzs-5312-billion>; see also Tanga UWASA, Tanga Water Green Bond Framework, Republic of Tanzania, Ministry of Water (Sept. 2023), https://www.tangauwasa.go.tz/green_bond/Tanga%20UWASA%20Bond%20-%20Green%20Bond%20Framework.pdf; Republic of Tanzania, Ministry of Finance and Planning, The Third National Five Year Development Plan 2021/22 – 2025/29 (Nov. 2, 2021), <https://www.mof.go.tz/uploads/documents/en-1636177646-The%20Third%20National%20Five%20Years%20Development%20Plan%20202126%20Final.pdf>.

2. O. Blanchard, A. Amighini & F. Giavazzi, *Macroeconomics: A European Perspective* (2017).

3. David Dodman et al., *Cities, Settlements and Key Infrastructure*, in *Climate Change 2022 - Impacts, Adaptation And Vulnerability: Working Group II Contribution To The Sixth Assessment Report Of The Intergovernmental Panel On Climate change* 907, 921 (Hans-Otto Pörtner et al. eds., 2022).

4. See Jessica Omukuti et al., *The Green Climate Fund and Its Shortcomings in Local Delivery of Adaptation Finance*, 22 *Climate Pol'y* 1225, 1225–40 (2022), and Geoffrey Adonu, *Towards Closing Africa's Climate Financing Gap: Scaling African Governments' Access to the Sustainable Bond Market*, in *Transforming Climate Finance in an Era of Sovereign Debt Distress* 141, 153 (James Thuo Gathii, Adebayo Majekolagbe & Nona Tamale eds., 2023).

5. Adonu, *supra* note 4, at 154.

6. For a comprehensive overview of the origins and evolution of climate finance mechanisms at the local and municipal levels in Africa, see Climate Bonds Initiative, *Data*, <https://www.climatebonds.net/market/data/#issuer-type-charts> (last visited Dec. 22, 2024).

Findings of the Study

The study's analysis revealed the following significant concerns about the Tanga UWASA bond issuance:

● **Crowding-Out Effect on the Private Sector:**

Offering the Tanga UWASA Green Bond on the Dar es Salaam Stock Exchange has the potential to reduce the availability of investment capital to the domestic private sector or increase its cost (i.e., interest) as the government competes with the private sector for the limited capital available in the Tanzanian financial market, which is characterized by limited liquidity and depth.⁷

● **Foreign Investor Domination:**

The possibility of domination by foreign investors of the bond's subscriber base has several negative implications that span across economic, political, and strategic dimensions. Foreign bondholders could wield substantial influence over Tanzania's strategic infrastructure, allowing the foreign entity to exert indirect control over a vital public service, particularly when Tanga faces financial difficulties and defaults on payments due on the bond.

● **Fiscal risk and contingent liability:**

The bond issuance creates fiscal risk and contingent liability for Tanzania.⁸ Because of its design and source, the Tanga bond looks like a liability that would not be factored into Tanzania's sovereign debt management process. This increases the risk of additional, uncaptured, contingent liability for Tanzania.

● **Sovereign Debt Profile Harm:**

Once allocated, the bond exacerbates Tanzania's sovereign debt profile, as it increases the debt-to-GDP and bond financing-to-GDP ratios, which credit rating agencies as 'gatekeepers' to the capital market and private investors/creditors consider when conducting Tanzania's future sovereign risk profile.⁹ The increase in Tanzania's debt portfolio, with or without a default, could impact the country's rating.

● **Hidden transaction costs:**

The Tanga UWASA bond issuance involves significant hidden transaction costs, which include feasibility studies, legal advice, certification, listing fees, and ongoing reporting requirements mandated by international sustainability standards. Moreover, there are additional costs for creditworthiness assessments and third-party environmental, social, and governance (ESG) verifications that can range from US \$10,000 to US \$100,000, which are incurred to attract institutional investors in international markets like Luxembourg. These transaction costs risk reducing the net proceeds for the issuance.

● **Unenforceability of Green Criteria:**

The Tanga UWASA Green Bond information memorandum sets out that the bond's proceeds will be used for the (re)financing in whole or in part of new or existing eligible projects (i.e., sustainable water and wastewater management, renewable energy, energy efficiency, and climate change adaptation).¹⁰

Negative Consequences of the Tanga UWASA Bond for Tanzania

- Crowding-out of private consumers of the capital market's products and consequential contraction of the economy.
- Foreign investor domination.
- Creation of fiscal risk and contingent liability for Tanzania.
- Worsening of sovereign debt profile.
- Hidden transaction costs.
- Green criteria not legally enforceable.
- Dubious business justification.
- Disconnect with the local population.
- Cost overruns.
- Lack of bankability.

7. Id.

8. H. Polackova, Contingent Government Liabilities: A Hidden Fiscal Risk, 36 Fin. & Dev. 46–49 (1999).

9. D. Cash, Sovereign Debt Sustainability: Multilateral Debt Treatment and the Credit Rating Impasse (2023).

10. See UNCDF, Tanga UWASA Issues Historic Water Infrastructure Green Bond Valued at TZS 53.12 Billion, News (Feb. 22, 2024), at 39, <https://www.uncdf.org/article/8664/tanga-uwasa-issues-historic-water-infrastructure-green-bond-valued-at-tzs-5312-billion>.

There are, however, no explicit or precise legally enforceable covenants obligating the issuer to abide by the standards on which the bond's 'greenness' is based, and the effect of the foregoing is to create the impression that the bond's 'greenness' is aspirational. This raises greenwashing concerns, as the bond is intrinsically more like a traditional bond.

🔍 **Questionable Business Justification:**

With a projected increase in water availability from 96% to 100% in Tanga City, the business case and economic justification for the bond-financed project are questionable.

🔍 **Disconnect with the local population:**

For the Tanga UWASA bond issue, there is no evidence from its 2024 Information Memorandum that there was direct consultation with local communities on project goals, anticipated impacts, and affordability measures. This raises potential concerns about a disconnect between the project's objectives and the local population's actual needs and priorities. Reference to stakeholder engagement is limited to institutional actors, including market actors, regulators, technocrats, and bureaucrats. Effective stakeholder engagement and transparency are critical to ensuring that projects financed by green bonds, like the Tanga UWASA Green Bond, address the needs of underserved communities rather than prioritize investor interests alone.

🔍 **Risk of cost overruns:**

Major infrastructure projects are susceptible to cost overruns. In the case of the Tanga UWASA bond project, this is a potential reality, as there could have been inaccurate cost estimations. Exchange rate fluctuations, inflation, and the recent listing on the LuxSE are other realities that could bring about cost overruns.

🔍 **Lack of Bankability:**

For a bond to be regarded as bankable, it should have the potential to generate consistent cash flows, either from revenue produced or cost savings from energy efficiency, especially bonds designed to finance ESG projects. According to international lawyer Geoffrey Adonu, this is a critical shortcoming associated with bonds issued by African governments.¹¹ The limited possibility of the development of a secondary market that would provide investors with the opportunity to sell their holdings easily, or at prices that will provide yield comparable to similar investments with a developed secondary, is a basis for doubting the bankability of the Tanga UWASA Green Bond.



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11. Adonu, supra note 4, at 154.

Key Takeaways of the Tanga UWASA Green Bond Analysis

- The reliance on green bonds as a form of debt-financed resource mobilization introduces long-term liabilities that could potentially deepen Tanzania's debt profile, particularly if revenue projections fall short or transaction costs escalate.
- Although the Tanga UWASA Green Bond aligns with the usual dynamics expected of a bond issue of this nature, the potential for high transaction costs, the influence of international investor expectations, and the risk of prioritizing profit over local needs highlight critical areas for scrutiny.
- Although the IMF still sees fiscal space for Tanzania to absorb more debt, this shift towards domestic resource mobilization in the form of the Tanga UWASA Green Bond must be closely monitored to ensure that it does not become a ticking time bomb.
- In Tanga's case, the green bond mechanism may offer a short-term solution to financing water infrastructure, but it risks entrenching a system that prioritizes investor returns over long-term sustainability, amplifying Tanzania's debt burden and potentially undermining the socio-economic stability of the very communities the project is intended to serve.
- While the Tanga UWASA bond provides a significant opportunity for a subnational government (SNG) to use the national framework and structure to raise substantial capital, the recent listing of the bond on the LuxSE raises questions about whether this truly constitutes domestic or international resource mobilization. The conclusion is that the recent event further complicates the categorization because it takes subscription beyond Tanzania's borders (i.e., domestic institutions or citizens).

ALTHOUGH THE IMF STILL SEES FISCAL SPACE FOR TANZANIA TO ABSORB MORE DEBT, THIS SHIFT TOWARDS DOMESTIC RESOURCE MOBILIZATION IN THE FORM OF THE TANGA GREEN BOND MUST BE CLOSELY MONITORED TO ENSURE THAT IT DOES NOT BECOME A TICKING TIME BOMB.

Balancing Innovation with Prudence:

Recommendations for Local Governments Considering Green Bonds

Green bonds present a potential pathway to stimulate domestic resource mobilization in the long term—by driving economic expansion and catalyzing taxable growth. The Tanga UWASA Green Bond represents a landmark initiative for financing sustainable infrastructure at the subnational level in Africa. However, this study's analysis reveals that this approach is not without significant concerns that must be addressed in the context of the Tanga UWASA bond issuance and any future instruments of a similar sort that are bound to spring up across the African continent. Specifically, the study's authors recommend projects that balance the financial innovation of local green bonds with a prudent and cautionary approach to avoid negative economic consequences, foreign investor domination, greenwashing, and disconnect with the local community. In addition to close monitoring of the bond issuance, the authors recommend the following:

- Adopt safeguards for green bonds targeting essential utilities to prevent economic displacement, including provisions for affordable access and mechanisms to monitor a project's socio-economic outcomes over time.

- Ensure the early and meaningful participation of marginalized communities in the policymaking process.¹²

- Incorporate a clear consumer framework, such as assessing the community's ability to afford potential increases in public utility tariffs, which would further align the project with equity-focused objectives, reducing the risk that low-income residents would bear financial burdens.

- Provide transparent environmental, social, and governance (ESG) reporting and furnish regular updates to the public on a bond proceeds' allocation and impact. Applying these best practices would improve a project's credibility and social impact and build trust within the local community, helping to ensure that international investor interests do not overshadow the socio-economic needs of local residents.

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12. US-EPA, Municipal Bonds and Green Bonds (Apr. 11, 2024), <https://www.epa.gov/statelocalenergy/municipal-bonds-and-green-bonds> (last visited Nov. 3, 2024).