Workshop 3: Effective Information Technology Systems for Property Tax Administration

Governments are progressively embracing information technology (IT) systems to improve property tax administration. IT systems have the potential to simplify and improve property identification, data gathering, valuation and payment systems. Furthermore, the utilisation of IT systems can enhance data management and transparency in revenue mobilisation and overall taxpayer engagement. Despite the numerous benefits IT systems offer, many lower-income countries have yet to fully realise their potential. What are the key challenges in adopting IT systems? How can governments take advantage of IT benefits to enhance property tax administration and performance? The third ATI & LoGRI workshop featured informative presentations that shed light on the challenges faced when adopting IT systems for property taxation. The examples from Kenya, Mozambique, and Rwanda showcased how countries can overcome these challenges by implementing specific strategies tailored to their unique contexts.

Software tester in Rwanda © GIZ

Challenges of Adopting Information Technology (IT) Systems in Property Tax Administration

The adoption of Information Technology (IT) systems in property tax administration presents immense potential for efficiency and transparency. However, various challenges hinder its full realisation across different countries. Tax authorities in Rwanda, the city of Nairobi in Kenya and Beira and Chimoio municipalities in Mozambique have adopted IT systems as part of efforts to improve aspects of the administration of property taxation and performance. While these systems led to improvements in some areas, key challenges remain.

● **Adoption of systems that are not adapted to local context and poor adoption strategy:** Many lower-income countries encounter difficulties when implementing IT systems due to inadequate planning and unsuitable technology choices. This results in the adoption of systems that are not fully operational or well-suited to local contexts, causing disruptions in day-to-day administrative activities. This is particularly the case of the city of Nairobi, which acquired a revenue mobilisation system poorly designed with a lack of key functions and frequent bugs (please refer to the Kenyan presentation *here*). Moreover, these systems were acquired at high costs in a context where the city did not have the financial capacity to pay for the full package of services, thus causing limited support in the ongoing maintenance of those systems.

● **Non-integrated and poorly connected systems:** Often, countries adopt different and non-integrated systems for each department responsible for an aspect of the property tax administration. The lack of system integration can thwart effective billing, payment tracking, enforcement, and audit trails. Likewise, this lack of system integration creates problems of data and information sharing between the departments which are key to ensure effective property tax administration.

  o **In Nairobi,** departments use different property tax administration combining manual procedures and automatic processes for the registration of properties, property valuation, billing, and payments. Additionally, these systems are not interconnected, leading to duplication of tasks, inaccurate or incomplete taxpayer data and challenges in tracking tax payments. Lastly, payment processes can be perceived as complicated for taxpayers, thus risking discouraging compliance. Illustratively, property tax invoices are printed and sent to taxpayers or collected at the city's offices. Taxpayers are then requested to make payments for their tax liabilities through the bank and return their bank payment receipts to the City's cash offices as proof of payment in order to receive an official receipt of payment.

  o **Beira Municipality in Mozambique** has two IT systems: one for cadastral administration which mainly functions as an electronic archive of existing and new land and property titles and one basic software for data management and tax administration. Both systems are not connected to each

other, thus complicating data and information sharing.

- o **Chimoio** uses a unique tax and administration software that administers property taxes, land and property title processes, and a variety of other fees and taxes. However, there is no geospatial database linking property ownership information with specific geographic locations to facilitate the update of the property cadaster.

- o **In Rwanda,** although the Rwanda Revenue Authority (RRA) systems are integrated with stakeholder systems (i.e, Banks) and thus facilitate access and sharing of information, problems can occur at the level of other systems connected to RRA. When stakeholder systems are "down", this affects the RRA property tax administration system with regards to access to verifying taxpayers' data or track payments. For instance, payments made to the bank could be returned late to the RRA, given the systems issues encountered by the banks. Ultimately, these delays from the banks affect the ability of the RRA to match payments with taxpayers' names (reconciliation) in a timely fashion.

- **Low level of computer literacy:** Despite the transformative potential of IT systems, IT reform requires good user training to improve their technology skills and computer literacy. However, inadequate computer literacy among taxpayers and administrative staff can impede the effective use of IT systems. This is particularly evident in Rwanda, where some taxpayers struggle to use the systems for registration and payments, thus reducing tax compliance and the rate of registration of new taxpayers.

Office in Bolivia © GIZ

IT-Led Reforms and Strategies to Unlock the IT Potential for Property Tax Administration

Despite the challenges outlined above, IT-led reforms have improved property tax administration, as evidenced by Rwanda's experience. The systems in Beira and Chimoio in Mozambique as well as those in Nairobi in Kenya, also show prospects and opportunities for optimal use.

- **Rwanda:** Efforts were made to boost collection and administration by adopting an IT system for property tax management and administration. IT systems enabled the implementation of a centralised property data system called the Rwanda Automated Local Government Tax Management (LGT) system, with key features such as online declaration and payments of property taxes, property identification registration modules (i.e. GIS), and audit and enforcement modules. In addition, this system is integrated with other systems, such as those of banks, Land Information systems and the National ID Agency, for easy information sharing and access to this information in real time. The use of the LGT has increased transparency in the management of taxpayer data, and in the monitoring of payments, considering that the property owners can access tax administration systems to view their property tax information. The adoption of these systems was accompanied by the implementation of awareness campaigns with taxpayers through workshops, meetings and delivering guidance on tax declaration and payment process, use of social media, among others.

- **Mozambique:** With the support of donors and property tax reform experts, the cities of Beira and Chimoio plan to improve their IT systems by implementing a platform with separate systems – a geospatial cadastral system and a tax administrative system - which will interact through an application programming interface (API). These systems will be interoperable and will support all property tax administration functions, property identification and registration, data management, billing, payments, enforcement etc.

- **Kenya:** The central government in Kenya plans to deploy a system called the Integrated Revenue Management System (IRMS) in county governments that would provide better performance than the existing systems. This system would

be interoperable, including functions like self-registration, computer-aided valuation, payments through multiple platforms, and electronic enforcement actions, to name but a few. The optimal use of the system would require strong sensitisation programs for all the key stakeholders, adequate IT infrastructure and effective collaboration between the different stakeholders to facilitate data exchange.

Key Takeaways

1. **Holistic approach to design and adoption:** The success of IT system adoption relies heavily on adopting a comprehensive and holistic approach to implementation to enhance all facets of property tax administration (i.e., property identification, valuation, billing, payments, enforcement etc.). A robust strategy entails the adoption of integrated and interoperable systems, regular updates, upgrades, and proactive maintenance to prevent system issues and bugs. Additionally, comprehensive sensitisation and training of users, play a vital role in ensuring smooth and effective system utilisation.

2. **Context matters:** Recognising that IT systems are not one-size-fits-all solutions is imperative. Conducting a thorough analysis of the specific context in which the systems will be deployed becomes pivotal in ensuring the selection of the right system that aligns with local needs and requirements. Furthermore, analysing legal prerequisites, such as valuation approaches, assessment procedures, payment deadlines, and tax bill delivery, is essential to ensure that administrative processes embedded in the systems align seamlessly with legal protocols. Lastly, assessing existing IT infrastructures, including data capabilities, internet connectivity, and computer resources, provides valuable insights into technology gaps and opportunities for improvement.

3. **Training and capacity building:** Investing in training and capacity building is crucial for successful IT adoption. Providing comprehensive training programs to equip staff and users with the necessary skills to navigate and leverage the IT systems fosters greater proficiency and confidence in system usage. It also facilitates a smooth transition from traditional methods to IT-enabled processes, enhancing overall efficiency in property tax administration.

4. **Sustainability:** Ensuring sustainability is a crucial factor in unlocking IT potential. Sustainable systems can be achieved through several strategies, including (1) political support in adopting overall IT systems; (2) embracing locally designed systems by engaging local developers who possess a deep understanding of the local context allowing for customised solutions that cater to specific needs[1] ; (3) avoiding vendor lock-in by prioritising interoperable systems that can be managed by local governments and perform effectively under an increased or expanding workload; (4) opting for simple and user-friendly systems to facilitate utilisation, especially for staff with basic IT expertise[2].

Aerial view of Marsabit County in Kenya © GIZ

[1] For more information about the advantages and drawbacks of using local developers, see this blog:
https://www.ictd.ac/blog/developing-adopting-digital-tools-property-tax-reform-dakar-senegal/

[2] This policy brief provides an excellent analysis of the challenges and opportunities for using IT systems in property tax administration and can be used as a reference for country members wishing to get more information: https://www.ictd.ac/publication/it-systems-property-tax-reform-strengthening/