# Banding system for property taxation in fragile economies: Insights for Bosaso Municipality, Somalia

**Victor OLONDE, Kenya, John GITAU, Kenya, Balqesa SHEIKH, Kenya, Sophos SOPHIANOS, Kenya**

**Key words**: Property Tax, Banding System, Valuation, Fragile Economies, Local Government

**SUMMARY**

Property taxes are a key source of revenue for local governments, providing funding for urban growth, infrastructure and community services. However, in developing countries like Somalia, these local authorities face significant challenges to the creation of equitable and effective property tax systems because of constraints on resources, the scarcity of data and limited capacity in the institution, among others. Weak economies and long-lasting conflicts compound these challenges. This paper examines the applicability of a banding system as a feasible replacement of traditional ad valorem tax on property in Bossaso Municipality, Somalia. It utilizes desktop review of literature comprising academic articles and policy reports, drawing global case studies from the UK, Ireland, Kosovo, and Sierra Leone to refine best practice in terms of the implementation of banding. The paper also conducts a comprehensive assessment of the proposed banding system for Bossaso against some key factors such as valuation criteria, administrative feasibility, equity, and potential challenges while also examining the adequacy of the existing available property data, legal and institutional capacity, public perception and tax compliance issues. The findings demonstrates that a banding system offers an efficient and cost-effective property taxation alternative in data-scarce environments such as Bossaso by limiting the dependence on precise property valuations and minimizing administrative rigour. The potential challenges that may hamper the implementation of the proposed banding system include data limitations, possible biases in community-based valuation inputs, governance inefficiencies, and public scepticism about property taxation. To address these challenges, the paper recommends a multi-pronged strategy consisting of building stronger property data infrastructure, refining how score and weighting mechanisms are defined for band assignment, utilizing digitalized approaches and creating independent monitoring entities to evaluate implementation.

# Banding system for property taxation in fragile economies: Insights for Bosaso Municipality, Somalia

**Victor OLONDE, Kenya, John GITAU, Kenya, Najma HASSAN, Kenya, Mohamoud HUSSEIN, Somalia**

## 1. INTRODUCTION

Property tax is an essential revenue-generation tool for local governments, and has a significant impact on governance, service delivery as well as urban planning. However, in developing countries, many municipalities struggle with establishing even a minimally functional property taxation system. Somalia is no exception. Clearly, municipalities in Somalia not only face resource constraints but also, in addition to just being poor, other challenges related to lack of data and inadequate institutional capacity are prevalent. This clearly has substantial consequences for the nature of public engagement that local governments can undertake. If they are unable to produce revenue, their capacity to operate in the public sphere is severely limited. This is clearly connected to the interplay between governance and taxation at the local level. (Babawale, 2013; Goodfellow, 2017).

The fragile economies are predominantly characterized by weak institutional environment, especially in regulatory and legislative frameworks which in effect make valuation and tax administration complex (Kang & Kim, 2022). The efficacy of local governance is influenced by socio-economic dynamics, as the accurate assessment of property taxes is impeded by the absence of reliable data on property transactions and valuations. These issues are further exacerbated by domestic factors, such as political instability and malpractices, which make it increasingly challenging for local authorities to establish equitable and efficient property tax systems (Belotti et al., 2021; Piracha & Moore, 2016).

The landscape for a fair tax system further becomes complex due to manipulation of the land market and economic opportunities by local elites, which in turn creates a precarious environment with displaced groups historically on the margins (Jaspars, 2023). When local governments cannot raise enough money through property taxes, it leads to a lower level of social confidence that affects the capacity to provide services. This results in a pernicious cycle in which the legitimacy of local authorities is undermined by inadequate service delivery, which further complicates the implementation of effective tax systems.

This paper examines the applicability of a banding system as a feasible replacement of traditional ad valorem tax on property in Bossaso Municipality, Somalia.

## 2. THE CONCEPT OF BANDING SYSTEM

The banding system represents a major shift away from the traditional system of ad valorem property taxes. Under ad valorem, properties are assessed and taxed according to their value; thus, the system is "value-based." In contrast, the banding system is not value-based; instead, it groups properties into designated value bands, with each band associated with a fixed tax amount. This method simplifies the property-assessment process for local governments, particularly in areas where insufficient data and trained personnel hampers accurate property valuations. In a banding system, properties within the same band are treated uniformly, which can limit taxpayers' rights to contest property value increases, depending on the jurisdiction's regulations.

Property tax banding systems can be classified into various types based on their methodologies for establishing property values within designated bands. A widely used approach to banding systems groups properties by assessment ranges. In this model, properties are classified into bands based on predetermined valuation thresholds. These thresholds can be defined by specific monetary values or percentage brackets of market values. This method allows for a clear delineation of property categories, facilitating easier tax administration and compliance. For instance, properties may be grouped into bands that reflect their assessed values, such as low, medium, and high-value categories, which can help local governments tailor tax rates to different property classes (Buuveibaatar et al. 2023).

An alternative methodology is the establishment of valuation bands that incorporate a range of tolerance above or below specific or mass valuations. This flexibility allows for and accommodates adjustments in property valuations within selected bands that ensure properties are taxed fairly, even as the real estate market fluctuates. When property tax authorities apply a pick-and-choose adjustment system within these valuation bands, they can update property valuations far more easily and with fewer resources and significantly reduce the capacity requirements for valuers. This is particularly beneficial in local property tax systems, which often have very constrained resources; in fragile economies, where property tax revenues can be an important source of public funding; and in jurisdictions where property taxes can be an important revenue source (Anopriienko et al., 2021).

The banding system has one main benefit, and that is its ability to work well without requiring precise valuations of each individual property. This benefit excels in areas of limited data, inadequate technical capacity, and fast-paced urbanization. Instead of requiring a number of assessors and substantial time to establish a value for each property, the banding system uses proxies like location, land use, and size of the building itself to value the properties within the band. And that makes the banding system relatively inexpensive and accessible to local governments in developing areas (Plimmer et al., 2002; Davis et al., 2012).

The apparent cost-effectiveness and administrative simplicity make the banded system especially attractive in resource-constrained environments. For example, the United Kingdom

Council Tax employs a banded system that is based on historical property values. This system allows for the effective simplification of tax administration whilst ensuring equity among taxpayers (Plimmer et al., 2002). Similarly, Davis et al (2012) note that many transitional Eastern European economies have employed banded property tax systems as they move from centralized property frameworks to market-based economies. This choice showcases the banded system's adaptability and effectiveness across very different institutional settings. And it is not just "advanced" economies that have made the leap to banded property taxes; developing countries have also found the banded system appealing. These countries are often characterized by incomplete or non-existent real estate transaction data, where property markets may be underdeveloped due to factors such as tenure insecurity, customary land rights, and high transaction costs. The banding system alleviates these issues by requiring significantly less data than traditional systems, relying instead on a broad understanding of property value trends across neighborhoods, and disregarding focus on implementing ad valorem property taxes (Plimmer et al., 2002; Davis et al., 2012).

A banded system can utilize various valuation approaches, all the way from self-appraisal—which can be very cost-effective but may lead to under-valuation if property owners do not fully understand the value of what they own—to mass appraisal, which is more objective but requires a lot of data and expertise. Properties can be "valued-in" to the bands using the observed characteristics of the properties that lie in or near the bands. This is what makes it "balanced." And it seems particularly suitable for "developing country contexts" (Plimmer et al., 2002; Davis et al., 2012). Additionally, the valuation process can leverage in the expertise of private practitioners familiar with local property markets to enhance efficiency and accuracy. This ultimately aids the local governments to generate reliable revenue without the burden of maintaining a sophisticated valuation infrastructure.

## 3. CASE STUDIES AND EXAMPLES

It is pertinent to acknowledge the dearth of published literature on banding systems in fragile economies. Due to this gap, existing data have been utilized to shed light on the important elements and shortcomings in the proposed banding system in Bossaso.

Banding systems have worked well in other countries, including the UK's Council Tax and the residential property tax system in Ireland. Introduced in 1993, the UK's Council Tax classifies residential properties into valuation bands according to their estimated market value as of April 1, 1991. This historical approach simplifies administration and provides a predictable revenue stream for local authorities, minimizing disputes over property valuations and ensuring equitable tax burdens among residents (Plimmer et al., 2002; Jones et al., 2006). Similarly, Ireland's system of residential property taxation also uses self-assessment and valuation bands, embedding local context into tax design and compliance mechanisms to enhance taxpayer engagement (Turley, 2022). Examples from the two countries show how banding systems have

been adapted to suit different national and local contexts for the purpose of making property taxes more efficient.

Property banding has also extended to developing countries where valuation models play an important role in sustainable property tax systems. In cases where property data is limited, banding system through mass valuation strategies become effective (Babawale, 2013). A notable example of the banding system in a post-conflict setting is the application to land taxation in Kosovo, where government assesses property value and intended use which are classified into a set of valuation bands. Local authorities, such as Prishtina and Mitrovica, adopt Geographic Information Systems (GIS) which allow them to apply a uniform tax rate in each band of the property, making tax collection easier (Lim et. al., 2008; Asllani & Grima, 2019). Nonetheless, challenges such as incomplete property registration and public skepticism about property tax impede the effectiveness of the system, which leads to tax evasion and non-compliance (Harsh I 2023; Asllani & Grima, 2019).

In Sierra Leone, the Revenue Mobilization Program (REMOP) applies a technology-driven approach to property taxation. Instead of determining the value of a property through the standard market value approach, this system creates a new area-based points solution — then assigns the property value based on observable features. According to Fish (2015), GIS and satellite imaging have been combined to improve valuation accuracy and decrease omissions; meanwhile, automation has reduced administrative work. Movements to reduce tax barriers and improve compliance are also supported by public awareness campaigns and community engagement, which can help build trust among taxpayers and promote better compliance, leading to a sustainable revenue model that can be emulated by other areas facing similar issues.

These nomenclature systems demonstrate how bandings can adapt to local economics and political climates. U.K. and Ireland, with structured models and historical valuation stability, contrast with developing countries, such as Kosovo and Sierra Leone, with creative solutions that employ technology and community engagement to tackle valuation issues. Such systems provide insights that can inform risk assessment alongside different dimensions in establishing an upgrade to the banding in Bossaso and can improve the proposal to not only enhance its structure but draw specifics on risk in a fragile economy.

## 4. DESIGNING AND IMPLEMENTING A BANDING SYSTEM FOR PROPERTY TAX ASSESSMENT

Banding for property tax purposes can be appealing in developing and fragile economies, as it provides a means of valuing properties in a manner that is both equal and low-cost. Banding systems are designed differently, which results in a range of the number of bands set up. Depending on the property market situation in different countries, some systems might only include five bands and others could even cover one hundred. In settings where creating a national mass appraisal system is not economically viable, it is necessary to determine different bands of local property based on the determinants of property prices. Such localized approach

may enable the more nuanced understanding of property values, leading more accurate property tax assessments and hence better revenue generation capabilities for local governments (Hughes et al., 2020).

On the other hand, in situations where individual property valuations are possible, fewer bands of uniform property values may be sufficient to implement effective property taxation. The banding method is determined based on the local resource availability, local tax authorities' capacity and the economic condition of the Region. For instance, co-peri-urban communities may implement a banding system that is specific to their political and economic context to ensure the flexibility of property value and tax categorization (Petrus et al., 2020).

First, the design of a banding system should take into account the administrative aspects of property tax assessment. Data limitations pose challenges for property tax assessment, but the use of technology, such as Computer-Assisted Mass Appraisal systems, can improve the efficiency and accuracy of assessments (McCluskey et al., 2012). This improves the overall quality of assessments and helps local governments save costs and streamline operations by incorporating technology into the assessment process. The introduction of technology helps in classification of properties into bands based on objective criteria.

To become effective, a banding tax must be built on a foundation comprising administrative data base, computer software, GIS mapping and validation of the methodology. These systems can be classified as sampling systems, proportional inputs systems, and price indexed systems. There are pros and cons to each type of system and applications in different economies or even in different sections of the same jurisdiction. A more extensive analysis of the model and other systems should be done and using jurisdiction-wide tax rates should be discussed. The last one is trickier because of data protection but it can offer great evidence from the case study. Data collection can be a one-time specific activity occurring, in an ideal manner, once every five to ten cycles; and this data needs to be disclosed to anybody who wants to check their own land property. It is important that valuers have the accurate information they require to fulfil the equal burden on taxpayers. The accuracy of this dataset will frequently change as new evidence is introduced, with the physical data often being unique. Performance groupings based on sales/audit ratio studies for a given year.

There needs to be an active role for national revenue authorities in land valuation as well as exemptions from local taxes or the transfer of information records and records that identify, validate or manage administrative tax records. These sales/audit ratio studies can be done every year or as needed. The results should be published and made available to the masses, explaining the banded results and the allocation of tax burden to the taxpayer. Also, there is the likelihood for political and fiscal incentives to skew property value assessments. The subjectivity involved in property assessments can expose bias that negatively impacts certain property owners more than others (Makowsky & Sanders, 2010). A banding system can help mitigate these biases by establishing clear criteria for property categorization, thereby reducing the potential for political manipulation and ensuring a more equitable assessment process.

The implementation of banding systems for land taxation has gained traction in various global contexts, particularly in fragile economies where traditional taxation methods often fail to generate adequate revenue. This is a particularly relevant approach in fragile economies where administrative capacities are likely limited, but efficient revenue generation is needed to allow for supporting public services as well as infrastructure development. Schwerhoff et al (2021) point out that in developing countries, where resources are limited, the administrative costs of accurately taxing land can be excessively burdensome. For governments, the use of a banding system helps to simplify land assessments, leading to reduced administrative overheads and improved compliance in tax payments. In fragile states, political instability and lack of institutional capacities frequently undermine effective enforcement of tax laws, making this simplification critical (Che et al., 2021).

Additionally, the introduction of banding systems for land taxation has the potential to promote equity considerably through classifying land into range of bands, or segments based on value. This classification enables governments to implement taxation that reflects the actual value of the land, which in turn can mitigate inequality concerning land ownership and usage. Moreover, financing systems can be customized to satisfy certain requirements for public investments, such as financing public rural primary, intermediate and secondary schools. This targeted approach not only increases the effectiveness of tax collection; however, it also cultivates community support for the taxation system by directly linking property taxation to critical public services (Ludiema et al., 2018).

## 5. THE PROPOSED BANDING SYSTEM IN BOSSASO

Bossaso is the capital city of the Bari region in northeastern Somalia and one of the most important ports in the country. The city has long been of strategic importance and has historically formed a critical node in the maritime trade networks that link Somalia to the wider world, due to its strategically advantageous location on the Gulf of Aden. The Bossaso City Strategy explains the immense growth and urbanization surrounding the city, especially following the civil war, resulting in both domestic and international investments targeted towards reconstruction and development of infrastructure.

### 5.1.Key features

The proposed system of banding overhauls current area-based methods of tax assessment by introducing a structured framework which uses a variety of measurable characteristics to place properties into one of six bands (A-F). This makes it an especially convenient solution in Bossaso, where accurate individual property valuations are often unachievable due to inadequate data and technical capacity. Its structure promotes a fair taxation system based on the characteristics of property, including land use, infrastructure, amenities, demographics, and financial aspects, and ultimately reduces administrative burden to local government.

To aid valuation of property into bands, the neighbourhoods will first be divided into zones with a band rating being accorded for each zone. In addition, the proposed banding system in

Bossaso uses six main valuation parameters: land characteristics (size, use, location and topography), infrastructure (proximity to routine roads, water, electricity, sanitation and waste management), services (proximity to schools, health facilities, market and green area), demography and ownership (legal status, type of possession and number of residents), financial data (annual rent income and market price) and building characteristics (material, age and structural quality).

The proposed system offers more cost-effective solutions since it avoids the necessity of conducting a detailed property-level assessment (which could be logistically or resource prohibitive). It focuses on proxy variables, such as neighbourhood qualities and quantifiable factors, with the belief that it will be implementable, even with minimal resources.

Baseline values for the proposed banding system are to be derived through community consultations, to validate that the framework reflects local economic and social contexts. Further, to map out the geographical layout of the proposed system, it will be based on GIS so that it is consistent with the spatial and infrastructural features of Bossaso. In addition, the system provides clear exemptions for low-value properties, internally displaced persons (IDP) shelters, and public-use buildings, including mosques and schools. Additionally, there is a required review every four years that has the opportunity to adjust the bands and tax rates comparison with the increasing property values and changing economic conditions.

### 5.2.Identified areas of concern

The banding systems proposed in Bossaso face a number of potential challenges that need to be addressed to ensure its effectiveness and sustainability upon implementation. A key issue is the absence of reliable data on land ownership and values. As in most other fragile states, land registries are inadequate or non-existent, potentially adding complexity to categorizing land into bands. As Belayhun (2012) aptly notes, a solid property registration system is essential for effective taxation, as the efficiency of a banding system can be significantly hampered if the data on ownership and their respective values continues to be outdated and inaccurate, creating the risk of revenue loss and inequality in taxation. Furthermore, the suggestion of community consultation to determine baseline values is subjective and could contain biases, resulting in disputes that give an impression of inconsistency in tax assessments, which will destroy the trust of taxpayer.

Another issue that might be faced in the proposed system is the ambiguity of the scoring and weighting mechanism. For example, marking a property to keep it 10% above market average on building characteristics gives it a 25% weight, but demographics are only given 7.5% and so on. This difference may not reflect local realities where the condition of land and the extent of local infrastructure are far more relevant determinants of property value. Such a more transparent and justifiable weighting system on which fairness in assessments can be judged, is essential if public acceptance of the taxation system is to be achieved.

Furthermore, the subjectivity involved in deriving community baseline values and scoring parameters will only compound the risk of malpractices and manipulation, especially under a governance framework bolstered by weak oversight mechanisms. These risks must be balanced by strong checks and balances to safeguard the integrity of the system. But the proposed system fails to adequately consider the innovative, even transformational, characteristics of property markets, where values vary with economic, social, or political sea-changes. This limitation could lead to outdated definitions of bands and inequities over a period of time. This, of course, requires mechanisms to reassess (and update) property values in regular intervals and in response to market fluctuations, all of which are essential to ensure fairness.

The municipality should also be alive to the fact that public disdain towards property taxes can hinder effective revenue mobilization. Therefore, public perception is critical in a municipality like Bossaso due to weak governance resulting from post conflicts effects. The introduction of a new taxation system may face resistance if taxpayers perceive it as unfair or if they lack awareness of its benefits. The absence of clear public engagement strategies could hinder compliance and reduce the system's effectiveness.

Ultimately, although the proposed banding system is simpler than traditional ad valorem systems, its multilayered structure and reliance on several parameters and scores introduces internal bureaucratic challenges. Without proper technology and training support, local tax administrators are unlikely to roll out the system uniformly. The municipality have to develop a clear roadmap for implementation as well as capacity-building measures required for effective implementation. The proposed system is also short on clarifying a route to incorporating advanced technologies like Automated Mass Appraisal (CAMA) systems. This leaves it lacking for scalability and accuracy. A strategic plan for technological integration needs to be developed to ensure effectiveness and efficiency of the system in the future.

## 6. WAY FORWARD AND LESSONS FOR BOSSASO

The proposed banding system in Bossaso has various potential weaknesses identified which require measures to enhance its effectiveness

i. First, data infrastructure needs to be strengthened, by creating a comprehensive property registration system covering ownership, transaction histories and the physical characteristics of properties. To address the potential challenge posed by the lack of reliable data in Bossaso, there is need for regular data collection and audits implementation to ensure up-to-date information on property markets and infrastructure. GLTN tools such as STDM can be beneficial to Bossaso Municipality for collection of such data.

ii. The banding system needs to refine its scoring and weighting mechanism. It is important to revise and adjust parameter weights to reflect local priorities and property market conditions. Transparency in the weighting methodology will be critical to garner taxpayer confidence and help ensure that the system is seen as fair and equitable.

A more reasonable system of scoring that takes into account local realities in Bosaso is needed in order to ensure acceptance by taxpayers.

iii. Public awareness campaigns to educate taxpayers on the benefit of the banding system, connecting tax revenues to visible community benefits should be prioritized. Stakeholders in Bosaso need to be engaged in the design and periodic review of the system, by applying participatory approach. Thus, it is also a very good step for the Bosaso municipality to involve the public early on in the process to ensure acceptance and understanding of the new system. Such collaboration can also highlight local priorities and make certain that tax revenues are targeted on initiatives with direct impacts on the communities.

iv. Another critical recommendation is to leverage technology. The use of GIS should be expanded, and automated mass appraisal systems should be introduced to streamline property assessments and reduce administrative burdens. Digitizing property records and tax collection processes can enhance transparency and efficiency. By utilizing modern tools, the Bosaso Municipality can improve its ability to categorize land effectively and ensure that taxation is based on accurate information

v. Building local capacity is essential. Training for tax administrators on valuation techniques, data management, and the use of technology should be provided. Establishing independent oversight mechanisms will help monitor implementation and address instances of malpractices or mismanagement (França et al., 2022). Furthermore, fostering collaboration between government agencies, civil society, and local communities can enhance the legitimacy of land taxation efforts.

vi. A framework should be put in place to systematically conduct periodic reviews of the banding structure at reasonable intervals to take account of changes in property markets and socio-economic conditions. External audits can make sure that the adjustment process is transparent and equitable. Also involves market dynamics integration. To derive baseline property values, market data should be supplemented with community consultation workshops to maintain a balance of subjectivity and objectivity. Setting up mechanisms for rapid changes in property markets to be taken into account, such as automatic adjustments based on economic indicators.

## REFERENCES

Abdinur, M. A., Farah, A. K., Kassim, A. A., & Hashi, M. A. (2020). The influence of tax adminstration on revenue generation in somalia. *Al-Rashad Journal of Islamic Finance,* (1), 1-23. https://doi.org/10.46722/ajif.v1.i1.20a

Senawi, A. and Osmadi, A. (2023). Property tax reassessment among local authorities: the implementation and its key challenges. *Journal of Financial Management of Property and Construction*, 29(1), 152-167. https://doi.org/10.1108/jfmpc-04-2022-0022

Kim, S., Chung, I. H., & Eom, T. H. (2019). Institutional differences and local government performance: evidence from property tax assessment quality. Public Performance &Amp; *Management Review*, 43(2), 388-413. https://doi.org/10.1080/15309576.2019.1627223
Jaspars, S., Majid, N., & Adan, G. M. (2023). Somalia's evolving political market place: from famine and humanitarian crisis to permanent precarity. *The Journal of Modern African Studies*, 61(3), 343-366. https://doi.org/10.1017/s0022278x23000071
Plimmer, F., McCluskey, W., & Connellan, O. (2002). Valuation banding – an international property tax solution?. *Journal of Property Investment &Amp; Finance*, 20(1), 68-83. https://doi.org/10.1108/14635780210416273
Lim, L. C., McCluskey, W., & Davis, P. (2008). Area-based banding for property tax assessment in transitional countries: an empirical investigation. *Journal of Real Estate Literature*, 16(2), 201-216. https://doi.org/10.1080/10835547.2008.12090230
Davis, P., McCluskey, W., Grissom, T., & McCord, M. (2012). An empirical analysis of simplified valuation approaches for residential property tax purposes. *Property Management*, 30(3), 232-254. https://doi.org/10.1108/02637471211233774
Turley, G. (2022). Designing and implementing a local residential property tax from scratch: lessons from the Republic of Ireland. *Commonwealth Journal of Local Governance, 27, 1-20. https://doi.org/10.5130/cjlg.vi27.8464.*
Babawale, G. (2013). Designing appropriate valuation model for sustainable property tax system in developing countries. *International Journal of Law and Management*,55(3), 220-234. https://doi.org/10.1108/17542431311327646.
Kwak, S., & Mak, J. (2011). Political Economy of Property Tax Reform: Hawaii's Experiment with Split-Rate Property Taxation. *American Journal of Economics and Sociology*, 70(1), 1-22. https://doi.org/10.1111/j.1536-7150.2010.00761.x.
Jones, R., McCluskey, W., & Connellan, O. (2006). The Potential Impact of Reforms to the Essential Parameters of the Council Tax. *Fiscal Studies*, 27(1), 1-24. https://doi.org/10.1111/j.1475-5890.2006.00033.x.
Eom, T. (2008). A Comprehensive Model of Determinants of Property Tax Assessment Quality: Evidence in New York State. *Public Budgeting & Finance*, 28(4), 1-20. https://doi.org/10.1111/j.1540-5850.2008.00897.x.
Grover, R., & Davis, J.S. (2017). Achieving successful implementation of value-based property tax reforms in emerging European economies. *Journal of European Real Estate Research*, 10(2), 139-156. https://doi.org/10.1108/jerer-06-2016-0027.
Dye, R.F., & England, R.W. (2005). Are Property Tax Limitations More Binding over Time? *National Tax Journal*, 58(2), 257-270. https://doi.org/10.17310/ntj.2005.2.03.
Payton, S. (2012). The Impact of Property Assessment Standards on Property Tax Burden. *Public Finance Review*, 40(5), 569-589. https://doi.org/10.1177/1091142111431254.

## BIOGRAPHICAL NOTES

**Dr Victor Olonde** is a Land Administration Expert at the Global Land Tool Network (GLTN) within the Land, Housing and Shelter Section of the UN-Habitat. He has over twenty years of

experience working in his areas of expertise including Land Administration, Valuation, Housing and Urban Development. Prior, he was an Assistant Director Land Valuation at the Department of Valuation, Ministry of Lands, Public Works, Housing and Urban Development of the Government of Kenya. He is a Chartered Valuation Surveyor accredited by the Royal Institute of Chartered Surveyors (RICS), Registered Valuer and a member of the Institution of Surveyors of Kenya (Valuation Chapter), and Chartered Institute of Housing (CIHM). Email: victor.olonde@un.org

**John Gitau** is a Programme Management Officer at the Global Land Tool Network (GLTN) Secretariat, within the Land, Housing, and Shelter Section of UN-Habitat. In his current role, he supports the coordination of land tool development and oversees country operations for the GLTN programme. John has a wealth of experience, having previously managed various tasks at the Secretariat, including the development of land tools and the coordination of specific country projects. Email: john.gitau1@un.org

**Sophos Sophianos** has been working with UN-Habitat in Somalia for nearly ten years with a focus on urban regulations and land governance, planning, affordable housing and solutions to internal displacement. Together with Francesco Tonnarelli he produced urban profiles for secondary cities in Somalia and developed concepts for spatial strategic plans and visioning exercises in Mogadishu and Hargeisa. Previously, he had been deployed to municipal land, housing and planning offices in Ethiopia, Malawi and Nepal under GIZ programmes for sub-national governance and decentralization. Before graduating as Urban and Regional Planner from Berlin Technical University, he managed tenant services and public relations for a non-for-profit housing trust in Leipzig. Email: sophos.sophianos@un.org

## CONTACTS

Dr Victor OLONDE
ORGANISATION: United Nations Human Settlements Programme
ADDRESS: UN Gigiri, NOF Block 3 Level 2 South Wing
CITY: Nairobi, COUNTRY: KENYA
TEL: +254722772379
Email: victor.olonde@un.org
Website : http://www.unhabitat.org/