



Realising the potential of property data sharing in Kampala, Uganda

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- **Property data is fragmented.** Kampala Capital City Authority (KCCA) maintains building-level data for property taxation, while the Ministry of Lands, Housing, and Urban Development (MoLHUD) manages parcel-based land records. The two systems define “property” differently and have different update cycles and incentives, creating gaps and inconsistencies.
- **Ad hoc data exchanges are insufficient.** Some data sharing occurs, but it is irregular, highly personalised, and dependent on case-by-case requests rather than systematic mechanisms.
- **Sharing property tax data has proven potential.** Matching KCCA’s property data with the Uganda Revenue Authority’s taxpayer registry nearly tripled the number of landlords registered for rental income tax in two years and increased revenue collection, demonstrating that property tax data can support wider state functions.
- **A pilot could demonstrate feasibility.** There is limited empirical evidence on how structured data matching between KCCA and MoLHUD could work in practice. Pilot studies are needed to identify where records diverge, why mismatches occur, and how both agencies could benefit.
- **Political prioritisation is essential.** Realising potential benefits will require elevating property data sharing as a governance and political priority—establishing clear rules, building technical capacity, expanding geospatial data use, and investing in local property taxation as the foundation for broader state-building gains

Background: why property data matters

Collecting and maintaining high-quality data on land and property—making human activity “legible”—is a foundational state function (Boone, 2014; Herbst, 2000; Scott, 1998). In an ideal system, a comprehensive cadastre would provide a common base of knowledge to support land management, economic planning, and productive urban expansion (Deininger, 2003). Local governments could then draw on the national cadastre for property taxation, ensuring that all state agencies work from the same authoritative record.

In practice, however, this vision rarely materialises in lower-income countries. Building and maintaining a national cadastre is costly, and often not prioritised by the government because the process of assigning titles is time-consuming and contentious (Byamugisha, 2013). As a result, most lower-income countries lack a centralised, comprehensive property information system, even as their cities expand rapidly (Enemark et al., 2014; Palmer et al., 2009). Where this is the case, government efforts to strengthen property taxation raise a broader question: can the pursuit of revenue collection generate wider administrative gains, including improvements in land registration and urban management?

This idea has deep historical roots. Research on the rise of modern states highlights how investments in tax administration often became the leading edge of broader improvements in state capacity, including more meritocratic recruitment, clearer business processes, more accurate information systems, and stronger inter-agency coordination (Brewer, 1990; Chaudhry, 1997; North & Weingast, 1989; Prichard, 2010; Prichard & Leonard, 2010; Tilly, 1990).

Property taxation is especially significant in this regard. Administering property taxes requires detailed building-level data that can, in theory, be repurposed far beyond local revenue collection—for national tax enforcement, urban planning, and land administration (Carolini, 2021; Carolini et al., 2020; Kananura et al., Forthcoming; Nengeze, 2018; Robi, 2024).

Kampala provides a compelling case for testing the broader potential of property tax data. The Kampala Capital City Authority (KCCA) has developed one of the region’s most comprehensive property datasets, covering more than 300,000 buildings (Delbridge et al., 2022). The Ministry of Lands, Housing, and Urban Development (MoLHUD), meanwhile, is the steward of the national land parcel registry that provides the legal basis for tenure. Yet, the two systems are managed in institutional silos, with different definitions of what counts as “property,” different update cycles, and different incentives shaping their coverage. These discrepancies mean that systematic comparison of the two datasets can help reveal coverage gaps, outdated entries, unrecorded

subdivisions, and inconsistencies in environmentally sensitive areas, helping both agencies to strengthen their internal processes.

Institutional landscape

Two government agencies are primarily responsible for collecting and maintaining property data in Kampala: KCCA and MoLHUD.

Kampala Capital City Authority

KCCA collects information needed for valuation, billing, and the enforcement of property rates—its main source of locally generated revenue (Andema & Haas, 2018). Its datasets are building-focused, recording the location, attributes, use, rental value, and presumed owner of more than 300,000 structures across the city. These records are updated during the periodic revaluation process.

Additional changes may happen through billing and appeals when owners take steps to update their information with KCCA. At the same time, accuracy can be limited. Assessors may be denied access to higher-value compounds, new construction is not captured in real time because of poor information flows within KCCA, and ownership may sometimes be obscured with proxy names to take advantage of Uganda's exemption for owner-occupied buildings.

Ministry of Lands, Housing and Urban Development

MoLHUD, in turn, manages the national land registry. Its records are parcel-based, capturing location, size, tenure type, title holder, encumbrances, and transactions—but often with little information about the buildings located on land parcels. This registry provides the legal basis for land tenure in Uganda.

However, in practice, registry entries often lag reality. Ownership transfers may occur informally without full registration, deceased owners may remain listed on titles, and subdivisions are not always updated in the cadastre (Nkurunziza, 2007).

Fragmented systems and *ad hoc* sharing

Because KCCA's records are building-focused and MoLHUD's are parcel-based, the two systems reflect different definitions of what counts as "property." They also operate on different update cycles, shaped by distinct institutional incentives. While KCCA prefers to verify ownership information, they are not strictly required to do so and can still issue tax bills to physical properties even without formal documentation. Owners, in turn, often have an incentive to ensure that the name on their bill is correct. In Uganda, property claims are reinforced through a constellation of documents, transactions, and interactions with the state. A property tax bill bearing the right name is one element of these "thick" forms of tenure security, even if it does not constitute formal legal title (Goodfellow & Owen, 2020). Some owners, therefore, proactively engage with

KCCA to correct billing information, and KCCA staff report that name or ownership changes are by far the most common type of appeal received.

By contrast, MoLHUD's parcel records are only updated when owners initiate a formal registration or transaction, which can involve fees, taxes, and bureaucratic delays. This can discourage owners from registering property subdivisions or transfers promptly (Nkurunziza, 2007). As a result, MoLHUD's data often lags reality, while KCCA's may, in practice, be more current.

Some data sharing does already happen between these two institutions. MoLHUD provides KCCA with parcel shapefiles that are linked to assessed buildings, but the process has major gaps. Ownership and title information are not made available systematically; instead, KCCA must submit specific requests on a case-by-case basis, which may or may not be approved.

Even the provision of parcel data is irregular. For example, in early 2025, KCCA staff were still working with parcel shapefiles last updated in 2014. They only received updated data later that year after KCCA officials raised the issue with the Commissioner of Lands during a workshop. And even then, securing updated parcel data ultimately relied on the personal connections of KCCA staff with former colleagues inside MoLHUD, rather than on any regularised mechanism. This experience highlights that although a degree of data sharing does occur, the process is highly personalised and not institutionalised through clear rules or systematic mechanisms.

These differences in mandate, data structure, and update cycles, combined with the *ad hoc* nature of existing exchanges, create gaps between the two systems. At the same time, they open the possibility that more systematic and institutionalised data sharing could enhance the usefulness of property information beyond local revenue collection.

Precedent: KCCA-URA data sharing

Property tax data have already demonstrated their potential to support other central government activities, such as national tax collection. Before 2018, the Uganda Revenue Authority (URA) relied on door-to-door inspections to register landlords for rental income tax payments. This method added, on average, about 1,600 taxpayers per year between 2014 and 2017 (Kananura et al., Forthcoming).

In 2018, the Uganda Revenue Authority (URA) began matching its central taxpayer database with KCCA property records to identify unregistered landlords. The exercise was not straightforward, as the two agencies used different systems to identify properties. URA identified properties by the taxpayer identification number (TIN) of their owner, while KCCA used its own

city operator identification number (COIN) (Kananura et al., Forthcoming). KCCA's dataset also included GPS coordinates, but URA did not yet geospatially identify properties, so they could not be matched by location. As a result, URA staff simply cross-referenced owner names in the KCCA data with names in the central URA taxpayer database to identify unregistered landlords.

Despite these challenges, the results were significant. The number of landlords in the rental income tax registry nearly tripled, from 17,795 in 2018 to 48,685 in 2020 (Kananura et al., Forthcoming). At the previous pace of door-to-door registration, this expansion would have taken upwards of nine years. Rental income tax collection also increased from an average of 0.073% of GDP between 2014 and 2019 to 0.095% of GDP between 2020 and 2021 (Kananura et al., Forthcoming).

This precedent demonstrates that structured sharing of property tax data between local and national institutions can deliver major efficiency gains. The pending question is whether similar gains can be achieved in other administrative processes by further expanding the sharing and use of property tax data.

Piloting property data matching in Kampala

There is a strong reason to believe that sharing and matching property data between KCCA and MoLHUD could generate benefits for both institutions. Yet, we do not currently have systematic evidence on how well such collaboration would work in practice. A pilot is therefore needed to test feasibility and to demonstrate what a more structured approach to data sharing might look like.

Identifying discrepancies

One possible approach would begin with a raw comparison of the two datasets. Building records from KCCA could be overlaid on MoLHUD's parcel maps and matched by owner names. This matching would produce a set of discrepancies—properties present in one dataset but not the other, building footprints that straddle parcel boundaries, mismatched owner names, unrecorded subdivisions where multiple buildings sit on one parcel, or properties located in proscribed areas like wetlands or road reserves. These raw mismatches would be useful in showing where the systems diverge, but on their own would not explain why.

Explaining discrepancies

A second step could involve drawing on secondary administrative sources to help classify mismatches. Records from KCCA's Valuation Court, for instance,

contain many name-change appeals that may indicate where KCCA data is more up-to-date than MoLHUD's registry.

Finally, targeted field surveys could provide direct evidence on a sample of mismatches. Visiting properties will help determine whether discrepancies reflect informal processes, administrative delays, deliberate exemption-seeking, or simple error.

Potential benefits

Taken together, such a pilot could provide both agencies with a consolidated picture of where their records diverge and why. For KCCA, this could help improve billing accuracy, strengthen enforcement, and allow for follow-up with irregular properties in sensitive areas. For MoLHUD, the exercise could help identify outdated entries, unrecorded subdivisions, and informal property transfers. More broadly, piloting a structured process for property data matching would generate the practical evidence needed to design a more institutionalised system of data sharing and matching that delivers mutual benefits.

Making property data sharing a priority

Ideally, a comprehensive national cadastre would serve as the common foundation for taxation, urban planning, and land management. However, reaching that ideal soon is not a practical reality for most lower-income countries. At the same time, the increased attention to property taxation as an attractive source of local revenue is generating valuable building-level data at the municipal level (Monkam & Moore, 2015). The question is whether this data can be harnessed for wider state functions, beyond just local revenue collection.

Realising this potential will require elevating property data sharing as a governance and political priority. Stronger institutional commitment is needed to move beyond the current *ad hoc* exchanges. This may involve rethinking institutional mandates, establishing clear rules and agreements for data exchange, and investing in the technical capacity of civil servants to perform matching analyses. Expanding the use of geospatial data, developing common property identifiers across government databases, and investing in local property tax systems to ensure they continue generating accurate data will also be critical.

By making property data sharing a political priority, Kampala can strengthen revenue collection, improve the accuracy of the national land registry, and provide a stronger basis for managing urban growth. In doing so, local improvements in property taxation can contribute to broader processes of state formation.

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