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#### ORIGINAL PAPER

# Beyond ownership: assessing diverse housing typologies and policy interventions for affordable housing in Dilla, Ethiopia

Minna Sunikka-Blank<sup>1</sup> • Engida Esayas Dube<sup>2</sup> · Selamawit Teku<sup>3</sup>

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Abstract This research addresses global housing crisis, a secondary city of Dilla in Ethiopia as a case study. This study seeks to fill the empirical knowledge gap in popular housing typologies and tenure types in urban development in the Global South outside metropolitan areas. Drawing from an in-depth study of 18 households, the focus is on housing choices of middle- and low-income households in a secondary city of Dilla, Ethiopia. Such cities so far have been less in the focus of researchers, compared to capital regions. The studied housing types are tenures of homeownership, private rental and a rent-free model as housing types, with informal arrangements playing a role in the last two types. Our study underlines the necessity of not only acknowledging, repairing and formalizing the existing semi- and informal housing developments but also of proactively planning for peripheral housing developments and future expansion, a strategy with broader applicability to the region and the Global South. Such anticipating measures include the development of water and energy infrastructure, land earmarking for much-needed public rental housing, and the establishment of robust tenant rights through legislative foresight.

 $\textbf{Keywords} \ \ \text{Housing affordability} \cdot \text{Energy infrastructure} \cdot \text{Livelihood} \cdot \\ \text{Informality} \cdot \text{Policy}$ 

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Minna Sunikka-Blank mms45@cam.ac.uk

Department of Architecture, University of Cambridge, Cambridge, UK

<sup>&</sup>lt;sup>2</sup> Department of Geography, Dilla University, Dilla, Ethiopia

Department of Architecture, Dilla University, Dilla, Ethiopia

#### 1 Introduction

As in many other (Eastern) African countries, access to housing for low-income households is one of the key points of the Ethiopian Housing Policy. Affordable housing schemes are supported through free land supply, taxation, technical support, saving schemes, loan arrangements and capacity building models. In 2016, the Ministry of Urban Development and Housing assigned the Urban Housing Policy and Strategy to bridge the gap in housing shortage, implemented by governmentled building programmes and cooperative housing schemes (MUDHCo 2016). The Integrated Housing Development Programme (IHDP) was designed as a government-led and financed housing provision programme for low-and middle-income households. It was launched in 2004 (1996 in the Ethiopian calendar) by the State Minister Arkebe Ogubay and revised in 2014. However, the housing supply built under the IHDP program has been unable to respond to the needs of middle- and low-income population. Although considerable volume of housing has been built under the IHDP, it only covers 10% of the annual demand, mainly for the higher consumption quintile, whereas whole segments of the population are excluded of land and housing access. There are not enough available units—and a large part of the population is unable to afford them.

Research on housing in Ethiopia has mainly focused on the capital. However, secondary cities (Rondinelli 1983a, b) are growing equally fast due to rapid rural-urban migration. In Addis Ababa, the new IHDP sites are pushed to urban peripheries, without local employment opportunities, creating transport problems and high commuting costs. In secondary cities, housing could be arranged more poly-centrically, in smaller in-situ compounds with better access to jobs, schools and other facilities. Yet there is very limited information on current and emerging housing typologies in secondary cities in Eastern Africa, and lack of empirical evidence of the actual housing choices of middle- and low- income households.

In her recent work on the cities and peripheral urbanization in the Global South, Caldeira (2022) notes that: "narratives about cities have a tendency to grant them a coherence that they in fact lack." She observes recent changes in the market of 'popular housing'—the market of housing for low-income and lower middle-income residents, along with changes in the nature of labour. In this context, autoconstruction that used to be the norm in cities in the Global South is becoming less prevalent or viable for the new generation. Less people can afford to buy and more have to rent, causing the expansion of the rental market in cities, including the extensions of autoconstructed houses and 'backyarding'. As a way to understand and address this development, Caldeira (2022) argues that we must understand that binary categories such as 'formal' and 'formal', or 'legal' and 'illegal', are in fact shifting and unstable. Inequalities cannot always be mapped out in simple dualistic oppositions such as regulated versus unregulated, legal residences versus slums, formal versus informal and so on. This study seeks to fill the empirical knowledge gap in popular housing typologies and tenure types in urban development in the Global South. This will be explored through the lens of Dilla, a secondary city in Ethiopia, as a case study. Adopting an interdisciplinary approach, drawing from architecture and geography, the following research comprises different methods, including post-



occupancy evaluation within a critical urban geography post-colonial perspective, in order to assess housing and service infrastructure and to propose solutions for improvement—based on user perspectives.

This research is framed around three research questions. What housing typologies are available to middle- and low-income households in a secondary city of Dilla in Ethiopia? According to a qualitative case study, drawing on in-depth interviews with households in considerably different types of housing, how do these households experience their living conditions? What policies could alleviate the affordable housing shortage and support diverse forms of tenure and the integration of informal housing in city planning?

Drawing from an in-depth study of 18 households, the focus on the research is on housing choices of middle- and low-income households in Dilla, covering tenures of home-ownership, private rental and rent-free model. Dilla is selected as a case study as it is a representative example of a secondary city settlement in Eastern Africa. Dilla is one of the fastest growing towns in South Ethiopia with an urgent need for affordable housing units. It has a population of over 100,000 residents and it is providing commercial, administrative, social, transportation, and other urban functions to the region (UN-Habitat 2016). The study has significance beyond Ethiopia because the affordable housing crisis is a global one. The increase of unregulated private rental market, unaffordable housing, hardship in home ownership and the question of the role of the state in housing policy (Mazzucato and Farhani 2023) are relevant issues not only in Africa but also in Northern countries. Our study seeks to contribute the broader policy discourse on affordable housing crisis by evaluating housing choices and energy access in Dilla and by doing so, to identify practical policy directions that can facilitate progress towards these integrated policy goals.

The paper is structured as follows. Section 2 describes the methodology and Sect. 3 the context. Results are presented in Sect. 4. Section 5 discusses policy directions and Sect. 6 concludes.

#### 2 Context

Ethiopia is the second most populous country in the African continent, and it is growing rapidly—the annual growth rate averages at 3.5%. Yet Ethiopia is currently the fifth least urbanised country in Africa (Matsumoto and Crook 2021). Ethiopia's urban population is estimated to be at 23% but based on the Ethiopian Statistical Service (ESS) projection, the World Bank is expecting Ethiopian urban population to double in 2037 compared to 2020. Ethiopia's labour force has doubled over the last 20 years, and is projected to increase from 39 million in 2007 to 91 million by 2037, linked to Ethiopia's young population (41% of the Ethiopians are 0–14 years old) and implying a growing share of young urban population seeking employment opportunities, and therefore housing, in cities. Ethiopia's current urban development policy recognizes the link between urbanization, industrialization, and structural transformation. The key pillars include urban legislation, land and governance, urban planning and design, urban economy, urban basic services, housing and slum



upgrading, risk reduction and rehabilitation, research, and capacity development. Massive investments have been made in the IHDP, infrastructure, and services. Urbanization has been identified as one of the national development priorities in the 2nd Growth and Transformation Plan (GTP II). The policy clearly states that lowand middle-income groups must have access to affordable housing. Nonetheless, lack of affordable housing, basic urban services, and limited employment opportunities remain as the key challenges in Ethiopia (The World Bank 2015; Matsumoto and Crook 2021).

The Population and Housing Census of Ethiopia provides data on the number of housing units by tenure type in the urban and rural areas of Ethiopia. According to the 2007 census (CSA 2007), of all housing units in the urban areas (N=2,897,019), 40.36% (n=1,169,114) were rented from private households, 39.3% (n=1,138,690) were owner-occupied, and 11.92% (n=345,428) were rented from kebele (Ethiopian co-operative housing and the lowest administrative unit). An examination of housing tenure reveals that rental housing was the prevailing form of tenure during the initial two censuses (prior to 1994). However, a shift occurred in 2007, with private homeownership assuming a dominant position. For example, private home ownership accounted for 50.4%, 84.3%, and 81.2% of the total in 2007, 2011, and 2016, respectively.

The Integrated Housing Development Programme, the IHDP, has been hailed as a success because of its pragmatism in solving urban housing crises and subsequently generating 737,256 job opportunities (Bah et al. 2018). Between 2006 and 2018, 383,000 IHDP housing units were constructed, most of them (314,000) in Addis Ababa. However, homeownership initiatives fall short of meeting the demand. The IHDP units are prohibitively expensive, and they are mostly out of reach for the target population of low-income households. Most IHDP households (up to 70%) lease their condominium units, often informally, as an additional form of income. The IHDP has recently been halted in secondary and intermediate cities outside of Addis Ababa. This is due to slow uptake, high costs and the situation where only a small number of households can afford the down payment and monthly mortgage, but also because of more general cultural opposition to high-rise typology among local populations on socio-cultural and aesthetics grounds (Matsumoto and Crook 2021; Sunikka-Blank et al. 2021). Scholars have criticized the inadequate and insufficient governmental intervention in the current housing crisis in Ethiopia and called for a policy intervention with more inclusive housing system and cooperation and partnerships between major interest groups (Gorems 2016). However, building housing has high capital and transaction costs. The IHDP program has been funded by the city administration and CBE (Commercial Bank of Ethiopia) bonds. In Addis Ababa, a proportion of the City's budget is allocated to the IHDP construction costs, including buildings and infrastructure.

Other funding mechanisms for the development of low-income housing schemes include international development assistance such as loans and grants from international financial institutions (e.g. The World Bank, The African Development Bank, Public-Private Partnerships (PPPs)), foreign direct investment, or funds raised from overseas nationals, who have a vested interest in the development of their home country.



The concept of secondary cities was popularised by Rondinelli (1982; 1983a; 1983b) as an urban settlement with a population of 100,000 or more, and recently by others (Roberts 2014; Roberts and Hohmann 2014). UN-Habitat (2016) defines secondary cities as settlements with total populations between 100,000 and 500,000. Most definitions take contextual factors as population size, administrative area, political, economic, historical, and functional significance into account. In literature, 'ordinary cities' (Robinson 2006), 'intermediate cities' (Rondinelli 1982), 'intermediary cities' (MUDHCo and ECSU 2015), and 'secondary cities' (Rondinelli 1983a, b; Marais and Cloete 2017; Roberts and Hohmann 2014; Adelina et al. 2020) are often interchangeably used, despite the inherent differences. Roberts (2014) proposed a hybrid definition that incorporates size, function, and role within a network of national, regional, and global city systems.

Secondary cities are usually sub-national urban centres of administration, manufacturing, agriculture or resource development. The role of secondary or intermediate cities in urban, regional, and national development is acknowledged in academic and policy literature (Rondinelli 1983a, Roberts, 2014; Marais and Cloete 2017; OECD and Policy Studies Institute 2020). Some consider these as cities neglected drivers of urbanising economies (Roberts and Hohmann 2014) or having multiple deprivations (UN-Habitat and UNICEF 2020), housing and employment as the main elements of such deprivations.

In Ethiopia, urban settlements are officially classified as:

- 1. primate city (Addis Ababa),
- 2. cities serving as regional administrative and economic centers (e.g. Bahir Dar, Dire Dawa, Hawassa), also called regiopolis/primary cities,
- 3. large-sized cities with a population greater than 100,000 (e.g. Dilla),
- 4. medium-sized cities with a population less than 100,000, and
- 5. cities in emerging regions/urban villages with a population of less than 20,000 (MUDHCo and ECSU 2015).

Although Ethiopia does not have an official definition of secondary cities, in this research we adopt classification 3 to represent this category. Secondary cities in Ethiopia do play an important role as centres of commerce, industry, and the headquarters of local, provincial, and regional governments (Esayas and Solomon 2014). As a result of urban employment dynamics in secondary cities, mainly due to structural and differential effects (Dube 2022), the need for affordable housing is urgent. According to Regassa and Regassa (2015), more than half (62%) of the surveyed households in a secondary city of Hawassa, Ethiopia were shelter poor because of low income, high housing and living costs, large household size, short down payment period and issues with bank loans. Shitaye (2022) found that 68% of the surveyed households in Hawassa could afford to rent, while 34% of the households could not. Mekonen (2022) argues that the poverty reduction strategies in Ethiopia need to take into account the cost of renting housing.

Our case study, a secondary city of Dilla, was founded in 1911/12 as a custom post. It is located in South Ethiopia, as an administrative headquarter of the Gedeo Zone that is politically stable but hosted a large number internally displaced persons due to the Gedeo-Guji intercommunal conflict in 2018. Geographically, the



settlement is situated between latitudes 6° 20′ and 6° 24′ N and longitudes 38° 17′ and 38° 20′ E. It is 365 km south of Addis Ababa on the Myala-Nairobi Road. Dilla's population is estimated to be 158,795 (ESS 2022a). It is located on the Eastern escarpment of the Ethiopian Rift Valley and known for the high-quality coffee farming. Dilla is the centre for commerce and transport in the region. In a recent statistical report, the activity rate was estimated to be 55% while employment to population ratio was 32% (ESS 2022b). About 17% of the total labour force is engaged in the informal economy in the town (ESS 2021).

It is acknowledged that the affordable housing crisis in rapidly urbanising countries like Ethiopia cannot be solved alone by the state providing housing and imposing top-down planning policy. This research explores the view by Caldeira (2022), that policy and planning should be done in collaboration with residents-builders-citizens in the planning process. Bhan (2019) argues that planning in Southern urban context should be inspired by the ways in which citizens build their own spaces. Our research focuses on practices and life stories of the residents-builders-citizens, both owners and tenants, in three housing typologies in Dilla. Their perceptions are documented through story-telling and participatory approach. Adopting Caldeira's view on trying to understand the constantly shifting dynamics between forms of urban development and tenure as a starting point for policy intervention, this study looks at the population increase, urban immigration and the lack of access to affordable housing from the citizen-builders' perspective. Building up on the findings of Regassa and Regassa (2015) and Shitaye (2022) on lack of affordable housing in Ethiopian secondary cities, household economics are included as a key part of the survey.

# 3 Methodology

While research in architecture has adopted a largely solution-driven approach to urban densification and sustainable housing in the Global South, it has overlooked post-colonial theoretical and methodological innovations within urban geography such as comparative urbanism (McFarlane et al. 2017), theorising from the Global South (Parnell and Oldfield 2014), and 'ordinary cities' concept (Robinson 2006). All these theories have been criticised for conceptualising problems rather than offering solutions (e.g. Scott and Storper 2014). Despite their limitations on empirical applications, these theories offer an alternative framework for assessing housing and service infrastructure in the context of rapidly urbanising cities in The Global South.

This research accepts postcolonial criticism that questions the ideas of modernisation and development as a linear process and criticises seeing stakeholders as subjects of obligation and experts imposing on them 'the will to improve' (Murray Li 2007). In architectural research, decolonialization discourse has commented on the conceptualisation of 'Southern' urban practice (e.g. Bhan 2019) and participatory design (e.g. Albadra et al. 2021; Sunikka-Blank et al. 2022) but it is has not actively challenged modernist forms of middle and low-income housing programs. This notion of participatory action research questions the traditional production of knowledge and rejects the conventional 'subject versus object' division (see e.g. Es-



		Type of tenure							
Urban- rural resi- dence	All hous- ing units	Owner occu- pied	Rent free	Rented from kebele	Rented from house renting agency	Rented from other organi- sation	Rented from private house- hold	Occupied difference rent	
Urban+ rural	15,103,137	12,303,481	1,016,246	362,303	24,587	23,835	1,363,129	9556	
Urban	2,897,019	1,138,690	200,955	345,428	22,870	16,438	1,169,114	3524	
Rural	12,206,118	11,164,791	815,291	16,875	1717	7397	194,015	6032	

**Table 1** Housing units per type of tenure in Ethiopia in 2007. (CSA 2007)

cobar 1984). Decolonial research methods can be seen as 'communication strategies' that enable participants to examine their personal, societal, and institutional networks through means such as storytelling, challenging dominant forms of knowledge building (Chinn 2007). It is acknowledged in this research that not all households are the same in terms of their experience of housing. Based on these ideas, the selected methodology for this study are in-depth interviews. The participants were invited to reflect on their personal experiences and tell their 'life stories' as a part of the survey that were then recorded.

The fieldwork was conducted in Dilla. Three representative housing typologies were selected for the survey, identified through Ethiopian 2007 census data (CSA 2007) on tenure, physical characteristics, and access to service infrastructure. The 2007 data shows that 19% of the Ethiopian housing units were urban and 81% were rural (see Table 1). Typologies 1 and 3 are occupied by their owners or rented from private households, reflecting dominant forms of tenure in Ethiopia: of the total number of Ethiopian urban housing units, 39% were owner-occupied and 40% were rented from private households (CSA 2007). Of the total number of Ethiopian urban housing units, 7% were rent-free (Typology 2). The research did not look at rentals from housing co-operatives/kebele (12% of total urban housing units in urban Ethiopia) as this form of co-operative housing is less affected by the question of affordability and nearly half of the total kebele units are located in Addis Ababa. High-income housing and slums were out of the scope of the study.

The fieldwork focused on three sites. Two sites are located in the outskirts of Dilla and one (IHDP condominium) in the inner city. Housing characteristics were studied in site visits in relation to physical condition (design, construction, inside and outdoor space, energy and water infrastructure). The sites surveyed were photographed, mapped and recorded. Data on household characteristics were collected through in-depth interviews, observations and life stories that covered topics on demographics, employment and economic opportunities, reasons for relocation and aspirations. The responses were noted in Amharic and transcribed and later translated to English. After the main typologies were identified, based on the census data from 2007, the research questions were formulated based on the local researchers' background information and the gaps identified in literature. The participants were recruited by the local researcher living in the IHDP site (Typology 1). The local



Table 2 Interviewee demographics

No	Housing typology	Interview label	Tenure	Household size	Years in the house	Occupation
1	IHDP condominium	Interview 1	Own	4	3	Governmental employee
2	IHDP condominium	Interview 2	Rental	5	8	NGO em- ployee
3	IHDP condominium	Interview 3	Rental	3	4	Governmental employee
4	IHDP condominium	Interview 4	Rental	4	10 months	Governmental employee
5	IHDP condominium	Interview 5	Own	5	4	NGO em- ployee
6	IHDP condominium	Interview 6	Rental	5	3	Governmental employee
7	IHDP condominium	Interview 7	Rental	1	5	Self em- ployed
8	Rent free house, large plot acknowledged by local administration (kebele)	Interview 8	Rent free	5	4	Daily labourer
9	Rent free house, large plot acknowledged by local administration (kebele)	Interview 9	Rent free	8	4	Daily labourer
10	Rent free house, large plot acknowledged by local administration (kebele)	Interview 10	Rent free	4	6	Daily labourer
11	House on non regularized plot, in peripheral site	Interview 11	Own	5	3	Governmental employee
12	House on non regularized plot, in peripheral site	Interview 12	Own	4	5	Governmental employee
13	House on non regularized plot, in peripheral site	Interview 13	Own	5	7	Governmental employee
14	House on non regularized plot, in peripheral site	Interview 14	Own	4	1/2	Governmental employee
15	House on non regularized plot, in peripheral site	Interview 15	Own	5	4	Self em- ployed
16	House on non regularized plot, in peripheral site	Interview 16	Own	4	3	Self em- ployed
17	House on non regularized plot, in peripheral site	Interview 17	Own	8	2	House wife
18	House on non regularized plot, in peripheral site	Interview 18	Own	4	4	Students

researcher in Dilla did the preliminary visits to the sites, conducted, recorded and translated in the interviews, including life stories from the residents.

The project received an ethics approval from the University, and the participants were given information about the project and their rights as a participant, in Amharic. All the participants were asked to read and sign a consent form. The semi-structured interviews included questions about household demographics and income, housing career and experience, livelihoods in the household and satisfaction about the current



housing and future aspirations. The types of questions included: Can you describe your household and your apartment here on this site? Have you adjusted or renovated your apartment/house and why? Where did you move from, was it better or worse than your current home? Do you have a contract and regular working hours, will you get a pension? All the interviews were conducted in Amharic and translated to English. The interviews were combined with transect walks in the house and in the neighbourhood. Table 2 describes the demographics of the 18 households that were interviewed.

It is acknowledged that the research participants live in very different circumstances ranging from formal housing (Typology 1) to more vernacular construction types (Typology 2 and 3). However, their income and employment conditions are comparable and in reality, the choice of housing options is similar for these income groups. All three housing typologies surveyed include tenants, and Typologies 2 and 3 include owner-occupiers.

Further, it is important to note that in Ethiopia, all land is owned by the state. The government provides land to individuals under a system of land tenure that allows them to have leasehold rights. Private individuals cannot own land outright, but they can acquire leases for various purposes including residential, commercial and agricultural use. The terms and durations of these leases vary and sometimes lease rights can be traded or transferred but the underlying land ownership stays with the government. Digafe et al. (2023) propose the re-evaluation of the current land allocation policy in Ethiopia. They argue that as a result of current land allocation policy, urban population growth and horizontal expansion of urban areas, the Ethiopia's land resources are expected to be converted into a built-up environment within the next 127 years (Digafe et al. 2023) and it is therefore important to adopt an inclusive and adaptable land allocation approach. It emerged during the research that most of the surveyed sites were in the hand of private 'landlords', who lease the land for various purposes and are key players in the housing market. Our research focuses on the residents' lived experiences but understanding the motivations and positions of these 'landlords' with leasehold rights was identified as an important topic for further research.

The methodology adopted in this research emphasises the qualitative aspects of the study. The aim is to provide a far richer understanding of motives, meanings, and rationales than is possible in quantitative surveys. It is acknowledged that the study has a limited sample size but to our knowledge this type of data from Dilla has not been collected before and can contribute to the knowledge on affordable housing choices in Eastern Africa. It is also the aim of the research to draw attention to secondary cities that are less studied than capital areas and to the work of local researchers who are working in this field beyond the capital city. While the paper discusses policy directions for the three typologies studied and suggests the first steps towards implementation, it is not the aim of our research to formulate specific legal, or costed, policy recommendations as this depends on factors like the public opinion, political climate, local administrative capacity, funding options, and estimating the construction and infrastructure costs for different sites.



#### 4 Results

# 4.1 Typologies

# 4.1.1 Typology 1—IHDP condominium

The IHDP sites that were surveyed were developed in 2000. They include multistory (G+2) buildings in a semi-private compound, located in the inner town. The size of the compound ranges from 2–8 blocks. The site is fenced and paved. In the apartment buildings, there are 5 living units per floor (see Fig. 1). The housing is built with modern construction methods, HCB blocks and rendered. The buildings have sanitary infrastructure, good electricity access (1–2h long power cuts once or twice a week) and tap water supply for 1–2 days per week, yet there is a need to store water for the rest of the week. The water supply schedule is the same on all IHDP sites (2–3 days). The surveyed IHDP households were in different types of ownership: the apartments were either privately or Dilla University owned (10% of Dilla University employees have access to IHDP housing through allowance of 800 ETB/15 USD). The University-owned sites are relatively cleaner, have better compounds and open common space for play areas and gardening. The privately-owned condominiums are located in six different sites in town. The privately-owned



Fig. 1 Typology 1: IHDP condominium with a typical floor plan



IHDP condominiums are usually rented out and for most owners, it is an additional housing they keep for income.

Six IHDP households were interviewed (Interviews 1–6), including two owners and six renters. All the interviewees commented that the IHDP compound is not comfortable for their children. The sites lack good outside space, they are not clean and have unfinished pavements. In the apartments, the kitchens are too small and there is no storage space. Despite modern housing construction and access to water and electricity grid, in each IHDP household in the survey, the aspirations was to have their own compound and own a plot of land in the future, and to move out from the IHDP site.

# 4.1.2 Typology 2—rent free 'guard house' recognised by local administration

Traditionally built 'guard house' typology is found on large privately leased plots of farming land, without formal structure of housing on site (see Fig. 2). These houses are informally built, with traditional wood and mud construction (chikabet), which is primary construction material for the walls of three-quarters of all housing units in Ethiopia (Matsumoto and Crook 2021). The surveyed houses have one or two rooms and a cooking space that can be outside separate from the main building. There is no flooring or ceiling surfaces or wall finishing, usually only mud plastering. These simple houses are given for 'guards' to live in, and they are temporarily leased from the 'land-owner' who has leasehold rights, without any rental cost for the tenant in return for maintenance and guarding the site. The family living in 'guard house' is responsible for looking after a large plot or compound, farm area or undeveloped open land that is kept free for speculation by the owners who usually live in the inner town. They are located in the outskirts of the town or in farmland. The sites are large, unfenced and unpaved, with vegetation. The houses do not have electric power or water supply. The households therefore have to buy their water privately from the neighbourhood or from a donkey cart.

Three households living in the 'guard house' typology were interviewed for the study (Interviews 7–9). Although housing is very basic, in a modest physical condition without floor or wall finishes, all three interviewed residents commented that they are very happy to live in their house as it is free of payment. They liked that the plots are so large and good environment for their children to play.

#### 4.1.3 Typology 3—peripheral housing in non-legalized plot of land

Typology 3 houses are located in the peripheral area of the town or in a new area of the city expansion, on privately leased lands but with no formal documents or written agreements. These plots have been acquired through buying leased land, or a house, from local farmers, by cutting out an extra section from a larger plot of the legal leaser. The land is acquired through communication with local elders who witness the lease agreement but there is no legal document from the local government. Current housing policies in Ethiopia only recognise formal actors but informal actors like local elders, and others in parallel, semi-formal governance are not considered. There is no standard type of housing in Typology 3 but they are all



Fig. 2 Typology 2: Rent-free "guard house". *Top:* Interview 9. *Bottom:* Interview 8, with a spearate cooking space



small, mostly single-storey, built with traditional methods, or blocks that are later plastered or painted outside, and with wall, floor and ceiling finishes in the inside (see Fig. 3). The physical condition is better than in 'guard houses' and residents gradually improve their houses. The houses have small gardens, mostly open and unpaved.

Eight households (Interviews 11–18) were interviewed from peripheral housing typology, in the outskirts of Dilla (see Table 3). They were satisfied with their housing and tenure security. However, they have no official electricity or water access. Electricity is shared in an agreement with the neighbourhood's formal housing, that are situated on formally leased land plots, who can then extend their electric line that is connected to the municipal electricity grid. Water has to be bought every day, or every second day, from re-sellers with donkey carts. The housing in Typology 3 therefore has a level of illegality. In principle, these houses can be first be built





Fig. 3 Typology 3: Peripheral housing. Top: Interviews 11 and 12. Bottom: Interviews 17 and 15

Table 3 Summary of the three typologies

Typologies	Number of inter- views	Level of tenure security per- ceived by the respondents	Physical condi- tion	Service infrastructure conditions
Site 1—IHDP condominiums Interviews 1–7	6	Medium-High	Very good	Formal/private electricity supply Private access to tap water two days per week; store or buying jars from a donkey cart for the rest of the week
Site 2—Rent free 'guard House' Interviews 8–10	3	Low	Very poor	Not connected to the electricity grid No water supply, buying from re- sellers
Site 3—Peripheral housing on non-regularized sites Interviews 11–18	9	High	Good	Informal electricity supply from the nearby house legally connected to the electricity grid, shared expenses No water supply, buying from re- sellers and donkey cart

informally under local agreements and later the lease can be legalised and after that it is also possible to apply for water and energy grid connection.

#### 4.2 Household economics and life stories

18 in-depth interviews were conducted in the surveyed households, including both homeowners and renters. Household size in the survey varied from 1–8, and the age of the interviewees from 14–45, most interviewees being between 25–35 years old (Interview 14 included a household of students). The participants were mainly women, some housewives, but most in formal employment or self-employed. All the households had lived in their current house for at least 6 months. The household



**Table 4** Livelihoods, monthly income and expenditure in the surveyed households

No	Housing typology	Monthly house- hold income (in ETB)	Monthly house- hold expenditure (in ETB)	Percentage of income to expenditure (in %)	Livelihood
1	IHDP	5000	5000	100	Governmental employee
2	IHDP	5000	5000	100	NGO em- ployee
3	IHDP	10,000	8000	80	Governmental employee
4	IHDP	7999 + 5733	11,500	83	Governmental employee
5	IHDP	9000	8500	94	NGO em- ployee
6	IHDP	8000	3900	48	Governmental employee
7	IHDP	Various	6200	_	Self employed
8	'Guard house'	Various	Various	-	Daily labourer
9	'Guard house'	Various	Various	-	Daily labourer
10	'Guard house'	1800	2000	111	Daily labourer
11	Peripheral house	10,000	12,000	120	Governmental employee
12	Peripheral house	7072	6550	92	Governmental employee
13	Peripheral house	13,000	9600	74	Governmental employee
14	Peripheral house	7000	10,000	140	Governmental employee
15	Peripheral house	6000	4760	79	Self-employed
16	Peripheral house	3000	2500	83	Self-employed
17	Peripheral house	7000	8000	114	House-wife
18	Peripheral house	3000	2000	66	Student

expenditure included housing costs (usually up to 30% of the total household expenditure), food, electricity and water, school fees, transportation and health expenses. In most households there was a need for supplementary income from informal activities that included driving a three-wheeler taxi, selling vegetables or *Injera* bread in the neighbourhood (see Table 4).

The monthly income in the households varied between 3000–14,000 ETB (56–260 USD). In economic terms, African middle class is often defined as the people with an income of between 2–10 USD a day (60–300 USD per month), or alternatively over 4 USD a day (120 USD). If we adopt the latter, half of the



households had a monthly income over 6456 ETB making them 'middle class' and we adopt the lower limit of 2 USD per day then 12 out of the 18 households can be categorised as 'middle class' Africans. According to the African Development Bank, the African middle-class Africans have tripled to 313 million (approximately 34% of the continent's population) over the last 30 years. This development can therefore also be seen in secondary cities.

The households living in the IHDP (Typology 1) earnt minimum 5000 ETB per month (93 USD). In peripheral housing (Typology 2), all the interviewed households had a regular monthly income (at least 3000 ETB/56 USD). In the 'guard houses', the household income varied, or was unknown (one household estimated it to be 1800 ETB/33 USD) per month. As they live rent-free, the expenditure is also smaller but the household reported the monthly expenditure exceeding the monthly income (2000 ETB/37 USD per month).

A recent OECD report on Ethiopia estimated that housing and food costs alone account for 65% of annual expenditures for an average urban household in Ethiopia (Matsumoto and Crook 2021). This is even higher in Addis Ababa, restricting immigration to the capital also among the middle classes. It is acknowledged that the transition to formal housing comes with lifestyle that requires sufficient income to cover further costs from energy and water, also transport (Sunikka-Blank et al. 2018). In this study, 10 interviewees were in formal employment (working for the government or a NGO) with a contract and pension, 3 were self-employed, 3 were casual labourers, 1 was a housewife (with a partner in formal employment) and 1 household consisted of young students who are supported by their family living elsewhere.

Dube (2021) studied the participation in the informal economy, focusing on street vending, in Eastern Ethiopia. He concludes that despite the fact that informal livelihoods are considered illegal in Ethiopia, they offer livelihoods for a large part of the population, many of them with formal education and graduate degrees. In their essay Beyond the Proper Job Ferguson and Murray Li (2018) question what is, and is not, changing about work when there are less wage-based jobs and call for 'getting a grip on this heterogeneity' of the nature of work. The ILO has estimated that 50% of the global labour force is in informal employment. It is worth noting here that nearly all the interviewees were economically active and mostly in formal employment—it is just that the salary is not enough to cover living costs and needs to be supplemented with casual jobs. Typologies 1 and 3 were occupied by middle-income households with regular monthly income and this suggests that even them are not necessarily accessible for the urban poor without a job, not even in secondary cities.

The results show the residents' participation to informal economy with several aspects:

- 1. even those households in formal employment are still financially stretched so casual jobs are needed to supplement the family income (e.g. driving taxi, selling bread):
- 2. work can be seasonal and transitory (e.g. working 1–2 months in a coffee farm outside Dilla); and
- 3. it can be non-monetary and connected to housing access (rent-free).



# 4.2.1 Typology 1 (IHDP condominium)

In the IHDP all 6 households had relatively balanced expenditure in relation to income. If they rented, the monthly rent ranged from 2500–3000 ETB (47–56 USD), accounting for 25–37% of the monthly income. A positive outlier was a government employee with 8000 ETB (148 USD) monthly income compared to 3900 ETB (72 USB) expenditure so the household can spend, or save, half of their income every month. The family of five lives in a 1-bedroom type IHDP apartment (46 m²) and aspires to have an own plot in future: 'I want my own compound house, whenever God says I will own the house' (Interview 6, 34 year old female).

The recorded life stories indicate the transitional nature of the IHDP housing. as with a resident who is a 47 years old, born and raised in Sidama region (Aleta Wendo). She first moved to Dilla for college education. She is now employed by the government, single and lives alone. She owns her 2-bedroom apartment (51 m<sup>2</sup>) in Buna Gebeya IHDP site and has lived there for 9 years. Before buying her IHDP flat she lived in two different houses. The first was in Dilla hospital compound where she worked and lived for 10 years until she was evicted. She said it was terrible moving out of the house she had always known. After that she rented a room near to her workplace: 'I hate that time and don't want to remember that. The house was very small and not clean, but since I got the condominium house, I had to wait till the finishing work'. She appreciates that her IHDP apartment is private and the tenure is secured. The technical services in her IHDP housing are good, they have electricity and water and mostly no power cuts. Tap water comes two days per week and she stores it or buys from neighbours by jar, or from a man with a donkey cart who sells it for 20 l jar at 5 Birr (0.09 USD). However, she is dissatisfied with her small and uncomfortable kitchen, there is no balcony or storage space. She would prefer to have a wide open space for work and social events. The house design, she says, is not beautiful. Her aspiration is to live in a house with her own compound.

#### 4.2.2 Typology 2 ('guard house'/acknowledged by local administration/kebele)

All three households (Interviews 8–10) living in 'guard house' typology have an irregular income. Only one household was able to estimate their monthly income (1800 ETB/33 USD). The men work in the land-owner's farm or in the surrounding sites as casual employees while the women stay at home. Interviewee 9 is married and has six children. He came to Dilla four years ago from Wolayita region (170km distance). He first came to the town for a job recommended by a friend who had left their homeland earlier. He was married and had three children before moving to Dilla and after that had three more children. He built a simple 2-room house  $(5 \,\mathrm{m} \times 10 \,\mathrm{m})$  for his family, with mud and wood (*chika*) construction, in farmland in outer Dilla. As 'guards' of the land they are allowed to live there for free but they have to look after the owner's property and site. The landowner lives elsewhere and pays a visit once per week. Before coming to this house with his family he lived in a rental house paying 300 ETB (5.60 USD) per month. He now works as a daily labourer in the owner's farm and when there is other available work like ploughing in other farms in the neighbourhood too. He has no regular job so there is no regular



monthly income. Four children go to a government school where the school fee is less than in private schools (3000 ETB/56 USD per year). The house does not have water or electricity, so they have to get water from a Catholic school and from a community compound where they can buy tap water at 10 ETB (0.2 USD) for 2 jars of 20 l of water. Life is hard for the family he said but they try to manage: 'I wish to have my own land but have no finance'.

# *4.2.3 Typology 3 (peripheral housing on non-regulated sites)*

In Typology 3 in non-formalised housing plots, 3 out of 8 interviewed households had regularly higher monthly expenditure than income. In interview 14, for example, the monthly income was 7000 ETB (130 USD) and expenditure 10,000 ETB (186 USD), regardless of the interviewee being a government employed. They moved in 6 months ago and live in  $4 \text{m} \times 5 \text{m}$  house. It is a mud construction: 'ugly and uncomfortable' and 'I just go only for sleep at night'. They also own bajaj taxi to supplement the income and want to expand the business in future. Similarly, Interviewee 11 had the monthly income of 10,000 ETB (186 USD) and expenditure of 12,000 ETB (223 USD), especially due to high transport costs. The interviewee has good education and a graduate degree. The household has a private land lease with a legal document. Their house is  $6 \text{m} \times 8 \text{m}$  with private bedrooms.

The life story of Interviewee 17 offers an example of the nature of seasonal employment. She came to live in Dilla one year ago. She never had any formal education and married when she was 20. She is a housewife and looks after her 5 children. The family moved from a nearby town Wenago after her husband's job was transferred to the government office in Dilla. It is the third town he has been shifted to but the family had always previously stayed in Wenago. The 2-bedroom house they used to live in Wenago was rental, on a plot of land. In the current house that they own, she likes the privacy: 'freedom to use it and for the children too'. Their house is 50 m<sup>2</sup>, in a compound of 400 m<sup>2</sup>. The main house has four rooms: a living room, two bedrooms and a kitchen. There is a detached toilet and a traditional kitchen away from the main house. The kitchen in the house mainly used to store utilities. The house has no water connection or electricity access so all cooking is done outside. Even if the house gives a great relief and she is happy with it, she is dissatisfied about the high expenses for the services and transport. They get energy access from the neighbour's electric line from a regularised house nearby and have agreed to share the monthly electricity bill. They buy their water from a donkey cart that is selling 20 l jars at 5 ETB (0.09 USD). They usually buy with 100 ETB (1.9 USD), every second day. She has no education but during the coffee harvest season (October to December) she goes to a farm to collect the annual harvest. She will go the rural farm area and stay there for at least two months. She says it is not easy: managing the daily labours and protecting the coffee harvest from thieves is the hard part. She has to stay long hours in the farm and does not always get proper food: "I do that to support my family; but still it would not be enough, everything is expensive here". By the end of the coffee season she makes 20,000-25,000 ETB (372-465 USD) from selling the collected coffee in the local market there. The income is spent on household expenses, usually food. She has no



savings or a bank account to save the money but her aspiration is to advance this situation and to build a shop attached to the compound and start a small business: "If the asphalt is active I would like to start small selling items to support my family". She says they may remain here, or if her husband's work is transferred, they may follow him and rent the current house: "That's not known for sure but it happens".

#### 5 Discussion

As land availability in central Dilla is limited, most middle and low-income house-holds are forced to live out in the urban fringes of the city, either rent-free in return for labour in farmland (Typology 2), or buying or renting housing in peripheral areas of the town, under land lease arrangements unrecognized by the government (Typology 3). The choice for semi-formal housing arrangements in Typologies 2 and 3 can be seen as the citizens' response to the policy failure to provide adequate housing. Policy directions for the three Typologies are discussed in Table 5.

#### 5.1 Expanding mortgage and financing systems

Our findings show that even in secondary cities like Dilla, a large affordability gap exists for a large portion of the population. Home ownership is very hard. In the absence of mortgage systems housing has to paid out-of-pocket, and only in few cases an employer or NGO can guarantee a loan. This is not an uncommon situation in the Global South: low-income households often finance their housing incrementally, mostly with personal savings, loans from family or friends, or micro-

Table 5 Policy directions

Policy options	1 IHDP/ formal sites	2 Rent- free 'guard house'	3 Peripheral housing
Expanding mortgage and financing systems to secondary cities to expand home-ownership (e.g. Goh Betoch Bank/Goh Housing Bank)	X	-	х
Assessment and regulatory reform towards legalising renters/tenant rights, led by Bureau of Urban Development and Infrastructure	X	X	X
Introducing a new government housing program to provide public rental housing, funded by international development assistance, foreign direct investment and PPPs	X	-	X
Legalising tenant rights in land leases of the existing semi-formal housing developments, led by the municipal- ity and Gedeo Zone Urban Development	_	_	Х
Lease plots allocated for government employees to build housing	-	-	X
Provision of energy and water service infrastructure to the existing housing development sites, funded by international development assistance, bilateral aid and climate funds	-	X	x



loans, building their houses informally out of the city's plan (Adade et al. 2021). In order to support home-ownership in secondary cities (e.g. Typologies 1 and 3), the Ethiopian government should provide credit access, tax discounts for imported building supplies and land with short leases to private home builders and collaborate with financial organizations to offer loans to households so they can build, or buy, houses (Shitaye 2022; Fikre 2021). The mortgage financing system can be implemented by financial institutions such as banks, microfinance institutions, and savings and credit associations. The recent expansion of mortgage banks in Ethiopia (e.g. Goh Betoch Bank/Goh Housing Bank) is an opportunity. These financial institutions should adopt financial inclusivity to address the housing needs of middle- and lowincome households in secondary cities. Currently, the mortgage banks only exist in larger urban centres, in Addis Ababa and in the regional capitals.

# 5.2 Regulatory reform towards legalising renters/tenant rights

Most household have to rent. The results show high level informality of low-income housing modalities (e.g. Typology 2), relying on trust and social capital. The development of a formal rental market in Ethiopia has been hindered by limited or non-existent regulations or standardised contracts and there is a lack of transparency between landlords and tenants (Matsumoto and Crook 2021). Table 5 shows that improving tenant rights is relevant in all typologies, including the IHDP where more than 90% of studio flats are occupied by renters (UN-Habitat 2011). This will require from the government a comprehensive assessment, legislative changes, and engagement with a variety of stakeholders, including tenants, landlords, legal experts, housing advocates, and NGOs. Regulatory reforms towards renter-tenant rights can be made at the regional level by the Bureau of Urban Development and Infrastructure and implemented with the help of directives and regulations at the city level. Examples of policies securing tenant rights exist. The South African Constitution has provisions that protect renters against arbitrary evictions and promote access to adequate housing. The South African Rental Housing Act provides a detailed framework governing the relationship between landlords and tenants, including mechanisms for dispute resolution, norms and standards for rental housing, and procedures for evictions. South African policy also includes the Prevention of Illegal Eviction from and Unlawful Occupation of Land Act, and the Social Housing Policy, to create affordable rental housing for low to medium-income households, also through public-private partnerships.

# 5.3 Government housing program to provide public rental housing

Considering that 60% of households in big Ethiopian cities are living on rent (The World Bank 2015), and that the rental market is likely to expand with rapid urbanisation rate, the Ethiopian government should prioritise building public rental housing rather than limiting government-funded housing programs to owner-ownership (Typology 1). Funding for public rental housing programs can be sought from CBE bonds, loans and grants from international financial institutions like the World Bank or the African Development Bank, or from public-private partnerships, including



funds raised by government from its overseas nationals who have a vested interest in the development of their home country, either through diaspora bonds or income sent back to the country by nationals working abroad.

# 5.4 Lease plots allocated for government employees

For those households who want to build their own house, examples of controlled access to land exist. In Amhara region, the local government provides land as modality to its employees. Leasing out plots for government employees is the responsibility of the regional burden of urban development and infrastructure. For instance, the Amhara region has a good track record for helping government employees by providing land for housing in small and intermediary cities. This experience can be drawn from the Amhara region to the South Ethiopian region and implemented in secondary cities such as Dilla.

# 5.5 Provision of energy and water service infrastructure

The survey shows how the lack of access to formal energy and water infrastructure burdens low- and middle-income households. Water supply shortages do not affect higher income neighbourhoods in Dilla as much: they get water for 2 or 3 days per week and store it without having to buy it from re-sellers in the market, so an additional 'poverty penalty' is imposed on low-income households. The burden of water access has previously been identified among urban poor in Addis Ababa (Sharma and Bekeret 2008), both in terms of costs (15% of the monthly income spent on water) and time (2.1 km average distance to collect water, with 53 min waiting time at the water point daily) (Kidanie 2015). The installation of the energy and water infrastructure is a municipal service function. A priority for the local government in Dilla should be to provide communal ground water supply points to all households, and loans or subsidised connection fees to access electricity and water grid (Typologies 2 and 3). The water and energy departments in Dilla, in collaboration with the municipality and urban development departments, should ensure service infrastructure in all areas where new houses are built, with subsidised connection fees for the low-income households.

Building new infrastructure has high capital costs for the government. However, the government should consider that informal energy and water payments to private businesses, households and black market are untaxed. This leaves the government unable to tap into these finances or to gain tax revenue from informal providers. The government's Urban Housing Policy and Strategy does not currently address energy or water infrastructure in relation to housing (MUDHCo 2016) but if they are better integrated, funding for new infrastructure can be sought from international development assistance, bilateral aide (e.g. USAID or China), or climate-related funds.



#### 5.6 Legalising tenant rights in semi-formal housing developments

In Typologies 2 and 3, formal access to electricity and water is linked to the legality of housing that needs to be resolved. Our findings show that land lease is a key issue in peripheral expansion of secondary cities like Dilla (Typology 3). The urban expansion into previously rural areas has led to new interests in land use. This requires adaptation of traditional regulations to the new demand. Even if in Ethiopia there is not private land ownership, only leasehold arrangements, in practice there are systems of local agreements where farmers or other private households have a status of a non-official or private leaseholder. Typologies 2 and 3 are located on leaseholders' land. We propose to acknowledge these tenant rights but not to take land out from the main leaseholder (e.g a farmer in Typology 2). The residents should be guaranteed basic rights to stay on their rented property. This requires legalization of their residence as renters, so they are not dependent on the 'landlords' who hold the lease agreement with the government.

Despite its level of illegality and lack of written agreements, it should be noted that Typology 3 is enabling middle-income households to buy a house. Occupant satisfaction in Typology 3 was higher than in 'modern' IHDP condominiums and the occupiers perceived it as secure. Instead of demolishing these non-legalised settlements, the government should document semi-formal housing developments, acknowledge them, provide service infrastructure and access roads, and anticipate and dictate them in the structural plans. Ethiopian urban land policy should support market and tenure security (Behailu 2023) to ensure operational land administration systems and equal property rights. This relates to wider question of the right to the city for everyone, including migrants.

The municipality is the responsible party for legalising semi-formal houses built on the outskirts of the city. Therefore, based on the findings, we recommend that the municipality of Dilla, with the Gedeo Zone Urban Development and Infrastructure Department, should legalise the rights of residents in informal Typology 3 houses that have been built without written agreements. However, it is acknowledged that for all the policy recommendations above, challenges are the limited capacity of the government, including monitoring and enforcement, as well as the increasing demand for urban housing and transportation infrastructure (Matsumoto and Crook 2021). Local authorities will need more resources.

These findings from Dilla support the discourse in urban geography that planning in Southern urban context should be inspired by the ways in which citizens build their own spaces (Bhan 2019) and that planning should be done in collaboration with residents-builders-citizens (Caldeira 2022). However, the findings challenge the thinking in architecture and urban studies of modernist housing. The survey of the IHDP housing suggests the design clearly does not meet the demands of the residents who respond by perceiving it as temporary and would prefer their own house in a private compound. Further, housing in peripheral areas is often associated with urban informalities and social exclusion but our research shows that it is popular as a choice and offers a level of prospects in housing trajectories and perceived tenure security.



#### 6 Conclusions

Our study looked at urbanisation, urban expansion and housing choices through life stories of 18 middle- and low-income households in a secondary city of Dilla. Three very different housing typologies were identified: 'modern' IHDP condominium (Typology 1), rent-free 'guard house' model (Typology 2) and peripheral housing in non-legalized plot of land (Typology 3). Various forms of tenure co-exist in all typologies. Some are with a level of illegality, but can also be seen as the citizens response to the policy failure that currently excludes a large part of the population from formal housing and land lease.

There are high aspirations of home ownership in all of the surveyed households but living costs are very high compared to their salaries. Most households need supplementary income from informal activities (e.g. driving a three-wheeler, having a shop or selling bread) even when they are in contractual employment. Some rely on seasonal work (e.g. re-locating for coffee harvesting) and rent-free living arrangements in return for work (e.g. 'guard house' Typology 2). The life stories reveal immigration from the surrounding areas, mostly because of employment, and living in several rental houses before settling in. Tenure security is equally, if not more important, than physical condition of housing. It is notable that while the 'modern' IHDP condominiums offer comfort, energy and water access, it is considered it temporary and there is a mismatch between the occupant needs and 'modern' design. By contrast, housing in peripheral areas is often associated with urban informalities and social exclusion but in this context Typology 3 offers prospects for housing trajectories and is perceived secure.

What policies could then offer an alternative for the IHDP, alleviate affordable housing shortage and support the integration of informal housing in planning? Caldeira (2022) argues for the improvement and repair of autoconstructed areas, that have been built by residents-builders-citizens, and engagement with the state in the affirmation of the citizens' right to the city. She recommends modest and careful policy interventions in processes of peripheral urbanization, that work within the existing conditions of what has already been built: "acting after the fact". While Caldeira (2022) questions the need for the framework for the production of ordered space in cities with autoconstruction, this research advocates more active approach in preparing for peripheral city expansion, and an anticipation of its development with the provision of water and energy infrastructure. Without it, housing located on unlegalised land will be disadvantaged with an additional 'poverty penalty', when those households have to pay higher fees for energy and water providers. Sub-Saharan countries have high electrification rate in urban areas but our results show that informality of housing choices restricts the access to formal energy and water infrastructure, further burdening middle- and low-income households.

The implications of this study extend beyond Dilla. Secondary cities in the region are experiencing a rapid immigration of rural residents. This demographic shift is evident in personal narratives. Urban migration is leading to new interests in land use in the fringes of the city and new demand that planning needs to react to. The research underscores the importance of considering the broader environmental constructions like energy and water in planning for housing. It underlines the necessity



of not only acknowledging, repairing and formalizing the existing housing developments but also of proactively planning for peripheral housing developments and future expansion, a strategy with broader applicability to the region and the Global South. Such anticipating measures include the development of infrastructure, land earmarking for much-needed public rental housing, and the establishment of robust tenant rights through legislative foresight.

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