

Linking evidence and climateresilient national urban policy in Tanzania amid unfavourable political conditions: Reflections on the Tanzanian Urbanisation Laboratory, 2017–2020

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About this case study

This is one in a series of four case studies written by African think tanks, commissioned as part of a research project that aims to unpack and better understand the use of different types of scientific and expert evidence in policymaking.

Each case study explores how evidence is defined, understood, and used in different national and sectoral policy contexts. This case study looks at climate-resilient national urban policy in Tanzania. The other three case studies cover: (1) Benin's food security and nutrition sector (2) South Africa's professionalisation of the public service (3) South Sudan's national budget process.

Case studies vary in length, style, and approach. Each offers valuable insights into the factors and actors influencing evidence use within specific national and sectoral policy contexts. The case studies will also contribute to a research paper written by Dr Jessica Espey and Giada Casarin at the University of Bristol School of Geographical Sciences, which seeks to inform how evidence is used in international deliberations, particularly within the United Nations General Assembly.

The project is led by the University of Bristol, in collaboration with OTT Consulting, and four think tanks: ACED, African Centre for Cities, New South Institute, and Samahi Research. It was generously supported by the William and Flora Hewlett Foundation. The views presented in this paper are those of the author and do not necessarily reflect those of the funding or partner organisations.

This case study was produced by the African Centre for Cities (ACC). ACC is an interdisciplinary hub at the University of Cape Town with a mandate to conduct meaningful research on how to understand, recast and address pressing urban crises.

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Summary

There is no shortage of policies in African countries, but evidence is under-utilised in policy formulation, despite the proliferation of monitoring and evaluation and performance evaluation toolkits and a growing rhetoric around evidence-informed policy.

When evidence is incorporated, the links between evidence and policy change are neither linear nor quick, and the processes that convert evidence into reformed policy in rapidly evolving African countries are poorly documented.

While empirical evidence is assumed to support consensus building, drawing inference and policy implications from this evidence can surface deep-seated biases and be polarising. Unless this subjectivity is acknowledged, competing inferences can confound effective policy formulation.

When multiple strands of qualitative and quantitative evidence are deliberated by epistemic communities capable of embracing agonistic traditions, they can make for better policy.

Provided attention is given to their governance, composition, and membership, epistemic research communities that gather and deliberate evidence, such as the TULab in Tanzania, can play an important role in linking international themes around cities and climate with domestic policies and decisions.

International policy agendas need to invest not just in the local evidence required for policy, but in the processes that give this evidence meaning in the everyday lives of people living in countries such as Tanzania.

The same investment in evidentiary processes would allow international policy agendas to be informed by new evidence from geographies and communities in Africa that are critical to their success.

1. Introduction

It is standard practice for donors supporting policy formulation or governance enhancements to request attribution for the link between their investment and the altered development trajectory of the beneficiary country, city, or organisation. Aspirant beneficiaries and consultants understand this and have evolved a lexicon, theories of change, and the metrics to report on this impact relative to an assumed baseline of what would have happened in the absence of the investment (Terrapon-Pfaff et al., 2014; Cairney, 2016; Termeer et al., 2017; Pieterse, 2023). While it is appropriate that donors should seek to link their allocations to positive impacts on the most pressing human-environment problems, very little is actually known about what triggers and sustains positive change in low- and middle-income cities (Banerjee and Duflo, 2012; Froestad et al., 2013; Martin et al., 2018; DeFries et al., 2019). What is clear, is that most donor-funded programmes do not go exactly as planned; the imagined link between information and change is seldom immediate or smooth, and many of the documented attributions are tenuous at best (Goldman and Pabari, 2020).

This paper explores links between evidence and policy. It does this by recounting the experiences of the Tanzanian Urbanisation Laboratory (TULab) in its efforts to innovate the way in which donor-funded research was used to support National Urban Policy in Tanzania. The TULab experiment coincided with a period (August 2017–February 2020) in which Tanzania was experiencing an increasingly repressive evidence regime. Working for the African Centre for Cities (ACC), the author was responsible for establishing the TULab, managing all the knowledge products it generated, and ultimately writing a policy recommendation for the government of Tanzania. The reflection relies on the author's experiences, the perspectives of people involved in the TULab, peer-reviewed research produced by the TULab, and the international literature on knowledge–policy interactions and citylabs.

The paper suggests that new evidence and knowledge, while necessary for policy innovation (Choo, 1996), are insufficient to drive effective National Urban Policy in rapidly urbanising African countries. Rather, the curation of multiple strands of evidence, and paying attention to who generates, holds, and feels vested-in the evidence and knowledge, hold the potential for higher policy impact. This observation contains implications for the manner in which investments in evidence-informed policy are allocated.

2. Formulating National Urban Policies in Tanzania

After two years of preparatory meetings and three bespoke 'prepcom' gatherings, the New Urban Agenda (NUA) was formally adopted on 20 October 2016, at the United Nations' Habitat III summit in Quito. Building on the 'urban' development goal in the Sustainable Development Goals (SDGs) in 2015, the NUA focussed international attention on the importance of rapidly evolving cities for the outcome of development, economic, and climate goals (Araos et al., 2016; Revi, 2016; Lilford et al., 2017). African countries and pan-African institutions were quick to align, at least superficially, with the international focus on urban and climate issues (Pieterse, 2023): the 54 African countries recognised by the United Nations have all signed the Paris Agreement, and the African Union has adopted the African Charter on Values and Principles of Decentralisation, Local Governance and Local Development and approved the creation of a High Council of Local Governments (African Union, 2019; African Development Bank, 2023). Despite the charter, many African countries continue to centralise governance at this time, cognisant that devolution of fiscal and regulatory power to inchoate local governments holds the potential for budget chaos and may involve handing power to towns and cities in which political opposition is incubating (Cartwright et al., 2018; Amani et al., 2018; Lekunze, 2020).

It was the recognition, at Habitat III, that the sustainable development of African cities is not only critical but also contingent upon enabling national government policies, that led to National Urban Policies (NUPs) emerging as a key policy instrument. In their simplest form, NUPs describe the multi-level and multi-actor arrangements that determine which tier of government is responsible for what, and with what source of revenue (UN Habitat, 2016; Cartwright et al., 2018).

The growing awareness of climate change risks and the focus on NUPs in the wake of Habitat III provided impetus to entities such as ICLEI, United Cities and Local Governments, C40, and Cities Alliance working on cities and climate change. It also spawned new initiatives such as the Coalition for Urban Transitions (CUT), a London and Washington DC based spin-off of the New Climate Economy initiative. It was the CUT that asked the African Centre for Cities (ACC) to develop a NUP in Tanzania; a missing piece of legislation in a country that was both growing economically and urbanising rapidly (Worral et al., 2017).

For the ACC, an interdisciplinary hub at the University of Cape Town conducting 'meaningful research on how to understand, recast and address pressing urban crises' (ACC, 2023), the request demanded some introspection. International enthusiasm for NUPs in the wake of Habitat III was prone to underestimate the political, technical, and institutional complexity of multi-level governance relationships in Africa, not to mention the high levels of informality and the 'rough and tumble of everyday politics' in African countries (Pieterse, 2023). As an academic institution, the ACC was wary of foregoing the luxury of research and enquiry to drive a preordained policy outcome in the form of a NUP. The ACC did, however, have a track record of creating 'citylabs' to conduct research in ways that bridged the gap between academic and practitioner knowledge – and was keen to test this approach in the Tanzanian context (Anderson et al., 2014; Culwick et al., 2019; Patel et al., 2020).

3. The Tanzanian context and the Tanzanian Urbanisation Laboratory (TULab)

At the time of the request to the ACC, 2017, Tanzania was experiencing Gross Domestic Product (GDP) growth, had the sixth highest urbanisation rate in the world, and had adopted a Decentralisation by Devolution policy (Worral et al., 2017). Tanzania's political leaders had set the goal of progressing from 'Least Development Country' status to 'middle-income' status by 2023 – a shift that required an increase from USD 879 to USD 1,206 in per capita GDP (in 2017 terms) (World Bank, 2017). The country was also adopting increasingly centralised and autocratic modes of evidence sharing and governance. Not only had the Magufuli presidency, which commenced in 2015, brought key ministries into the president's office and centralised the collection of property taxes, citing concerns about local government corruption, but the electoral representation system had been stacked in favour of rural voters (US Bureau of Democracy, Human Rights and Labor, 2019). The trend was supported by a raft of smaller interventions, including the centralised appointment of teachers and the granting of responsibility for urban infrastructure to national agencies for roads, water, telecoms, and electricity (Lameck et al., 2019).

Predictably, the centrally co-ordinated provision of services to rapidly growing urban populations was unable to keep pace with demand (Mollel and Tollenaar, 2013; Lameck et al., 2019) and, counter to the global norm, urban dwellers in Tanzania reportedly experienced lower levels of human development than their rural counterparts. Life expectancy in urban areas was 59.7 years compared with 62.4 years in rural areas, and urban residents faced higher risks of under-5 mortality, maternal mortality, HIV, cholera, diabetes, and road traffic accidents (NBS, 2016; Worral et al., 2017). As part of Tanzania's 'authoritarian turn' the Cyber Crimes Act (2015) had seen critics of the president jailed, the Media Services Act (2016) had been used to close down a number of newspapers, and the amendment to the Statistics Act (2018) made the publication of any datum point that contradicted the National Bureau of Statistics (NBS) data punishable with a three-year jail term (Paget, 2017; HRW, 2019; Lekunze, 2020). The central government's efforts to control evidence and narratives made some academics in Tanzania's 26 universities anxious about conducting policy-related research and almost collapsed the think tank REPOA in 2018.

While some data about the wellbeing of people living in cities inevitably became contested in this political environment, it was clear that urbanisation in Tanzania had not driven the widespread social upliftment or industrialisation that had ensued in South East Asia and Latin America (Turok, 2013; Worral et al., 2017; Cartwright et al., 2018). On the contrary, Tanzania's policies and the quest for 'middle-income' status was conspicuously void of any economic role for cities and towns. The Decentralisation by

³ Some urbanists in the TULab cast aspersions on these National Bureau of Statistics data and questioned whether they formed part of the government's long-standing attempts to dissuade people from moving to cities.

Devolution policy was not supported by actual government decisions and actions. Tanzania had had a draft Urban Development Plan since at least 2010 without formalising this policy, and the World Bank's *Urbanisation Review*, produced in 2017, had not been formally released. The policy environment was equally silent on climate change. In 2017, the President held the view that Tanzania should not be expected to refrain from fossil fuel extraction while OECD countries reneaged on pledges to provide green climate funding (Lekunze, 2020; Leiter, 2021).

On the one hand the President's disregard for urbanisation and climate change increased the risk of taking on the CUT assignment with its normative ambition about modernist, climate resilient urban development. On the other hand, these views were not unique to Tanzania and the clash between donor-funded policy objectivism and the Tanzanian reality of complex and contested policy decisions provided precisely the context in which citylabs had proven their worth in the past. The ACC had used the citylab model to convene epistemic communities⁴ and conduct research that integrated multiple scales and strands of evidence – including practitioner and academic knowledge and the full range of socio-technical perspectives –into urban decision-making (Parnell et al., 2009; Cartwright et al., 2013; Berrisford et al., 2018; Evans, 2018). In making the case for a citylab to the CUT and its funders, ACC researchers (including the author, who attended a meeting in London) were fortunate to find Department for International Development officials in the United Kingdom frustrated with the lack of policy impact, and alive to the opportunity for evidence-informed policy innovation through the proposed Tanzanian citylab.

Having gained the opportunity to run a citylab, the ACC set about the more difficult task of ensuring this vehicle was (1) conducting useful research for a Tanzanian NUP and (2) appropriately governed. For epistemic communities to remain policy relevant they need to pay express attention to their composition and approaches (Fritz and Binder, 2020; Kareem et al., 2022). The default for any policy forum, but particularly in politicised contexts, is for actors with vested interests to be selective about who gets to participate and contribute, thereby predisposing a chosen outcome (Cities Alliance, 2015; Andrews et al., 2017; Kareem et al., 2022).

Grounding principles proposed by the ACC and agreed by the CUT and Tanzanian Ministry of Finance and planning officials included that:

Neither the ACC nor the TULab would write actual policy but instead would engage and enable the duly appointed President's Office-Regional Administration and Local Government (PO-RALG), through the work of the TULab, to write a NUP that aligned with Tanzania's development ambition and institutional context. PO-RALG and other government officials became stalwart supporters of the TULab.

⁴ Epistemic communities, in this context, are understood as coalitions with diverse expertise focused on a specific theme or political priority, which utilise informal engagement opportunities such as meetings and events to try to influence formal deliberative proceedings (Haas, 1992).

- → Local evidence gathered by Tanzanian researchers, rather than international experts, would be relied upon wherever possible.
- Representatives from as many sectors and institutional affiliations as possible would be consulted in gathering evidence for a NUP, with the express purpose of combining qualitative and quantitative data and recognising that no single ministry or institution could deliver sustainable cities on its own.
- → Urban informality would be engaged as an objective 'lived reality' for African cities, rather than a transition phase or inconvenience.
- → The TULab should, as far as possible, be a 'safe space' to ask difficult questions about urbanisation, climate change, and urban development. This was particularly important given the progressive efforts of the Magufuli administration to control the narrative on Tanzanian cities as places of deprivation in an effort to keep people in rural areas.
- → The limits of donor support should be acknowledged up front, and investment would be made in convening an epistemic community within Tanzania that could continue to work after the three-year donor project had ended.

After considering options, the CUT contracted the Dar es Salaam-based NGO, Economic and Social Research Foundation (ESRF) to host the TULab. The ESRF provided a venue and a 'TULab secretary'; the secretary was responsible for issuing invitation, ensuring that the composition of the TULab members remained diverse, taking minutes of TULab proceedings, and arranging the meals that were provided after each session. The ESRF was considered politically close to the government, a relationship that secured the Ministry of Finance and Planning head, Maduka Kessey, as the TULab chair. Later, when Mr Kessey was allocated to a new post amid a ministerial restructuring, the ESRF was able to negotiate a senior official from the same ministry, Dr Laura Madete, as his replacement. Having a Ministry of Finance and Planning official in the chair was controversial given that another ministry, the President's Office - Regional and Local Administration, was officially responsible for producing the NUP. The decision was justified by the importance of aligning the global urban agenda with the Ministry of Finance and Planning's domestic five-year cycle of policy development and research suggesting that the success of NUPs was highly contingent upon budget support (Cartwright et al., 2018; Chu et al., 2016).

The ESRF's perceived proximity to government did not find favour with all TULab members, however, and this had to be managed as part of the trust-building process within the TULab community. To assist with trust building and ensuring all voices were heard, a separate procurement process appointed a TULab Facilitator, Reshian Kanyatila. The role involved 'checking-in' with TULab participants outside of formal convenings, canvassing opinions and feedback, tracking formal and informal policy shifts, and managing the Urban Innovation Competition, which was a high-point in the TULab's proceedings.

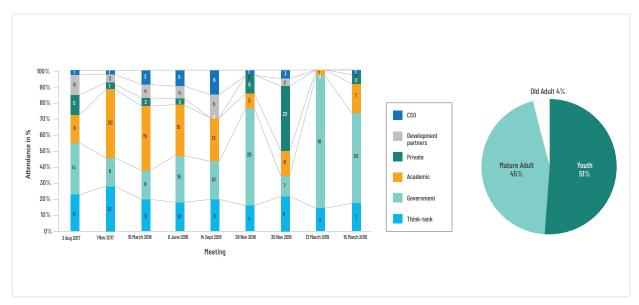
Figure 1. Structure of the TULab with founding personnel



To initiate the TULab, the ESRF invited 50 participants to the first meeting, of whom 40 attended. The management team was aware of who was 'in the room' and the TULab secretary monitored the composition of the membership to ensure balance across sectors and gender. The first sitting of the TULab took place in August 2017. On culmination of the CUT programme in 2020 (a month before much of the global economy shut down under COVID-19 restrictions), the TULab had hosted 14 sessions in total.

After the first meeting, requests to attend the TULab exceeded its capacity to host functional meetings and the process of who was permitted to attend and who was excluded became critical to the types of conversations that ensued. While mindful of the need for balance, priority was given to people who had identifiable influence on urban policy and city planning decisions, or a relevant publication or project management track record. At the request of TULab members at the inaugural sitting, an effort was made to ensure the deliberate inclusion of youth, defined as people under the age of 30. In practice, the TULab comprised people with a range of genders and ages from community service organisations (CSOs), development partners (donors), businesses, academic institutions, government and think tanks (mainly ESRF staff); see Figures 2 and 3.

Figure 2a and 2b: Composition of the TULab's first nine meetings (2017-2019) by member sectoral-affiliation (2a) and age (2b). Membership composition was recognised as important and was monitored to ensure age, gender, and sectoral balance



Source: Data provided by Mussa Martine, TULab secretary

Figure 3. An early TULab gathering in 2018. Performing arts, photos, and meals became part of the running order alongside research presentations and deliberation



Source: ESRF

4. Strands of TULab evidence

To operationalise and focus the TULab, three research commissions (each in the order of USD 90,000) were advertised at the first sitting. The topics of research were selected to introduce new evidence and new types of knowledge to the process of NUP formulation. The topics focussed on describing and understanding the lived realities of urban decision-making and how these realities could be improved, rather than a normative and aspirational description of what ought to be. Researchers were required to expose their work to peer review and guidance from TULab participants at three distinct phases: inception, first draft, and draft-final. Successful applicants were chosen by a team led by Anton Cartwright and Dr Kate Owens from the World Resources Institute, in a process that benefited from Dr Owens' longstanding knowledge of Tanzania.

From the research, it soon became evident that TULab participants valued different, sometimes contradictory, evidence and had made very different diagnoses of what was wrong with Tanzanian cities. The TULab chose not to get stuck on this issue. By design, and as a function of the emergent TULab culture, research deliberations reflected both a diagnostic of 'what is wrong now?' and a propositional framing of 'what could be done next?' In this sense, the TULab deliberations resembled both agonistic and consensus-building traditions at different times (Weale, 2016), and for the most part were able to harness a positive sentiment towards Tanzania and the national optimism regarding the country's prospects (Lekunze, 2020).

It was important to recognise how unfamiliar the TULab process was in the context of Tanzanian policy formulation. Creativity and effort were required from the TULab convenors to avoid defaulting to overly formal government workshop procedures, involving undue time spent observing protocols and organisational hierarchies at the expense of surfacing new evidence, ideas, and opinions. This proved particularly challenging for senior government officials accustomed to being buffered from scrutiny and criticism by the 'respect' that these protocols imparted. The TULab also challenged academic and civil society participants, who were required to be constructive in their criticism, develop empathy for officials, and offer inference from their research - the 'so what?' question that repeatedly surfaced in TULab deliberations. As the TULab progressed through respective sittings, appreciation for the agonistic culture and the value of diverse opinions and lines of evidence grew. The TULab leadership aspired to create and maintain an informal 'deliberative space' in which to provoke without causing offence, to ask difficult but important questions, and expound tricky trade-offs. Participants were told that no question was deemed too naïve or too offensive. Establishing and protecting this culture demanded vigilance and ongoing reminders. It was aided by the insistence that each TULab session begin with a piece of performance art, a practice that has been applied successfully in other contexts (Pel et al., 2017; Lam, 2018; Minty and Nkula-Wenz, 2019; Robinson et al., 2020). Over the three years, TULab sittings always commenced with short pieces of drama, music, drumming, or poetry

and always concluded with a meal. The art helped remind officials that this was not a workshop but a privileged place to tap urban imaginaries and to think creatively, propositionally and generously about Tanzania's urban challenges and opportunities. The sharing of food facilitated informal discussions and the building of trust.

In total, four strands of research were commissioned and reviewed by the TULab. Together with the Urban Innovation Competition (see Section 4.5), the research repackaged existing evidence, brought new evidence to the policy discussion, and initiated conversations that themselves elicited evidence and valuable policy insights.

4.1. Political economy

The first piece of research sought to better understand perceptions of the relationship between national and local government in Tanzania. The work, undertaken by a team from the Centre for Policy and Leadership at the Mzumbe University, produced a pithy and brave analysis of Tanzania's multi-level governance and political economy, documenting frustrations with centralised decisions that undermined local urban development.

The final report, titled *The Relationship between National and Urban Local Government in Tanzania and its Influence on the Delivery of Services and Infrastructure*, documented the legislation that was intended to guide the relationship between local and national government but undermined by a *de facto* lack of trust between these tiers. It also discussed the conflation of political party agendas and state operations, and how the state-owned utility providers – such as the Tanzania Rural and Urban Roads Agency and the Tanzanian Energy Supply Company – spent their budgets in a manner that compromised local government processes (Lameck et al., 2019).

The final report included a literature review that delineated the concepts of devolution, decentralisation, deconcentration, delegation, and privatisation. Further evidence was then gathered from policy documents, government memos and, crucially, 117 respondents in a series of in-person focus-group discussions. These respondents represented an array of institutions, interest groups, and regions, including regional secretariats; urban city councils; municipal and town councils; wards and mtaas (street committees); state-owned enterprises responsible for electricity, water, and sanitation; PO-RALG; and the respective ministries of finance and planning; energy; minerals; lands, housing and human settlement development; and water and irrigation. Their comments were anonymised but cited verbatim. These direct quotes became focal points for TULab discussion, animating participants and eliciting a diverse range of perspectives. Some examples of these quotes and the urban themes they purported to elucidate are shared below (Lameck et al., 2019):

→ The lack of co-ordination between national utility providers: 'It happens today, the LGA have built a tarmac road here and tomorrow the MWAWASA [water authority] cuts the road to install the water pipe.'

- → Head teachers' grievances with the nationally decreed abolition of school fees: 'There is overcrowding of pupils in schools leading to a shortage of toilet holes. For example, in Shinya School one toilet hole is shared by more than 80 where the average for one toilet hole is around 50 students.'
 - 'In Pamba, we decided that every person should contribute two bricks and each employee, including doctors and teachers, should contribute five bricks; the proposal was accepted by the community. After agreeing on the contribution there was a directive from the president that education would be free and no one should solicit contributions from the communities. Thereafter, people refused to contribute anything.'
- → Planners' concerns regarding spatial planning and prioritisation: 'When the roads were under the councils it was easy to decide and renovate the most important and priority roads in the council, but with TARURA [Tanzanian Rural and Urban Roads Agency] I don't know if they will do that and I know they are like other contractors and if they are not given money the roads will not be constructed while the council used to construct roads even by borrowing.'
- → Difficulties for local governments with budget planning and local co-ordination: 'Here, there is a problem of not releasing funds in time and that funds for July are disbursed in September or December. There are plans which need to be implemented quarterly but they are not completed due to the delay. Sometimes, the funds are released at the end of the financial year. How can you implement the plans at the end of the financial year?'
 - 'How comes the report is taken to the central government while even the chairperson of the mtaa has not been informed, and when we asked them, they told us that we are not accountable to you. Plans depend on each other, so they must be comprehensive incorporating all the sectors'
- → Challenges confronted by utility managers charged with providing universal access but hampered by budget constraints: 'As TANESCO, we are providing services, but we are also doing business and so to supply electricity in a certain area we must calculate and be sure that after maybe ten years we will have a return otherwise we will not supply power.'

The fine-grained qualitative evidence gathered by the Mzumbe research team shed light on the everyday difficulties of centrally co-ordinated urban development and tensions between utility providers and officials in different tiers of the civil service. It also gave 'meaning', as described by Hajer (2002), to the manner in which national policies affected local people. National politicians were presented as adept at applying the ruling party's manifesto, budget ceilings, and ad hoc sector prioritisation, thereby reducing the role of local councillors to 'rubber stamping' centralised decisions (Lameck et al., 2019.

4.2. Informal services

The second research commission was led by a team from the Institute for Human Settlements at Ardhi University in Dar es Salaam with inputs from researchers at the Centre for Community Initiatives, Virginia Tech, in the USA, and the International Institute for Environment and Development. The work targeted an evidence gap in the World Bank's unpublished but widely referenced Urbanisation Review by deliberately seeking out examples and interviews from Tanzania's urban informal settlements. Evidence on how citizens in three rapidly evolving urban centres (Dar es Salaam, Dodoma, and Mwanza) was gathered through workshops, interviews, and the participatory mapping of 'user experiences'. The research products included a short video and a report entitled Documenting Everyday Lives in Urban Tanzania, which surfaced the extent of informal water and sanitation provision and provided qualitative and quantitative accounts of how water and sanitation services were secured in informal settlements. 'User experience maps' identifying the critical role of water fundis [experts] and potential points of collaboration between government-funded programmes and the 'various complex strategies used to access water' in the absence of government infrastructure and service delivery (Jean-Baptiste et al., 2018). The documenting of these experiences helped to highlight the mismatch between government water and sanitation service delivery and the lived reality of many households in ways that are similar to those documented elsewhere on the African continent (Enqvist et al., 2022). Pointing to examples where local planners had partnered with water fundis in service delivery made collaboration and decentralisation options more visible and legible to city planners. Importantly, the research presented water and sanitation services as something more than technocratic, linking the delivery of these services to identity and place. This framing also linked the provision of water services in the three Tanzanian cities with research highlighting the importance of social, cultural and ecological contexts to infrastructure provision (Roy, 2005; Thieme, 2018; Lokko, 2023).



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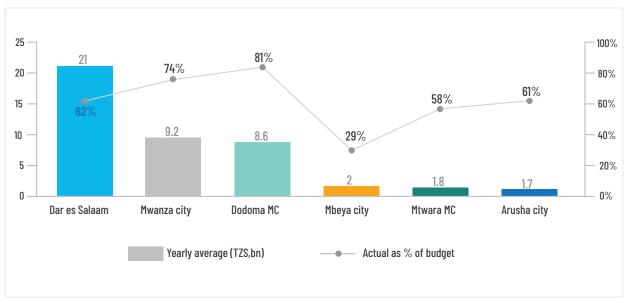
Figure 4. User experience maps of securing sanitation and water services provided one of the strands of evidence gathered by the Ardhi University research team

4.3. Fiscal constraints

A third piece of research undertaken by a team from the ESRF tracked the total fiscal resources available to six Tanzanian cities and produced a background paper, Understanding the Scope for Urban Infrastructure and Services Finance in Tanzanian Cities. The research team was fortunate to be led by Professor Haidari Amani, who brought to the project a lifetime's experience of public sector reviews and time on the board of the Tanzanian Reserve Bank. A combination of Prof Amani's agency and the team's diligence provided the TULab with difficult-to-access budget information from both national and city authorities and highlighted the importance of relationships when data gathering. The findings were sobering, particularly for the bullish international community touting the potential for African cities to raise their own capital in support of climate-resilient development and smart cities (Wachsmuth et al., 2016; Kaika, 2017). Not only was the fiscal resource per capita very low in Tanzania's major cities and towns (roughly USD 24 per capita per year in Dar es Salaam), but uncertainty regarding the timing of fiscal allocations rendered effective urban infrastructure planning impossible.

The research provided fresh empirical evidence for a longstanding complaint in Tanzania. Its presentation elicited an inevitable degree of 'blaming' between government entities. In response to the observation that devolved fiscal resources were both very small and quite erratic, central government officials pointed out that local government planning and budgeting often delayed the dispensing of funds, and that Mbeya's unrealistic demands for budget, for example, made it look as if central government were short-changing the city (Figure 5). Emerging from the research and Prof Amani's expert commentary was a resolve to increase local revenue collection so that each city has at least USD 90 per person per year of reliable budget; to improve local government budgeting to better align their requests to the available resources and ensure they receive a higher proportion of their budgeted needs; and to enhance communication between national and local government regarding the timing of fiscal transfers from central government. This work was set back by Prof Amani's untimely death in January 2022, but the TULab provided a modest platform for his immense agency and views on public finance. Fiscal devolution, improved revenue collection by cities, and the raising of external finance by cities remain in focus in Tanzania.

Figure 5. Detailed data on the total budget available to respective cities (own revenue, donor grants, and devolved funds) provided sobering evidence of what might be achieved by these cities by way of infrastructure and services



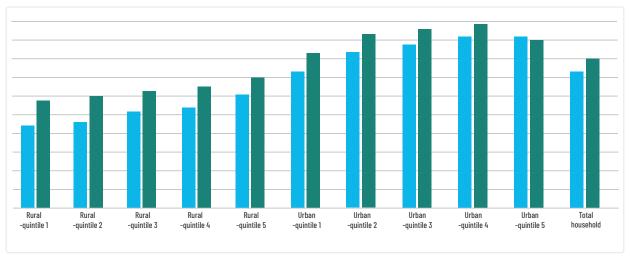
Note: Adapted from Amani et al., 2018

4.4. Industrial strategy

A fourth commission was added in 2018 at the request of the Ministry of Finance and Planning (MoFP). The research was undertaken by the consultancy DNA Economics and Tanzanian MoFP officials, and applied a social accounting matrix to examine the macroeconomic implications of fiscal support for an industrial strategy focussed on industrial

development zones, extractive industries, and exports and imports (a 'standard' industrial policy), compared to a strategy that spent the same amount of money meeting demands for electricity, building material, urban waste, sanitation, transport services, and food using low-carbon and climate-resilient technologies (a 'cities matter' policy). Findings from this research were written up in a background paper entitled, Macro-economic Implications of Two Different Industrial Pathways in Tanzania. The work established disconnects between Tanzania's relatively high growth rates in the decade prior to 2017 (7% on average) and lagging progress in the alleviation of poverty or creation of an industrial base. The modelled results showed positive general gains from the fiscal stimulus under both policy scenarios, but relative improvements in household income (in both rural and urban areas) from a 'cities matter' strategy (Figure 6) (Cloete et al., 2018). While the results were of interest to the TULab, the technical nature of the economic modelling and the implications for Tanzania's flagship industrial strategy elicited specific attention from MoFP officials in Dodoma. Accordingly, a special TULab gathering was arranged at the Ministry of Finance in Dodoma to discuss the methodology and implications of this research.

Figure 6. A social accounting matrix was applied to show Ministry of Finance officials the relative macro-economic benefits of an industrial strategy based on special economic zones (light blue) compared to one based on demand from cities (dark blue). The results showed the merits of linking industrial strategy to urban demand, evidencing a positive impact on almost all households in rural and urban areas



Note: Adapted from Amani et al., 2018

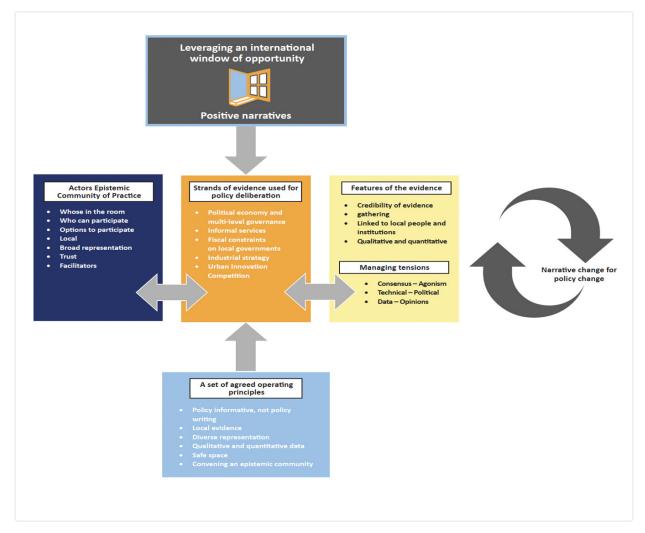
4.4. Urban Innovation Competition

The Urban Innovation Competition provided an opportunity to gather a different type of evidence on the functioning of Tanzania's primary city. Overseen by the TULab facilitator, the competition invited submissions from innovators and entrepreneurs who were actively addressing Dar es Salaam's 'wicked urban challenges' and advancing climate-

resilient development (TULab, 2018). Despite the very modest cash prize, 86 applications were received, from which 12 entrepreneurs and innovators were invited to pitch their enterprises and ideas to a full TULab sitting. The session also deliberately included first-time TULab participants representing the MoFP, donors, development finance institutions, and multinational companies. Each of the 12 shortlisted entrants presented compelling accounts of their work. The winning enterprise, Arena Recycling, collected plastic from Dar es Salaam's beaches and estuaries and converted it into paving and building bricks that were lighter, stronger, and cheaper than conventional cement bricks and had a lower embedded carbon dioxide footprint.

Intriguingly, the oldest person among the 12 shortlisted entrepreneurs in the Urban Innovation Competition was just 28-years old, evidencing the 'urban youth dividend' available to Tanzania's rapidly evolving cities (Siba, 2019). The competition refocussed the concept of 'smart cities' away from the narrow replication of Silicon Valley and expensive and technologically sophisticated service provision, towards the contribution of communities of digitally enabled entrepreneurs solving everyday urban challenges with their available resources (Wachsmuth et al., 2016). The competition corroborated a finding in the Ardhi University report, that much of the urban service delivery progress being made, and the actors driving this progress, was not visible to government officials or mainstream financiers (Thieme, 2018). The presentations and the adjudication of the winners generated widespread appreciation within the TULab for the extent of innovation and entrepreneurship. It was equally obvious, however, that while the youthful entrepreneurs were grateful for the opportunity, they had low expectations of the government's, donors', and financiers' capacity to engage them due to their small scale and lack of significant business assets (Kanyatila 2023, personal communication).

Figure 7. Schematic of the TULab's composition and focus, outlining the relationship among TULab participants, evidence gathering and deliberation, and intended policy impact



5. Key findings: Appraising the TULab's ability to connect evidence and policy

The TULab was an experiment based on a hunch – from both the ACC and the CUT's donor – that existing programmes aimed at policy reform could be improved. While the author had run a citylab before (Cartwright et al., 2013), there was no blueprint that could be followed and the approach was unprecedented for most of the Tanzanians involved. The fact that the TULab gained in popularity with Tanzanian urbanists, over a three-year period when Tanzania was centralising governance and seeking to control policy narratives from within the President's Office, is significant in itself, as are the calls that the ESRF continues to receive for the re-invigoration of the process (Martine, 2023, personal communication).

A definitive moment for the TULab arose in 2018, at a juncture when the evidence presented to it, the ensuing deliberations, and the narratives that emerged were all beginning to suggest that Tanzania's cities were both economically and socially significant but being undermined by national government. In their respective ways, the fieldwork, interviews, and desktop research conducted by Mzumbe, Ardhi University, and the ESRF teams all suggested that the Decentralisation by Devolution policy was not being seriously implemented and that the prevailing multi-level governance arrangements were not fit for the purpose of lifting people out of poverty in rapidly expanding cities. The idea of fiscally empowered local authorities at the heart of Tanzania's socio-economic progress represented a potential threat to the Magufuli administration's centralisation of power. The Bureau of Statistics, which doubled up as the government's intelligence service, was always in attendance at TULab sessions and one of its members directed a personal challenge towards the author in his capacity as the lab's founder. The challenge contained the open hostility of the government's stance towards foreigners and the threat of jail time for any breach of the 2018 amendment to the Statistics Act (Paget, 2017; HRW, 2019). After a few tense moments, senior Tanzanian members of the TULab rose, one at a time, to reprimand the civil servant from the Bureau of Statistics for not understanding the purpose or the culture of the TULab. It was explained that all types of research were welcome in the discussion and that hostile bureaucratic attempts to close down the debate were not acceptable. The cameo marked a significant moment in the TULab's evolution; a moment when its members valued the process of multi-stakeholder policy development above the narrow interpretation of government statutes designed to control the national narrative.

The final TULab report, *Harnessing Urbanisation for Development: Roadmap for Tanzania's Urban Development Policy*, launched in Dodoma on 21 August 2019, adhered to the TULab principle of not writing government policy. Instead, it collated the respective strands of evidence and offered guidance to PO-RALG officials for producing a NUP. The launch was attended by over 300 officials and researchers, and was rare in the Tanzanian context in that the stage was shared by three different ministries: 'Finance and Planning', the PO-RALG, and 'Lands, Housing and Human Settlement'.

There is, of course, no counterfactual in which the TULab does not exist, and while the CUT celebrated its success, there has been no independent review (CUT, 2019). Tracking the TULab's ability to link evidence with policy and parsing the impact of the TULab both in the generation of knowledge and the trajectory of policy, presents an attribution challenge. It is possible, however, to take stock of a few objective developments – both positive and negative – since the TULab's three-year term:

- Despite the TULab's work, Tanzania's proposed Urban Development Policy remained in draft format as of May 2024. Moreover, tensions remain unresolved as to which department should be responsible for urban development and the optimal pace and scale for devolving budgets to local authorities. The ongoing expansion of Tanzania's towns and cities continues and, in the absence of a co-ordinating framework, the use of fiscal disbursements for political leverage persists and industrial strategy continues to rely heavily on extractive industries and special economic zones (The Citizen, 2023; Kanyatila, 2023, personal communication).
- 'Own revenue' collected by local governments has increased as a proportion of the revenue dispensed by the national government but remains just a third of total fiscal revenue (George, 2022). Urban planning continues to be under-funded and urbanisation remains associated with deprivation for many, suggesting a lack of progress since the TULab's deliberations in 2017–2021 (George, 2022). On top of this, the hype surrounding Habitat III appears to have subsided and there is much less donor support for NUPs, even though their importance remains critical for urban climate action. In this sense, the window of opportunity created by Habitat III for an evidence-informed NUP promoting climate-resilient urban development was missed and has closed in Tanzania.
- The urbanisation discussion remains alive in Tanzania across a range of ministries (Kanyatila, 2023, personal communication). The shared platform at the *Roadmap* launch in 2019 reflected the manner in which the multiple strands of evidence gathered by the TULab had transcended traditional ministerial silos. It also bore testimony to the political capital that had been generated by the TULab; the potential, written up in the *Roadmap* document, for urban policy reforms to create 200,000 new jobs, boost GDP, and oversee a three-fold increase in the unit of GDP produced per ton of CO2e emitted by Tanzania had become something that most senior officials want to be associated with. The means of delivering these benefits through the provision of low-carbon urban electricity, safe mobility, city-focussed industrialisation, new urban identities, and citizen wellbeing also provided pathways for personal career development. This is evident in the range of posts that many TULab managers assumed in subsequent years, most notably the ESRF director at the time of the TULab, who now occupies the post of permanent

³ Reshian Kanyatila was the TULab facilitator (2017–2020).

- secretary, President's Office, Planning and Investment (Martine, 2023, personal communication).
- → The interdisciplinary community of urbanists convened in Tanzania by the TULab continue to interact and collaborate post the CUT-funded programme, and the TULab itself has since been used by the Botnar Foundation and by UNICEF to review policy and research. The community is connected by the organic, but intense, TULab process, which birthed a counter-narrative to the ideas that urbanisation was 'bad for development' and that climate change could only increase the development burden in Tanzania (as opposed to generating opportunities).
- In line with the policy formulation processes described by Hajer (2002) and by Evans (2018), TULab members identified their questions, their practices, and their 'voice' in the written words of the Roadmap. Accordingly, TULab members continued to teach, discuss, and disseminate its contents and the idea of an 'urbanisation dividend' - the notion that the expansion of climate-resilient cities in Tanzania could enable socio-economic progress on a national scale even when the prevailing political landscape was unsupportive (Kanyatila, 2023, personal communication; Martine, 2023, personal communication). In this way, the TULab was able to engage with the global agendas emerging from Habitat III and successive gatherings of the UNFCCC on terms that were both more familiar and more realistic than is often the case. However, it took an unforeseen political disruption in the form of Magufuli's untimely death in 2021 for the TULab's value to insert itself into the nation's decision-making. In the wake of this crisis, the TULab was able to supply the 'ideas that [were] lying around', which have long been identified as crucial to policy changes that follow crises (Friedman, 1982). TULab members became 'policy entrepreneurs' and, since 2021, President Hassan's speeches have called for finance, technology transfer, and partnerships that could support climate-resilient urban development (Mintrom and Luetjens, 2017; Martine, 2023, personal communication).
- → The cohort of young entrepreneurs that connected during the TULab competition has continued to support each other in funding applications and market opportunities. Arena Recycling has won many subsequent awards and is now part of a regional initiative seeking alternatives to cement bricks and ways to keep plastic out of the oceans two international agendas that were not as present in Tanzania prior to the TULab (Kanyatila, 2023, personal communications).
- → Following the death of President Magufuli, the thinking, ideas, and examples that were collated in the *Roadmap* from the multiple lines of evidence gathered by the TULab have begun to find expression within decision-making processes, despite the absence of a formal NUP (Kanyatila, 2023, Personal Communications; Martine, 5 2023, personal communication). Examples include the Tanga Yetu

⁴ It is not suggested that Tanzania aligned with Milton Friedman's ideology, but rather that change processes do require the availability of new ideas.

⁵ Mussa Martine was the TULab secretary.

Initiative, supported by the Botnar Foundation, which links Tanga City Council, NGOs, and the private sector through digital technologies to improve the health and wellbeing of the youth (Martine, personal communication, 2023). This shift in policy has been aided by growing climate awareness in Tanzania, but also by the TULab process of locating the impersonal and apolitical understandings of climate change projected by science, in the subjective, contextualised, and day-to-day decisions of people in Tanzania (following Jasanoff, 2010; Cash and Belloy, 2020). Organisations such as the Uongozi Institute in Tanzania now provide a 'platform for dialogue . . . for leaders working towards the sustainable development of Africa' and have recruited ESRF staff that were actively involved in the TULab (Uongozi Institute, 2023).

Despite there being no formal Urban Development Policy in Tanzania, the TULab community offered a way to transcend a domestic political impasse and apply the global focus on cities and climate change to Tanzania in a way that fitted the domestic register and context. This contextualisation is not the norm for global agendas seeking to find traction in African countries (Minty and Nkula-Wenz, 2019; Posner and Cvitanovic, 2019). Too often, an underlying 'policy objectivism' assumes that planning and investment in African cities will expeditiously contribute to the restorative justice, inclusive land markets, place making, and sustainable infrastructure that these cities so desperately need but which policy so seldom delivers (Hajer, 2002; Jaglin, 2014; Pieterse, 2023).

The TULab deliberately accommodated a wide range of evidence and both academic and practitioner knowledge. It was not beholden to the 'scientific method' in the sense of trying to minimise subjectivity, even though all research pieces contained lengthy sections on 'methodology', purporting to introduce objectivity. Despite the Magufuli administration's efforts at narrative control, the agonistic culture that the TULab aspired to uphold built both awareness of alternative urban imaginaries, and empathy and solidarity amongst those working on urban issues in Tanzania (Shaffer, 2014; Weal, 2016; Cash and Belloy, 2020). Crucially, the process of constructing the Roadmap, which drew from people, spanning different institutional affiliations and disciplines, established a small community of urbanists and kept urban and climate issues in the public narrative until the poltical environment became more enabling (Kanyatila, 2023, personal correspondence).

6. Conclusion

This paper recounts the case of the TULab in Tanzania between 2017 and 2020 as part of a broader programme aimed at understanding the relationships between evidence and policy formulation in the African context. Midway through the global effort to implement the SDGs, and as reports of natural disasters increase, the connection of research, evidence, and practical policy measures is crucial to gauge progress, identify what is working, and mobilise the needed investment. Despite this, very little is documented, and much is assumed, regarding the pathways through which evidence and ideas find their way into policy – especially in the rapidly changing context of African cities (Espey, 2020; Goldman and Pabari, 2020).

The TULab revealed not just that effective responses to issues such as urbanisation and climate change require new evidence and knowledge (Taylor et al., 2021), but that addressing these issues requires express attention to the evidentiary processes that generate the knowledge, and to the people who end up regarding the evidence as 'their own' or as useful to their day-to-day work (Cash and Belloy, 2020). This aspect of 'evidence' and 'knowledge' appears to be both under-documented and under-funded in donor allocations seeking to support evidence-based policy formulation in Africa. Reflections from the TULab support the idea that multiple strands of evidence – curated by epistemic communities comprised of people with responsibility for what is discussed, taught, budgeted-for, and regulated respectively – and an 'interplay between science and policy' can lead to better policy outcomes (Lahn & Sundqvest, 2017).

The TULab, as with citylabs before it, not only commissioned and reviewed evidence from local researchers, but also brokered inferences from this evidence (Patel et al., 2020). The research presented to the TULab by the respective teams was not always perfectly written up (very often researchers were writing in their third language). It did, however, include data and quotations that non-residents would have struggled to obtain, and it was deliberated, validated, and held by people who had influence within the Tanzanian policy arena. Valuing these attributes of research and scientific knowledge, over slick prose and glossy research documents, required a huge commitment by the CUT to innovating the preordained budget allocations. In innovating the way in which new evidence was brought into policy deliberations, vigilance was required to secure good evidence and avoid lapsing into 'post-truth cultures' in which entrenched interests control narratives. Reinforcing an evidentiary culture, while simultaneously innovating this culture, was achieved by exposing TULab evidence to scrutiny and review from its diverse membership.

The experience of the TULab suggests that, while evidence is necessary in the formulation of urban policy in Tanzania, the process of collecting and reviewing this evidence is just as important when seeking the 'attitudinal change' and 'discursive commitments' that often precede policy innovation (Jones and Villar, 2008; Cairney, 2016). This is particularly the case when the ideas being advanced do not enjoy automatic political support, or when the majority population lacks confidence that traditional scientific evidence can reflect their hard-won livelihood strategies. The TULab, as both

an epistemic community and a 'third space' (Lam, 2018), provided one example of how investment in a new institution for evidence gathering, evidence review, and evidence ownership can create opportunities for new questions and new ideas when seeking to disrupt politicised policy environments or deeply institutionalised assumptions (Castán Broto and Bulkeley, 2013; Pel et al., 2017). The solidarity and embedded knowledge that emerged during the three-year TULab experiment have endured long after donor funding was discontinued. They are significant resources in their own right – but have proved particularly valuable as urban policy has been revisited in the wake of President Magufuli's death. The same TULab legacy holds the potential to continue linking ideas and evidence to better urban and climate decisions as Tanzania continues to urbanise.

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