The Urban Land Nexus and Inclusive Urbanisation in Dar es Salaam and Mwanza

Briefing Note 2

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The Urban Land Nexus and Inclusive Urbanisation in Dar es Salaam and Mwanza

Summary This Briefing Note is for those interested in supporting more inclusive urbanisation processes in cities where populations are growing rapidly but poverty remains prevalent, and in Dar es Salaam and Mwanza in particular. Dar es Salaam, with a population of about six million, is the primate city of Tanzania and about six times the size of Mwanza. The different land nexus dynamics of these two cities are examined, together with the implications for groups who are more vulnerable to spatial exclusion – including residents of low socioeconomic status, and especially those that are also migrants, tenants, women, and/or living in informal settlements. This leads to reflecting on areas where action could make the cities’ urbanisation more inclusive, namely: (1) building the capacity of local ward and mtaa (sub-ward) officials and leaders so they can become central to a more inclusive regularisation process; (2) supporting community-based planning prior to any regularisation; (3) developing and implementing co-production models for simplified sewers that not only improve sanitary conditions, but also result in greater formal acceptance of settlements; and (4) developing and putting into use an evidence base for informing and coordinating the multiple actors involved in the governance of the urban land nexus in each of these cities.

1 Introduction
The desirability of a piece of urban land owes more to the land nexus it provides access to – the densely gathered configuration of people, artefacts, infrastructures, institutions, goods, and links to ecosystem services – than to any intrinsic quality of the land itself. Different parts of an urban land nexus provide different levels of access to the benefits of a city, and indirectly to the ecosystem services the city depends on. Depending on how the land nexus is organised, it can be more or less successful economically, and more or less inclusive of its more vulnerable populations. Rapid population growth can complicate both the politics and logistics of inclusion.
The populations of both Dar es Salaam and Mwanza are growing at 5–6 per cent per year – very rapid rates by current international and national standards. Over half of the growth is due to net immigration. Neither the national nor the local governments have fully come to terms with this growth. It is important to note, however, that urban growth rates in Tanzania, as in most African cities, have been falling: in the early 1970s, Dar es Salaam was growing at 9 per cent and Mwanza at 10 per cent a year, according to UN Population Division estimates.

In recent decades, most of the population increases have been in unplanned settlements, referred to as ‘informal’. The state of the cities’ economies have been improving, at least until recently. Efforts to regularise settlement in these cities are growing. This may be a good thing, although it will be difficult to ensure that regularisation and formalisation open up, rather than close down, opportunities for vulnerable groups and low-income majorities. Moreover, there are important positive as well as negative lessons to learn from informal settlement processes and, to be successful, regularisation must take both sorts of lessons into account.

2 Patterns of settlement across the land nexus

2.1 Population and streets

Cities attract people and enterprises because they want to be better connected with other people, infrastructures, and enterprises, and to secure the benefits of urban

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1 Both Dar es Salaam and Mwanza are regions as well as cities; but in Dar es Salaam the boundaries are contiguous, whereas in Mwanza most of the area of the region is beyond the boundaries of the two municipalities that make up the city. In this Briefing Note, the names Dar es Salaam and Mwanza refer to the cities, unless otherwise noted.

2 https://population.un.org/wup

3 The tables and maps in Figures 1, 3, 4 and 5 were compiled on the basis of data generously provided to the project by the National Bureau of Statistics of Tanzania. Most statistics are based on a subsample of people who filled in the long questionnaire from the census and included 56,785 people: 38,882 in Dar es Salaam and 19,903 in Mwanza. For spatial statistics, we included some tables where up to 15 per cent the subsample could not be matched with the spatial data and were coded as missing. We have not provided confidence intervals as with such large sample sizes these intervals are very small, and uncertainties are more likely to arise from other sources.
agglomeration. Planned or unplanned, the population of rapidly growing city systems tends to grow along the transport routes, where people can be well connected but avoid high property prices – though the transport routes, particularly in Dar es Salaam, can be very congested. In Dar es Salaam, population densities are at their highest in a ring around the more commercial centre, whose density has declined somewhat, but also out along the arterial roads (see Figure 1). Similar patterns are already evident in Mwanza, despite it only being about a sixth of the size of Dar es Salaam (Figure 1). In Dar es Salaam, where it is possible to map out population changes between the last two censuses (2002 and 2012) in considerable detail, the greatest absolute increases in population per hectare have taken place slightly further out than the densest areas, and the highest percentage population growth is in the more distant periphery.

2.2 Informal versus planned settlements

In Tanzania, informal settlements are those that do not conform to planning regulations, though most have legal dispensation. The maps in Figure 1 show the extent of informal settlements, mapped for 2012 in Dar es Salaam and more recently in Mwanza, laid over population densities based on the 2012 census. Consolidated informal settlements housed about half of Dar es Salaam’s total population, with unconsolidated informal settlements accounting for a further 12 per cent. In Mwanza, identified informal settlements (defined slightly differently) housed about half of the population. As the cities grow, existing informal and even planned settlements go through a progression from low density towards higher density as they consolidate and become better connected and relatively more central. The consolidated informal settlements in Dar es Salaam are far denser than the planned areas: they accommodate 50 per cent of the city’s population on 13 per cent of its land area, while the planned areas accommodate only 19 per cent of the people on 14 per cent of the land. On the other hand, the unconsolidated informal settlements that accommodate most of the remaining population include a large share of low-density settlement.

Mwanza displays similar patterns. However, a significant share of the informal settlement in Mwanza is on quite densely settled rocky hills towards the centre of the city, which some believe should not be inhabited. Thus, about 60 per cent of the people in informal settlements (or about
30 per cent of Mwanza’s overall population) live in hilly informal settlements with densities of over 100 people per hectare, within 5km of the city centre.

In both cities, informal settlement has sometimes led to settlement in hazardous locations, in areas where settlement is environmentally destructive, and in areas and ways that make later upgrading with basic infrastructure and services unnecessarily costly.

In addition, by providing an alternative for those who could not afford to conform to official regulations it has obscured the fact that, applied rigorously, these official regulations would be exclusionary. However, informal settlement has enabled people to move into areas that would have been formally opened up had the authorities been more proactive and better resourced, and has demonstrated the innovative and inexpensive means by which people can individually and collectively overcome local land nexus problems. It has also allowed a significant share of the population, and not just developers and property speculators, to capture the rising land prices as the city expanded.

2.3 Water networks

Urban populations do not just need to be connected, but also to secure services, including water – the example chosen to display here. Piped water is typically more important to urban than rural dwellers, as groundwater is more often polluted or depleted. Figure 2 illustrates the extent of the water network in each city: Mwanza’s network covers a larger share of the 2012 population than does Dar es Salaam’s, although Dar es Salaam is the wealthier city. The census also indicates that almost twice the population share in Mwanza (64 per cent) had water piped to their house or plot as compared to Dar es Salaam (34 per cent). Many factors contribute to this difference – there are some physical differences, but water provision has also been more heavily contested in Dar es Salaam. The city experienced a failed privatisation initiative in 2003–05, and there were serious management problems under both public and private operators, with major reforms put in place during the past year. Mwanza’s utility, an autonomous but publicly owned agency, is operating in a less heavily contested environment, and has been more successful in achieving high coverage rates, though like in Dar es Salaam, having pipes does not guarantee having water. Moreover, in both cities the networks are less present in informal settlements. In the map of Dar es Salaam in Figure 2, this manifests itself in the way the network follows the planned settlements going up along the coast, while in Mwanza it manifests itself in the lack of network extensions into the rocky hills where a large share of the informal settlement population in the city lives.
In both cases, this has practical as well as political explanations, although unlike some countries there are no legal barriers to providing water to informal settlements.

3 Vulnerable groups in the land nexus

As residents struggle for a place in the urban land nexus, certain groups tend to lose out, suffer from being displaced, and end up concentrated in less advantageous locations. Segregation can be part of this process, and for some better-off groups a neighbourhood is undesirable if most people are not able or not willing to pay for modern sanitation, piped water, and other accompaniments of affluence. On the other hand, other forces and preferences can favour more socially mixed neighbourhoods (as when wealthier owner-occupiers rent out rooms or buildings on their plot to less wealthy tenants).

Moreover, different types of vulnerability manifest themselves differently across the land nexus. Generally, less socioeconomically advantaged groups are more likely to be forced to move as a result of the churn of the land nexus. Tenants especially are easily displaced and low-income migrants, in particular, are likely to have to accept temporary or insecure living situations. Women tend to be particularly disadvantaged when their households are forced to live in locations where services are deficient and connections are poor, compounding the challenge of balancing caring and income-earning activities. It is important to ask, for all these groups, whether they are adequately represented in the governance of the land nexus processes and, particularly in the case of women, the ownership of land.

3.1 Multi-dimensional disadvantage

There are many dimensions to advantage/disadvantage in the urban land nexus, and the five socioeconomic classes displayed in Figure 3 and Figure 4 for the two cities are based on an index including: indicators of human capital (e.g. education), ownership of consumer durables, and the quality of the residence and its services. They show that residents of Mwanza are more concentrated in the lower socioeconomic classes, going somewhat against the city’s much higher piped water coverage noted above, but confirming other indicators. As illustrated in Figure 5, the higher coverage rates in Mwanza are accompanied by sharper differences in coverage rates between socioeconomic classes, though in both cities coverage rates are higher in higher status groups. Clearly, the spatial manifestations of disadvantage and inequality can be quite different across the cities. But in both cities, being more disadvantaged with respect to land nexus issues is accentuated for those who are not just of low socioeconomic status, but also tenants, migrants, women, or some combination thereof.

3.2 Tenants and tenure insecurity

Tenants have a particularly insecure tenure and are at risk of being priced out of their homes when there are residential improvements in their neighbourhoods. This is more of a burden for low-income tenants. Renting is often ignored in policy discussions of housing in these cities, despite accommodating more than a third of the population in both. Rental housing is sometimes treated as something that people will only accept if they cannot afford a house; nevertheless, it is common across the classes in both cities, housing about 30 per cent of people in the highest socioeconomic class (and about 40 per cent overall).

Another vulnerable group is owner-occupiers who may own the structures but have no rights to the land, and are found primarily in the lower socioeconomic classes. Generally, less formal land rights are associated with somewhat greater disadvantage. They are often assumed to be restricted to the unplanned areas designated as informal in the maps (Figure 1 and Figure 2). However, it is striking that, according to the census, the share of owner-occupiers in Dar es Salaam with a land title or licence is actually higher in consolidated informal areas (37 per cent) than in the planned areas (29 per cent). As such, it is important not to confuse the informal or unplanned character of the settlement (associated with general conformity to planning regulations) with the informality of property ownership at the household level. More generally, the share with a land title or licence is considerably higher in Dar es Salaam than in Mwanza.

3.3 Migrants

When countries are urbanising rapidly and a city’s informal settlements are growing alarmingly, it is common to blame this growth on migrants, assumed to be mostly poor people moving in from the countryside. However, the share of the population not born in their city of residence increases monotonically across the five socioeconomic classes in both cities, increasing from 49 to 59 per cent in Mwanza and 56 to 62 per cent in Dar es Salaam. The share of people who were not in the city a year before the census is quite stable in both cities, averaging 13 per cent in Mwanza and 7 per cent in Dar es Salaam. Migrants are more likely to be tenants, although the figures suggest considerable mobility, and no clearly identifiable group of new migrants. Nevertheless, migrants and disadvantaged classes are likely to be particularly susceptible to land nexus pressures.

3.4 Gender

Women and men are not segregated across the land nexus. Even female-headed households, which account for about a third of households, are found in roughly equal
shares both across space and class. However, through their caring roles, gender relations can put women and girls at a disadvantage in certain parts of the urban land nexus. At the same time, these same women and girls are particularly important for households’ ability to cope with land nexus pressures, and a lack of access to services and markets. In the 2012 census, about a third of women over 15 years old listed home maintenance (including caring roles) as their principle occupation. The mortality statistics show how differently hazards can play out across the genders. Although the overall mortality rates were very similar across the genders in both cities, the biggest single category of death (other than a general sickness/disease category) among women was maternal death (10 per cent in Dar es Salaam, contrasting with 9 per cent in Mwanza), while the biggest cause of death among men was road accidents (6 per cent for men and 2 per cent for women in both cities). This illustrates how gendered land nexus priorities are likely to be, with these particular differences suggesting a higher priority for access to health care (and particularly maternal care) for women, and a higher priority for safe transport options for men. Research also indicates that when women are landowners, they are more likely to engage in local politics, which could lead to greater control over land nexus pressures, and a greater capacity to turn their land nexus priorities into reality.

4 Key land nexus processes and the challenges and opportunities they pose

4.1 Informal settlement formation

Informal land development processes and actors are major shapers of urban form in Dar es Salaam and Mwanza, and still provide most new housing, both owner-occupied and rental. In the idealised planned city, roads are mapped in Dar es Salaam and Mwanza this process is reversed. People move in when infrastructure is rudimentary. They build their homes incrementally, providing themselves with (or paying for) decentralised services such as water from local boreholes and on-site latrines. Given an opportunity, they push to have road, electricity, and eventually water networks extended or improved.

The lack of planning, and of concern for the external consequences of piecemeal development, creates problems. The settlements tend to be located in difficult-to-service places, and are costly to retrofit with serviceable roads and piped water once they have been developed (this was more of a problem in the past, when vehicles were more scarce). Both the residents and the broader city environment suffer.

On the other hand, in three case studies each in Mwanza and Dar es Salaam (and confirmed in other case studies), this informal settlement had more advantages than had been previously recognised. The attraction of the periphery to self-builders is that the land is cheap, so that with a relatively small payment for a plot together with incremental investments in upgrading, they can end up as homeowners. For the majority, there are no affordable and formal alternatives. The incremental development of this self-builder-led process often leads beyond the construction of housing for the owner, and it is also the source of a large share of comparatively affordable rental housing. This allows settlements to densify without subdividing and creates neighbourhoods that are both mixed use and mixed socially.

There is also insufficient recognition of the capacities of the neighbourhood officials and organisations who help guide the informal development, and the self-building owner-occupiers who drive the process. These capacities could be enhanced, and that would be an obvious route towards turning informal development into a more unambiguously positive process, over which planners could have a constructive influence.

4.2 Incremental gentrification, new developments, and rising land prices

Gentrification refers to a combination of rising land prices, economic investment, and the displacement and exclusion of economically weaker residents by better-off land users. This is a process that can happen throughout the cities’ land nexuses. Gentrification of a sort is happening even on the periphery, as the self-builders move in, buying up land from poorer agriculturalists. The process is particularly intense in the originally planned centre of Mwanza, and the well-connected parts of the consolidated informal settlements of Dar es Salaam. On the other hand, there are also cases where commercial uses undermine residential value, or where crowded low-income housing creates neighbourhoods that wealthier households do not want to live in (except along the accessible margins capable of being separated out from these neighbourhoods).

In case studies of gentrifying areas, the rising land values were accompanied by residential densification in some parts, and an increase in commercial property in others (a finding consistent with the patchy population growth mapped in Dar es Salaam). In the less central Dar es Salaam case study, public spaces were failing to upgrade with the increase in commercial activity, and the neighbourhoods continued to suffer from environmental degradation, despite increasing private investment and rising real estate prices. Many of the poorest residents were being displaced, but the commercial potential of the area was
not being met. Care must be taken to avoid letting such gentrification go unguided. The local officials who help guide informal residential settlement are not in a position to guide rapid commercial development. This is an important arena for municipal authority guidance, not to be confused with ambiguous land ownership – at issue are the rights of property holders to affect their neighbours.

For investors wanting to take advantage of the potential value of well-located land in Dar es Salaam or Mwanza, large-scale development that coordinates land use avoids some problems associated with uneven gentrification. It can also be attractive to planners. However, it not only displaces poorer people, but also poses other problems. Kigamboni, located near the centre of Dar es Salaam but requiring a bridge to make it well connected, looked like an ideal site for a new city. However, after much planning and boosting, and despite the building of the bridge, it failed to materialise as a coordinated development site (though incremental gentrification is likely to accelerate). In part this was due to a failure to manage expectations, and to engage adequately with existing residents. Buswelu, on the outskirts of Mwanza, created a new centre for one of the city’s municipalities and was more successful. This instance involved more effective and open engagement; but in any case, the periphery of Mwanza’s land nexus was less likely to create excessive and conflicting expectations.

4.3 Settlement regularisation and formalisation

One of the more popular approaches to addressing the challenges of informal settlement in Dar es Salaam and Mwanza is settlement regularisation. There, formal steps towards regularisation set out by the Ministry of Lands, Housing and Human Settlements Development include: a public consultation; a survey of conditions; a collectively approved land use plan; a cadastral survey; and issuing title deeds. The effects on tenants are not an explicit concern.

The findings of our case studies of regularisation suggest that it can provide benefits that local residents, and especially landowners, do value (there is a self-selection bias here, in that the mtaas involved in regularisation are likely to be the ones where landowners have expressed an interest). The costs for the full regularisation process are hard to cover locally, however, and little central funding is available. In Magengeni, for example, the surveying company was charging TZS250,000 per plot for surveying up to the stage of installing beacons to demarcate the boundaries, and over half the respondents felt that the cost should be lowered. Perhaps as a result of high upfront costs, progress in both Dar es Salaam and Mwanza has been patchy, and regularisation has only been partial in most of the areas where it has been attempted. In this context, there are problems with partial regularisation because part of the goal of regularisation is to address collective issues, and this is not possible if a significant share of residents do not join in.

Low-cost regularisation relies heavily on active leadership of ward and mtaa officers, and in organising a sufficiently participatory and professional process. Where private firms are involved (e.g. in the surveying), negotiations with the firms are often held in local community meetings chaired by the mtaa leaders of the areas. Collective engagement is also necessary if regularisation is to become more than just a titling process. Getting land for public purposes cannot easily be done in a piecemeal fashion. A number of settlements have had to deal with controversy in compensation arrangements, so these too need to be clear and agreed upon.

4.4 Formal and informal water and sanitation provision

Even more so than in rural areas, a large set of networked infrastructures are required to enable cities to function. Roads, electricity cables, water pipes, drains, and sewers are cheaper to extend around cities than to dispersed villages – and when they fail in cities, the consequences tend to be worse. Furthermore, particularly in an urban land nexus, they all compete for space and urban planning, which is needed to ensure they are coordinated with each other and with the distribution of the structures and people they serve.

Several features of the cities’ water systems were described above, with Dar es Salaam coming off worse in terms of piped water connections. Being wealthier, there are somewhat higher shares in Dar es Salaam using improved private water sources, but not enough to compensate for the lack of piped water. In Dar es Salaam in particular, there is evidence of many people relying on multiple (mostly inadequate) sources, often from different sorts of providers, especially in informal areas. Wells are widely used, but in densely settled central areas there are risks of contamination and depletion, even with boreholes. In peripheral areas, contamination is less severe, but there are indications that water abstraction exceeds renewals, which could cause a water resource crisis in the future.

Sewers reach a far smaller share of the population than piped water: about 6 per cent in both cities in 2012, with little progress since. Most households depend on on-site facilities (mostly pit latrines) that are costly to maintain and hazardous when not maintained. Like water, sanitation is of special concern for women, and has long been a priority for community organisations, including the Tanzania Urban Poor Federation. However,
the sanitary challenge in an urban land nexus is such that low-cost sanitary improvements must be co-produced by communities and actors working in the public interest. Most communities cannot organise the safe disposal of faecal sludge. Organising such disposal is made more difficult by the fact that utilities are better suited to working with piped systems than with on-site sanitation and community organisations.

While the politics of informality generally undermine attempts to improve water and sanitation, there can be exceptions, especially around sanitation. A particularly important opportunity lies in the hilly areas of Mwanza, where simplified sewers could be transformative, enabling what are now some of the most problematic and insecure informal settlements to gain acceptance and legitimacy. Partly because it is hard to extend roads or water to these hill settlements, better-off households tend to avoid them; instead, the hills have been settled by relatively poor residents who also cannot afford good on-site sanitation. Downstream households are often adversely affected by the runoff from the latrines on the hills, contributing to the bad reputation these hilly areas have among many other residents and officials. The local utility has started experimenting with simplified sanitation, a technology that supported great strides in sanitary improvement in Karachi and a number of cities in Brazil. This provides a potential game changer in Mwanza’s land nexus, as noted in the following section.

5 Promoting more inclusive development in the land nexus of Dar es Salaam and Mwanza

5.1 Building capacity for the regularisation of informal land among ward and mtaa leaders/officials

Informal settlements in both cities have problems, but also provide most of the housing in the city, at a surprisingly low cost and in a manner more responsive to the needs of residents than most formal housing. The local officials and leaders at the ward and mtaa levels have played a key role in making the process of informal settlement operate as smoothly as it has. Ongoing processes of centrally led regularisation have been slow, patchy, overly oriented towards the formalisation of private property rights (to the neglect of securing public land for critical local needs), and unaffordable for many. Some recent and more successful regularisation efforts have involved ward and mtaa leaders and officials working closely with their communities. Such local actors would benefit from capacity building in logistics of regularisation; on lessons learned from recent successes; and on ensuring fair and meaningful participation by all residents. To achieve inclusivity and sustainability, the capacity building would need to be designed to include the voices of vulnerable groups in the regularisation process.

5.2 Supporting community-based planning prior to regularisation

Regularisation is typically attempted in settlements that have already consolidated. For it to be inclusive, regularisation must be achievable at scale, without driving the most vulnerable groups further into poverty. This means avoiding difficult and costly transitions, which risk excluding those who can least afford to participate but are most at risk when they do not. Community-based organisations in both cities have already shown their ability to enumerate settlements, and with support from local government could play an important role in locally based planning. This community-based planning could be designed to meet the needs of existing residents, and also ensure that the demands of any future regularisation are minimised.

5.3 Developing and implementing co-production models for simplified sewers in Mwanza’s rocky hills

The lack of sanitation in the more central informal settlements on the rocky hills of Mwanza is a threat to the health and wellbeing of their residents. It also threatens downstream neighbours. Simplified sewers could, if scaled up to reach a large share of existing residents in these informal settlements, provide the basis for the official acceptance of more liveable settlements. Pilot projects have been undertaken by the utility, working largely independently, though in other parts of the world residents have played a large role in constructing (with supervision) and managing the lines. A co-production model, with community involvement, some technical support and more in-kind contributions and management by residents, could bring costs down. It could also help prevent tenants from being displaced as conditions improve.

5.4 Developing an evidence base for coordinating planning and governance in the urban land nexus (building on censuses, open street mapping, and big data)

There is a lack of coordination between the many actors operating in the urban land nexus with a public mandate or role. This coordination problem is widely acknowledged, but most of the obvious responses are politically unrealistic. Agencies strong enough to implement proposed master plans, for example, would challenge powerful vested interests. The research conducted for this project indicates, however, that by combining new information technologies with traditional data sources such as censuses and inter-censal surveys, it should be possible to create a strong and live evidence base for informing a city-wide coordinating role, and also support implementation led by both local government and communities.
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The opinions expressed are those of the authors and do not necessarily reflect the views of IDS, EARF, DFID or any of the institutions involved.

Other outputs from the project
Synthesis Report Examining the Urban Land Nexus and Inclusive Urbanisation in Dar es Salaam, Mwanza, and Khartoum
Research Report Investigating the Urban Land Nexus and Inclusive Urbanisation in Dar es Salaam, Mwanza, and Khartoum
Briefing Note 1 The Urban Land Nexus and Inclusive Urbanisation in Dar es Salaam, Mwanza, and Khartoum
Briefing Note 3 The Urban Land Nexus and Inclusive Urbanisation in Khartoum
Annexes The Urban Land Nexus and Inclusive Urbanisation in Dar es Salaam, Mwanza, and Khartoum

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