

Fruitful cooperation in domestic revenue mobilisation between ATI members

Domestic Revenue Mobilisation through digitalisation:

Zambia's journey of modernisation and digital reform

Domestic Revenue Mobilisation (DRM) is a cornerstone of sustainable economic development, enabling countries to expand fiscal space, reduce dependence on external financing and strengthen economic resilience. Within this framework, the [Addis Tax Initiative \(ATI\)](#) fosters international collaboration and capacity-building efforts to support countries in their pursuit of effective and equitable DRM strategies. Zambia, a member of the ATI and an active supporter of its goals, provides an illustrative example of the potential of strategic reform in DRM. By embracing targeted investments in technology, capacity building, and institutional strengthening, Zambia has demonstrated that resource-constrained economies can achieve significant strides in fiscal performance and governance.

Historically, Zambia's tax administration faced deep-rooted challenges that hampered its ability to generate sufficient domestic revenue for national development. The tax system was characterised by inefficiencies, including manual processes that created administrative bottlenecks and fostered mistrust between taxpayers and the Zambia Revenue Authority (ZRA).

These systemic inefficiencies discouraged voluntary compliance, eroded public confidence in the fairness of the tax system, and perpetuated a narrow tax base. The resulting revenue losses constrained the government's ability to invest in critical infrastructure, healthcare, education, and other essential public goods.

Recognising the need to address longstanding challenges in tax administration, ZRA embarked on a comprehensive modernisation programme aimed at enhancing efficiency, transparency, and service delivery. Although the 2019 corporate strategic plan marked a renewed and ambitious phase of this transformation, the journey began much earlier—tracing back to 2006. Early initiatives, such as TaxOnline I, laid the foundation for digitalising tax processes and streamlining operations, setting the stage for subsequent reforms that would redefine the Authority's approach to tax administration. Transparency became a cornerstone of the strategy, aiming to rebuild trust with taxpayers by reducing opportunities for corruption and ensuring equitable application of tax laws. Efficiency was prioritised to streamline operations and reduce the administrative burden on both the authority and taxpayers, making compliance more accessible and less costly. Inclusivity was also central to the reform agenda, ensuring that all segments of society, including marginalised and rural populations, could benefit from and contribute to the nation's fiscal system.

A turning point in Zambia's DRM strategy was its prioritisation of digitalisation as a lever for transformative change. By adopting digital tools and automated processes, the ZRA sought to overhaul its operations, and create a tax administration system capable of addressing the complexities of a modern economy. The reform programme encompassed key initiatives such as the introduction of electronic tax filing systems, mobile tax platforms, and the integration of data analytics into enforcement mechanisms. Zambia took part in technical assistance and capacity-building programmes provided by partners such as the World Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), IMF and USAID. These collaborations enabled the ZRA to adopt new technologies, optimise its operations, and train its staff in global best practices. Zambia's efforts to modernise its tax administration were also shaped by the broader recognition that DRM is not only a fiscal necessity but a governance imperative.

A robust DRM system empowers states to reduce reliance on external financing and to chart their own developmental trajectories. While challenges remain in fully realising the potential of these reforms, Zambia has taken significant steps forward to mobilise domestic resources effectively. The decision to embrace digitalisation, foster inclusivity, and build institutional capacity reflects a comprehensive approach to addressing the multifaceted challenges of tax administration.

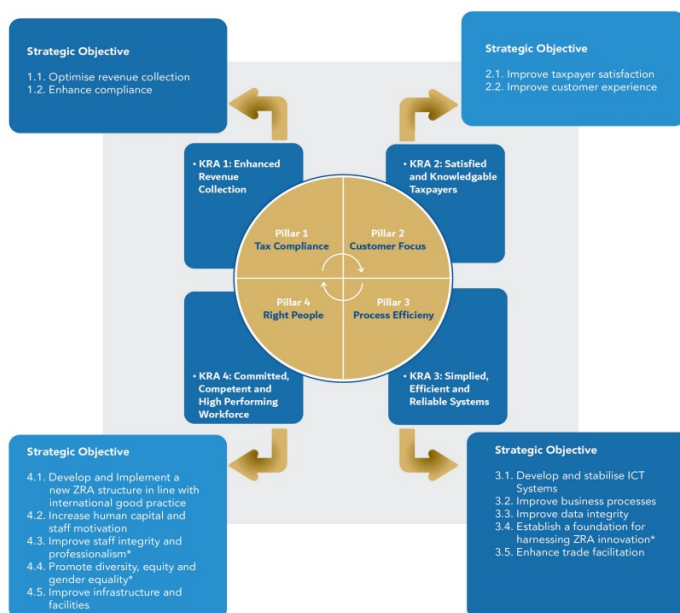


Figure 1: ZRA Overview of the strategic plan: ZRA Annual Report 2024

The lack of automation meant that long queues, time-consuming paper-based procedures, and poor transparency were prevalent.

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Objectives and vision of the digitalisation strategy

The digitalisation of tax administration in Zambia was driven by several overarching objectives aimed at addressing systemic challenges and fostering a more robust fiscal framework¹. The Zambia Revenue Authority (ZRA) embarked on this journey with a clear and ambitious set of objectives designed to reshape the country's tax administration system. Central to this endeavour was the goal of enhancing revenue collection. By leveraging streamlined, technology-driven processes, the ZRA sought to broaden the tax base and improve compliance. These modernised systems were designed to reduce opportunities for tax evasion and fraud, ensuring that all taxpayers, from individuals to large corporations, contributed equitably to national development.



Figure 2: Value of Digitalisation per Zambia's presentation at the 2024 ATI General Assembly

A critical aspect of the reform strategy was simplifying interactions between taxpayers and the ZRA. Through the introduction of user-friendly digital platforms, the ZRA aimed to alleviate the administrative burden traditionally associated with tax compliance. These platforms, accessible via desktop and mobile devices, eliminated the need for time-consuming visits to tax offices, making compliance more convenient and fostering voluntary participation.

Another cornerstone of the ZRA's strategy² was improving efficiency and transparency within its operations.

Automation was embraced as a transformative tool to streamline processes and minimise the manual errors that had long hindered the system. Furthermore, by reducing human involvement in certain processes, automation is seen as a way to potentially lessen corruption risks, support accountability, and promote a more consistent approach within the tax system. Inclusivity was also a guiding principle of the reforms. The ZRA recognised the diverse needs of Zambia's population, which includes a significant proportion of rural and low-income taxpayers. By designing digital solutions that catered to a broad spectrum of users, the ZRA ensured that access to tax services was not confined to urban centres or higher-income groups. Innovations such as mobile platforms, including USSD-based services for those without internet access, exemplified this commitment to inclusivity.

Furthermore, the ZRA has launched a program to integrate artificial intelligence (AI) into its tax administration systems. As of November 3, 2022, Commissioner General Dingani Banda highlighted how the digital era vastly transformed revenue collection, prompting ZRA to embrace AI technologies to enhance efficiency and compliance. ZRA plans to deploy AI tools to detect suspicious transactions automatically. According to its Corporate Strategy Plan, the authority aims to quantify high-risk transaction volumes using machine learning to optimize audit targeting. The initiative includes automating the Block Management System and scaling AI-driven analyses across taxpayer data pools. These efforts support ZRA's goal of strengthening tax collection while minimising manual intervention. In practical terms, ZRA will use pattern recognition and anomaly detection to flag irregularities across both individual and corporate tax filings. This proactive, data-driven approach will help the authority focus audits on higher-risk areas.

Collectively, these objectives were underpinned by a vision of creating a tax administration system that was modern, efficient, and equitable. This vision sought not only to meet Zambia's immediate developmental aspirations but also to foster trust and cooperation between the state and its citizens.

1 Zambia Revenue Authority. (2023) *Corporate Strategic Plan (CSP) for the period 2022–2024*. Available at: <https://www.zra.org.zm/wp-content/uploads/2023/05/CSP-2022-2024.pdf>

2 Zambia Revenue Authority. (n.d.) *Tax Information – Tax information details*. Available at: <https://www.zra.org.zm/tax-information/tax-information-details/>

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Transforming tax administration through digital innovations³

The ZRA rolled out an upgraded TaxOnline system (TaxOnline II) in January 2020. TaxOnline is the Authority's Integrated Tax Administration System for its Domestic Taxes transactions. It provides ZRA and its stakeholders a platform for electronic services (e-registration, e-filing and e-payment), information sharing, and workflow integration.

TaxOnline and related digital platforms have enhanced operational efficiency by streamlining workflows and integrating data with key external systems. These developments have improved transparency and compliance monitoring, including real-time data exchange and fraud detection. Through initiatives such as the Smart Invoice system and the Bulk Intelligence Data Analytics (BIDA) project⁴, the ZRA has strengthened its capacity to analyse taxpayer behaviour, identify compliance risks, and address revenue leakages. This data-driven approach supports more effective enforcement and informs fiscal decision-making.

Expanding access through mobile technology

In a country where mobile technology is far more widespread than internet-connected computers, the ZRA has leveraged this ubiquity to broaden access to tax services. Platforms like *TaxOnApp* and *TaxOnPhone* were introduced to make tax administration more accessible, particularly for rural and underserved communities.

TaxOnPhone, a USSD- and SMS-based platform, enables taxpayers to perform essential tasks, such as obtaining tax information and filing simple returns, using even the most basic mobile devices. Meanwhile, *TaxOnApp*, developed for smartphone users, offers a more comprehensive range of digital services. The introduction of *TaxOnApp*, alongside the deployment of *Mobile Tax Offices*, has improved service delivery, ensuring that citizens can engage with the tax system regardless of their location or digital capacity. In 2024, Taxpayer Identification Number (TPIN) registrations nearly doubled⁵, reaching 554,411, while return filings through the platform rose by 71.9% compared to 2023, indicating strong uptake.

The Mobile Tax Office initiative conducted 116 outreach visits nationwide, offering tax services in areas lacking ZRA stations. While ZRAs annual report 2024 does not disaggregate data by rural versus urban taxpayers, these innovations reflect targeted efforts to extend digital services beyond traditional access points.

Modernising trade and customs administration

Trade facilitation has improved through Zambia's digital reforms, particularly the implementation of ASYCUDA World⁶. This system has automated customs declarations, risk assessments, and revenue collection, leading to reduced paperwork and improved processing efficiency. The integration of Electronic Rules of Origin—now operational with Namibia and Botswana—has further simplified cross-border trade compliance and supports Zambia's participation in regional value chains. Initiatives like mandatory pre-clearance and coordinated border management have helped reduce border delays. While there is no objective data yet on reductions in corruption, expectation is that these digital innovations strengthen transparency and support a more efficient trading environment.

Harnessing the power of data analytics

The ZRA has further advanced its reform agenda by integrating advanced data analytics into tax administration. These tools are central to enhancing risk profiling, compliance monitoring, and fraud detection, critical areas for improving revenue collection.

At the core of this strategy is the Bulk Intelligence Data Analytics (BIDA) system, which consolidates data from multiple sources to provide a comprehensive analytical framework. By detecting discrepancies and identifying patterns of non-compliance, BIDA enables the ZRA to act proactively. The use of predictive analytics has enhanced the ZRA's ability to anticipate and address potential issues before they escalate.

3 Zambia Revenue Authority (2023) Data-driven tax administration is critical – ZRA CG. Available at: <https://www.zra.org.zm/data-driven-tax-administration-is-critical-zra-cg/>

4 Zambia Revenue Authority (2023) Data-driven tax administration is critical – ZRA CG. Available at: <https://www.zra.org.zm/data-driven-tax-administration-is-critical-zra-cg/>

5 Zambia Revenue Authority (2023) Data-driven tax administration is critical – ZRA CG. Available at: <https://www.zra.org.zm/data-driven-tax-administration-is-critical-zra-cg/>

6 Zambia Revenue Authority (2023) Data-driven tax administration is critical – ZRA CG. Available at: <https://www.zra.org.zm/data-driven-tax-administration-is-critical-zra-cg/>

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Smart invoices

The ZRA rolled out the Smart Invoice⁷⁸ system nationwide on July 1, 2024, replacing Electronic Fiscal Devices for all VAT-registered businesses. Designed to streamline tax compliance and boost transparency, the system enables real-time transmission of invoice and stock data via the Virtual Sales Data Controller, with each transaction authenticated through a unique Mark ID and QR code. Following a pilot that began in December 2023 and a formal launch in March 2024, the system saw a strong uptake: by mid-2024, over 12,400 taxpayers had enrolled, processing more than 100,000 invoices worth K7.2 billion. Of Zambia's roughly 21,000 VAT-registered businesses, about 8,000 had adopted the system within the first phase.

Smart Invoice supports VAT, Turnover Tax, rental income, and other levies, and offers multiple access formats including desktop apps, mobile apps, and a web portal. To ease the transition, the ZRA provided training, support materials, and a grace period extending mandatory compliance to September 30, 2024.

Digital payments

The ZRA has fully digitalised its payment processes, with 99% of payments⁹ now conducted electronically. The strategic shift has created a streamlined, secure, and technologically sound system for revenue collection, reducing costs, enhancing the taxpayer experience, mitigating fraud risks, improving efficiency and accountability, and expanding payment options.

A key milestone was the implementation of the *Integrated Payment System* (IPS) in December 2023, which enabled customs payments via mobile platforms such as mobile money services like Airtel Money or MOMO. IPS integrates seamlessly with platforms like *TaxOnApp*, *TaxOnPhone*, the Customs Portal, TaxOnline Portal, and WhatsApp Payment, making customs payments more accessible and convenient for taxpayers. By simplifying the payment and collection processes, IPS has strengthened transparency and usability to taxpayers. As a result of digitalisation, most cash offices handling Domestic Taxes (DOMT) payments have been closed, with staff re-assigned staff to other functions.

Enhancing taxpayer experiences

Improving the overall taxpayer experience has remained a cornerstone of Zambia's tax reform efforts. In 2024, the ZRA intensified its focus on building a responsive, transparent, and citizen-oriented tax administration. Under Key Result Area 2 of its Corporate Strategic Plan— "Satisfied and Knowledgeable Taxpayers"—the Authority implemented a broad range of initiatives aimed at improving service delivery, taxpayer education, and voluntary compliance.

A central pillar of these reforms was the expansion of taxpayer education and outreach. In total, ZRA conducted 668 outreach activities across the country, including 179 workshops, 147 tax clinics, and 116 mobile tax office operations. These engagements targeted small businesses, schools, district chambers of commerce, and the general public, especially in areas without permanent ZRA presence. In parallel, the Authority invested heavily in digital outreach, airing 449 radio programmes nationwide and registering 21,426 interactions with its AI-powered chatbot "Zax." It also extended access to the online learning platform, Atingi, on which 1,959 participants enrolled in the Tax Appreciation Course, and 1,056 successfully completed it.

7 Zambia Revenue Authority (2023) Data-driven tax administration is critical – ZRA CG. Available at: <https://www.zra.org.zm/data-driven-tax-administration-is-critical-zra-cg/>

8 Zambia Revenue Authority (2023) Data-driven tax administration is critical – ZRA CG. Available at: <https://www.zra.org.zm/data-driven-tax-administration-is-critical-zra-cg/>

9 ZRA corporate communications manager Oliver Nzala. Available at: <https://www.mwebantu.com/zra-spearheads-digital-payment-revolution-99-percent-transactions-now-electronic/>

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Achievements and impact

Overall, Zambia has made progress in strengthening its domestic resource mobilisation framework. Total revenue collection has steadily increased, with net revenue rising by 30.1% from 2023 to 2024, according to the ZRA 2024 report. The report also indicates that gross revenue collection reached K148,558.7 million, with refunds totalling K17,600.0 million, resulting in a net tax outturn of K130,958.7 million. This exceeded the annual target of K125,340.8 million by K5,617.9 million (4.5 %), representing a growth in the tax-to-GDP ratio from 18.1% in 2023 to 19.0% in 2024¹⁰. The positive revenue performance was driven by strong collections from Import VAT, Withholding Tax, Mineral Royalty, and PAYE, alongside the implementation of proactive compliance improvement strategies.

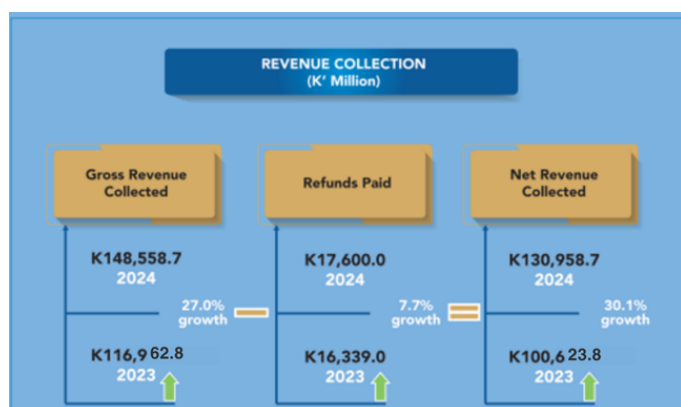


Figure 3: Revenue collection as per ZRA Annual Report 2024

International cooperation has been a key enabler in the ZRAs transformation. Partnerships with organisations such as World Bank, GIZ and USAID, have supported various modernisation initiatives, from data analytics and customer experience improvements to enhanced border infrastructure. These collaborations ensured that reform efforts aligned with strategic priorities through structured governance and regular engagement.

At the heart of ZRA's progress lies its commitment to digital transformation. The Authority expanded its suite of electronic services, making tax compliance more accessible and efficient for citizens and businesses alike. Mobile platforms such as *TaxOnApp* have helped broaden access, while innovations like Smart Invoice have strengthened transparency and oversight in VAT administration. The closure of 18 cash offices across the country and migration to 100% electronic filing and 99.8% electronic payments underscored ZRA's digital-first strategy. This shift not only reduced the cost of compliance for taxpayers

but also allowed the redeployment of 31 officers to other functions, improving operational efficiency.

Challenges and opportunities

While Zambia's DRM reforms have demonstrated strong momentum and transformative potential, several challenges remain that require sustained attention and strategic response. One of the most persistent barriers to realising the full benefits of these reforms is the uneven level of digital literacy across the taxpayer population. The Zambia Revenue Authority has taken significant steps to migrate services online, but many taxpayers—particularly in rural areas or the informal sector—face difficulties to use these tools due to limited exposure to digital technologies. The 2024 Annual Report notes that mobile outreach and taxpayer education remain essential to reaching underserved areas. Without dedicated efforts to close this digital inclusion gap, there is a risk that segments of the population may be unintentionally excluded from the advantages of the digital tax ecosystem.

Beyond inclusion, concerns persist regarding service quality.¹¹ The share of taxpayers served within the Taxpayer Charter standard of 20 minutes fell sharply from 90.3% in 2023 to 40% in 2024. The ZRA attributed this decline to increased demand for Taxpayers Identification numbers driven by institutional requirements from banks and utilities—as well as delays linked to National Registration Card duplication and system disruptions. Nonetheless, efforts to simplify interactions continued, including the implementation of QR codes on TaxOnline and the Mineral Output Statistical Evaluation System (MOSES) for real-time validation of tax and export certificates.

On fairness and trust, survey shows mixed perceptions. In 2024, 66.8% of surveyed taxpayers reported being treated fairly, down from 72.5% in 2023, while 80.2% found ZRA information clear and understandable. The Authority also acknowledged delays in VAT refunds as a significant pain point: despite increasing monthly refund allocations from K1,350 million to K1,700 million in September 2024, the average processing time still stood at 812.3 days - well above the 30-day charter target.

To strengthen compliance and enforcement, the ZRA adopted a risk-based audit strategy and rolled out the Compliance Risk Management Module under its BIDA Phase II project. While the number of audits declined by 24.3% to 15,037 cases in 2024, audit assessments still totalled K2,535.8 million, with 77.2% of this being principal tax. The Authority also undertook investigations into 1,437 cases, with assessments amounting to K32.2

¹⁰ Zambia Revenue Authority (2024) Annual report 2024. Available at: <https://www.zra.org.zm/wp-content/uploads/2025/05/Annual-Report-2024.pdf>, p. 31

¹¹ Ibid, p. 57.

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billion, including K28.6 billion from Financial Intelligence Centre (FIC) referrals. To enhance audit capacity, the ZRA reported that it has increased the number of auditors under its new structure and will continue leveraging technology to strengthen audit processes.

Internally, the shift to digital systems is reshaping operations and requires continuous adaptability. The 2024 ZRA Annual Report highlights increased reliance on data-driven tools such as the BIDA Compliance Risk Management Module and 360-degree taxpayer dashboards, which require new skills, workflows, and cultural change across the organisation. The ZRA has begun addressing this by onboarding 60 new management trainees and expanding internal audits and training capacity. Continued investment in staff skills and clear communication around the purpose and benefits of digital reforms will be critical to sustaining reform momentum.

Equally important is strengthening public-facing communication. In 2024, the ZRA expanded its outreach through 449 radio programmes, digital campaigns, workshops, and the Taxpayer Appreciation Day. Yet taxpayer dissatisfaction with service delays, VAT refunds, and response times remains evident. Reinforcing public trust and the perceived fairness of the tax system requires communication that not only clarifies taxpayer obligation but also links compliance to the delivery of public goods and demonstrates institutional accountability. This is key to reinforcing the social contract between citizens and the state.

In conclusion, Zambia's DRM reforms have laid a strong foundation for transformation. To sustain and amplify their impact, greater emphasis is needed on digital inclusion, staff capacity-building, strategic communication, and strengthening the tax administration efficiency and taxpayers' trust. With sustained investment in people, platforms, and public confidence, Zambia can deepen the reach of its reforms and build a tax administration that is not only modern and effective but also inclusive, equitable, and supportive of the economic growth.