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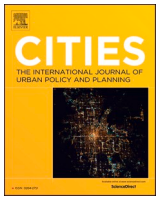

Does urban-biased international development assistance address urban poverty? Insights from Nigeria

Liyunpeng Zhang [a], Chaoshuai Zhang [b,*], Yuhang Zhuang [c], Tianyang Liu [d], Yingxue Zhou [a]

[a] School of Economics, Jilin University, Changchun, 130012, China
[b] School of Economics, Guangxi University, Nanning, 530004, China
[c] School of International and Public Affairs, Jilin University, Changchun, 130012, China
[d] School of Advanced Agricultural Sciences, Peking University, Beijing, 100871, China

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ABSTRACT

As critiques of urban-biased international development assistance (IDA) grow, alongside calls for a more equitable resource distribution between rural and urban areas, a paradox arises: can urban-centric strategies effectively address the escalating challenges of urban poverty? Using Nigeria as a case study, we construct a multidimensional urban poverty index from the Demographic and Health Survey and apply a spatiotemporal estimation approach to compare urban populations near active IDA project sites with those near planned but unimplemented sites, isolating the causal effects of IDA on urban poverty. Our findings show that IDA reduces multidimensional urban poverty, particularly by mitigating economic exclusion, with notable effects in secondary cities. However, while IDA strengthens local governance through relaxed financial budgets, institutional exclusion persists due to divergent reform incentives among major donors. We also find that, despite welfare improvements for both urban natives and rural migrants, IDA exacerbates rural-to-urban migration, especially among those facing agricultural distress. We call for policies that transcend the urban-rural divide, prioritizing secondary city growth and integrating urban-focused interventions with rural food security measures to promote sustainable urbanization.

1. Introduction

Nigeria, one of the most populous countries in sub-Saharan Africa (SSA), is experiencing rapid urbanization. More than half of its population already lives in cities, a share expected to approach 70 % by 2050 (World Bank, 2023). Yet urban growth has outpaced planning capacity, producing extensive informal settlements and shortfalls in basic services (Cuesta et al., 2021; Ravallion et al., 2007). Nearly half of urban residents live in slums (UN-Habitat, 2024), making the governance of urban poverty a pressing national challenge.

The Nigerian government has adopted various strategies to address urban deprivation, such as the National Urban Development Policy and the National Housing Fund. Yet limited resources and weak coordination have constrained their effectiveness, leaving many urban dwellers underserved (World Bank, 2022). Against this backdrop, international development assistance (IDA) has become a crucial complement to domestic policies.

However, debates over the spatial allocation of IDA are longstanding (see e.g., Briggs, 2017, 2018a, 2018b, 2021; Isaksson & Durevall, 2022; Zhuang et al., 2024).[1] On the one hand, urban bias, defined as the disproportionate allocation of resources to cities (Lipton, 1977; Majumdar et al., 2004), is often criticized for reinforcing rural–urban inequality through the concentration of subsidies and public goods in large cities such as Lagos and Abuja (Pomati & Nandy, 2020). On the other, some argue that directing resources to cities can raise efficiency through agglomeration economies and lower service provision costs (Ahmed et al., 2023; Brunt & García-Peñalosa, 2022; Crevoisier & Rime, 2021). These contrasting perspectives underscore the unresolved tension between efficiency and equity in poverty governance.

We argue that a key concern is the self-reinforcing interaction between urban interventions, migration, and poverty, which complicates effectiveness assessments. Rural-to-urban flows intensify resource

* Corresponding author at: School of Economics, Guangxi University, No.100 Daxue Road, Nanning, 530004, China.
E-mail address: zcs_14@163.com (C. Zhang).

[1] A 2021 study published in the Chinese top-tier journal *World Economics and Politics*, titled *The Political Economy of Chinese Aid: A Spatial Analysis of Chinese Aid in Africa*, also concludes that Chinese aid projects tend to favor urban areas.

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scarcity and deepen urban poverty, which in turn justifies the continuation of urban-oriented strategies aimed at easing pressure on public services and maintaining stability (Enamorado et al., 2016; Ludwig et al., 2001). The circular dynamic linking urban-biased policies, migration pressures, resource scarcity, and intensified urban poverty generates path dependence and a paradox whereby the intended remedy exacerbates the underlying problem.

Urban-biased policies are often justified by evidence that slum conditions are more detrimental than rural conditions (Sridhar, 2015) and by the belief that improving cities benefits the nation as a whole, yet they overlook urban–rural interactions and the migration patterns shaped by the rural–urban gap (Poku-Boansi et al., 2020; Young, 2013).[2] Although some advocate reallocating resources to rural areas, these proposals often neglect the complexity of migration dynamics pervasive in developing countries. As a result, urban-focused strategies may ease poverty in certain contexts but also intensify pressures on cities, entrench urban bias, and perpetuate cycles of deprivation. This mobility further complicates causal inference, underscoring the need for evidence that incorporates migration dynamics and the spatial distribution of need.

We test whether urban-focused IDA reduces urban poverty in Nigeria, through which mechanisms it operates, and how the effects vary across contexts. While much of the existing literature examines aggregate economic effects of aid (e.g., Alvi & Senbeta, 2012; Arndt et al., 2015; Burnside & Dollar, 2000; Chauvet & Ehrhart, 2018; Cruzatti et al., 2023; Dreher et al., 2021; Kaya et al., 2013; Mahembe & Odhiambo, 2021; Zhang et al., 2022; Zhang et al., 2023) or focuses narrowly on slum upgrading (e.g., Alexander, 2012; Carolini, 2021; Cirolia & Harber, 2022; Yoo & Woo, 2023), fewer studies investigate its localized impacts in rapidly urbanizing settings, where migration and exclusion are central dynamics.

Evaluating these effects poses significant empirical challenges. Urban poverty is multidimensional, encompassing not only material deprivation but also exclusion from employment and public services (Begum & Sen, 2005; Lucci et al., 2018). Its spatial distribution shifts with migration, further complicating identification (Poku-Boansi et al., 2020; Tagnan et al., 2022). To address these challenges, we link georeferenced data on IDA projects implemented in Nigeria by multiple donors between 2000 and 2014 with individual-level data on 33,174 respondents from four waves of the Demographic and Health Surveys (DHS). We construct a Multidimensional Urban Poverty Index (MUPI) and implement a spatio-temporal difference-in-differences (DID) design to compare urban individuals near active project sites with those near sites yet to begin.

Our study makes two contributions to the literature on IDA and urban poverty. First, while previous research often examines aid impacts at the multi-national level or focuses narrowly on urban slum populations, we analyze the localized welfare effects of multiple aid sources within Nigeria, a populous developing country. We adjust multidimensional poverty indicators and employ a spatiotemporal estimation approach that incorporates rural-to-urban migration, which allows us to capture the direct, location-specific impacts of aid interventions and move beyond the "black box" of fund transfers between central and local governments. This framework also highlights potential synergies and trade-offs among different donor agencies, providing a more comprehensive understanding of IDA's effectiveness.

Second, although existing studies have explored the macro-level effects of aid and its impact on institutional quality (e.g., Brautigam & Knack, 2004; Rajan & Subramanian, 2007), few directly examine how social exclusion shapes urban poverty in the context of aid interventions. We address this gap by integrating both objective and subjective dimensions of living conditions, with particular attention to economic and institutional exclusion. In doing so, we offer new insights into the mechanisms through which aid affects urban poverty and the contexts in which they are most effective.

The remainder of the paper is organized as follows. Section 2 outlines the conceptual framework, Section 3 introduces the data and empirical strategy, Sections 4 and 5 present the results and mechanisms, and Section 6 concludes.

2. Theoretical framework: IDA, social exclusion and urban poverty

Although rapid urbanization is often linked to rising urban poverty, with rural migration commonly identified as a key driver, existing research suggests that solutions to urban poverty governance should go beyond migration, emphasizing broader structural factors. Demographic characteristics, household composition, and social stratification are seen as fundamental in shaping urban poverty, as they contribute to persistent inequalities in access to opportunities across social strata (Janz et al., 2023).

Social exclusion is widely recognized as a key barrier to poverty reduction opportunities for urban residents (Chan & Wong, 2020; Fernández-Olit et al., 2018; Murie & Musterd, 2004; Van Gent et al., 2018). Unlike poverty, which primarily addresses material deprivation, social exclusion highlights the importance of complex, interrelated social processes (Busco et al., 2023). Broadly, a person is considered socially excluded if they are unable to "participate in the basic economic and social activities of the society in which they live." Although closely related to both inequality and poverty, social exclusion is distinct from these concepts; individuals who experience low levels of material poverty may still face high levels of social exclusion.

In line with the definition provided by the World Health Organization's Social Exclusion Knowledge Network (Mathieson et al., 2008), we categorize the two primary sources of poverty-related social exclusion faced by urban residents into economic exclusion and institutional exclusion, and propose that IDA alleviates urban poverty through these two mechanisms (Fig. 1). We define economic exclusion as the inequities individuals face in participating in the labour market and accessing essential resources, often due to exogenous factors such as age or gender, which directly contribute to poverty. In contrast, institutional exclusion arises from systemic deficiencies or injustices that leave certain groups unprotected by social institutions. This form of exclusion can be either explicit, as in discriminatory legal frameworks, or implicit, resulting from governmental neglect of particular populations.[3]

[2] According to surveys conducted by the Food and Agriculture Organization (FAO) in Somalia and other regions, households are typically reluctant to migrate unless they can no longer raise livestock or continue farming. For further details, see the FAO's statement on April 17, 2023: https://www.fao.org/newsroom/detail/attention-to-livelihoods-in-emergencies-is-the-most-effective-and-dignified-response-that-we-can-possibly-mount-fao-emergencies-chief.

[3] In sociology, institutional exclusion is distinct from political exclusion. Institutional exclusion refers to the denial of necessary support from social systems to certain groups due to gaps or limitations in institutional frameworks, leaving these groups vulnerable and marginalized. In contrast, political exclusion pertains to the exclusion of individuals or groups from political decision-making processes, where they lack the power or voice to represent their interests. This is evidenced by restricted participation in elections, political organizations, and the inability to exercise political rights (see Percy-Smith, 2000). While political exclusion is often linked to specific ethnic groups and is associated with intergroup conflict, institutional exclusion affects a broader spectrum of social groups and sectors. This paper adopts the concept of institutional exclusion as a central mechanism, emphasizing how failures in urban planning and institutional frameworks lead to the denial of access to public resources for low-income groups, beyond ethnic or racial considerations. A prominent example of institutional exclusion, rather than political exclusion, is China's hukou system (see Liu, 2005).

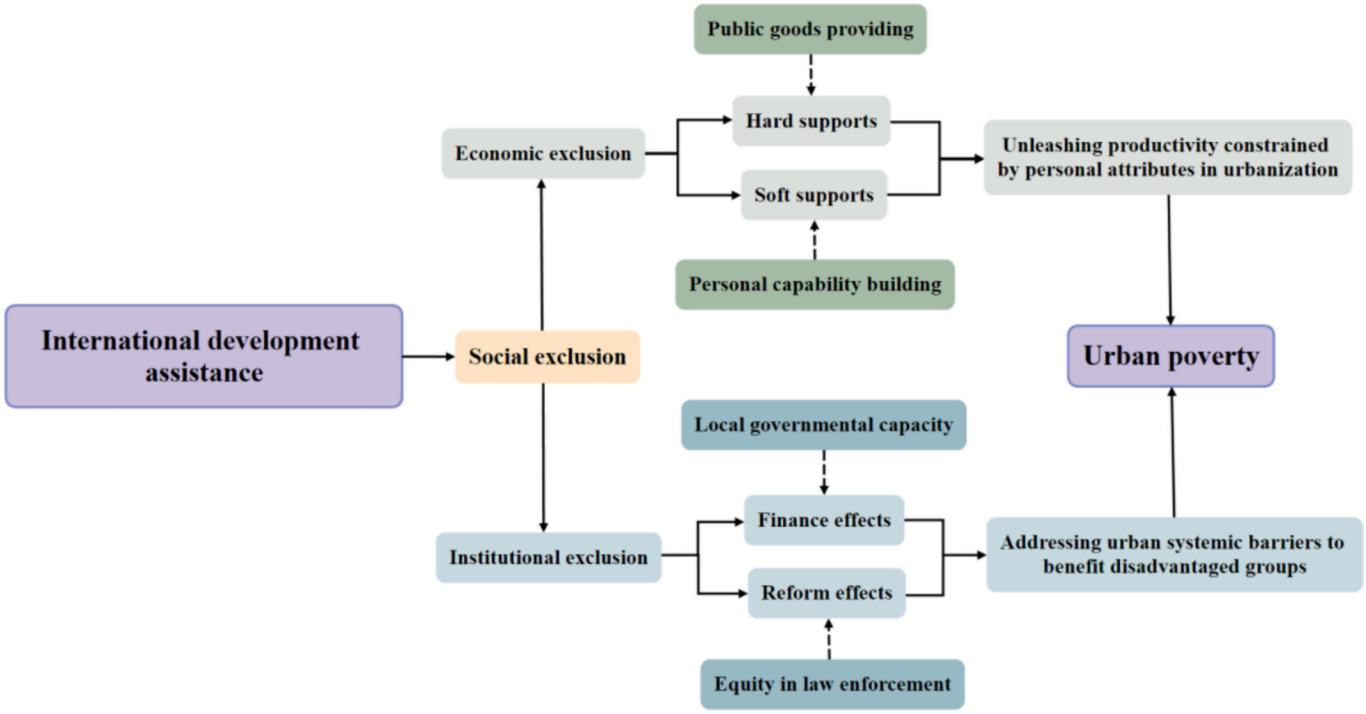

Fig. 1. The mechanism of IDA reducing urban poverty.

2.1. IDA and economic exclusion

First, we argue that IDA alleviates urban poverty primarily by reducing economic exclusion. Economic exclusion is especially pronounced in slums and informal settlements, where limited opportunities and inadequate services create entrenched poverty traps (Lucci et al., 2018). Poverty traps are self-reinforcing mechanisms that perpetuate poverty and prevent affected individuals from reaching a critical threshold of well-being (Balboni et al., 2022; Barrett et al., 2013). Households with low initial well-being often struggle to accumulate the resources necessary to escape poverty, whereas those in more stable positions can maintain or improve their socio-economic status over time. Urban poor populations are often ensnared in a vicious cycle of unemployment, poverty, and social exclusion due to the absence of stable income sources (Gallie et al., 2003).

Urban spatial poverty trap theory further underscores that, while cities may offer more opportunities compared to rural areas, access to these opportunities is often unevenly distributed and geographically concentrated (Grant, 2010). In densely populated and rapidly growing urban environments, competition for services intensifies, and market opportunities can be limited and fragile. Private capital, driven by risk aversion and profit-seeking motives, frequently bypasses impoverished urban areas due to low returns, social instability, and insecurity, thereby creating a spatial poverty trap. This self-reinforcing cycle exacerbates poverty in certain urban regions.

Despite criticism and scepticism, the urban-biased IDA still possesses characteristics of a public good, making it intuitive that IDA projects improve the accessibility of public resources for the urban poor. Traditional development aid from organizations such as the World Bank, alongside development finance with mixed development and commercial goals (e.g., Chinese aid), fills financial gaps created by providing public goods in inner- and marginal cities. Different types of development funding provide either soft support, such as capacity-building projects, or hard support, including infrastructure and public services, ultimately reducing living costs and transaction costs associated with market participation for urban poor populations. For example, infrastructure projects such as roads and water supply systems can substantially reduce water-access time for urban poor households, particularly for women (Grant, 2014). Similarly, energy projects can alleviate the "black market" effect, reducing the cost of electricity access for households (Banks et al., 2011).

Moreover, IDA projects that improve living and production conditions in areas with high ethnic concentrations can mitigate the adverse effects of neighbourhood dynamics on individual poverty reduction (UN-Habitat, 2003). These interventions break down barriers to market participation caused by exogenous factors such as gender, age, and particularly ethnicity, and reduce transportation costs to employment opportunities. Consequently, they increase the time available for income-generating activities, creating more opportunities for poverty alleviation. Over time, positive causal loops may deepen, extending their effects to entire neighborhoods. The psychological impact of escaping long-term poverty can further reinforce this cycle, lifting individuals and families out of poverty, and, if manifested through reductions in crime and violence, can have broader positive effects on communities (Ibrahim et al., 2023; Maclay & Marsden, 2013).

2.2. IDA and institutional exclusion

Second, we suggest that IDA reduces urban poverty by indirectly alleviating institutional exclusion. Cities are created environments that reflect the social and economic power structures (Michaels et al., 2012; Rossi-Hansberg & Wright, 2007). In terms of institutional exclusion, the worsening of urban poverty can also be understood as evidence of the government's long-standing failure to invest in urban development and build effective urban management institutions (Fox, 2014). It is often assumed that urban areas, particularly compared to rural regions, have strong political representation, with urban lobbies typically more effective in securing infrastructure investments (Bird & Shepherd, 2003). However, these lobbying efforts often disproportionately neglect the urban poor (Hasan et al., 2005). Due to the low level of organization in areas with high concentrations of extreme poverty, the government's response to their needs is often sluggish. As a result, urban poor residents, despite being geographically close to city government offices, are less likely to be able to demand improvements in living conditions and

security.

From the urban political economy perspective, urban governance in Nigeria reflects that many policies, such as leasehold rights and building regulations, were designed during the colonial era to restrict access to urban spaces (Fox, 2014). While racial exclusion was largely dismantled post-independence, structural elements like land registration, building codes, and density requirements remain largely intact. Although modern legal frameworks enshrine equality, practical challenges perpetuate exclusionary practices. Marginalized groups, including the poor and homeless, may not be overtly deprived of rights but face institutional exclusion that limits their access to citizenship rights. Urban planning often confines visible poverty, such as slums or homelessness, to specific areas or displaces these populations through eviction and harassment. Consequently, institutional exclusion hinders poverty reduction efforts, as illegally built settlements remain ineligible for public infrastructure investment, with authorities hesitant to invest for fear of legitimizing informal occupation (World Bank, 2009).

One primary objective of the 2030 Agenda for Sustainable Development is to "build effective, accountable, and inclusive institutions at all levels" (United Nations, 2015), aligning closely with the mission of international development financing, such as aid from the World Bank. Theoretically, IDA can play a pivotal role in this endeavour by harnessing the "finance effects" of aid. Through resource infusion and technical assistance, IDA can support both local and central governments in enhancing institutional capacity. By alleviating budgetary constraints and improving government efficiency, such interventions can help address the institutional exclusion faced by vulnerable populations (Brautigam & Knack, 2004; Djankov et al., 2008). Additionally, IDA can be conceptualized through a "reform effects" framework, where it serves as a mechanism to promote governance and democratic reforms within recipient countries. International aid, particularly when accompanied by external oversight, can enhance accountability in addressing urban poverty. Conditional aid, which ties future disbursements to the implementation of specific reforms, can further incentivize institutional improvements (Bourguignon & Gunning, 2020).

Nevertheless, it is important to note that the theoretical debate on whether IDA effectively promotes urban governance remains highly contested, with empirical studies revealing inconclusive causal relationships (e.g., Brautigam & Knack, 2004; Djankov et al., 2008; Jones & Tarp, 2016; Okada & Samreth, 2012). Unlike the direct effects observed through the economic exclusion channel, the effectiveness and direction of the institutional exclusion channel remain ambiguous.

Alternative literature suggests that IDA may, contrary to expectations, reduce democratic pressures by fostering rent-seeking and weakening accountability, thereby undermining local institutions (Deaton, 2013; Easterly, 2006). Fiscal contract theory argues that when governments are not reliant on taxes from citizens and businesses, accountability is diminished. In tax-based systems, citizens can withhold taxes to demand services, but when they are not the primary financiers, their influence weakens, reducing the government's incentive to meet their needs (Baldwin & Winters, 2020; Dietrich et al., 2018). Thus, IDA may inadvertently exacerbate institutional exclusion by relaxing government budget constraints, neglecting poor urban populations. We argue that the conditionalities of foreign aid can significantly affect government accountability incentives.

3. Data and empirical strategy

3.1. Project-level IDA data

The data on Nigeria's receipt of IDA comes from the AidData Nigeria AIMS Geocoded Research Release, Version 1.3.2 dataset. Unlike existing project-level studies, we focus on a single representative country to ensure that the dataset encompasses all geocoded projects from Nigeria's Development Assistance Database, thus avoiding the omission of potential synergies between projects. Furthermore, given that new forms of IDA have become a crucial component of development financing, their demand-driven aid model more accurately reflects the country's government-led, urban-biased economic development strategy. Therefore, we also incorporate aid project data from China and India to Nigeria, sourced from the AidData Geocoded Global Chinese Official Finance Dataset, Version 1.1.1, and the Indian Development Finance Dataset, Version 1.0, respectively. The former geolocates both Chinese aid and non-concessional official financing projects, while the latter includes Indian development cooperation projects from 2007 to 2014. The inclusion of these diverse sources, with varying financing attributes, enables a heterogeneity analysis after observing the mixed effects of overall aid.

The datasets provide longitude, latitude, and location information for the projects, which are classified into eight categories based on precision, with decreasing accuracy. To focus on respondents in a specific area, we combined the three datasets for projects between 2000 and 2014 with precision levels 1 and 2, corresponding to projects located at a specific site or within a maximum radius of 25 km. This resulted in a total of 46 aid projects and 462 project implementation locations (see Table A1). The majority of the projects are from the World Bank, accounting for 84.8 %, followed by aid projects from China and India.

The composition of project sectors reveals distinct preferences and focuses among different aid agencies (see Table A2). The World Bank, along with most other aid agencies, prioritizes assistance in areas such as government institution building and social infrastructure, which are essential for improving livelihoods. In contrast, China capitalizes on its strengths in transportation and energy infrastructure to execute its projects. Consequently, although the number of aid projects from China is not the largest, the nature of these projects results in funding that accounts for half of the total international aid commitments, surpassing the World Bank and far exceeding those of other aid agencies (see Fig. A1). This underscores the importance of considering funding from emerging aid agencies, as excluding it could lead to significant bias in estimating the impact of development policies. However, an analysis of disbursement years shows that China's bilateral aid is less stable than the World Bank's multilateral aid (see Fig.A2), suggesting that bilateral aid may serve as a form of leverage or sanctions (Early & Jadoon, 2019; Portela & Mora-Sanguinetti, 2023).

To visually illustrate and substantiate the issue of urban bias in IDA policies, Fig. 2 presents the locations of the sample projects in Nigeria, overlaid with the regional distribution of urban (red areas) and rural (agricultural land, green areas) zones in 2014. The analysis reveals that in the central and southern regions of Nigeria, where population density is high, development resources are concentrated in major cities such as Lagos and Abuja, as well as in state capitals, despite the relatively small size of some of these urban areas. In contrast, the northern region of the country remains predominantly rural, with fewer large cities. In these areas, the distribution of development aid projects is more evenly spread across various towns, as there is a weaker urban pull effect.

3.2. Urban poverty measurement

Urban poverty in developing countries is frequently underestimated, and its measurement remains a substantial challenge due to its inherently multidimensional complexity (Mitlin & Satterthwaite, 2012; Sabry, 2010). While slums serve as a visible manifestation of urban poverty, they only represent a subset of the broader issue (Glaeser, 2012). Given the complexities in defining urban poverty and our primary focus on assessing whether IDA interventions mitigate deprivation among urban residents in Nigeria, a comprehensive review of these debates lies beyond the scope of this analysis.

Drawing on the methods of Ahmed et al. (2023) and Lucci et al. (2018), we adjust the Multidimensional Poverty Index (MPI) developed by Alkire and Foster (2011) to construct MUPI from DHS individual-level data. This approach captures the multifaceted nature of urban poverty while avoiding reliance on national MPI tabulations, making it

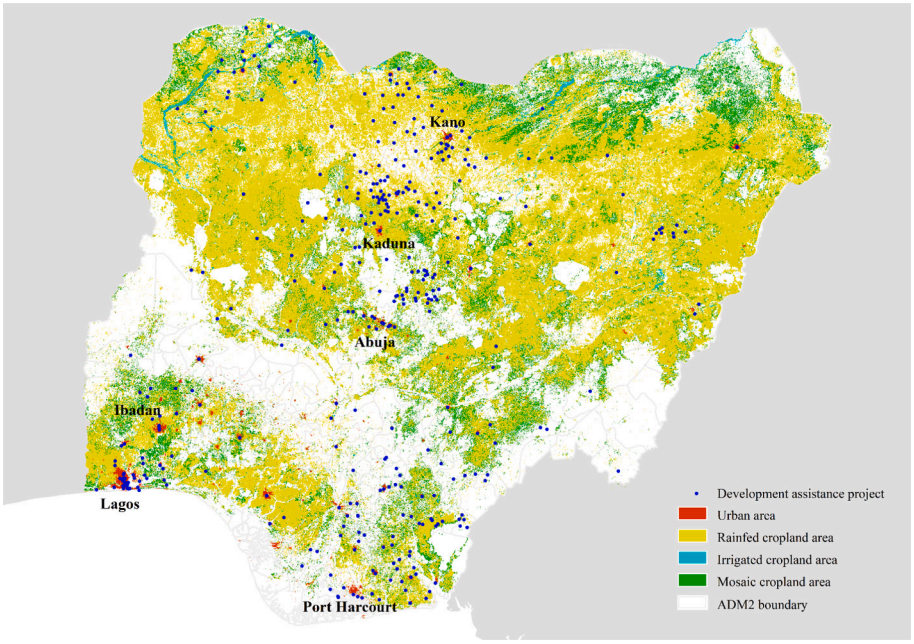

Fig. 2. Urban biased allocation of IDA project in Nigeria.

well-suited for our causal inference framework.

Specifically, our modifications to the MPI focus on access to water, sanitation, and housing conditions, while preserving its other components. We argue for the inclusion of population density as an additional factor. For instance, UN-Habitat has developed a cross-nationally applicable definition, which specifies per capita access to public facilities and living space. However, some scholars contend that even shared resources, when used by large numbers of people, can have negative health impacts and should not be considered "improved" (Mitlin, 2015). In urban areas, water facilities shared by hundreds of individuals often serve merely as a basic survival necessity, with intermittent supply further exacerbating the problem. Similarly, improved sanitation facilities may include types that compromise health in urban contexts (e.g., those connected to septic tanks or pit latrines), while excluding others that, though shared, may still be suitable for use. Housing indicators based on flooring materials, for example, may underestimate overcrowding and other housing-related deprivations. Therefore, compared to the traditional MPI, these three indicators should adopt lower thresholds in densely populated urban areas.

Based on the fundamental structure of the MPI, we defined an urban household as deprived if: (1) it lacks piped drinking water to its premises or plot/yard; (2) it does not have a flush or flush-pour latrine connected to a piped sewer system, or it shares its facilities with other households; (3) it does not have "finished" roof, walls, or floors, or if there are four or more people per sleeping room. While this adjustment may be subject to criticism, it is important to note that this relatively conservative estimation across multiple dimensions captures a subset of the urban poor. In the robustness check, we will also adjust the thresholds and weights, and incorporate variables constructed from other data sources, to test the robustness of the baseline conclusions.

As Fig. 3 demonstrates, the northern part of Nigeria has a sparse and dispersed population, and poverty levels among urban residents are significantly higher compared to the southern regions. Furthermore, unlike remote towns, major urban areas with dense populations exhibit a more pronounced disparity between rich and poor. Combined with IDA data, the distribution of aid projects across the country is strongly correlated with urban population patterns, with only about 30 % of the projects located in rural areas.

3.3. Estimation strategy

As noted, one of the primary challenges in identifying the causal effects of development policies with an "urban bias" on urban poverty is the issue of endogeneity. Urban areas are key drivers of long-term economic growth and structural transformation, and the concentration of development resources in these regions tends to accelerate urbanization (Dorosh & Thurlow, 2014). Rapid population growth and labour migration are often cited as direct contributors to the worsening of urban poverty (Janz et al., 2023). While Fox (2014) argues that these factors are not the root causes, the exacerbation of urban poverty and the expansion of slums provide important data for both targeting international development resources and implementing national slum upgrading initiatives (Amis, 2001; Franklin, 2020; Jones, 2012). Consequently, assuming no correlation between project localization and the pre-existing characteristics of project sites and surrounding populations is untenable.

To address this issue, we employ a spatiotemporal estimation strategy, as introduced by Knutsen et al. (2017), to compare the poverty levels of urban individuals residing near active international assistance projects (including both completed and ongoing projects) with those living near projects that were in the pipeline at the time of the survey (inactive projects). This methodology is widely applied in contemporary development economics and political economy research (see, e.g., Isaksson & Durevall, 2022; Isaksson & Kotsadam, 2018; Isaksson, 2020; Knutsen & Kotsadam, 2020; Konte & Vincent, 2021). One key reason for its popularity is that, while the absence of panel data in the DHS limits our ability to track specific localities over time, we can still categorize respondents based on the timing of their interviews and the initiation of project activities. This approach enables us to mitigate endogeneity concerns and expands the boundaries of micro-level empirical research.

To identify causal effects, one has to assume the geographical reach of the potential effect. The selection of an appropriate buffer zone is critical to ensuring the accuracy and robustness of causal effect estimates in empirical analyses. Given that the influence of aid projects on urban poverty is expected to diminish with increasing distance from project sites (Briggs, 2018b), determining the spatial extent within which urban residents might experience the benefits of these projects is an inherently empirical question. Previous studies have typically employed buffer zones of 10 km (e.g., Isaksson & Durevall, 2022), 25 km

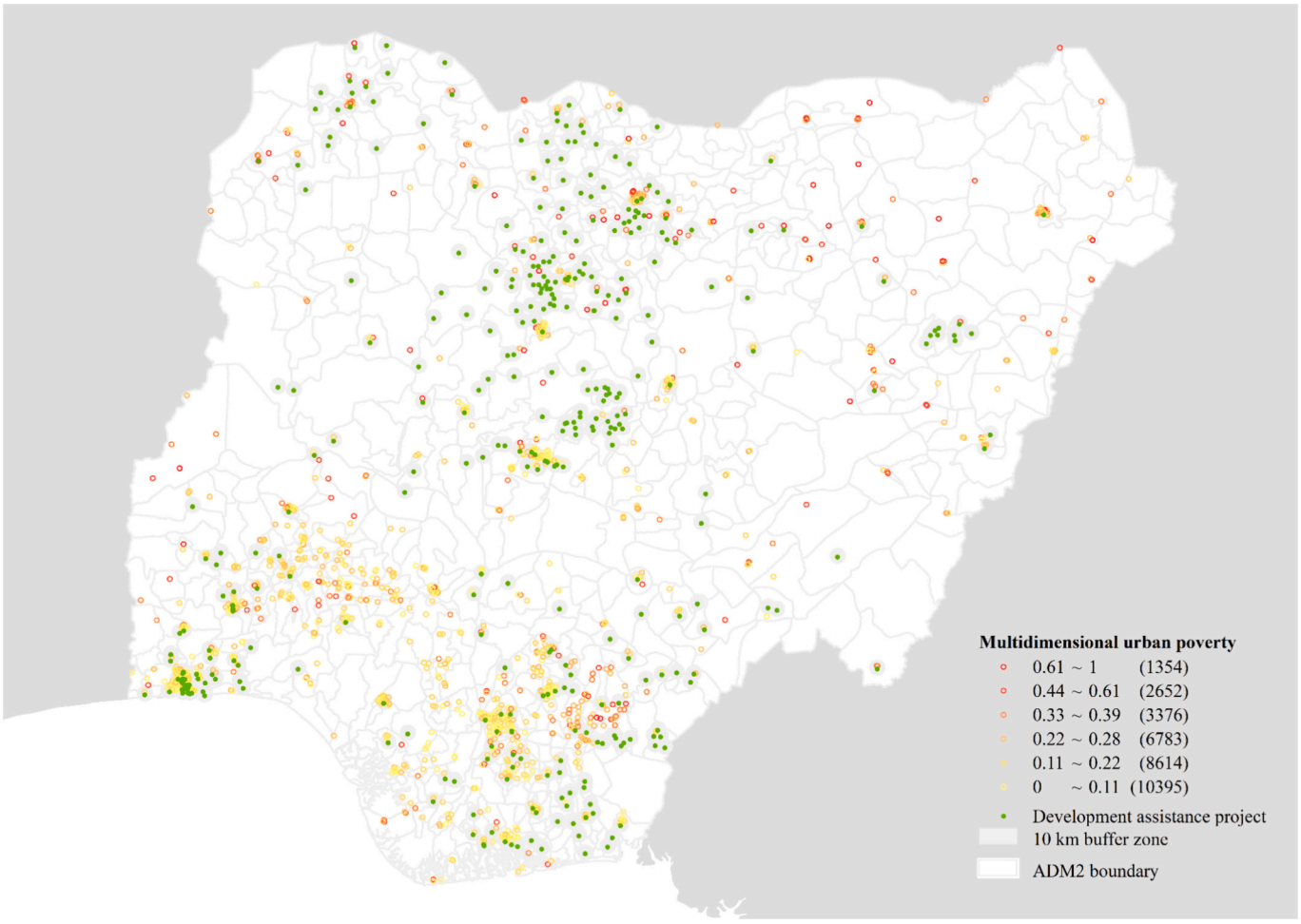

Fig. 3. Urban poverty level of DHS urban respondents and the location of IDA projects (with a 10 km buffer zone) in Nigeria.

(e.g., Huang & Cao, 2023; Isaksson, 2020; Knutsen & Kotsadam, 2020), and 50 km (e.g., Brazys & Kotsadam, 2020; Isaksson & Kotsadam, 2018; Knutsen & Kotsadam, 2020; Konte & Vincent, 2021; Xu & Zhang, 2020).

Given that our sample includes a substantial proportion of government and social infrastructure projects (with only approximately 17 % focused on transportation and energy infrastructure), the spatial impact of these projects on surrounding areas is likely to be relatively limited. Consequently, we adopt a conservative 10 km buffer zone for our benchmark estimation, following the methodology of Isaksson and Durevall (2022), while also assessing alternative buffer zones in robustness checks. This choice enables us to exclude most projects located in rural areas, while still capturing spillover effects from projects that, despite being situated in rural regions, are close to urban populations, considering the blurred boundaries between rural and urban areas.

Since ongoing projects may lead to population agglomeration (Kotsadam & Tolonen, 2016), our estimation strategy incorporates a time lag effect and includes both completed and under-construction projects. As a result, we divide the sample into three groups: (1) those residing within 10 km of at least one active project (*Active*, treatment group), (2) those living within 10 km of a project that has been planned but not yet implemented at the time of the survey, with no active project nearby (*Inactive*, pre-treatment group), and (3) those with no aid projects within 10 km (control group). The baseline regression model is:

$$Mupi_{ivt} = \beta_1 \cdot Active_{it} + \beta_2 \cdot Inactive_{it} + \gamma \cdot \boldsymbol{X}_{it} + \alpha_c + \delta_t + \varepsilon_{ivt} \quad (1)$$

where multidimensional urban poverty *Mupi* of an urban individual i in cluster v at year t is regressed on a dummy variable *Active* capturing whether the urban individual lives within the specified cut-off distance of an active assistance project, and a dummy *Inactive* for living close to a site where a project will take place but had not yet implemented at the time of the survey. To control for individual variation in multidimensional urban poverty, a vector ($\boldsymbol{X}_{it}$) of individual-level controls from the DHS are included. The baseline set of individual controls are gender (dummy variable for female), age, age squared, gender of household head (dummy variable for female household head), education level, and religion (dummy variable for catholic respondents), which are not influenced by the location or initiation decisions of the projects, yet they are highly correlated with the individual's deprivation level.[4] To control for variation in average levels of urban deprivation across time and space, the regressions include city-fixed effects (α_c) and year-fixed effects (δ_t). To account for correlated errors, standard errors are clustered at the geographical level (i.e., at the enumeration area level). Table 1 presents the descriptive statistics, providing an overview of the key

[4] According to the guidelines provided by Angrist and Pischke (2009), "good" control variables are those that are determined prior to the treatment variable, while "bad" control variables are those that are themselves outcomes. In line with existing studies (e.g., Isaksson & Kotsadam, 2018; Kotsadam et al., 2018), we select these relatively exogenous variables as controls. Additionally, *Age* and *Age2* are included to capture the potential non-linear relationship between age and the dependent variable in our model. And the inclusion of *Age2* allows us to test for and quantify such non-linearities with respect to urban poverty, as individual wealth may increase with age initially, then decrease, following an inverted U-shape relationship.

Table 1
Descriptive statistics.

Variable	Observations	Mean	Std. Dev.	Min.	Max.
Mupi	33,174	0.200	0.174	0	1
Active	33,174	0.473	0.499	0	1
Inactive	33,174	0.059	0.236	0	1
Gender	33,174	0.499	0.500	0	1
Age	33,174	30.267	10.358	15	59
Age2	33,174	1023.387	681.016	225	3481
Gender_hhh	33,174	0.160	0.367	0	1
Edu	33,174	0.355	0.810	0	3
Religion	33,174	0.463	0.499	0	1

Notes: The baseline sample is the sample of individuals retained in urban poverty regression on the main variables, including city- and year-fixed effects.

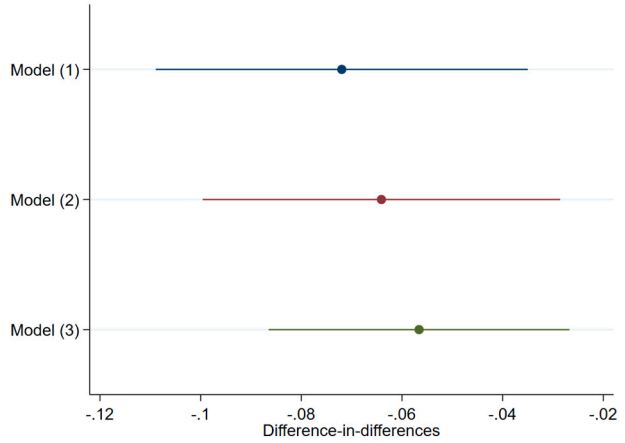

Fig. 4. Visualized baseline regression results of IDA and urban poverty.
Notes: Model (1) excludes all controls and fixed effects; Model (2) adds controls; Model (3) adds both controls and fixed effects. The difference-in-differences estimate is the difference between active and inactive clusters. Standard errors are robust and clustered at the DHS survey-cluster level.

variables and their distribution across the sample.

The coefficient β_1 in this model captures the impact of development assistance projects on local multidimensional urban poverty. However, it assumes that urban poverty is independent of the project distribution prior to implementation, a strong assumption that is arguably unreasonable, as discussed above. By introducing *Inactive*, we can compare poverty levels before and after the implementation of projects with those in areas distant from any projects. Therefore, our regression model tests the significance of the difference ($\beta_1 - \beta_2$) between *Active* and *Inactive* to control the non-time-varying characteristics that cannot be observed and will affect the project location decisions. This approach yields a DID estimation, which controls for time-invariant unobservable factors that could affect the selection of project sites.

4. Results

4.1. Baseline results

Our baseline regression results demonstrate that IDA projects significantly reduce urban poverty (Fig. 4), and that this effect is not driven by site selection. In Table 2, the coefficient on *Active* is consistently negative and significant, indicating that households near active projects experience lower multidimensional poverty than those in untreated areas. In contrast, the coefficient on *Inactive* is insignificant, which suggests that project sites were not systematically located in either more deprived or less deprived neighborhoods, implying that IDA allocation within cities is broadly even and not subject to the allocation biases reported in national-level studies.

Table 2
Baseline regression results: IDA and urban poverty in Nigeria.

	(1)	(2)	(3)
Active	−0.073***	−0.072***	−0.064***
	(0.008)	(0.008)	(0.012)
Inactive	−0.001	−0.008	−0.007
	(0.019)	(0.018)	(0.018)
Gender		0.025***	0.023***
		(0.002)	(0.001)
Age		−0.008***	−0.002***
		(0.001)	(0.001)
Age2		0.010***	0.003***
		(0.001)	(0.001)
Gender_hhh		−0.039***	−0.010***
		(0.005)	(0.003)
Edu		−0.026***	−0.013***
		(0.002)	(0.001)
Religion		0.030***	−0.008***
		(0.004)	(0.003)
Constant	0.235***	0.347***	0.178***
	(0.006)	(0.015)	(0.030)
Difference-in-differences	−0.072***	−0.064***	−0.057***
F test: *Active* − *Inactive* = 0	14.587	12.536	13.802
Year FE	No	No	Yes
City FE	No	No	Yes
R-Squared	0.044	0.071	0.415
Observations	33,174	33,174	33,174

Notes: Robust standard errors (clustered by DHS survey cluster) in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The difference-in-differences value represents the difference between active and inactive clusters, and we present the associated F test.

The effect is both statistically and economically meaningful. To further validate the result and address potential endogeneity concerns, we conduct an F-test, which confirms that poverty outcomes differ significantly between active and inactive areas ($H_0 : Active - Inactive = 0$). The DID values in Table 2 indicate that IDA project initiation reduces the local urban poverty index by 0.057 points, which corresponds to an estimated 29 % decline relative to baseline levels. As shown in the following robustness checks, this result remains consistent across alternative model specifications.

4.2. Robustness tests

We assess the robustness of our baseline result in four ways, and the tests confirm its stability. First, regarding model specification, we find no significant pre-treatment differences (Table B1), placebo tests detect no spurious effects (Table B2), and spatial sensitivity analysis shows that effects are strongest within 35 km of project sites and fade beyond 45 km (Table B3; Fig. B1). Second, regarding measurement error, results remain consistent when using alternative poverty measures (Table B4) and when restricting the sample to projects initiated or completed within five years of the survey (Table B5, Columns (1)–(2)). Third, for omitted-variable bias, controlling for election cycles, excluding the president's birthplace, adding project fixed effects, and restricting to DHS-revisited clusters leaves estimates unchanged (Table B5, Columns

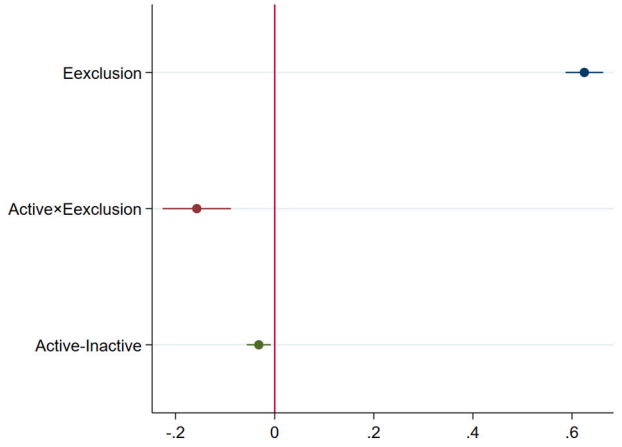

Fig. 5. Mechanism analysis: IDA and economic exclusion.
Notes: The dependent variable is *MUPI* in the first two regressions and *Eexclusion* in the third.

(3)–(6)). Finally, for the reverse-causality concern, tests based on placebo timing (Table B6, Column (1)), random assignment of project locations and start dates (Table B6, Column (2)), native–migrant splits (Appendix D.1), and analyses of migration responses (Appendix D.2) do not overturn the findings.

5. Evidence on local mechanisms

We examine the mechanisms through which IDA reduces both economic and institutional exclusion in urban contexts. Regarding economic exclusion, our findings show that: (1) IDA reduces the adverse effects of exogeneous factors such as age and gender (see Section 5.1.1); (2) IDA facilitates a shift from agricultural to skilled employment, enhancing poor households' ability to escape poverty through effort (see Section 5.1.2); and (3) secondary cities display a stronger mediating effect than megacities (see Section 5.1.3).

With respect to institutional exclusion, we find that: (1) IDA improves perceptions of local government capacity to manage markets through financial effects, though it has little impact on perceived legal equality (see Section 5.2.1); (2) IDA enhances government responsiveness to urban residents but is less effective for disadvantaged groups (see Section 5.2.2); and (3) donor conditionality strengthens urban governance and the rule of law, revealing a strong reform effect (see Section 5.2.3).

5.1. Mechanism analysis: IDA and economic exclusion

5.1.1. IDA's impact on individual economic exclusion

To empirically assess the role of IDA in addressing economic exclusion, we focus on its measurable effects on individual welfare. As shown in Fig. 5, economic exclusion (*Eexclusion*), measured by a poverty opportunity deficit index, is strongly and positively correlated with multidimensional poverty, making it a key driver of welfare deprivation.[5] The interaction term *Active* × *Eexclusion* yields a significantly negative coefficient, indicating that aid projects effectively mitigate the adverse impact of exogenous environmental factors on urban poverty.

To more robustly evaluate whether aid reduces economic exclusion, we regress *Eexclusion* on both *Active* and *Inactive*. The DID result shows that aid projects generate a significant difference in urban poverty levels before and after implementation, effectively mitigating exclusion arising from factors such as gender, age, and ethnicity. This, in turn, enhances residents' potential to escape poverty through personal effort.

5.1.2. IDA and the employment transformation of disadvantaged groups

We further investigate whether IDA reshapes employment choices for residents at different income levels and for vulnerable groups, thereby opening pathways out of the poverty trap.[6] Fig. 6 reports subgroup regressions for deprived versus non-deprived residents,[7] and for women versus men.[8] A common pattern is that IDA does not significantly change the overall employment rate in any group, which is consistent with a context where agriculture is counted as employment. However, IDA directly reduces the share of residents engaged in agricultural work. This effect is concentrated among suburban households that retain land for cultivation alongside urban jobs.[9]

Heterogeneous effects emerge in two dimensions. First, among deprived urban citizens, IDA shifts employment from agriculture toward skilled manual work and services, lowering exposure to agricultural seasonality and vulnerability and improving employment stability and income sustainability. For non-deprived households, the move away from agriculture is weaker and the direction of transition is more diffuse. Second, access to amenities such as water and energy enables vulnerable groups to partially exit agricultural production and engage in home-based industries, which raises household income. Taken together, these results indicate that IDA mitigates urban poverty by reconfiguring employment patterns, reducing economic exclusion, and helping to break the poverty trap.

5.1.3. Spatial heterogeneity in IDA's effects on economic exclusion

We assess how IDA's effects vary across the urban hierarchy. Economic theory highlights city scale effects for productivity, innovation, and growth (Henderson, 1983). Larger cities offer more opportunities, so urban bias in IDA reflects not only principal–agent frictions but also shifting poverty patterns within cores and peripheries. Geographic proximity alone does not explain economic exclusion, and aid exhibits diminishing returns across development stages. In large cities, improved infrastructure can raise rents and living costs, displacing vulnerable groups and weakening intended benefits (Rigon, 2022).

Distinguishing central cities from regional towns,[10] we find that IDA's poverty-reducing effect is weaker in larger cities, with significance only at the 10 % level (Fig. 7). Economic exclusion is also less pronounced in central cities, consistent with higher living costs and stricter poverty thresholds.

[5] We measure economic exclusion as the lack of opportunities tied to disadvantaged traits and external conditions, computing a "poverty opportunity deficit" for each resident; higher deficits indicate greater exclusion (Bourguignon et al., 2007; Marrero & Rodríguez, 2013; Roemer, 1998). Given data availability and temporal consistency, we draw on eleven exogenous factors at the individual and household levels. Individual-level variables are gender, age, ethnicity, and religion; household-level variables are household head's gender, distance from the capital, leader's birthplace, coastal status, mineral wealth, ethnic diversity, and malaria prevalence. All are significantly associated with poverty.

[6] Street vending remains widespread in Nigerian cities and is closely tied to unemployment during urbanization. Notably, 62 % of vendors report willingness to switch occupations if policymakers expand training and job opportunities in tailoring, nursing, automotive repair, hairstyling, and driving (Alimo et al., 2024). The high commodification of urban life means vending both generates income and can serve as a route out of the low-income trap.

[7] Following Alkire and Foster (2011), we define individuals with a multidimensional poverty score above one-third as being considered impoverished.

[8] According to Janz et al. (2023), individuals in this group are more susceptible to economic exclusion, thereby falling into poverty traps.

[9] DHS data further support this finding: urban residents engaged in agriculture report an average commuting time of 1.168 h, compared to only 0.571 h for those relying on non-agricultural income.

[10] Central cities are defined using population, economic, and infrastructural criteria as Nigeria's top ten urban centers ranked by GDP. These comprise the capital, major economic hubs, and state capitals: Lagos, Abuja, Ibadan, Kano, Nguni, Maiduguri, Katsina, Sokoto, Zaria, and Kaduna.

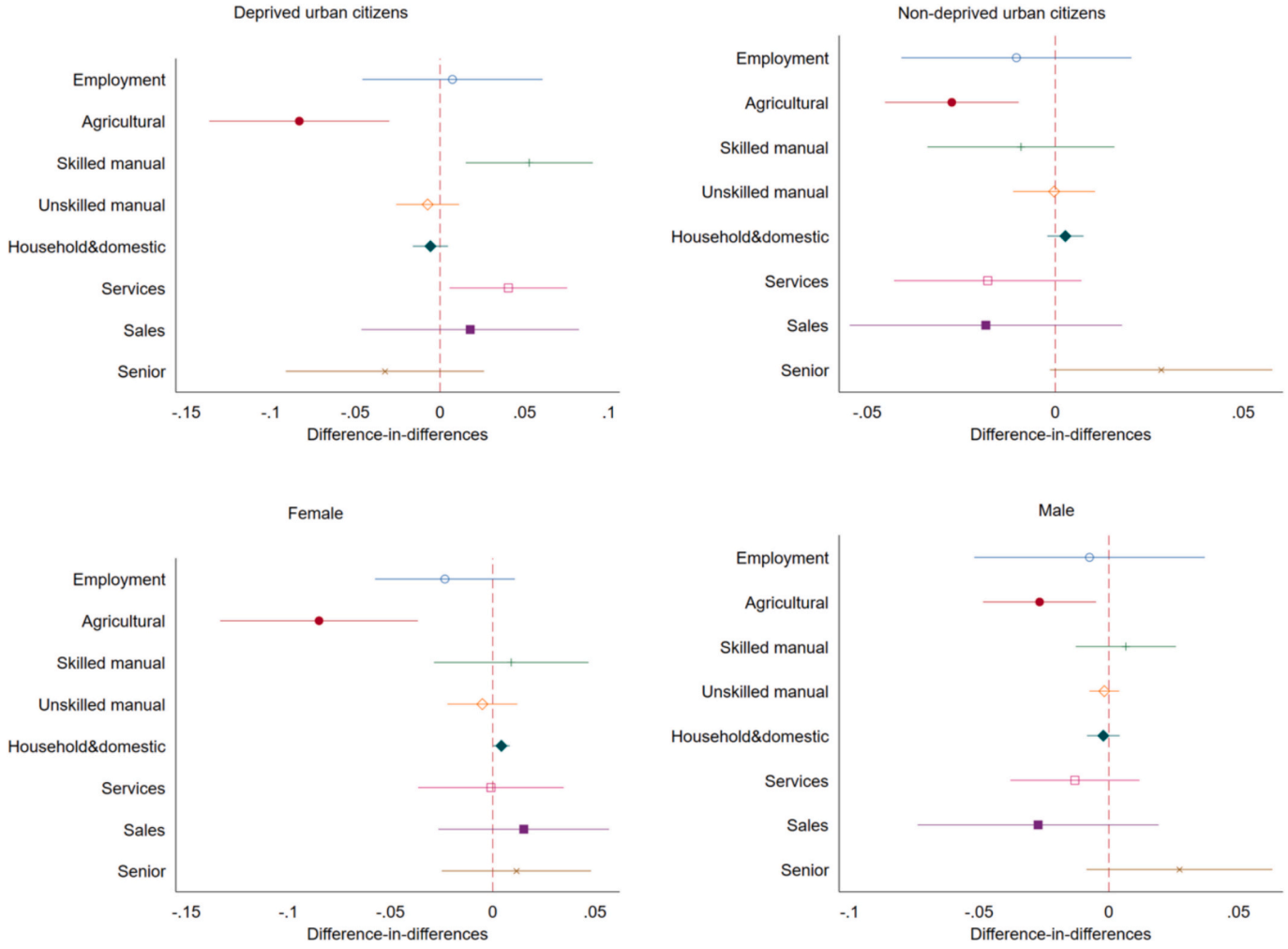

Fig. 6. IDA and employment of Nigerian urban citizens.

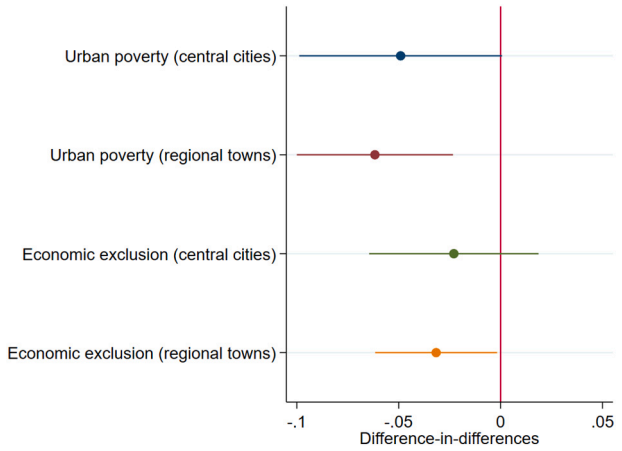

Fig. 7. Economic exclusion effects of IDA in different city tiers.

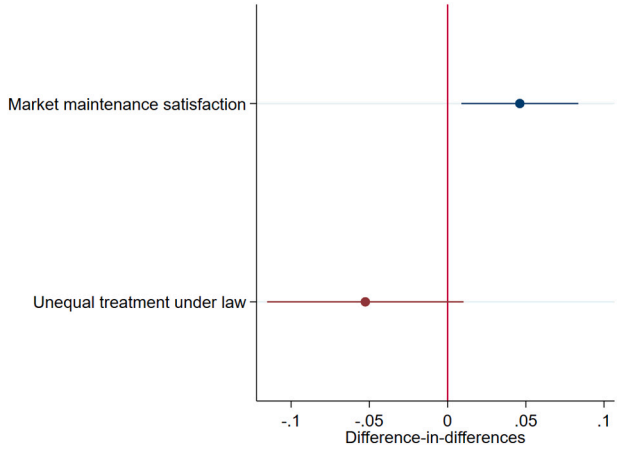

Fig. 8. Mechanism analysis: IDA and institutional exclusion.

These results imply that IDA does not break poverty traps by encouraging relocation to more advanced regions. Central cities provide opportunities but impose higher expenses, while regional towns emerge as more pragmatic targets for development resources under fiscal constraints and rapid population growth. Consistent with recent evidence, secondary cities have a larger impact on national urban poverty and are better positioned than megacities to foster inclusive urbanization

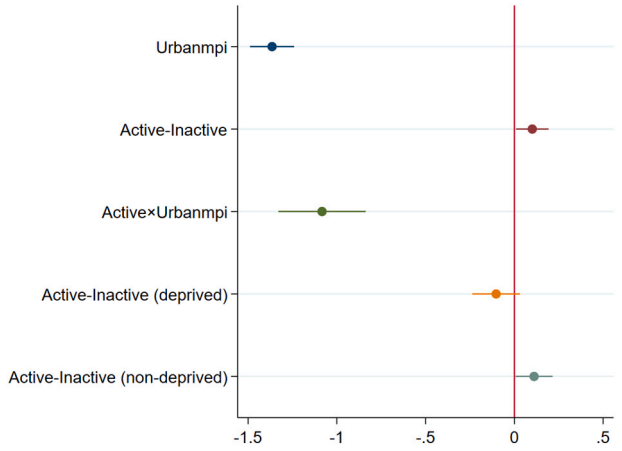

Fig. 9. Heterogeneity of IDA and local government voice attentiveness.
Notes: In all models, the dependent variable is the attentiveness index.

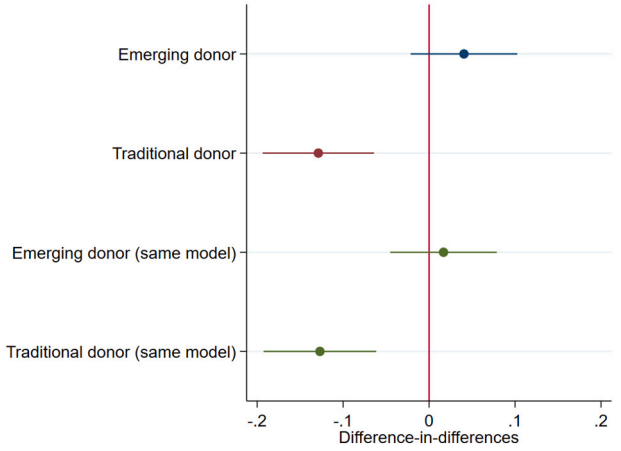

Fig. 10. Heterogeneous reform effects of different funding conditionalities in IDA.
Notes: In all models, the dependent variable is respondents' perceptions of government unfairness in applying the rule of law. Higher values indicate greater perceived unfairness.

through non-agricultural activities (Ingelaere et al., 2018).

5.2. Mechanism analysis: IDA and institutional exclusion

5.2.1. IDA's impact on subjective institutional exclusion

We next examine whether IDA mitigates institutional exclusion, defined as the rules and structures through which governments shape access to opportunities. Two channels are relevant: finance effects, where aid resources strengthen governments' capacity for urban planning and service provision; and reform effects, where aid promotes fairer legal and institutional environments. Since relaxing local budget constraints may also weaken incentives for institutional reform, the overall impact must be tested empirically.

Fig. 8 shows that IDA improves local governments' capacity to manage markets, based on residents' subjective assessments of governance.[11] However, there is no evidence that residents perceive greater legal equality following the arrival of aid resources. These findings suggest that IDA strengthens financial capacity but has limited reform effects, motivating further analysis of heterogeneity across groups.

5.2.2. Heterogeneous impact of IDA on voice attentiveness

With an attentiveness index measured by whether local councillors listen to residents,[12] the results in Fig. 9 indicate that IDA raises perceived attentiveness, although the effect declines as deprivation deepens. More deprived urban residents perceive councillors as less willing to listen, indicating that subjective institutional exclusion aligns with objective deprivation.

The evidence points to strong finance effects but weak reform effects, with benefits concentrated among the less deprived. IDA improves responsiveness through resource support, yet the reform effects that would reduce exclusion among the poorest remain insignificant. Robustness checks using Afrobarometer data support these results (see Appendix Table B1), and together the findings highlight a gap between the theoretical expectation of broad reform and the observed concentration of gains.

5.2.3. IDA conditionalities and institutional reform effects

We argue that differences in conditionalities between traditional donors and emerging donors create divergent incentives for government behaviour, shaping the reform outcomes of IDA.[13] Fiscal contract theory predicts that when state revenue is not tax-based, incentives for accountability weaken and reform efforts, including those linked to aid, are less effective. Although aid may support democratization through intellectual input, conditionality, and human capital, prior studies find limited overall effects (Carnegie & Marinov, 2017; Knack, 2004). Qian (2015) also attributes this ambiguity to a failure to distinguish between aid types.

Consistent with this argument, Fig. 10 shows that traditional aid, which emphasizes institutional capacity and conditionality, significantly reduces perceptions of government unfairness in the application of the rule of law in urban governance, indicating substantive reform. By contrast, aid from emerging donors that focuses on economic outcomes has no comparable effect. The pattern is robust after controlling for geographic overlap between aid types, underscoring the importance of conditionality for institutional reform.

6. Conclusion and discussion

Rapid urbanization and rising urban poverty have intensified debate over how to allocate development resources between urban and rural areas, placing this question at the centre of global poverty alleviation. This study examines Nigeria, home to a substantial share of Africa's urban poor, to assess whether IDA, often criticized for urban bias in allocation, can effectively address poverty exacerbated by rapid urban growth. The findings offer theoretical guidance for improving urban

[11] Because the DHS does not capture perceptions of government performance or political preferences, we complement it with Afrobarometer data. Attitudes are imputed into the DHS sample using the missForest algorithm (Uribe, 2025), with cross-validation by direct regressions. Prior research shows that economic status shapes political preferences and cognitive capacity (Brunner et al., 2011; Schilbach et al., 2016), supporting this approach. From Waves 4–6, we use two questions on (a) local government maintenance of markets (1 = Very badly to 4 = Very well) and (b) unequal treatment under the law (0 = Never to 3 = Always), which serve as continuous indicators of finance and reform channels.

[12] Unlike the previous measures, the responses to this question are shaped by individuals' own experiences and circumstances.

[13] The contrast between traditional and emerging aid models is well established (Hernandez, 2017; Swedlund, 2017; Zeitz, 2020). Beyond sectoral priorities, the non-interference policy gives emerging donors a competitive edge in the aid arena but has been criticized for enabling corruption and weakening governance in Africa (Isaksson & Durevall, 2022; Isaksson & Kotsadam, 2018; Naím, 2007). Firms from emerging donors are also accused of using corrupt practices to secure contracts, disadvantaging more transparent competitors (Brautigam, 2009). These dynamics suggest that, compared with traditional aid from institutions such as the World Bank, emerging aid may create perverse incentives that reduce governments' accountability to taxpayers and hinder efforts to alleviate institutional exclusion in urban poverty.

poverty management. However, the complexity of relationships between donors and recipients leaves several issues for further investigation.

6.1. Summary of findings

By matching georeferenced datasets on the subnational distribution of IDA projects (2000–2014) in Nigeria with data from 33,174 respondents across four DHS waves, we employ a spatiotemporal estimation strategy to identify the causal impact of IDA on urban poverty in Nigeria. Our findings demonstrate that, despite an obvious urban bias, IDA significantly reduces multidimensional poverty among urban residents near project sites in Nigeria, with this effect holding across various robustness tests and accounting for rural-to-urban migration.

Examining the mechanisms behind this effect, we find that one primary channel is alleviating economic exclusion through occupational transitions, particularly for women and suburban residents reliant on agriculture. This effect is most pronounced in mid-sized cities, where aid proves more effective, while its impact diminishes in larger urban centres due to high living costs. Additionally, although IDA has been successful in addressing institutional exclusion through finance effects, it has been less effective in achieving reform effects due to donor strategy divergences concerning relaxed fiscal constraints on local governments. Moreover, while aid reduces poverty for both urban natives and rural migrants, it also attracts rural migration, particularly during agricultural hardship, which can strain urban resources and increase social tensions.

6.2. Positioning within the literature

We position our findings within four strands of the literature: urban bias and agglomeration, economic exclusion and occupational reallocation, aid and governance conditionality, and urban hierarchy and migration. This mapping clarifies where our findings corroborate established claims, where they qualify them, and where they extend the literature by specifying scale-contingent returns and modality-dependent governance responses. It also carries forward points from the introduction and the literature review so that the discussion explicitly echoes them.

First, urban bias versus agglomeration. Our evidence shows that international development assistance lowers urban deprivation, with larger gains in secondary cities, which speaks to the debate on efficiency advantages versus equity concerns about urban bias (Briggs, 2018b, 2021; Lipton, 1977). We corroborate agglomeration arguments about the advantages of delivery at scale and qualify them by showing that returns are scale-contingent (Brunt & García-Peñalosa, 2022; Glaeser, 2012). In very large cities, congestion, rents, and displacement compress gains that are otherwise more durable in secondary cities (Crevoisier & Rime, 2021; Meerow & Newell, 2019). Emphasizing placement along the urban hierarchy helps reconcile efficiency claims with distributional critiques and aligns with evidence on the role of secondary towns in poverty reduction (Ingelaere et al., 2018).

Second, social exclusion, poverty traps, and occupational change. Theories of economic exclusion and poverty traps predict that easing access to work is central to sustained exits from deprivation (Balboni et al., 2022; Barrett et al., 2013). Our occupational reallocation results are consistent with this view and extend it by stressing composition rather than simple job counts. Shifts out of agriculture into more stable, higher-productivity work underpin the gains, especially for women and peri-urban residents (Grant, 2010, 2014; Lucci et al., 2018). Focusing on what jobs emerge and where helps explain mixed findings in studies that track aggregate employment without sectoral detail.

Third, aid, governance, and the distinction between financing and reform effects. The literature distinguishes short-run financing effects from long-run reform effects (Baldwin & Winters, 2020; Bourguignon & Gunning, 2020; Brautigam & Knack, 2004; Carnegie & Marinov, 2017; Isaksson & Durevall, 2022; Isaksson & Kotsadam, 2018). We corroborate financing effects in urban settings but find limited average reform effects. We also identify conditionality-dependent improvements in perceived rule of law under traditional aid, whereas emerging development finance shows weaker reform payoffs, helping explain why broad correlations between aid and reform often wash out (Jones & Tarp, 2016; Knack, 2004). These patterns delineate the institutional conditions under which governance responses are most likely to materialize.

Fourth, urban hierarchy, migration, and dynamic pressures. Beyond static scale-contingent returns, we document a migration-mediated channel that attenuates poverty-reduction effects in megacities. The muted poverty-reduction effects of IDA in megacities, relative to secondary cities, align with urban systems perspectives on city size and structure (Imbert & Papp, 2020; Kotsadam & Tolonen, 2016; Lagakos et al., 2023; Rigon, 2022; Young, 2013). Urban-biased IDA can attract rural-to-urban migrants, especially during agricultural distress, creating service pressures that partly offset local welfare gains. This dynamic qualifies static evaluations of program impacts and implies that assessments should incorporate migration and cost-of-living channels, especially where urban-biased projects raise land values or reshape local labor markets.

6.3. Policy implications

We propose five implications for donor agencies and recipient governments. The evidence does not endorse or reject an urban-biased strategy outright; it supports context-sensitive adjustments that account for urban–rural linkages, city size, aid modality, and the challenges of rapid urbanization. The emphasis is on where assistance lands, how it interacts with labour markets and governance, and whether complementary rural and institutional policies are in place.

Leveraging secondary cities for equitable development. The stronger IDA impacts in mid-sized cities justify prioritizing these urban centres. Relative to megacities, secondary cities often feature more decentralized and responsive governance, creating room to pilot and scale inclusive interventions (Glaeser, 2022). Focusing on secondary cities can bridge rural–urban divides and reduce pressure on already burdened metropolitan areas, improving equity at the national level.

Enhancing rural welfare to mitigate migration pressures. Rural–urban migration is a proximate driver of urban deprivation, so rural upgrading is not ancillary but foundational. Strengthening food security, stabilizing agricultural risk and prices, and investing in rural infrastructure can ease migration push factors and protect urban welfare gains (Gollin et al., 2002). An integrated rural–urban approach yields a more balanced development trajectory.

Promoting institutional reforms to address inner-urban polarization. IDA's limited average reform effects point to structural barriers that perpetuate exclusion. Effective poverty reduction requires changes to the institutional environment alongside financial inputs (Acemoglu & Robinson, 2012; Agyabeng, 2024). Strengthening local governance, expanding participatory decision-making, and aligning donor strategies with long-term domestic priorities can build institutional resilience and raise the returns to urban investment.

Integrating social and economic aid to support multidimensional sustainability. Treating social and economic infrastructure as separate silos overlooks the multidimensional nature of deprivation. A capability- and social-exclusion-informed package that combines education and health with transport, energy, and serviced land can amplify impacts and enhance durability (Alkire & Foster, 2011; Chan & Wong, 2020). This approach aligns with integrated urban development principles and calls for tighter coordination across agencies and between donors and recipients (UN-Habitat, 2016).

Engaging in inclusive dialogue to mitigate political challenges. Urban development must navigate entrenched interests and elite coalitions that can blunt reform (Andres, 2013). Inclusive stakeholder platforms that bring in marginalized groups and urban elites improve

policy legitimacy, uptake, and accountability. Such participatory governance complements external assistance and helps convert finance effects into sustained reductions in institutional exclusion.

6.4. Comparative insights and broader implications for SSA and the Global South

Although centred on Nigeria, the mechanisms we document travel to rapidly urbanizing contexts across Sub-Saharan Africa and the broader Global South. South Africa's integration of poverty alleviation into urban green infrastructure design illustrates how context-specific interventions can promote economic participation while addressing multiple dimensions of deprivation (Shackleton et al., 2024). The Poverty-Free Urbanism framework likewise stresses that durable progress requires attention to intersecting deficits in income, services, and social inclusion (Elshater & Abusaada, 2025).

Comparable migration pressures strain urban systems in Kenya and Ghana, where fast growth has outpaced infrastructure and services, deepening poverty and inequality (Abass & Kucukmehmetoglu, 2021; Parks, 2014). Our results imply that international development assistance works best alongside rural upgrading that reduces push factors, yielding a dual approach that balances rural welfare with targeted urban programs (Imbert & Papp, 2020; Lagakos et al., 2023).

Limits to institutional reform observed in Nigeria echo a broader challenge in aid-recipient settings. Donor strategies often emphasize near-term financial inclusion while longer-horizon institutional change remains fragmented, especially where weak bureaucratic capacity and misaligned incentives amplify principal–agent frictions (Akobeng, 2020; Qian, 2015). Where policy coordination and implementation are stronger, aid can be more catalytic, accelerating improvements in governance and development, as historical experiences suggest.

6.5. Research limitations

Two limitations follow from data constraints and scope. First, although the spatiotemporal approach isolates the causal effect of IDA on urban poverty, it does not capture dynamic feedbacks. Future work should incorporate dynamic modelling to examine interactions between project siting and population movements beyond rural to urban migration. Second, while we document heterogeneous impacts across aid modalities such as emerging and traditional IDA, we do not resolve donor coordination. Comparative case studies and portfolio analyses can clarify how coordination and sequencing enhance IDA effectiveness.

CRediT authorship contribution statement

Liyunpeng Zhang: Writing – original draft, Project administration, Formal analysis, Data curation. **Chaoshuai Zhang:** Writing – review & editing, Project administration. **Yuhang Zhuang:** Writing – review & editing, Validation, Conceptualization. **Tianyang Liu:** Software, Methodology. **Yingxue Zhou:** Software, Data curation.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.cities.2025.106661.

Data availability

Data will be made available on request.

References

Abass, A. S., & Kucukmehmetoglu, M. (2021). Transforming slums in Ghana: The urban regeneration approach. *Cities, 116*, Article 103284.
Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. New York: Crown Publishers.
Agyabeng, A. N. (2024). Does governance matter to underprivileged communities? Qualitative evidence from the Ghanaian slums. *Cities, 149*, Article 105000.
Ahmed, A., Asabere, S. B., Adams, E. A., & Abubakari, Z. (2023). Patterns and determinants of multidimensional poverty in secondary cities: Implications for urban sustainability in African cities. *Habitat International, 134*, Article 102775.
Akobeng, E. (2020). Harnessing foreign aid for the poor: role of institutional democracy. *Journal of Economic Studies, 47*(7), 1689–1710.
Alexander, A. (2012). "A disciplining method for holding standards down": How the World Bank planned Africa's slums. *Review of African Political Economy, 39*(134), 590–613.
Alimo, P. K., Sarfo, I., Yeboah, E., Agen-Davis, L., Wang, L., & Ma, W. (2024). How about finding alternative livelihood sources to relocate in-lane street hawkers from the urban road network? *Habitat International, 143*, Article 102986.
Alkire, S., & Foster, J. E. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics, 95*(7), 476–487.
Alvi, E., & Senbeta, A. (2012). Does foreign aid reduce poverty? *Journal of International Development, 24*(8), 955–976.
Amis, P. (2001). Rethinking UK aid in urban India: reflections on an impact assessment study of slum improvement projects. *Environment and Urbanization, 13*(1), 101–113.
Andres, L. (2013). Differential Spaces, Power Hierarchy and Collaborative Planning: A Critique of the Role of Temporary Uses in Shaping and Making Places. *Urban Studies, 50*(4), 759–775.
Angrist, J. D., & Pischke, J.-S. (2009). *Mostly harmless econometrics: An empiricist's companion*. Princeton: Princeton University Press.
Arndt, C., Jones, S., & Tarp, F. (2015). Assessing Foreign Aid's Long-Run Contribution to Growth and Development. *World Development, 69*, 6–18.
Balboni, C., Bandiera, O., Burgess, R., Ghatak, M., & Heil, A. (2022). Why do people stay poor? *The Quarterly Journal of Economics, 137*(2), 785–844.
Baldwin, K., & Winters, M. S. (2020). How Do Different Forms of Foreign Aid Affect Government Legitimacy? Evidence from an Informational Experiment in Uganda. *Studies in Comparative International Development, 55*(2), 160–183.
Banks, N., Roy, M., & Hulme, D. (2011). Neglecting the urban poor in Bangladesh: research, policy and action in the context of climate change. *Environment and Urbanization, 23*(2), 487–502.
Barrett, C. B., Little, P., & Carter, M. (2013). *Understanding and reducing persistent poverty in Africa*. London: Routledge.
Begum, S., & Sen, B. (2005). Pulling rickshaws in the city of Dhaka: a way out of poverty? *Environment and Urbanization, 17*(2), 11–25.
Bird, K., & Shepherd, A. (2003). Livelihoods and Chronic Poverty in Semi-Arid Zimbabwe. *World Development, 31*(3), 591–610.
Bourguignon, F., Ferreira, F. H. G., & Menéndez, M. (2007). Inequality of Opportunity in Brazil. *Review of Income and Wealth, 53*(4), 585–618.
Bourguignon, F., & Gunning, J. W. (2020). Foreign aid and governance. *The Handbook of Economic Development and Institutions*, 308–356.
Brautigam, D. (2009). *The Dragon's Gift: The Real Story of China in Africa*. Oxford: Oxford University Press.
Brautigam, D. A., & Knack, S. (2004). Foreign aid, institutions, and governance in sub-Saharan Africa. *Economic Development and Cultural Change, 52*(2), 255–285.
Brazys, S., & Kotsadam, A. (2020). Sunshine or Curse? Foreign Direct Investment, the OECD Anti-Bribery Convention, and Individual Corruption Experiences in Africa. *International Studies Quarterly, 64*(4), 956–967.
Briggs, R. C. (2017). Does Foreign Aid Target the Poorest? *International Organization, 71*(1), 187–206.
Briggs, R. C. (2018a). Leaving No One Behind? A New Test of Subnational Aid Targeting. *Journal of International Development, 30*(5), 904–910.

Briggs, R. C. (2018b). Poor targeting: A gridded spatial analysis of the degree to which aid reaches the poor in Africa. *World Development, 103*, 133–148.
Briggs, R. C. (2021). Why does aid not target the poorest? *International Studies Quarterly, 65*(3), 739–752.
Brunner, E., Ross, S. L., & Washington, E. (2011). Economics and policy preferences: causal evidence of the impact of economic conditions on support for redistribution and other ballot proposals. *Review of Economics and Statistics, 93*(3), 888–906.
Brunt, L., & García-Peñalosa, C. (2022). Urbanisation and the onset of modern economic growth. *The Economic Journal, 132*(642), 512–545.
Burnside, C., & Dollar, D. (2000). Aid, Policies, and Growth. *American Economic Review, 90*(4), 847–868.
Busco, C., González, F., Carmona, P., Cancino, A., & Alonso, B. (2023). Social exclusion and the public bus system in Santiago. *Chile. Cities, 132*, Article 104092.
Carnegie, A., & Marinov, N. (2017). Foreign aid, human rights, and democracy promotion: Evidence from a natural experiment. *American Journal of Political Science, 61*(3), 671–683.
Carolini, G. Y. (2021). Aid's urban footprint and its implications for local inequality and governance. *Environment and Planning A: Economy and Space, 53*(2), 389–409.
Chan, S. M., & Wong, H. (2020). Impact of Income, Deprivation and Social Exclusion on Subjective Poverty: A Structural Equation Model of Multidimensional Poverty in Hong Kong. *Social Indicators Research, 152*(3), 971–990.
Chauvet, L., & Ehrhart, H. (2018). Aid and Growth Evidence from Firm-level Data. *Journal of Development Economics, 135*, 461–477.
Cirolia, L. R., & Harber, J. (2022). Urban statecraft: The governance of transport infrastructures in African cities. *Urban Studies, 59*(12), 2431–2450.
Crevoisier, O., & Rime, D. (2021). Anchoring Urban Development: Globalisation, Attractiveness and Complexity. *Urban Studies, 58*(1), 36–52.
Cruzatti, J., Dreher, A., & Matzat, J. (2023). Chinese aid and health at the country and local level. *World Development, 167*, Article 106214.
Cuesta, J., Devereux, S., Abdulai, A.-G., Gupte, J., Ragno, L. P., Roelen, K., … Spadafora, T. (2021). Urban social assistance: Evidence, challenges and the way forward, with application to Ghana. *Development and Policy Review, 39*(3), 360–380.
Deaton, A. (2013). *The Great Escape: Health, Wealth, and the Origins of Inequality*. Princeton: Princeton University Press.
Dietrich, S., Mahmud, M., & Winters, M. S. (2018). Foreign aid, foreign policy, and domestic government legitimacy: Experimental evidence from Bangladesh. *The Journal of Politics, 80*(1), 133–148.
Djankov, S., Montalvo, J. G., & Reynal-Querol, M. (2008). The curse of aid. *Journal of Economic Growth, 13*, 169–194.
Dorosh, P., & Thurlow, J. (2014). Can Cities or Towns Drive African Development? Economywide Analysis for Ethiopia and Uganda. *World Development, 63*, 113–123.
Dreher, A., Fuchs, A., Parks, B., Strange, A., & Tierney, M. J. (2021). Aid, China, and growth: Evidence from a new global development finance dataset. *American Economic Journal: Economic Policy, 13*(2), 135–174.
Early, B. R., & Jadoon, A. (2019). Using the carrot as the stick: US foreign aid and the effectiveness of sanctions threats. *Foreign Policy Analysis, 15*(3), 350–369.
Easterly, W. (2006). *The White Man's Burden: Why the West's Efforts to Aid the Rest have Done So Much Ill and So Little Good*. New York: Penguin Books.
Elshater, A., & Abusaada, H. (2025). Poverty-free urbanism: six qualitative normative factors and 36 procedures for measuring urban poverty from a deprivation perspective. *Open House International, 50*(2), 392–414.
Enamorado, T., López-Calva, L. F., Rodríguez-Castelán, C., & Winkler, H. (2016). Income inequality and violent crime: Evidence from Mexico's drug war. *Journal of Development Economics, 120*, 128–143.
Fernández-Olit, B., Paredes-Gázquez, J. D., & de la Cuesta-González, M. (2018). Are Social and Financial Exclusion Two Sides of the Same Coin? An Analysis of the Financial Integration of Vulnerable People. *Social Indicators Research, 135*(1), 245–268.
Fox, S. (2014). The political economy of slums: Theory and evidence from Sub-Saharan Africa. *World Development, 54*, 191–203.
Franklin, S. (2020). Enabled to work: The impact of government housing on slum dwellers in South Africa. *Journal of Urban Economics, 118*, Article 103265.
Gallie, D., Paugam, S., & Jacobs, S. (2003). Unemployment, poverty and social isolation: Is there a vicious circle of social exclusion? *European Societies, 5*(1), 1–32.
Glaeser, E. L. (2012). *Triumph of the city: How our greatest invention makes us richer, smarter, greener, healthier, and happier*. New York: Penguin Books.
Glaeser, E. L. (2022). Urban resilience. *Urban Studies, 59*(1), 3–35.
Gollin, D., Parente, S. L., & Rogerson, R. (2002). The Role of Agriculture in Development. *The American Economic Review, 92*(2), 160–164.
Grant, U. (2010). *Spatial inequality and urban poverty traps (Working Paper 326)*. Overseas Development Institute.
Grant, U. (2014). Economic growth, urban poverty and city governance. In *Urban Governance Voice and Poverty in the Developing World* (pp. 37–52). London: Routledge.
Hasan, A., Levy, H., & Ogunbunmi, K. (2005). *A tale of three cities: Karachi, Kingston and Lagos. In Focus*, Brazil: United Nations Development Programme.
Henderson, J. V. (1983). Industrial bases and city sizes. *The American Economic Review, 73*(2), 164–168.
Hernandez, D. (2017). Are "New" Donors Challenging World Bank Conditionality? *World Development, 96*, 529–549.
Huang, Z., & Cao, X. (2023). The lure of technocracy? Chinese aid and local preferences for development leadership in Africa. *Foreign Policy Analysis, 19*(3).
Ibrahim, M. M., Chen, Y., Pereira, A., Musa, T. H., Bathia, D., & Handa, S. (2023). The psychology of poverty: A replication based on Zimbabwe's harmonised social cash transfer programme. *Journal of African Economies, 33*(3), 225–239.
Imbert, C., & Papp, J. (2020). Costs and benefits of rural-urban migration: Evidence from India. *Journal of Development Economics, 146*, Article 102473.
Ingelaere, B., Christiaensen, L., De Weerdt, J., & Kanbur, R. (2018). Why secondary towns can be important for poverty reduction–A migrant perspective. *World Development, 105*, 273–282.
Isaksson, A. S. (2020). Chinese Aid and Local Ethnic Identification. *International Organization, 74*(4), 833–852.
Isaksson, A.-S., & Durevall, D. (2022). Aid and institutions: Local effects of World Bank aid on perceived institutional quality in Africa. *The Review of International Organizations*, 1–29.
Isaksson, A.-S., & Kotsadam, A. (2018). Chinese aid and local corruption. *Journal of Public Economics, 159*, 146–159.
Janz, T., Augsburg, B., Gassmann, F., & Nimeh, Z. (2023). Leaving no one behind: Urban poverty traps in Sub-Saharan Africa. *World Development, 172*, Article 106388.
Jones, B. G. (2012). 'Bankable Slums': the global politics of slum upgrading. *Third World Quarterly, 33*(5), 769–789.
Jones, S., & Tarp, F. (2016). Does foreign aid harm political institutions? *Journal of Development Economics, 118*, 266–281.
Kaya, O., Kaya, I., & Gunter, L. (2013). Foreign Aid and the Quest for Poverty Reduction: Is Aid to Agriculture Effective? *Journal of Agricultural Economics, 64*(3), 583–596.
Knack, S. (2004). Does foreign aid promote democracy? *International Studies Quarterly, 48*(1), 251–266.
Knutsen, C. H., Kotsadam, A., Olsen, E. H., & Wig, T. (2017). Mining and Local Corruption in Africa. *American Journal of Political Science, 61*(2), 320–334.
Knutsen, T., & Kotsadam, A. (2020). The political economy of aid allocation: Aid and incumbency at the local level in Sub Saharan Africa. *World Development, 127*, Article 104729.
Konte, M., & Vincent, R. C. (2021). Mining and quality of public services: The role of local governance and decentralization. *World Development, 140*, Article 105350.
Kotsadam, A., Østby, G., Rustad, S. A., Tollefsen, A. F., & Urdal, H. (2018). Development aid and infant mortality. *Micro-level evidence from Nigeria. World Development, 105*, 59–69.
Kotsadam, A., & Tolonen, A. (2016). African Mining, Gender, and Local Employment. *World Development, 83*, 325–339.
Lagakos, D., Mobarak, A. M., & Waugh, M. E. (2023). The welfare effects of encouraging rural–urban migration. *Econometrica, 91*(3), 803–837.
Lipton, M. (1977). *Why poor people stay poor. A study of urban bias in world development*. Canberra: Australian National University Press.
Liu, Z. (2005). Institution and inequality: the hukou system in China. *Journal of Comparative Economics, 33*(1), 133–157.
Lucci, P., Bhatkal, T., & Khan, A. (2018). Are we underestimating urban poverty? *World Development, 103*, 297–310.
Ludwig, J., Duncan, G. J., & Hirschfield, P. J. (2001). Urban poverty and juvenile crime: Evidence from a randomized housing-mobility experiment. *Quarterly Journal of Economics, 116*(2), 655–679.
Maclay, C., & Marsden, H. (2013). Responding to the Psychological Context of Extreme Poverty: Using Cash Transfers to Stimulate Productive Investment Decisions in Bangladesh. *Social Indicators Research, 113*(2), 691–710.
Mahembe, E., & Odhiambo, N. M. (2021). Does foreign aid reduce poverty? A dynamic panel data analysis for sub-Saharan African countries. *Journal of Economic Inequality, 19*(4), 875–893.
Majumdar, S., Mani, A., & Mukand, S. W. (2004). Politics, information and the urban bias. *Journal of Development Economics, 75*(1), 137–165.
Marrero, G. A., & Rodríguez, J. G. (2013). Inequality of opportunity and growth. *Journal of Development Economics, 104*, 107–122.
Mathieson, J., Popay, J., Enoch, E., Escorel, S., Hernandez, M., Johnston, H., & Rispel, L. (2008). *Social Exclusion Meaning, measurement and experience and links to health inequalities: A review of literature. WHO Social Exclusion Knowledge Network Background Paper, 1, 91*.
Meerow, S., & Newell, J. P. (2019). Urban resilience for whom, what, when, where, and why? *Urban Geography, 40*(3), 309–329.
Michaels, G., Rauch, F., & Redding, S. J. (2012). Urbanization and Structural Transformation. *Quarterly Journal of Economics, 127*(2), 535–586.
Mitlin, D. (2015). Building towards a future in which urban sanitation leaves no one behind. In *Environment and Urbanisation Brief 32*. London: IIED.
Mitlin, D., & Satterthwaite, D. (2012). *Urban poverty in the global south: scale and nature*. London: Routledge.
Murie, A., & Musterd, S. (2004). Social Exclusion and Opportunity Structures in European Cities and Neighbourhoods. *Urban Studies, 41*(8), 1441–1459.
Naím, M. (2007). Rogue aid. *Foreign Policy, 159*, 96.
Okada, K., & Samreth, S. (2012). The effect of foreign aid on corruption: A quantile regression approach. *Economics Letters, 115*(2), 240–243.
Parks, M. J. (2014). Urban poverty traps: Neighbourhoods and violent victimisation and offending in Nairobi, Kenya. *Urban Studies, 51*(9), 1812–1832.
Percy-Smith, J. (2000). *Policy responses to social exclusion: Towards inclusion*. New York: McGraw-Hill.
Poku-Boansi, M., Amoako, C., Owusu-Ansah, J. K., & Cobbinah, P. B. (2020). The geography of urban poverty in Kumasi, Ghana. *Habitat International, 103*, Article 102220.
Pomati, M., & Nandy, S. (2020). Measuring Multidimensional Poverty According to National Definitions: Operationalising Target 1.2 of the Sustainable Development Goals. *Social Indicators Research, 148*(1), 105–126.
Portela, C., & Mora-Sanguinetti, J. S. (2023). Sanctions effectiveness, development and regime type. Are aid suspensions and economic sanctions alike? *World Development, 172*, Article 106370.
Qian, N. (2015). Making Progress on Foreign Aid. *Annual Review of Economics, 7*(1), 277–308.

Rajan, R., & Subramanian, A. (2007). Does aid affect governance. *American Economic Review, 97*(2), 322–327.
Ravallion, M., Chen, S., & Sangraula, P. (2007). New evidence on the urbanization of global poverty. *Population and Development Review, 33*(4), 667–701.
Rigon, A. (2022). Diversity, justice and slum upgrading: An intersectional approach to urban development. *Habitat International, 130*.
Roemer, J. E. (1998). *Equality of Opportunity*. Cambridge, MA: Harvard University Press.
Rossi-Hansberg, E., & Wright, M. L. J. (2007). Urban Structure and Growth. *The Review of Economic Studies, 74*(2), 597–624.
Sabry, S. (2010). How poverty is underestimated in Greater Cairo. *Egypt. Environment and Urbanization, 22*(2), 523–541.
Schilbach, F., Schofield, H., & Mullainathan, S. (2016). The psychological lives of the poor. *American Economic Review, 106*(5), 435–440.
Shackleton, C. M., Brom, P., Gwedla, N., Matamanda, A. R., Sardeshpande, M., & Kumar-Nair, S. (2024). Embedding opportunities for poverty alleviation in urban green infrastructure design and management using South Africa as a case example. *Cities, 155*, Article 105442.
Sridhar, K. S. (2015). Is urban poverty more challenging than rural poverty? A review. *Environment and Urbanization ASIA, 6*(2), 95–108.
Swedlund, H. J. (2017). Is China eroding the bargaining power of traditional donors in Africa? *International Affairs, 93*(2), 389–408.
Tagnan, J. N., Amponsah, O., Takyi, S. A., Azunre, G. A., & Braimah, I. (2022). A view of urban sprawl through the lens of family nuclearisation. *Habitat International, 123*, Article 102555.
UN-Habitat. (2003). *The challenge of slums: global report on human settlements 2003*. London: Earthscan.
UN-Habitat. (2016). Sustainable cities and communities: SDG Goal 11 monitoring framework. Retrieved August 10, 2024, from https://unhabitat.org/sdg-goal-11-monitoring-framework/.
UN-Habitat. (2024). Proportion of urban population living in slums, informal settlements, or inadequate housing (percent). Retrieved February 4, 2025, from https://guo-un-habitat.maps.arcgis.com/sharing/rest/content/items/abcc290e8aa940f2a4deade7a338c6d6/data.
United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. Available at: https://www.refworld.org/docid/57b6e3e44.html. (Accessed 16 August 2024).
Uribe, J. M. (2025). Investment in intangible assets and economic complexity. *Research Policy, 54*(1), Article 105133.
Van Gent, W., Hochstenbach, C., & Uitermark, J. (2018). Exclusion as urban policy: The Dutch "Act on Extraordinary Measures for Urban Problems.". *Urban Studies, 55*(11), 2337–2353.
World Bank. (2009). *World development report: Reshaping economic geography*. Washington, DC: The World Bank.
World Bank. (2022). *Nigeria poverty assessment 2022: A better future for all Nigerians*. https://documents1.worldbank.org/curated/en/099730003152232753/pdf/P1763 0107476630fa09c990da780535511c.pdf.
World Bank. (2023). Urban population (% of total population) – Nigeria. Retrieved February 4, 2025, from https://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?end=2023&locations=NG&skipRedirection=true&start=1960&view=chart.
Xu, Z. P., & Zhang, Y. (2020). Can Chinese aid win the hearts and minds of Africa's local population? *Economic Modelling, 90*, 322–330.
Yoo, S. H., & Woo, B. (2023). Types of foreign finance and slum upgrading: How do official development assistance, foreign direct investment, and foreign remittances affect slum upgrading across regime types in developing countries? *Habitat International, 139*, Article 102898.
Young, A. (2013). Inequality, the Urban-Rural Gap, and Migration. *Quarterly Journal of Economics, 128*(4), 1727–1785.
Zeitz, A. O. (2020). Emulate or differentiate? *The Review of International Organizations, 16*(2), 265–292.
Zhang, L., Li, X., Zhuang, Y., & Li, N. (2022). World Bank aid and local multidimensional poverty in Sub-Saharan Africa. *Economic Modelling, 117*, Article 106065.
Zhang, L., Zhuang, Y., Ding, Y., & Liu, Z. (2023). Infrastructure and poverty reduction: Assessing the dynamic impact of Chinese infrastructure investment in sub-Saharan Africa. *Journal of Asian Economics, 84*, Article 101573.
Zhuang, Y., Zhang, L., Darko, M., & Liu, T. (2024). Unfulfilled promises: Reconsidering World Bank assistance projects as drivers of inclusive development in sub-Saharan Africa. *Applied Economics Letters*, 1–5.