

# ATI Working Paper

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## ABSTRACT

Globally, local governments are under pressure to deliver basic services to their citizens. To fund amenities such as storm water drainage, waste management, adequate street lighting and primary healthcare, sub-national/city administrations are under financial stress. Support for local government revenue administration, to some extent, has been largely ignored. As evidenced by the introduction of Local Government Revenue Collection Information System (LGRCIS) in Arusha City Council, Tanzania, the development of an integrated revenue collection system can provide an excellent platform to collect own source revenue more efficiently. Through improved data collection, visual data representation, sophisticated reports and analytical metrics, such an integrated system can also assist local councils with their decision-making processes.

Key words: Own source revenue, revenue collection, ICT, LGRCIS

JEL Classification: H70, H71.

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“[T]here is no doubt that weak and often corrupt revenue administration remains a fundamental barrier to effective and fair taxation, and to building wider trust between government and citizens. Key indicators—tax gaps, audit recovery rates and the level and pattern of arrears—can say much about the performance of tax administrations: developing the capacity to monitor and analyzing these, indeed, is a central reform aim.” (IMF 2011)

## **1. Introduction**

From 2020 to 2050, Africa is expected to be the fastest urbanizing region in the world (United Nations 2014). It is estimated that the rapid urbanisation in Africa will result in an additional 790 million urban dwellers between 2015 and 2050 (Durand-Lasserve 2016). Furthermore, sustainable development challenges will be increasingly concentrated in cities, particularly in the lower-middle-income countries where the pace of urbanization is fastest (United Nations 2014). In 2010, there were already more than 20 African countries where 70 percent or more of the urban population lived in cities of less than 500,000 people (World Bank 2013; Leipziger 2012).

Tanzania’s economic development is shaped by its rapid urbanization. The share of the urban population increased from 18 to 27 percent from 1990-2012 and half of the population is expected to live in major and secondary cities by 2030 (Sarzin and Raich 2012). Tanzanian cities already account for the majority of the country’s physical, financial, and technological capital. Tanzania’s primary city, Dar es Salaam, accounts for around 40 percent of the urban population. It is the third fastest growing city in Africa, growing at an average rate of 5.8 percent annually from 2002-2012 (National Bureau of Statistics 2012). Dar es Salaam, which had an estimated population of 4.6 million in 2012, is expected to become a mega city by 2030 with a population over 10 million (United Nations 2014).

To maintain well-functioning cities, it is therefore essential to design and implement practical and efficient urban policies (Freire 2013; UN-Habitat 2005). Research has identified land and tax policies, as well as good governance, as critical elements. One key variable that distinguishes successful from unsuccessful cities is the quality of the local infrastructure (Freire 2013). If African urban areas are to capture the economic growth that can go with this population growth, they will need to increase the level and quality of public expenditures (McCluskey, Franzsen and Bahl 2017). This, of necessity, also implies the increased mobilisation of own source revenues.

Own source revenue collection is an important task of local government. However, local governance is plagued by inefficiency and in many African countries own source revenue is decreasing as a proportion of total revenue, resulting in a vicious cycle of overreliance on transfers from the national government (Fjeldstad 2006; Fjeldstad and Heggstad K 2012). Revenue collection is a major challenge facing many jurisdictions worldwide but the challenges tend to be more acute in developing countries.

A modern, efficient, and transparent revenue administration is one of the keys to improving the overall sub-national government performance. An effective sub-national revenue administration system should be based on the principles of equity, progressivity, simplicity and efficiency. The efficient collection of own revenue sources is a major step towards self-sufficiency and less dependence on national government (OECD 1999).

This paper provides a review of the role of information and communication technology (ICT) in relation to the better administration of local government own-source revenues. It examines the role of an ICT-based revenue collection system in Tanzania generally and Arusha City Council more specifically. The Local Government Revenue Collection Information System (LGRSIS) is an initiative led by the President's Office – Regional and Local Government (PO-RALG). From 2013, it was tested in a number of pilot cities before the decision was taken to roll it out as the national local government revenue collection system.

## **2. Local government revenue administration**

Good revenue administration starts from the philosophy that underpins the thinking and actions of the authority. This includes a willingness to work with the community, the need to build trust in its administration by taking a fair and professional approach, integrity and transparency (Moore 2013). Local governments across the developing world are playing an increasingly important role in the delivery of basic public services. However, as stated earlier, local government is facing the challenge of rapid and largely unplanned urbanization (Yusuf, 2013). One of the fundamental problems facing local governments in developing countries is the widening gap between the availability of revenue resources and local spending needs. One of the main reasons for this increasing fiscal gap is the rapid growth of urban populations, which results in an increasing demand for public services and new infrastructure (Bird and Slack 2013).

It should be recognized that improved efficiency in the local administration and collection of own source revenues has far reaching effects, especially a reduction in the dependence of local governments on receiving transfers from the centre (Moore 2013). Whilst central government transfers cannot be eliminated completely, given the cost of large-scale infrastructure developments, reducing the reliance on transfers should be a goal of decentralization and enhancing local fiscal autonomy. As part of the decentralization initiative, local administrations must be incentivized to strengthen their revenue collection capacity. This may increase the necessary fiscal space to ensure better service delivery. Local government in developing countries have to tackle a range of issues to improve revenue collections. These issues are related to a change management strategy within the local government with a view to optimising own source revenue administration capacity (Bird 2004). Local government needs to be able to efficiently and effectively administer the revenue system in a manner that builds taxpayer trust and confidence. Its ability to do this will impact on a taxpayer's propensity to comply and on the level of voluntary compliance. This implies that local government needs to be sufficiently modern in its utilisation of technology so as to be able operate efficiently and effectively (Garzón and Freire 2014; Mascagni, Moore and McCluskey 2014).

For fiscal decentralization to be effective local governments in developing countries must have sufficient sources of own tax revenues as well as non-tax revenues collected from a range of user charges and fees (Bahl and Bird 2008). Adequacy of own source revenues is the key to a local governments ability to deliver necessary goods and services to its population. Central governments also have an important role in ensuring that local government have adequate revenue as this has an impact on the level of transfers from the centre. The ability of local government to maximize its own revenue sources is, however, fundamental (Kelly 2013; Bird 2004).

The vast majority of local governments in developing countries depend primarily on central government transfers (Smoke 2013). However, for a viable and sound fiscal future, local governments in developing countries must capitalise to a much greater extent on their own revenue sources (Bahl and Bird 2008). Efficiency and effective own source revenue administration aim is to maximise collection. Local governments' capacity to mobilize their own resources is a crucial aspect of successful decentralization and democratic governance. Local governments in developing countries typically have an array of own source revenues. The sustainability of their revenue is directly related to the quality of how the revenue

sources are administered. Local governments in low-to-middle income countries generally do not effectively take advantage of their own revenue sources. As a consequence, they struggle to finance improved public services (Monkam 2010).

Revenue administration systems must be designed in a way to ensure transparency, be capable of providing information that can be made publically available and have systems to improve public confidence in the fiscal probity of local government. Transparency of information can also improve public and stakeholder engagement with public administration and apply domestic pressure on ensuring its efficiency through accountability mechanisms.

Researchers have been critical of the administration of own source revenue by sub-national government over the last 40-50 years. Studies have shown that weak administration has been core to the lack of revenue performance. It is contended that the administration is fundamentally weak in respect to a number of facets including data compilation, lack of transparency, manual paper-based systems, billing, ineffective collection and weak enforcement (Dillinger 1991; Kelly and Musunu 2000; Fjeldstad 2004, 2006; McCluskey and Franzsen 2005; Moore 2013;). We agree with Kelly (2014) who states that collection is the core activity with a revenue administration. No matter how good the other administrative elements are, if the revenue cannot be, or is not collected, the system will fail.

### **3. Information and communication technology (ICT) and revenue administration**

A key problem facing local revenue administrations that still operate manual recording systems is estimating how many taxpayers and licence payers are missing from their registered rolls, how many of those who are registered are inactive, and how much revenue is actually foregone through non-payment and ineffective billing systems (Fish 2015; Garzón and Freire 2014). Even when taxpayers are registered and active, sometimes there is no complete and reliable information on their tax liabilities, tax payments made, and their outstanding balances (i.e., taxes in arrears are practically unknown) (Garzón and Freire 2014). Furthermore, the recorded data for taxpayers may be inaccurate or simply incomplete – making billing, collection and ultimately enforcement challenging, if not impossible.

The introduction of modern computerized management information systems can alleviate or resolve many of these everyday problems (Fjeldstad and Heggstad P 2012). A basic challenge for tax administrators and revenue managers is to overcome these weaknesses by using appropriate management information systems. These systems must be able to upgrade their

institutional capacities by identifying taxpayers and the users of services, assessing their payment obligations, ensuring accurate and timely billing, and proper enforcement.

Creating a sustainable tax administration system that can administer own source revenues in an easy, efficient and cost effective manner is a goal that many national and sub-national governments around the world share. To improve efficiency and reduce administrative and compliance costs are central issues for all revenue departments. The following are key objectives of developing a revenue collection system: (1) raise more revenue; (2) improve internal organisation; (3) ensure greater accountability, transparency and integrity; (4) improve taxpayer compliance; and (5) improve service delivery to taxpayers.

Collecting revenue from large numbers of businesses and citizens is an ongoing challenge for any government, especially in developing countries (Fish 2015). There is often increasing pressure to collect more revenue with fewer resources and reduced budgets. Revenue collection departments also face customer demands for more user-friendly services, such as easier and more convenient payment options (Bird and Zolt 2003). Not surprisingly, tax administrations in developing countries—at both the national and sub-national levels—have been increasingly utilising ICT, harnessing some of the technical advances in and reducing costs of informational technology. ICT presents obvious advantages for tax administrations and taxpayers. For tax administrations, the appropriate use of ICT should result in efficiency gains and the streamlining of systems and procedures (Casanegra de Jantscher and Bird 1992). For taxpayers it can instil trust and increase voluntary compliance, whilst also reducing their compliance cost (e.g., by providing a range of e-services and e-payment options). In short: the process of paying taxes and fees should become simpler, faster and easier to understand (Garzón and Freire 2014).

The use of ICT also presents many benefits for revenue departments, including faster processing of information and data, requiring fewer resources and reducing the cost of collection. It also increases transparency and is therefore a powerful tool in tackling corruption and reducing the opportunities for bribery and extortion. Using ICT to compile a database of information enables revenue authorities to identify and address non-compliant taxpayers. In addition, more comprehensive and complete databases improve the ability of councils and revenue authorities to undertake tax compliance analysis and enable more accurate revenue forecasting – both key aspects for improved budgeting.

However, although one of the primary aims with tax administration reforms is simplification (Casanegra de Jantscher and Bird 1992), ICT administration projects are often complex and expensive and it may take time to realise their benefits and savings. It is therefore important for revenue departments to make the right decisions. This is particularly important in a developing economy, where purchasing an “off-the-shelf” system may not be suitable. As Casanegra de Jantscher and Bird (1992:4) point out, albeit in respect of tax administration reform broadly, there is “no single set of prescriptions—no secret recipe—that, once introduced will ensure improved tax administration in any country”. Keen (2012:14) also rightly concludes that there are no “quick fixes”. ICT solutions must be fit for purpose and thus relate to local context. This may mean that simpler, more robust systems could often be more appropriate options in the short to medium term.

The two primary approaches to revenue collection are ICT-based information systems and manual systems. An ICT-based revenue collection system is typically a comprehensive solution for the collection of municipal taxes, fees and other charges and levies. This method attempts to deliver a cashless payment environment through the introduction of mobile money, direct bank deposits and e-transfers.

Before the introduction of automated systems of revenue collection, local authorities used manual systems of collections by using manual receipts and manual recording. Problems such as high collection costs, fraud, underpayment and other revenue leakages were evident (Fjeldstad and Heggstad 2012). Leakages that occur because of untimely collection, corruption and under-collection can be reduced by streamlining and automating the revenue collection process. With a modern system of revenue collection, sub-national government can more effectively manage existing revenue streams as well as mobilize additional revenue by increasing collection efficiency as well as by expanding its revenue base.

Revenue administrations must adopt practices that integrate the use of technology and analytics to improve both their efficiency and their effectiveness (Bird 2014). The effective use of digital information and the employment of analytics – including data and text mining and visualisation tools are becoming core technologies. Revenue administration needs to identify ways to reduce compliance costs for taxpayers by making it easier and convenient for them to meet their obligations (Bird 2014).

Since the mid-1990s, information technology (IT) interventions have become a central platform of the United States Agency for International Development’s institutional support



(USAID 2013). IT improvements will enable the revenue administration to achieve specific short- and long-term goals, i.e. to be effective and efficient in collecting revenue and to achieve high levels of voluntary compliance. The use of IT systems in revenue administration has been to support the management chain in a way that the administration moves away from burdensome manual paper-based processing and to direct its resources to facilitating, monitoring, and enforcing compliance (USAID 2013).

The 1990s saw the demand for integrated tax IT systems expand significantly with the result that commercial “off-the-shelf” (COTS) solutions became common. COTS were ready-made, rather than designed for specific needs, and typically based on evidence of best practice drawn from other end-users. While they still required customization and additional investment, they were marketed as integrated and configurable to meet the varying requirements of modern tax administrations with reduced implementation timelines and investment costs (Jenkins 1996; USAID 2013).

Research into the role and impact of ICT within revenue administration has revealed positive effects on revenue collection. Gidisu (2012) provides evidence on this positive effect in Ghana due to the introduction of automation system reducing the cost of tax administration and increasing the effectiveness of revenue collection. In addressing information challenges, Ghana introduced the Local Government Revenue Mobilization System (LGRMS). It is an integrated Geographic Information System (GIS) and revenue mobilization tool that provides realistic information on the revenue potential of a local assembly and automates the revenue mobilization processes. Similarly, a survey undertaken by Odhiambu, Mitullah and Akivaga (2005) in Kenya found that the information system was instrumental in enhancing the proper management of revenue sources in the local authorities. Based on his fieldwork in Sierra Leone and Malawi, Fish (2015) finds that administration efficiencies can be significant when an ICT system is applied to revenue collection. This research also found other benefits such as (1) longer-term impacts on local government accountability; (2) better information flows to support urban planning and targeted service delivery; and (3) indirect benefits through the quasi-formalisation of property rights.

In Uganda, the case of Kampala Capital City Authority (KCCA) shows best-practice examples of improving revenue administration (Kopanyi 2015, 2016; Franzsen and McCluskey 2017; Kopanyi and Franzsen 2018). The KCCA has made significant improvements in revenue enhancement, confirming that efficient revenue collection relies on a good administration and a solid institutional framework. KCCA established the Directorate

of Revenue Collection that implemented revenue automation and introduced the e-Citie programme for easy registry and payment systems and simplification of revenue processes (Kopanyi 2015, 2016; Kopanyi and Franzsen 2018).

#### **4. Local government in Tanzania**

Tanzania comprises of 30 regions and 106 administrative districts. Local government comprises urban authorities and rural authorities as established under the Local Government (Urban Authorities) Act of 1982 and the Local Government (District Authorities) Act of 1982. The local government system was established in the colonial period and continued after independence until 1972, when local government authorities were abolished. Local government was reinstated in 1978 (Kayuza 2006). There are 186 local government authorities (LGAs) in Tanzania.

Central government transfers constitute the main source of financing for local government authorities (PMO-RALG 2013). Not only do competing demands on limited government resources mean that these transfers fall short of the need, but they also often suffer delays, constraining city capacity to manage development planning (Kelly and Musunu 2000). In addition to central government transfers, local government authorities (LGAs) raise revenues from various sources that are directly under their legal purview (McCluskey and Franzsen 2017), including the service levy, business licences, hotel levy, and the billboard levy. Until 2016 the property tax (“rates”) was also an important local tax levied and collected by LGAs. However, its collection has been centralised within the Tanzania Revenue Authority (TRA) and, since 2017, the revenue from this tax is part of central government revenues. This development, as well as the current framework for local revenues and intergovernmental transfers (Fjeldstad 2004), do not adequately accommodate the significant financing needs of Tanzanian cities. Urban LGAs do not have sufficient revenues to invest significantly in new infrastructure (Sarzin and Raich 2012; Ng’eni 2016).

Although government grants account for the largest portion of LGA funding depending on the relevant LGA.<sup>6</sup> However, the flow of funds from the government has not been regular, predictable, and consistent with LGAs plans of action. One reason for the delay in getting the requisite government funds timely is that the release of funds by the government depends on

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<sup>6</sup> For example, 77 percent in Kinondoni Municipal Council and 95 percent in Mtwara Municipal Council in 2013.

the actual cash collections by the government and the impending demands of the day. In view of this, own-source revenues (OSR) assumes a crucial role in guaranteeing sustainable financial performance of the LGAs given that these revenues are directly under their control. However, LGAs are facing challenges in the areas of revenue administration, which includes budgeting, revenue planning and strategies, internal controls over revenue, accountability and transparency in the whole cycle of revenue management.

The World Bank has been assisting LGAs in Tanzania since the 1990s. Its technical assistance programme in Tanzania was designed to fully integrate and support various projects and programmes in the so-called urban portfolio.<sup>7</sup> Support of OSR generation through the Tanzania Strategic Cities Project (TSCP) initiative had a specific focus on how these revenue sources could be more proactively managed through the Local Government Revenue and Collection Information System (LGRICIS). TSCP was prepared in 2008/2009 to support seven LGAs, namely Tanga, Arusha, Mwanza, Kigoma, Dodoma, Mbeya and Mtwara, in addition to the Capital Development Authority in Dodoma, the national capital.

Under these circumstances, LGAs face important challenges in the areas of revenue administration, which includes revenue collection, internal audits and general issues around accountability and transparency within the whole cycle of revenue management. The need for appropriate ICT support is self-evident.

Supporting LGAs' efforts to collect their own source revenues using technology is part of overall efforts to improve financial sustainability of urbanization over the long term. Prior to 2014, different revenue billing and collection systems were in operation within the LGA environment in Tanzania. For example, a number of LGAs used the Municipal Revenue Collection Manager (MRECOM). MRECOM was an initiative of a small number of LGAs. These LGAs were convinced that OSR could be enhanced if an appropriately-designed IT tool could be designed and implemented. MRECOM was developed around 2005/06 by a local information technology company, DayOne Technologies. It was designed to assist

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<sup>7</sup> The urban portfolio consists of: (1) The Tanzania Strategic Cities Project (TSCP); (2) the Urban Local Government Strengthening Program (ULGSP); (3) the Zanzibar Urban Services Project (ZUSP); and (4) the proposed Dar es Salaam Metropolitan Development Project (DMDP). The key areas of focus of the programme was the following: (1) Project Financing Support: Public-Private Partnerships at the Local Government Level; (2) Support to Enhance Local Government Own-Source Revenue Collection and Management; (3) Demonstrating Opportunities for Private Investments in Local Government Projects; (4) Support for Capital Investment Plans at the Local Government Level; and (5) Support for Sub-national Debt Market Development Activities.

LGAs with the management of revenue collections. Another group of mostly smaller, rural LGAs introduced and used the iTax system.<sup>8</sup>

DayOne Softcom Technologies also designed and developed the Local Government Revenue Collection and Information (LGRCIS) – a more comprehensive revenue collection management information system for Tanzania’s LGAs than MRECOM. Indeed, LGRCIS can be viewed as an advanced version of MRECOM.

## **5. Local Government Revenue Collection Information System (LGRCIS)**

### **5.1 Background and development**

Reasons for Tanzania’s relatively low tax collection, especially at local government level, include corrupt activities, tax exemptions, and a narrow tax base and non-taxing of the informal sector. The solution was the development of MRECOM and following this the LGRCIS which is a software information system used for managing revenue collection in municipal councils. The system manages revenue collection from property tax, billboard tax, service levy, hotel levy, business licenses, and other similar sources of municipal revenue. LGRCIS allows municipal councils to identify and establish eligible taxpayers, knowing clearly who has already paid and who has not.

With the assistance of the World Bank, the government of Tanzania established the LGRCIS. The development of LGRCIS was spearheaded by PO-RALG and followed an intensive period of testing and piloting within eight councils referred to above. Testing of the system and training were core initiatives and led to improvements of the software. The first LGAs implemented the LGRCIS in 2014. The goal was to introduce LGRCIS in the 30 largest and most urbanized LGAs in Tanzania with PMO-RALG support. Smaller, more rural LGAs were to continue using iTax.<sup>9</sup> However, it was envisioned that LGRCIS would ultimately become the primary revenue collection system for all LGAs throughout Tanzania.

The LGRCIS is a holistic system and database, underpinned by a multi-purpose GIS platform, designed to incorporate all local government own source revenue functions, to

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<sup>8</sup> iTAX was developed in a cooperation project between the Tanzanian Revenue Authority (TRA) and Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (GTZ), now Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ). For example, Mtwara Municipal Council and Tanga City Council previously used iTax, but migrated to LGRCIS as pilot LGAs.

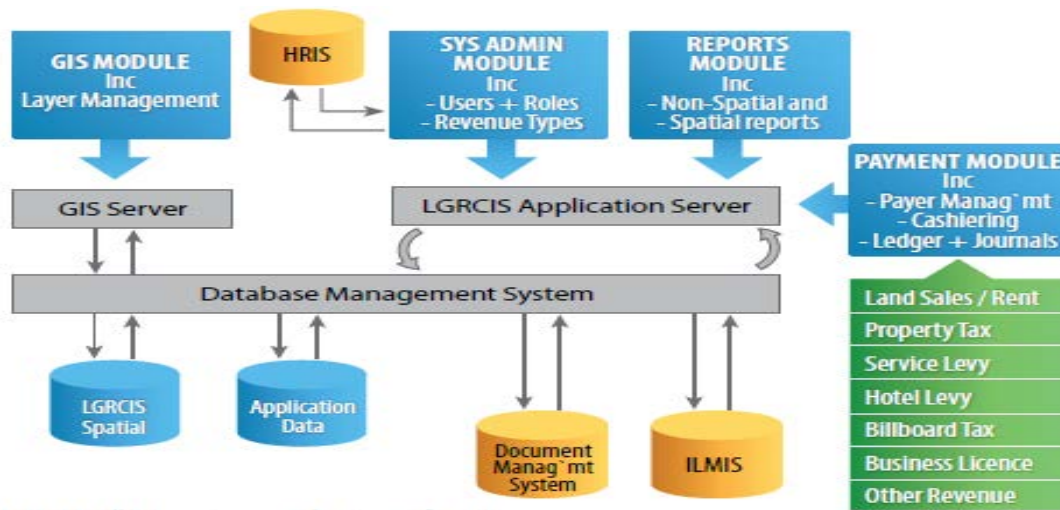
<sup>9</sup> GIZ has also been assisting LGAs in Indonesia, the Philippines and Rwanda with the implementation of iTax.

ensure they have a single view of customers, land and property, and the means to manage all revenue sources efficiently and reliably. The core of the system is data designed to support enhanced local revenue collection (including proper billing, demand note and reminder generation, electronic and online payment through a single payment gateway, receipting, defaulter identification and mapping). Overall system management takes place at PMO-RALG (i.e. central government level). Further support is offered through policy development and implementation and the issuance of circulars. According to PO-RALG, the system will enable easier connections via mobile phone money transfer networks such as M-Pesa, Tigo-pesa, Airtel Money and Max Malipo. PO-RALG contends that the system would improve government revenue collection as it would enable more transparency during operations and also result in an improvement as regards the settlements of bills.

As regards LGRCIS, the main server is located in Dodoma along with a training/simulation facility. Each council operates on a local server that is linked to the main server. Challenges are experienced with interconnectivity, slow connection speed and stability of the system. The introduction of LGRCIS was accompanied with various awareness sessions for municipal councillors and senior management as well as technical training for those staff members who will typically utilize the system, such as cashiers, revenue accountants, municipal valuers and engineers and planners. Training is ongoing, but after introduction of the system takes place on-site rather than in the classroom.

The LGRCIS is a web-based application, accessed through a web browser, such as Mozilla Firefox, Internet Explorer or Chrome. Figure 1 illustrates the key components of the LGRCIS.

**Figure 1: Schematic Flow of LGRCIS**



Source: PO-RALG 2014.

In 2016, the LGRCIS was only operating in the medium-sized cities under the World Bank-financed TSCP. To support the entire chain of revenue collection, the LGRCIS is helping these cities move from inefficient paper-based revenue collection systems to a modern platform, using GIS. The added benefit of LGRCIS is that the GIS platform can be extended for other urban management tasks such as planning, operations and maintenance, land management, and disaster risk management.

However, in 2016/17 PO-RALG commenced rolling out the LGRCIS nationally to all 186 LGAs. The use of LGRCIS is seen as a key tool in improving collections within LGAs. Improvements tend to be correlated with accurate taxpayer record keeping, efficient demand notice preparation and taxpayer confidence that their payments are properly recorded with electronic receipts. From a technical perspective, the integration of GIS will positively contribute to the management of the collection process through the application of visualization tools and other reporting analytics.

## 5.2 Arusha City Council

LGRCIS was not implemented in the same financial year in all eight pilot LGAs. Arusha City Council,<sup>10</sup> however, was the first to fully implement the system. Arusha City Council

<sup>10</sup> Arusha, a city with a total surface area of 267 km<sup>2</sup>, is located in north-eastern Tanzania. It has a population of about 416,500 (Population and Housing Census 2012). The city is located at the base of a volcanic mountain,

officially migrated from its former manual revenue collection system to the LGRCIS on 1 January 2014. In 2014, the first year of operation of the LGRCIS in Arusha, and not yet at its full potential, local revenue increased by 250 percent.

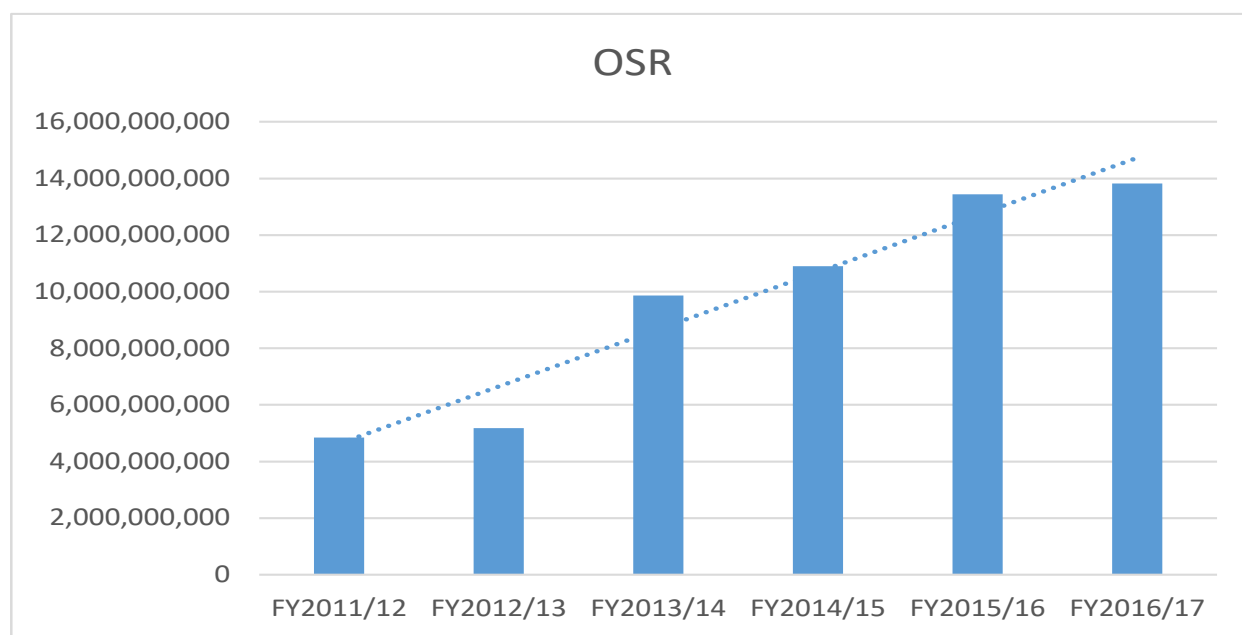
Table 1 and Figure 2 demonstrate the growth in the main revenue sources. The significant increase in 2013/14 is noteworthy. This is the fiscal year that the LGRCIS was introduced by the Arusha City Council.

**Table 1: Growth in own source revenue (OSR) from 2011/12 to 2016/17**

Fiscal Year	2011/12 (‘000)	2012/13 (‘000)	2013/14 (‘000)	2014/15 (‘000)	2015/16 (‘000)	2016/17 (‘000)
Total OSR	4,851,190.2	5,180,976.7	9,867,935.6	10,897,563.5	13,437,246.1	13,826,486.5
Year-on-year increase (%)	-	6.37	47.50	9.45	18.90	2.82

Source: Arusha City Council data.

**Figure 2: Growth in own source revenue (OSR) from 2011/12 to 2016/17**



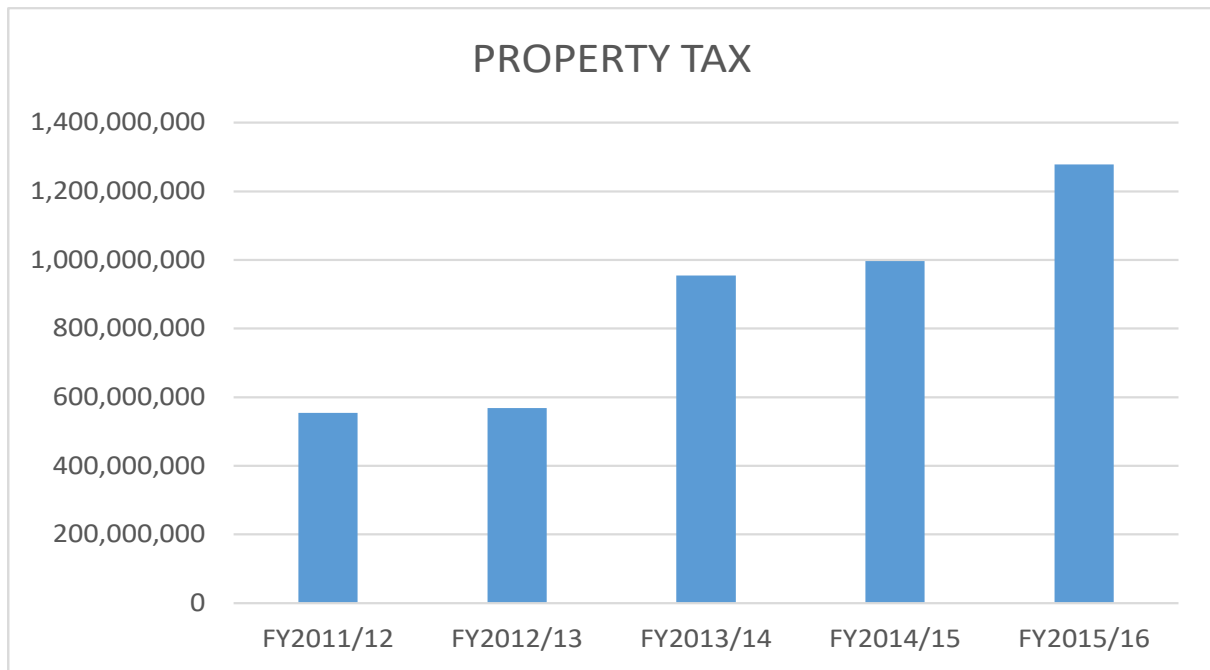
Source: Arusha City Council data.

Figure 3 evidences the growth in revenue from the property tax, the third most important source of own revenue in Arusha.

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Mount Meru, and is also the gateway to Africa’s highest mountain, Mount Kilimanjaro, situated approximately 100 kilometres east-northeast of Arusha.

**Figure 3: Growth in property tax revenue (Tsh) in Arusha City Council from 2011/12 to 2015/16**



Source: Arusha CC data.

The property tax in Tanzania has historically been a very important revenue source for LGAs. It typically was one of the ‘Big Five’ OSRs administered by LGAs. In Arusha, the property tax comprises a tax levied on the value of high value buildings predicated on the cost of the building and a simpler flat rate levied on lower value buildings. Within the Arusha CC jurisdiction there were some 30,000 buildings that were valued and approximately 50,000 buildings liable to flat rates (McCluskey and Doherty 2016). Initial evidence suggests that revenue collection has increased due to the use of modern computing hardware, targeted enforcement and the rolling out of tax compliance awareness campaigns. The introduction of LGRCIS as evidenced by data from Arusha City Council has led to a significant increase in collected own revenues.

The contribution from the introduction of the LGRCIS was especially evident in the following administrative areas:

*Broadened database:* coverage of the main revenue sources, including property tax, business licence, hotel levy, billboards, led to an increase in the number of taxpayers within the city council.

*Transparency:* LGRCIS increased transparency for taxpayers in terms of accuracy of bills. The information included in the bills was driven by the data within the system. Taxpayers had



more confidence in system prepared and printed bills as opposed to the previous hand-written bills.

*Deterrence effect:* with LGRCIS in place, staff is aware of the difficulty of forgery and thus reduces corrupt practices.

*Taxpayers' confidence:* Anecdotal evidence suggests that taxpayers believe that by having receipts produced directly from the LGRCIS, their payments are accurately recorded. The corrupt practice of 'carbon slipping' is largely a thing of the past with the move away from cash payments. Even where cash payments are still accepted in respect of car parking and market stalls, electronic receipts are issued immediately via point-of-sale-(POS) machines.

*Efficiency:* The GIS component of the LGRCIS helps revenue collection staff to know the exact location of compliant taxpayers and those who are in default. Using this information supports enforcement and recovery actions by the council.

### **5.3 General application of the LGRCIS**

An effective revenue administration system at the local government level is largely about maintaining accurate tax base and taxpayer records which is a prerequisite for the implementation of a sound collection and enforcement system (Bahl 2009). A computerized revenue administration system is likely to yield benefits of efficiency and transparency over paper-based systems and minimize opportunities for corruption. The barriers to efficient administration include the absence of a full and up-to-date record of taxable objects (e.g., buildings for property tax and businesses for business licences) and other relevant data on revenue streams. However, the administration system should be viewed holistically as it comprises of different but inter-related components that – when functioning optimally – will improve revenue performance.

The LGRCIS has had positive effects on how LGAs administer their OSRs. Moving from what was largely a paper-based administrative system to one based on IT, has had a direct effect on improving revenue collection. In addition, the maintenance of taxpayer records has significantly improved, tracking of payments is more efficient, and lost revenue/receipt books is a thing of the past.

The LGRCIS in Tanzania focuses on the following components:

*Registration:* to properly identify and register all taxpayers and tax objects;

*Assessment:* to verify taxpayer data, cross-check and assess tax liabilities;

*Collection:* to collect taxes and fees due and receive payments;

*Payment:* to enter payments in the taxpayer account and balance payments with debits;

*Enforcement:* to identify defaulters and organize a systematic process of sanction, enforcement and collection;

*Auditing:* to audit tax declarations based on a fair and sound selection system; and

*Reporting:* to provide analytical reports regarding revenue assessed and collected.

## **6. Challenges**

As indicated, LGAs presently face significant gaps between their service delivery obligations and their fiscal resources, a challenge compounded by national government usurping their most lucrative revenue sources including property rates, the billboard levy and the city service levy. The adequacy of local government revenue resources may be undermined at this critical juncture by revenue measures (e.g., centralisation of property tax administration) being undertaken by the central government. In his 2016/17 budget speech the Minister for Finance and Planning announced that responsibility for the administration of property rates would be delegated to the Tanzania Revenue Authority (TRA) from 1 July 2016. The 2016 Finance Act gave effect to the legislative changes required to allow TRA to undertake the administration.<sup>11</sup> The minister explained that the reason behind the transfer of functions from LGAs was to ensure maximum collection of the property rates revenue. Section 74(2) of the Finance Act 2016 states that “the revenue collected under this Act shall be deposited in a special account to be opened by the Minister at the Bank of Tanzania for the benefits of local government authorities”. However, section 65(2) of the 2017 Finance Act states that property rates collected shall be deposited in the Consolidated Fund. Therefore, the implication is very clear that property rates revenue has become part of central government revenue. These recent reforms to the current system of taxes and fees are likely to impact negatively on local government revenue streams and their ability to deliver on their mandate in the long term.

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<sup>11</sup> Section 67 of the Finance Act No. 2 of 2016 gives the express authority for TRA to “value properties, assess, collect and account for revenue”.

On a more positive note, the TRA has adopted LGRCIS as the main administrative platform for the administration of property rates. This is important given the ongoing commitment by the World Bank in supporting this revenue collection system particularly at the LGA level. LGRCIS remains the platform for those own sources of revenues that have not been centralized.

## **7. Conclusions**

Whilst this paper has focused on the administration and revenue benefits from the introduction of LGRCIS at local government level in Tanzania, it will nonetheless be important to follow the developments that have occurred since FY2016/17 in terms of the re-centralization of revenue sources in particular the property tax and billboards. The Finance Act of 2016 (June) mandated the TRA to collect property tax for all LGAs effect from FY2016/17. TRA mobilized their new mandate by collecting property tax in the 30 largest urban LGAs. According to the Minister of Finance’s Budget Speech 2017/18 (June) the “decision was based on TRA’s experience and efficiency in revenue collection and existing systems across the country which could facilitate revenue collection from that source”. Section 67(a), Finance Act 2016 gives the express authority for TRA to “value properties, assess, collect and account for revenue”.

In addition, Section 74(2) of the FA Act 2016 states that “the revenue collected under this Act shall be deposited in a special account to be opened by the Minister at the Bank of Tanzania for the benefits of local government authorities”. However, section 65(2) of the FA 2017 states that property rates collected shall be deposited in the Consolidated Fund. The implication being that such revenue becomes national revenue and no longer an OSR for LGAs. The implication is that LGAs remains with only a few revenue productive own sources, of which city service levy and business licenses are the most important ones.

Notwithstanding the centralization developments, the increase in local revenues following the introduction of the LGRCIS has been significant. These increases can, in part, be ascribed to the following reasons:

- Revenue leakages have been reduced substantially due to the fact that carbon slipping is not possible under the LGRCIS, unlike under the manual system;
- A more accurate revenue data base ensures that the tax bills and receipts issued through LGRCIS are more reliable than those issued previously through the manual system; and

- Under the LGRCIS, it is easy to identify defaulters and to take appropriate measures timeously.

The implementation of a system such as the LGRCIS, coupled with good revenue administrative machinery and motivated staff, should impact positively on the collection of own-source revenue, partly because the information on revenue sources will be more reliable. More reliable data also has a positive impact on taxpayer compliance.

Modernization of revenue administration attempts to improve efficiency and fairness as pillars to support revenue collection. The utilization of ICT can facilitate the information gap between those own source revenues that have been collected in-year with those that remain uncollected. There are three ways that technology can help, namely: (1) self-service by promoting voluntary compliance and convenience through easy to use payment platforms; (2) deploying high performance analytics through a GIS to uncover, track, analyse, and address non-compliance quickly and effectively; and (3) leverage data to research and improve compliance measures and better customise taxpayer services. The provision of appropriate training to build awareness of benefits and employee confidence in using new systems is critical.

In his budget speech for FY 2018/19 (delivered on 14 June 2018) Tanzania's minister of finance made a number of important statements in relation to improvements in revenue collection. For example, in paragraph 71 he indicates that the GoT will continue to pursue appropriate measures to

“... formalize informal sector including registration of land and property owners in the taxpayers identification system and the use of electronic systems in various transactions including the use of EFD (electronic fiscal devices) and electronic bank cards in service areas such as supermarkets, shopping malls, hotels and petrol stations”.

In paragraph 37 he states that

“... in strengthening management of the existing revenue sources, the Government will continue to connect Ministries, Departments, Agencies, Institutions and Parastatal Organization with the Government Electronic Payment Gateway System (GePG) in order to improve revenue collection and control leakage of Government revenues. The system was developed in 2017 and endorsed by Parliament through amendments of the Public Finance Act, CAP 348, requiring all the Government Institutions to collect

the revenues using GePG. As of May 2018, a total of 234 Government institutions which collect non tax revenue including all 185 Councils have already been connected to the system.”

It is important to stress that this is not replacing LGRCIS but rather the LGRCIS will become an integral component of the new revenue gateway system. All current LGA own revenues will continue to be administered through LGRCIS.

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