EXECUTIVE SUMMARY

Highlights

► Surabaya’s Kampung Improvement Program (KIP) innovated and sustained in situ upgrading policies in poor, traditional urban neighborhoods called kampung.

► KIP became a model for in situ slum upgrading efforts both nationwide and internationally. These community-managed efforts brought basic infrastructure and services to the kampung and provided affordable housing and livelihood opportunities for the poor.

► KIP and later settlement upgrading programs were made possible by Surabaya’s pro-poor leadership, which supported the long-term pursuit of urban upgrading; the city government’s support for and collaboration with local universities; and the fact that successful participatory upgrading earned citizens’ trust.

► Since the decentralization of administration, planning, and governance in 1999, kampung-focused, community-led, incremental shelter programs have been threatened by resource constraints, shifting housing policy priorities, increasing land values, and overly technocratic planning. To make its pro-poor efforts truly inclusive and equitable, Surabaya must overcome these challenges and end the exclusionary treatment of poor migrants.
Indonesian cities have experienced rapid urbanization and economic growth, which make it challenging to keep up with infrastructure and housing needs. The city of Surabaya has responded to these challenges by pursuing interventions that promote affordable shelter. Its pioneering innovation, KIP, led to the adoption of in situ participatory slum upgrading as a key affordable housing intervention throughout the global South. This paper examines the transformative impacts of Surabaya’s shelter policies and focuses on upgrading kampung, which are traditional neighborhoods with mostly low-income residents.

Indonesia’s shelter policies represent three broad phases. During the first phase, from independence through the Old Order period (1945–66), cities in Indonesia, including Surabaya, struggled to respond to rapid urbanization and the proliferation of informal settlements. The second phase, President Suharto’s New Order (1967–98), saw the emergence of KIPs and is characterized broadly by centralized (national-level) governance of both housing policies and oversight of settlement upgrading programs. The third and current phase, the Reform period, began in 1999 when Indonesia’s housing policies and upgrading programs were decentralized. In Surabaya, we regard this phase as having two parts: first, the Comprehensive Kampung Improvement Project (CKIP) phase (1999–2008), when the city’s first grassroots squatter movements emerged; and second, the current rusunawa (low-cost rental apartment blocks) phase, which began during the mid-2000s. The persistence of informal settlements and obvious lack of sufficient formal housing options has necessitated the introduction of new housing policies by the government, which is now trying to produce more formal housing.

Johan Silas, a professor of architecture at Surabaya’s Sepuluh Nopember Institute of Technology (Institut Teknologi Sepuluh Nopember; ITS), led the team that created Surabaya’s KIP. During Suharto’s New Order, Silas and his team pioneered programs for in situ upgrading of poor urban settlements that featured low-cost basic infrastructure and services, efficient implementation, and community participation. These programs benefited from participatory planning and community-managed microfinance—carried forward by innovative postdecentralization efforts such as CKIP—to gradually broaden the focus from making physical improvements to pursuing social and economic development. Many of the ongoing kampung-centered initiatives are premised on the KIP community-based approach. Due to its success, Surabaya has received several national and international awards, and the KIP model has been implemented across Indonesia and has informed slum upgrading efforts worldwide.

KIP benefited from political and intellectual leadership and financial support. A decision during the 1960s by the mayors of Surabaya, Jakarta, and Makassar to improve their cities’ infrastructure and services opened up the possibility of reform and led the mayor of Surabaya to put Silas in charge of that city’s spatial planning. The adoption of Silas’s then unconventional proposal to upgrade poor settlements (rather than redevelop them) marked the inception of KIP and eventually led to successful citywide upgrading that demonstrated the importance of community involvement. Funding from international donors (especially the World Bank) helped sustain KIP improvements for three decades, allowing KIP to be scaled up and mainstreamed; the program has also been incorporated into Indonesia’s five-year development plans.

Consistent collaboration between the city and the ITS, as well as intellectual guidance and policy support from the university, enabled Surabaya to take a pro-poor approach to informal settlement upgrading, which strengthened the communitarian ethos of the city’s kampung. Pro-poor development initiatives and governance reforms initiated by the current mayor have also contributed to and benefit from the symbiotic relationship between the city and the university.

This unique city-university relationship does not come without its challenges, however. The mayor’s strong preference for building rusunawa—public rental housing flats—for instance, rather than upgrading kampung as the ITS traditionally proposed, could diminish the city’s legacy of championing inclusive shelter policies. The city’s commitment to pro-poor shelter faces other threats as well, including rising land values and aggressive real estate development, inadequate public transit infrastructure, constraints on resources and capacity that stem from decentralization, an exclusionary bias towards migrants, and a reluctance to engage with civil society groups. Likewise, a nationally mandated, inclusionary housing policy has not yet been implemented because of conflicting policy priorities. Although much progress has been achieved, insufficient and inadequate housing will remain a problem until these challenges are overcome.
Despite its earlier innovative approaches to upgrading informal settlements, Surabaya could now learn from other cities that have produced more inclusive and sustainable responses to similar or even more complex challenges. It will take unconventional thinking to provide long-term formal housing options to all residents of Surabaya. This will include forging purposeful coalitions with new partners, such as practitioners and researchers across and beyond Indonesia; local and nonlocal civil society and nongovernmental organizations; and neighboring jurisdictions. Local public officials will need to boldly yet patiently support innovation and recognize that external support can help catalyze local change. Similarly, academics and students—actors who can be influential in public policy decision-making spheres in Indonesia—should challenge the status quo, advance critical ideas, and engage directly with poor communities and civil society groups, which in turn should actively advocate for the most marginalized and work closely with local government and universities.

About This Paper

This case study is part of the larger World Resources Report (WRR) *Towards a More Equal City*, which considers sustainability to be composed of three interrelated issues: equity, the economy, and the environment. The WRR uses equitable access to urban services as an entry point for examining whether meeting the needs of the under-served can improve economic productivity and environmental sustainability for the city. The case studies examine transformative urban change defined as that which affects multiple sectors and institutional practices, continues across more than one political administration, and is sustained for more than 10 years, resulting in more equitable access to core services and a more equal city. The goal of the WRR is to inform urban change agents—government officials, policymakers, civil society, and the private sector—about how transformative change happens (and does not happen), the various forms it takes, and how they can support transformation towards more equal cities.


Figure 1 | Surabaya at a glance

<table>
<thead>
<tr>
<th>Type of jurisdiction</th>
<th>City</th>
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<tbody>
<tr>
<td>Population in:</td>
<td></td>
</tr>
<tr>
<td>1950</td>
<td>714,898</td>
</tr>
<tr>
<td>2000</td>
<td>2,599,796</td>
</tr>
<tr>
<td>2016</td>
<td>2,853,661</td>
</tr>
<tr>
<td>Total land area (in km², 2015)</td>
<td>327</td>
</tr>
<tr>
<td>GDP per capita, Surabaya (2014)</td>
<td>$10,857</td>
</tr>
<tr>
<td>Human Development Index, Surabaya (2017)</td>
<td>0.68</td>
</tr>
<tr>
<td>Human Development Index, Indonesia (2014)</td>
<td>0.69</td>
</tr>
<tr>
<td>Gini coefficient, Surabaya (2014)</td>
<td>0.39</td>
</tr>
<tr>
<td>Population living below the poverty line (%), 2014</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Notes: All prices are reported in US$ using market exchange rates for the source’s corresponding year. Surabaya does not have citywide sewerage coverage; most households use septic tanks that are emptied by private service providers.


1. INTRODUCTION

This case study examines how the sustained implementation of innovative shelter policies in Surabaya, Indonesia, enabled wider transformative planning and governance. We believe this transformative change materialized as a result of progressive pro-poor leadership, consistent low-cost upgrading of kampung (traditional neighborhoods with mostly low-income residents), extensive collaboration between the city and local universities, citizens’ trust in local government, and efforts to preserve kampung as sites of both livelihood opportunities and affordable housing.

Surabaya’s flagship urban upgrading innovation, the Kampung Improvement Program (KIP), became the model for slum upgrading internationally. Box 2 describes a typical kampung environment that KIP targeted. Surabaya’s dedication to improving housing for the urban poor allowed it to achieve unmatched success with in situ participatory upgrading, which cities across the developing world have attempted to implement. In a recent report on adequate, secure, and affordable housing in the global South, the first of three recommended options is in situ participatory upgrading of informal settlements. That Indonesia lacked a focused, national-level slum upgrading plan or program until 2016 makes Surabaya’s experience with urban upgrading particularly instructive for appreciating the transformative potential of local planning action.

Surabaya is the provincial capital of East Java and Indonesia’s second-largest city (see Figure 1). The city covers an area of 327 square kilometers (km²), and since 2000 its population has stabilized at just under 3 million. Its larger metropolitan region, Gerbangkertosusila, boasts a population of about 9 million. After independence in 1945, Surabaya developed a significant industrial base, which accelerated in-migration and
urbanization, but since the 1980s the dominant employment sector has been services (including trade, hotels, restaurants), which contributes 44.5 percent of the city’s gross domestic product (GDP); the manufacturing sector, in comparison, contributes 22 percent.12 Today scores of universities and polytechnics in the city draw students from near and far. Figure 1 provides other relevant development indicators for Surabaya.

This case study is part of the larger World Resources Report (WRR) *Towards a More Equal City*, which focuses on equitable access to core services throughout the global South. The WRR is a series of working papers on housing, energy, the informal economy, urban expansion, water, sanitation, and transportation that analyze sectors and themes across struggling and emerging cities in the global South.13 The WRR also features a series of city-level case studies on urban transformation, of which this case study is a part.

The WRR uses the term *transformative* to define urban change that effectively addresses a seminal problem that negatively affects many people’s lives.14 Experience suggests that when a city resolves a seminal problem, it has the potential to generate a broader, more virtuous cycle of transformation. Transformative change involves multiple sectors and institutional practices, continues across more than one political administration, and is sustained for more than 10 years. Each of the WRR city-level case studies examines how approaches to addressing seminal problems have (or have not) resulted in broader citywide transformation and explores how transformative urban change occurs, under what conditions it regresses or stalls, and whether it gets back on track. It is important to note that every case has progressive and regressive elements, and every city experiences difficulties, conflicts, setbacks, and false starts. This case study explores these questions with respect to affordable housing in Surabaya.

Surabaya’s experience suggests that rapid urbanization tends to also increase urban informality,15 of which squatter settlements and street vendors are commonly recognized manifestations in cities of the global South. But much less understood is how other contemporary spatial transformations that often violate development regulations and planning norms—peri-urbanization, illicit conversion of agricultural lands, mega-developments, and new towns and gated communities, for instance—also make informality a dominant mode of urbanization.16 Informality adversely affects low-income urban residents’ access to services (e.g., many informal settlements lack piped utility water and sewage services) but also offers them livelihood and shelter options, so it is important to both embrace existing informal settlements and limit their future growth.17

This case study explains how integrating kampung upgrading into Surabaya’s larger planning vision triggered equitable shelter outcomes and led to broader changes in its planning milieu.

After a brief note on methodology, this paper provides an overview of urbanization, development, planning, and governance trends in postcolonial Indonesia. Next, it looks at how, framed by the larger Indonesian context, shelter policy in Surabaya evolved through distinct phases and established urban upgrading as an effective pro-poor intervention with far-reaching transformative impacts. It explains how specific transformations were influenced by enabling and inhibiting factors and discusses current shortcomings and emergent challenges. Ongoing development trends, significant infrastructure shortcomings that disproportionately burden the poor, and the exclusionary treatment of poor migrants preclude true equity and inclusivity.18 Failing to address these issues will weaken Surabaya’s progressive reputation and squander the transformative gains of the past.

This paper also discusses planning approaches, arrangements, and actions needed to sustain and expand Surabaya’s pro-poor outcomes. To achieve transformative change through collaborative planning, local public officials should be bold
yet patient in supporting innovation; urban practitioners as well as academics and students should challenge the status quo, advance critical ideas, and engage directly with poor communities and civil society groups; local civil society should actively advocate for the marginalized and partner with local government and universities; and all stakeholders should realize that external support can help to catalyze local change.

Data and Methods Used

This study analyzes diverse data sources and uses multiple research methods. We reviewed secondary literature, including published scholarly articles and books; analyzed research and policy reports published by national, regional, local, multilateral, and private agencies; consulted descriptive statistics from quantitative data produced by different state agencies; reviewed news media reports, gathered field observations from transect walks, conversations, and photographs; and conducted in-depth, semistructured interviews with key informants. During July–August 2017, 20 interviews were conducted by the first author, building on his 12 years of continued research engagement with Surabaya. Respondents included various stakeholders, including the mayor, planning officials, planners and architects, academic researchers, representatives of civil society organizations (CSOs) and community-based organizations (CBOs), and informed citizens.

A Brief History of Indonesian Development, Governance, and Planning

Indonesia is currently registering the fastest rate of urbanization (4.1 percent) in Asia and the second-largest absolute expansion of urban land area; by 2025, 70 percent of Indonesians will be city dwellers. Even with this growth, Indonesia's GDP growth rate (4 percent) remains the weakest in Asia. At the same time, Indonesia has recorded some of the worst rates of income inequality in Southeast Asia, its tax collection relative to GDP is the second worst in Southeast Asia, and its spending and quality of basic urban infrastructure services are inadequate. It is against this backdrop that Surabaya's story of shelter upgrading comes into sharp relief.

When the Dutch made Surabaya a municipality in 1906, the city's population was under 175,000. After independence on August 17, 1945, Indonesian urbanization accelerated sharply due to rural-urban migration; as a consequence, poverty rose, slums proliferated, and shelter conditions worsened in Surabaya. Public housing was scarce, and affordable options other than self-help housing (where people build their homes themselves) and kampung were negligible. Public housing was scarce, and affordable options other than self-help housing (where people build their homes themselves) and kampung were negligible.22

Surabaya now has 31 districts and 154 subdistricts, each of which consists of multiple community units called rukun warga (RW), which are divided into neighborhood units called rukun tetangga (RT) that are composed of several households. Before decentralization in 1999—precipitated by the Asian financial crisis of 1997—subnational (provincial and city) unit heads were appointed to their positions; today, however, mayors, city councillors, governors, and provincial legislators are all elected by citizens. RT and RW heads (mostly volunteers) are almost always chosen by neighborhood residents (see Figure 2).

Decentralization boosted local autonomy by granting local governments significant decision-making power. Consequently, Surabaya has seen the emergence of a unique landscape of urban change agents (see Figure 8); although civil society is still the weakest sector, it has grown the most in terms of agency since decentralization started. Cities like Surabaya have leveraged their postdecentralization autonomy to more effectively reorganize governance and planning. Facilitated by nationally implemented decentralization reforms, Surabaya's current local government structure has been rearranged through multiple regulatory moves at the provincial and city levels (see Figure 3). The contemporaneous emergence of Surabaya's first grassroots CSOs representing squatters and advocating for their shelter rights exemplifies the expansion of autonomous nongovernmental organizations (NGOs) and CSOs across a range of sectors.

Officially, urban planning in Indonesia is divided into socioeconomic development planning and spatial planning, the bifurcation of which was established by the first national spatial planning law of 1992. Since decentralization, multiple laws have revised, refined, and expanded the role of spatial planning. Today every level of government, including city and regency—that is, a rural district within a province—as well as metropolitan region and island, needs to produce its own Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah; 5 years) and Long-Term Development Plan (Rencana Pembangunan Jangka Panjang; 20 years) as well as spatial plans (rencana tata ruang wilayah); lower-level plans need to be coordinated with higher-level ones, and spatial plans need to align with the development plans. The National Development Planning Agency (Badan Perencanaan Pembangunan Nasional) guides socioeconomic planning from the helm, and a new Ministry of Land and Spatial Planning leads spatial planning, the implementation of which is under the Ministry of Public Works.
Surabaya: The Legacy of Participatory Upgrading of Informal Settlements

Figure 2 | Organizational structure of government in Indonesia

Note: Levels and heads (in box brackets) of government/governance; Bahasa Indonesia terms in italics.
Source: Authors.
Figure 3 | Organizational structure of Surabaya City Government

Notes: ITS = Institut Teknologi Sepuluh Nopember (Sepuluh Nopember Institute of Technology); CSO = civil society organization. Bahasa Indonesia terms/names in parantheses. Source: Authors.
Shelter policy in Surabaya evolved through what some researchers have identified as three key phases (seen in Figure 7):27 the Old Order (1945–66), a period of relative urban population explosion, meager public housing supply, and ambivalence towards squatters; President Suharto’s New Order (1967–98), an era of aggressive, centralized kampung upgrading; and the Reform period (1999 onward), during which time housing programs were decentralized. In Surabaya’s case, we view the Reform era as comprising two phases: the Comprehensive Kampung Improvement Project (CKIP) phase, from 1999 to 2008; and the low-cost apartments (rusunawa) phase (from the mid-2000s, intensifying after 2009). The CKIP phase saw a rise in a strong grassroots movement for squatters’ shelter rights. Around the transition between the latest two phases, a new dynamic mayor of Surabaya, Tri Rismaharini (known as “Risma”), entered the scene as the country was experiencing larger shifts in national housing policy, the evolution of which is outlined in the next section.

The Kampung Improvement Program, 1969–98

In 1969, Jakarta and Surabaya initiated their own versions of KIP; with the former included as part of Indonesia’s first national Five-Year Development Plan (Rencana Pembangunan Lima Tahun; Repelita I).28 This spurred a series of KIPs, which proved to be among the most enduring and effective urban upgrading initiatives undertaken in the world.29 Johan Silas, a young architect at Surabaya’s Sepuluh Nopember Institute of Technology (Institut Teknologi Sepuluh Nopember; ITS), led a team that designed Surabaya’s original self-funded kampung upgrading initiative, known as W.R. Supratman KIP.30 The program’s approach was simple: provide low-cost, basic public infrastructure in poor kampung, with community support. For the first five years of the program, the W.R. Supratman KIP provided only concrete slabs and gutters. Over time, however, it evolved to include a standardized menu of eight interventions:

- Vehicular access roads
- Paved footpaths
- Stormwater drainage
- Garbage receptacles and collection
- Public standpipes for drinking water
- Communal washing areas and public toilets
- Neighborhood clinics (puskesmas)
- Primary schools

The W.R. Supratman KIP continued well into the 1990s and increasingly focused on community members’ participation. Communities contributed a third to more than half of the project costs31 and participated in project implementation as well as operation and maintenance. KIPs required hands-on participation in the physical upgrading of housing by kampung dwellers, exemplifying the “self-help” housing principle, as well as incremental housing improvements rather than the often unrealistic “all at once” upgrading plans.32 These programs were subsequently incorporated into several of Indonesia’s five-year plans (see Table 1). Importantly, KIPs did not fund the building of individual houses—they provided financing mechanisms for community-led improvement projects on housing and urban services like water and roads. KIPs were, in essence, the catalytic force behind the widespread self-improvement of dwellings, economic gains, and land tenure security for low-income urban dwellers.

Over the course of fifteen years (1976–91), 22.7 billion Indonesian rupiah (Rp) (US$23.63 million)33 of World Bank KIP funding for Surabaya directly improved the lives of 1.15 million kampung dwellers.34 No program has since matched the program’s scale, expediency, and affordability (the program’s cost of upgrading was $35–$75 per kampung resident).35 The success of the first KIPs inspired the World Bank to recommend in situ slum upgrading internationally. For more than a decade after 1974, the World Bank generously funded the scaling up of Indonesia’s KIPs through four urban development projects (Urban I–IV).36
By the early 1990s, KIPs had upgraded almost all legally recognized kampung (the inner-city and old-town kampung shown in Figure 4), which prevented their displacement, demolition, and loss of character; these remain the affordable housing options within the city. By the late 1990s, KIPs were credited with lowering Indonesia’s urban poverty by an estimated 70–75 percent. Qualitative evaluations of KIPs found that they were responsible for significant improvements in physical infrastructure, education and health, land and property values, and solid waste management. Moreover, the way in which KIPs encouraged community participation in Surabaya was impressive, particularly considering that nationwide the maintenance of infrastructure, resolution of land conflicts, participation in decision-making, and role of women and civil society remained weak. Sweat equity (self-help labor) was common, but in Surabaya people also contributed money, totaling more than a third of the program’s $40 million of total expenditure during 1976–90. Some studies have ascribed this level of participation to East Java’s strong communitarian values, and almost everyone we interviewed stressed this uniquely Surabayan culture. We argue that the inclusive approach was deliberate and the sustained expansion of Surabaya’s KIPs catalyzed local communities’ latent potential to participate.

Joint evaluations by the city and the ITS’s Laboratory of Housing and Human Settlements (Labortarium Perumahan dan Permukiman; LPP), a research unit founded by Silas, strove to continually make Surabaya’s KIPs more effective. By 1983, upgrading had resolved the unclear tenure status of many kampung households, even incorporating some squatters, and had provided kampung residents with a strong sense of security. Household access to drinking water rose from 15 percent to over 80 percent, and access to toilets improved from less than 20 percent to more than 65 percent; likewise, 70–90 percent of kampung households enjoyed regular garbage collection.

**Comprehensive Kampung Improvement Project, 1999–2008**

The fact that World Bank financing for KIPs was slated to end during the late 1990s prompted city officials, the LPP, World Bank representatives, and a private consultant to deliberate over the future of upgrading in Surabaya, eventually conceiving the new CKIP. Surabaya’s CKIP leveraged newfound local autonomy to make urban upgrading more comprehensive (by stressing economic, social, and environmental improvements in kampung) and more “pro-poor” (by letting residents steer project planning, implementation, and evaluation). Unlike its predecessors’ focus on physical interventions, CKIP’s primary objectives were community economic development and empowerment of the poorest kampung dwellers—70 percent of its budget was for CBO-operated microfinance (revolving funds). CKIP was envisioned as a wholly community-managed venture so as to reduce the stifling grip of influential, sometimes even venal, RT and RW officials. Granting community control over CKIP decision-making and implementation was a radically progressive move. It also influenced national initiatives like the National Community Empowerment Program (Program Nasional Pemberdayaan Masyarakat) and the Neighborhood Upgrading and Shelter Sector Project.

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**Note:** Repelita = Rencana Pembangunan Lima Tahun (Five-Year Development Plan); KIP = Kampung Improvement Program.

Source: Based on authors’ analysis of Silas (1987) and Tunas and Darmoyono (2014).
In each subdistrict, CKIP required the formation of three new kinds of CBOs—a Kampung Foundation, a business cooperative, and multiple self-help groups. The Kampung Foundation chose the interventions, apportioned funds, and coordinated the overall program; the business cooperative was only responsible for managing microfinance. Each subdistrict devised its own way to choose CBO officials. The program concept had envisaged local NGOs as intermediaries between the city and the communities, responsible for building the capacity of the nascent CBOs to transform cooperative-run microfinance into a self-propagating grassroots incubator. Yet CKIP proved largely ineffective. When it ended in 2008, CKIP had reached 72 subdistricts—less than half of eligible areas; by 2012, only 20 percent had well-functioning microfinance funds, 38 percent performed poorly, and the rest were defunct. However, CKIP did introduce real participatory planning; it even inspired the Neighborhood Upgrading and Shelter Sector Project and revived musrenbang, Indonesia’s version of local participatory budgeting.

Indonesia’s sudden and extensive government decentralization in 1999 revealed the major resource and capacity inadequacies of its cities, turning them into laboratories for externally funded development projects. CKIP was a rare exception in that it was locally funded and managed. Although it had more autonomy and control over the project, several factors impeded CKIP’s success, including limited local government funding (a common decentralization challenge), competition from better-funded programs like the World Bank–supported Urban Poverty Project (now the Neighborhood Community Empowerment Program), inadequate CBO training, and unsuccessful targeting of the poorest. The negligible role of NGOs, despite the program’s emphasis on the need to involve them, also constrained the success of CKIP. This prevented the CBOs from acquiring the skills and resources necessary to effectively organize and manage microfinance. So, heeding the LPP’s advice, in 2003 the city created a much smaller CKIP clone, the Social Rehabilitation for Slums (Rehabilitasi Sosial Daerah Kumuh) program, to target the poorest kampung residents. Although a modest program, it has grown both its funds and reach.

Both Surabaya and the LPP have held discriminatory views on urban citizenship, reflecting an improper understanding of the interrelated dynamics of migration, urbanization, and informality that has impeded genuinely inclusive planning. More so after decentralization, migrants and undocumented squatters came to be regarded as illegal and, therefore, were viewed as “undeserving” of assistance. In Indonesia, a person who moves to another city needs to obtain either a permanent resident identification card (kartu tanda penduduk; KTP) or a temporary one (kartu identitas penduduk musiman; KIPEM). But poor migrants often lack a KTP, which is required to obtain all other documentation. Furthermore, without identification documents, migrants cannot access city-subsidized services, including primary education, community health centers, health insurance, social security/insurance, and microcredit. Lack of access to credit is a debilitating deprivation that CKIP sought to remedy; nonetheless, CKIP business cooperatives rarely ever lend to migrants.

Citywide urban upgrading practically ended with CKIP. A local program called Kampung Unggulan (which roughly translates to “Excellent Kampung”) was started in 2010 to promote small enterprises, and it still runs in 10 subdistricts. However, in the city’s poorer areas, there remains a need for substantial upgrading. In terms of the quality of infrastructure and services, about 278 hectares (ha) of its residential areas are still considered slums; over 28 percent of households reside in less than 7 square meters (m²) of housing space; and over 55 percent lack proper access to water. As CKIP waned, the rusunawa public housing projects registered a marked uptick; today the national government’s rusunawa program has become Surabaya’s leading shelter policy. Critics consider this postdecentralization retraction of city funding for inclusive upgrading (in favor of the scarcer rusunawa option, which induces exclusion and avoidable competition) as a neoliberal shift that compromises Surabaya’s commitment to pro-poor shelter and community participation.
Grassroots Movement for Squatters’ Shelter Rights

In 2002 Surabaya sent eviction notices to communities squatting on provincial government land along the Strenkali River. That spurred unprecedented civil society action that took into account the collective interests of squatters, pushcart vendors, sex workers, and homeless children. The local secretariat of Uplink—a network of CSOs created by the Urban Poor Consortium, a prominent Jakarta-based NGO, brought together hitherto unrelated groups. These included nascent NGOs, squatters’ CBOs, and faculty and students from some local universities who had never worked with poor communities. By 2005, this initial networking between civil society groups had launched the Surabaya Strenkali People’s Movement (Paguyuban Warga Strenkali Surabaya; PWSS), a CSO devoted to improving squatters’ shelter security.

The PWSS forged close links with larger CSOs, including Community Architects Indonesia and the Asian Coalition for Housing Rights, and quickly learned the nuances of shelter discourse—especially regarding in situ upgrading and how to form coalitions to advance formidable political activism. The PWSS set about dispelling pervasive misconceptions, such as that squatters pollute rivers and cannot maintain healthy living environments. Within just five years and with minimal external assistance, it completely transformed the Strenkali squatter settlement of Bratang Tangkis and made progress on two adjoining ones. The community moved back houses located precariously close to the river, widened access roads, paved footpaths, ensured all houses had toilets and septic tanks, and eliminated the discharge of human waste into the river. The PWSS also helped residents secure water supply, pay land taxes, manage garbage disposal, and establish a microcredit fund. It also demonstrated how simple elevational treatments (using different materials, colors, and textures on the external face of the structure) can provide a stimulating built environment.

Nearly all improvements (as well as ongoing maintenance and repairs) were self-funded, with daily household contributions of just Rp 1,000 (approx. $0.10).

The PWSS helped enhance the resilience of these squatter communities, even without the city’s support. Media coverage of the group led to official recognition of Bratang Tangkis’s informal RW and RT by Mayor Risma’s administration. This was also possible because many long-term residents (some of whom had lived there for 40 years) had obtained KTPs. Despite
progress and recognition of the PWSS, demolitions and evictions continue.64 Bratang Tangkis residents reject any suggestions to relocate to rusunawa because such apartments are not conducive to running home-based enterprises, do not guarantee low rents, and prohibit subletting. Residents also fear that moving to rusunawa will compromise their valuable social and economic networks and, because rusunawa are located in more remote, less-connected, or inconvenient locations, their transportation costs in both money and time will increase.

The Steady Rise of Rusunawa (from the Mid-2000s)

Before Indonesia’s decentralization of the government during the late 1990s, rusunawa construction, especially in Surabaya, was sporadic, often a consequence of some crisis, constraint, or nonroutine incentive (such as receiving funds from the provincial government to relocate a specific settlement). After its establishment in 1974, the National Housing Development Company (Perumnas) began the effort76 to expand two types of public housing: rusunawa (rental flats for poor households) and rusunami (low-income ownership flats).75 A windfall from oil revenues during the Six-Day War of 1967 between the Arabs and Israelis led the national government to build rent-to-own-type apartment blocks for the poor in some cities.72

Around that same time, entrusted with the responsibility of improving conditions in Surabaya’s kampung, Silas argued that apartment living was unsuitable for the poor. Instead, he advocated for improving existing kampung.73 The ensuing KIP concept is what Surabaya pursued assiduously, with a few notable exceptions. In 1984 the LPP designed a rusunawa in Surabaya to house victims of a fire that gutted 83 houses near a local vegetable market.74 Later, in 1989, it designed three blocks of a rusunawa (150 units) in Dupak Bangunrejo, where in situ upgrading was not feasible due to the area’s unusually dense, squalid, and inaccessible setting. During the 1990s, following an uprising by urban dwellers who had been evicted from the Dupak Bangunrejo site, the city authorized the LPP to design three blocks in the subdistrict of Penjaringansari to serve those who had been evicted.

After decentralization, rusunami and rusunawa construction accelerated in Surabaya. Between 2004 and 2009, the central government built three rusunawa blocks to house squatters; by 2016, 13 city-built projects (approximately 3,500 units) were completed or under way.75 Figure 5 shows the location of Surabaya’s rusunawa, whose locations are more peripheral than those of the city’s upgraded kampung. To rid cities of slums, Indonesia’s 1,000 Towers program—an ambitious Perumnas initiative that began in 2007—aims to add 1 million rusunawa and rusunami flats nationwide.76 The national government offers tax incentives and bears all infrastructure costs if cities provide the land—a provision that has attracted Mayor Risma’s support for construction of rusunawa.77 Surabaya’s current Medium-Term Development Plan (2016–21), a mayoral decree, underscores the preference for rusunawa over kampung upgrading—in fact, the latter is hardly mentioned.78

Notwithstanding Mayor Risma’s support, the supply of rusunawa is scant, and local media reports frequently cite financial irregularities, delivery delays, tariff hikes, and substandard construction. Since most squatters occupy provincial or national government land, the city is reluctant to improve their settlements. Lately, however, city-built rusunawa have begun accepting some squatters with proper documentation (i.e., KTP). Surabaya’s subsidies make rusunawa rents (between $2 and $7, monthly) the nation’s cheapest, and the LPP persuaded the city government to abolish occupancy term limits.79 Surabaya does not have any rusunami projects yet; those sprouting in neighboring municipalities could house some migrant workers, but there are not enough low-cost options for the poorest.

The 1992 national inclusionary housing regulation, Balanced Residential Environment (Lingkungan Hunian Berimbang; LHB), aimed to boost the supply of affordable housing with its 1:3:6 principle (i.e., for every luxury unit built, a developer needed to build three middle-income units and six low-income units). However, the LHB only applies to the construction of individual homes, not apartments, and in 2011 developers’ complaints got this requirement further reduced to 1:2:3.80 Without a proper enforcement framework, and given the presence of corruption and the fact that Perumnas prioritizes higher-income housing, the LHB remains ineffective.81 Modifying the LHB’s provisions to include apartment construction would expand the future production of rusunawa and benefit the currently struggling 1,000 Towers project.82 Between 2010 and 2014, the nationwide rusunami construction exceeded that of rusunawa by four to eight times, mainly because of their higher return on investments. Leveraging the LHB to generate more rusunawa projects could help to reengage local design entities like the LPP, which has not designed any rusunawa since 2004. (The earliest rusunawa complexes designed by the LPP re-created the feel, versatility, and adaptability of the kampung environment in vertical space.)83 Newer rusunawa, however, with their standardized layouts, cramped units, smaller common spaces,
regulated use, and lack of participatory design, hardly provide such stimulating living environments.

Around the world, inclusionary zoning and other planning incentives are being used to boost the production of affordable housing. This has not caught on in Indonesia. Fast-tracking building permits for affordable housing is one of the few incentives that exist for Indonesian developers, and even this is rare. Our interviews revealed that Surabaya neither plans to collaborate with the provincial government to build rusunawa for riverbank squatters (since they occupy provincial land) nor does it intend to incentivize inclusionary zoning for private developers—either because it perceives such measures to be complicated or not urgent.

3. TRANSFORMATIVE CHANGE THROUGH SURABAYA’S INNOVATIVE SHELTER INITIATIVES

This section discusses key triggers of change in informal housing policy in Surabaya and explores how enabling factors sustained positive development and strengthened coalitions of actors working towards innovative shelter policy. Surabaya’s unique approach to affordable urban upgrading is reflected by its vibrant kampung, which have proved to be a resilient asset over the decades. Upgrading kampung has contributed to economic development, which has helped to sustain poverty alleviation; as recently as 2009–14, poverty rates in Surabaya fell from 8.2 percent to 5.8 percent. The kampung also provide the poor with affordable housing (even in central urban locations) and extensive livelihood options. The city’s kampung-centered planning approach was bolstered by initiatives intended to promote community participation and build the capacity of kampung communities to actively participate in planning and manage neighborhood-level services. These efforts earned the city government a high degree of trust from the citizenry, especially the poor.

Life in the Kampung after KIP

The remarkable transformation of Surabaya’s kampung is evident in their improved physical and environmental quality and also the strong sense of civic responsibility of kampung residents (see Figure 6). A walk through almost any upgraded kampung usually reveals clean streets, finished with concrete paver blocks and speed bumps. All houses clearly display numbers, and lanes have proper street signs. It is common for residents to adorn lanes with green and flowering plants. Almost all homes have toilets that are connected to individual septic tanks; communal toilets of the early KIP days are now rare. Houses typically have plastered brick walls, paved floors, corrugated metal or tiled roofs, and reasonable structural integrity—a result of steady, incremental self-improvements. Small garbage receptacles are ubiquitously placed in front of almost every house, and pushcart food hawkers, a characteristic fixture of the kampung, carry their trash and/or put it in receptacles along streets. Signs exhorting people to not litter used to be pervasive but are now rare and unnecessary, which further signals transformed civic behavior. Waste still gets collected by uniformed, paid waste collectors in pushcarts or pedi-carts; originally, the city assembled this crew by organizing informal scavengers. Garbage from multiple kampung goes to a large dumpster site where trucks then haul it to landfills.

Neighborhood-level waste is commonly managed by the RT-RW structure. Since the days of KIP, the city planning agency and other local government units persistently pursued “socialization” to spread community awareness about health and hygiene. The city utilized teams from the LPP to conduct regular evaluations; their advice helped refine efforts to institutionalize grassroots community participation through the omnipresent RT and RW. The city initially trained subdistrict and district heads, and they in turn trained and managed their respective RT and RW heads. Over the decades, this participatory innovation was incorporated into other interventions, such as family planning, primary health and education, and youth programs.

Traditional community-managed revolving credit mechanisms were also integrated into many initiatives to enhance their financial feasibility. Initially, regional microfinance CSOs like Women’s Devotion to Solidarity (Setia Bakti Wanita) offered district officials and RT and RW heads training in community engagement and managing revolving funds. Beginning in the early 1980s, their district office would regularly invite residents to various training meetings. With time, many kampung cooperatives and CBOs emerged to engage in grassroots community activities. In our interviews, the residents stressed that their district and subdistrict officials were sincerely committed to kampung improvement. One interviewee’s remark particularly underscores the significant transformation in community attitudes and consciousness specifically around waste management:
We always exhorted people to dispose their household waste in the trash bins. But people also dumped used diapers and sanitary napkins in the bins. . . . The waste collectors complained about handling such unhygienic and foul-smelling waste. So we in the cooperatives and the RT/RW asked our community members to wash and dry diapers before disposing them in tightly secured plastic bags. . . . Some people are still inconsiderate, but the vast majority now does so.93

**Mayor Tri Rismaharini (Risma) as a Change Agent**

During the second half of the twentieth century, under the New Order, continued mayoral support enabled Surabaya's kampung-focused participatory planning to flourish. Decades of sustained kampung upgrading strengthened the capacity of Surabaya's city planning department, service delivery agencies, and local communities to coordinate development interventions. Yet the centralized, top-down approach characteristic of the New Order routinized local government work and stifled innovation. When Risma was elected as the country's first female mayor in 2010, she tried to change this by championing kampung-centered participatory policies reminiscent of KIP and CKIP. Mayor Risma's policies are generally well accepted because she is seen as embracing a pro-poor, pro-environment, and anti-corruption platform and has built a reputation as a feared taskmaster.94 Her administration has focused on leveraging technology to build "smart" and sustainable kampung and upgrade their human development levels95 while using information technology and data analysis to enhance transparency and reduce corruption in city offices. Emerging scholarship on public leadership in Asia attributes her popularity and the success of her pro-poor measures to the fact that people sense genuine empathy in her actions.96

Under Mayor Risma's administration, extensive efforts have been made to landscape street medians, sidewalks, and riparian edges as well as to develop pocket parks. As a result, green open spaces now cover 20 percent of city area.97 In addition, more than 250 km of roads have been widened or added.98 Narrow streets in the city's poorer neighborhoods are being widened by covering parallel open drains with precast concrete box sections. This and other flood control measures have reduced the city's flood-prone areas from 52 percent to 2 percent99 and have revitalized once-poor traditional fishing communities (such as Kenjeran)

into tourist destinations. Deploying new technologies has also improved citywide traffic management.100 Likewise, solid waste management has been significantly upgraded, and some kampung actively undertake recycling and composting. Another recent innovation to combat plastic waste is the public "green bus," which only accepts used plastic bottles for fare.101

In 2011, responding to further decentralization of power, Mayor Risma made Surabaya the first Indonesian city to take over property tax collection, which improved collections from land and construction taxes and land sale duties.102 Between 2010 and 2017, local revenue generation increased from Rp 4.2 trillion to almost Rp 9 trillion, raising its contribution to the city budget from a fifth to a half.103 Mayor Risma's reform measures would likely not have been as effective without high levels of capacity and trust, developed over four decades of prior participatory development efforts, in local government departments and kampung communities.

**Triggers for Pro-poor Shelter Upgrading**

Strong political will and support have been critical for Surabaya's success with KIPs. Johan Silas's ideas and philosophy were a trigger for transformative change in urban housing. Silas's philosophy of kampung autonomy was likely solidified during the mid-1970s by his personal friendship with John F.C. Turner, who brought international attention to self-help housing—an underlying principle of slum upgrading.104 In addition, collaboration between the city and the ITS deepened over time and expanded to other planning endeavors.

Suharto's New Order regime and his mayoral appointee in Surabaya, Colonel Raden Soekotjo, were supportive of early shelter upgrading plans. Colonel Soekotjo was also a close friend of Silas,105 whom he commissioned to create a master plan for Surabaya.106 Silas's visionary plan rejected mass housing blocks in favor of preserving the kampung. The dozen mayors since Colonel Soekotjo were mostly pro-poor and supportive of sustaining the form and ways of life of the kampung.107 Mayor Risma, one of Silas's most famous pupils, is the embodiment of this trend.108
International and national recognition for Surabaya’s shelter upgrading work has helped to maintain the longevity and momentum of pro-poor housing policies in Indonesia. Since the 1980s, the city has received over 160 international and national accolades, including the Aga Khan Award for Architecture and the World Habitat Award. Surabaya was left out of the debut editions of the annual Adipura awards (1986 and 1987), Indonesia’s most prestigious recognition for cities, which motivated the city to pursue zealous environmental management. Thereafter, four consecutively successful years earned it the Adipura Gold (Adipura Kencana). Risma’s mayorship again brought home the Adipura Gold in 2015 and 2017, when Fortune magazine named her among the top 50 leaders of the world.

Outside actors also played a large role in initiating and supporting progressive housing policies. The World Bank’s support for scaling up KIPs encouraged the national government and other international donors to support such efforts as well. Rarely do poverty alleviation programs enjoy such long periods of uninterrupted and consistent donor assistance.

Recognition for Surabaya’s KIPs likely also inspired nonstate actors to celebrate kampung improvement and mobilize its citizenry. Two entities stand out: a radio show called Voice of Surabaya (Suara Surabaya) and the local daily newspaper Jawa Pos. Launched in 1983 as the first interactive radio program for commoners to voice concerns, Voice of Surabaya continues to popularize and criticize development initiatives. Jawa Pos, East Java’s leading newspaper, has partnered with the city since 2005 and encourages principles of corporate social responsibility. The paper organized the Surabaya Green and Clean initiative—a popular annual competition that recognizes cleanliness and environmental management in the city’s kampung.

Enabling Factors for Pro-poor Shelter Upgrading

Political support, intellectual and pro-poor leadership, and community trust were key enabling factors that led to experimental innovations and allowed different institutions to work together over long time horizons. National-level commitment as well as long-term support from the World Bank combined to create a supportive environment for local-level innovation that could be scaled up over time. During the New Order, the RT-RW governance structure allowed for easy, on-the-ground implementation of programs. During this period, five-year terms of multiple like-minded mayors, as well as the absence of dissenting political voices, allowed for policy

Figure 6 | A typical upgraded kampung

Photo credit: Ashok Das.
continuity. The KIPs’ local transformations and their subsequent nationwide success brought Surabaya national and international recognition, which enabled greater community participation and the inclusion of socioeconomic development aims in urban upgrading. This, in turn, was enabled by the continued strengthening of Surabaya’s unique city-university-community coalition.

As much as Silas’s role has been pivotal, not much would have been accomplished without the cooperation and support of the city government and the ITS (see Figure 8). Sustained support from various mayors and the city planning agencies provided valuable stability and autonomy to innovate, aided by the unique position of the LPP within the ITS. The city of Surabaya steadily helped the LPP and the ITS build capacity and establish intellectual credibility, visibility, and public approbation of its shelter policy and spatial planning. The city’s use of university resources to further policy goals was new and innovative. Other local universities, including Airlangga, the University of the 17th of August (Universitas Tujuhbelas Agustus), and Petra Christian, have stepped up to support other city participatory initiatives, which bodes well for future coalition building around transformative ideas.

All of our interviewees emphasized that participatory planning tends to succeed in Surabaya because its communities are remarkably harmonious, egalitarian, and collaborative. Residents’ accounts suggest that since the 1970s, the pervasiveness of small revolving-credit groups, bolstered by a large regional network of women’s cooperatives, augmented the capacity of kampung communities to organize and partner in local development. It is also likely that the city’s long history of involving communities in urban upgrading projects made the communities more receptive and proactive to change. Local government employees’ efforts to inspire community engagement in KIPs and other projects also built up community capacity and deepened people’s trust, which alludes to the importance of engaged local leadership. Since the 1980s, Surabaya’s population growth has slowed, so pressure on housing did not surge much or suddenly, leaving some room for the city to focus on upgrading informal settlements without rushing to provide new housing.

4. SUSTAINING PROGRESSIVE SHELTER PLANNING: EMERGING CHALLENGES AND INHIBITORS

The poor have long found affordable housing and livelihood opportunities in Surabaya’s kampung; both in quality and abundance, few cities boast such supportive living environments for those of modest means. A quarter century ago, however, researchers warned that robust economic growth could turn the kampung into high-end commercial and residential developments, pushing the most vulnerable residents out of their homes. Indeed, by the mid-1990s, evidence showed that land values had increased in most kampung due to rising demand for land. This, consequently, caused some upgraded kampung to be demolished and replaced with higher-end development. Surabaya has tried to restrict the razing of kampung to allow them to thrive even in dense, central locations, but efforts have not been entirely effective. The threats from increasing property values and a growing real estate market still loom ominously over the future of the city’s kampung-centric and pro-poor legacy. These emerging challenges and complications are explained in more detail in the next section, followed by a discussion of factors that are inhibiting transformative change and those helping to sustain progress.

Emerging Challenges and Complications of Pro-poor Shelter Policies

Recent housing development trends are working against pro-poor shelter policies such as KIPs. Private actors began pursuing large-scale development in Surabaya during the late 1980s, putting pressure on nearby informal settlements that depended on the availability of cheap land. The city’s first big shopping mall, Tunjungan Plaza I, was built in 1986 in the city’s center, displacing an existing kampung. In 1988 Ciputra, a leading Indonesian developer, acquired a 809 ha spread across Surabaya’s western fringe and the adjoining Gresik regency for Citraland, a township whose construction began during the 1990s. Two other local developers, Pakuwon and Dharmalaya, initiated similar projects nearby. Despite declining occupancy, the number of malls had increased by a third by 2018; growth...
### Timeline of Surabaya’s Shelter Policy

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1945-1966</td>
<td>Orde Lama (Old Order) under President Sukarno</td>
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<tr>
<td>1967</td>
<td>National leadership</td>
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<td>1969-1974</td>
<td>Orde Baru (New Order) under President Suharto</td>
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<td>1974-1984</td>
<td>National leadership</td>
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<td>1984</td>
<td>National policy</td>
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<td>1985-1992</td>
<td>Repelita I (1969-74); Repelita II (1974-79); Repelita III (1979-84)</td>
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<td>1992-1998</td>
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<td>1999</td>
<td>National policy</td>
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<td>2004</td>
<td>National leadership</td>
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**City Leadership**
- Col. Raden Soekotjo
- 4 appointed New Order mayors
- 3 mayoral terms and 2 appointed mayors post-decentralization
- W.R. Supratman KIP
- CKIP (comprehensive)

**City Policy**
- Mayor Soekotjo’s initiatives for urban infrastructure improvements
- UKIP (urban focus)

**Coalitions**
- City-university
- NGOs and academics help form PPTS—a coalition of riverbank squatters, informal vendors, sex workers, and street children

**Triggers**
- Johan Silas proposes upgrading over mass housing for kampung
- 1983: Suara Surabaya, an interactive radio show, increases awareness
- Johan Silas–led ITS team designs city’s first rusunawa
- 1986: Surabaya’s KIP awarded Aga Khan Award for Architecture

**Enablers**
- Mayor Soekotjo puts Johan Silas in charge of spatial planning
- Funding from World Bank and other international agencies
- Uniquely strong sense of voluntarism, cooperation, and community action in Surabaya’s kampung
- ITS graduates strengthen Johan Silas’s philosophy in local planning and development agencies

**Inhibiting Factors**
- Large-scale commercial real estate development
- Poor public transportation and no mass transit burdens the poor
- Little implementation of the national inclusionary housing regulation

**Repelita**
- Repelita I (1969-74); Repelita II (1974-79); Repelita III (1979-84)
- Repelita IV (1984-89); Repelita V (1989-94); Repelita VI (1994-98)
Surabaya: The Legacy of Participatory Upgrading of Informal Settlements

Timeline of Surabaya’s shelter policy

- National Housing Development Company (Perumnas)
  - National inclusionary housing regulation (LHB), 1:3:6 (low:mid:high)
  - 1,000 Towers program (rusunawa and rusunami) for low- and-middle income groups
  - National Community Empowerment Program (Program Nasional Pemberdayaan Masyarakat or PNPM urban)

- National inclusionary housing regulation (LHB) revised to 1:2:3 (low:mid:high)
- 1 Million Houses program
- National Slum Upgrading Program

Reformasi (Reform) post-Suharto, democracy and decentralization – 5 different presidents

- National Housing Development Company (Perumnas)
- National inclusionary housing regulation (LHB), 1:3:6 (low:mid:high)
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- National Community Empowerment Program (Program Nasional Pemberdayaan Masyarakat or PNPM urban)

- National Slum Upgrading Program

Urban environmental management

City-university-community partnerships

- Breakaway faction from PPTS forms PWSS—Surabaya’s first CSOs exclusively for squatters
- Emerging city–private sector–NGO partnerships for urban environmental mgt

Jawa Pos, a local newspaper, encourages Surabaya Green and Clean campaign

Notes:
CKIP = Comprehensive Kampung Improvement Project; CSO = civil society organization; KIP = Kampung Improvement Program; LHB = Lingkungan Hunian Berimbang (Balanced Residential Environment); NGO = nongovernmental organization; PPTS = Paguyuban Pembela Tanah Strenkali (Riverside Community Rights Defenders); PWSS = Paguyuban Warga Strenkali Surabaya (Surabaya Strenkali People’s Movement).

Source: Authors.

in office space is relatively weak (partly because of the modest services sector), yet 2016 experienced the largest single-year addition since 1990. Between 2012 and 2017, over 40 new hotels opened in Surabaya, even in residential areas and around kampung. Since then, another 50 upscale hotels have been built or approved. A rarity just a decade ago, apartment blocks for the higher-income groups now dominate Surabaya's western and eastern skylines, and their supply has risen annually by over 200 percent. This "mega influx of capital" into the property market, as one expert describes it, has sent land prices soaring. In 1980, an 8 m by 20 m plot in what is now a lower-middle-income, centrally located kampung cost about Rp 9,000 ($14.35) per m²; in 2017, it cost at least Rp 2 million ($149). Land prices have dramatically risen, and as of 2017 they have mostly hovered between Rp 1 million and Rp 3 million ($75 and $224) per m²; along fast-evolving, mixed-use corridors like Mayjen Sungkono, prices reach Rp 60 million ($4,484) per m². The lucrative nature of real estate has even turned public sector companies into housing developers if they own enough land. One example is Jasa Marga, a public sector toll road operator turned housing developer that has prioritized higher-end, more profitable developments over affordable housing. The fact that many state entities (the so-called "land banks") own large tracts of public land seriously distorts the market. In some cases developers have displaced kampung residents by unscrupulous means, and large developments raise land and building taxes in nearby kampung and threaten their physical integrity. Young people who grew up in Surabaya's kampung are moving to peri-urban jurisdictions in search of affordable rents, less congestion, and more space, despite the fact that in the long run, the perceived economic advantage is lost to costs incurred from commuting and congestion.

The spatial expansion of the metropolitan region has exposed Surabaya's grossly inadequate public transportation network as a major impediment to sustainable and equitable development. Buses are the only current public mode of transit, and their share of overall trips is just 3.5 percent. (The green bus mentioned earlier is a welcome move, but its coverage is limited and its fare system limits access.) Sluggish private minibuses (bemo) used to be the transportation choice for lower-middle-income commuters until easy credit access exploded motorcycle ownership. Public transit provision is challenged by narrow roads, a small road network (approximately 6 percent of land area), widespread high-density residential areas, and a multinucleated concentration of jobs. This makes it hard to provide kampung residents with easy access to urban services like jobs, health care, and schools.

The traditional location of many kampung close to the center of the city has helped to mitigate the negative effects of peripheral growth and lack of good transport in Surabaya, but challenges remain (see Figure 4). Therefore, improving transport over the long term is necessary to improve access to urban services for low-income residents. Low demand for transport in the predecentralization period, along with scarce available funds postdecentralization, have stalled any investments to improve public transit infrastructure. Mayor Risma's current plan to reintroduce a Dutch-era tram by retracing an older route will not alleviate the transportation deficit, either, because the proposed short corridor is in the city's core, which is already better served by buses and minibuses. Intergovernmental conflict and poor coordination bedevil construction of new transportation infrastructure. Most streets are the city's responsibility, but even improving them can be difficult if they are owned by higher levels of government. Community activists in Surabaya allege that conflicts and disagreements among various agencies responsible for providing infrastructure and services also hurt the prospects of urban upgrading and resettlement projects for squatters.

**Inhibitors to Progressive Planning**

There are many factors that have inhibited progressive planning in Surabaya. For one, rising land values and inadequate public transit are disproportionately burdening Surabaya's poor by limiting the space and increasing the fiscal and political cost of implementing pro-poor policies. The city's few new rusunawa are in peripheral locations or are far from main roads, some unserved even by minibuses (see Figure 5). Also, the misalignment of national policies with on-the-ground realities and developers' constraints makes the 1:2:3 ratio of luxury homes, requiring affordable units to be built right beside high-income units. Where land is expensive or scarce, enforcing the regulation but has not consulted with developers, and participatory planning beyond the neighborhood scale is not yet the norm in Surabaya.

Contradictory policy objectives and a reluctance to incorporate informal workers and housing into the city proper has
Figure 8 | Landscape of urban change agents in Surabaya

Notes: ITS = Institut Teknologi Sepuluh Nopember (Sepuluh Nopember Institute of Technology); CSO = Civil society organization.
Source: Authors.
intensified Surabaya’s affordable shelter challenge. For example, the city is encouraging big real estate development within its jurisdiction yet also advocates for the improvement of access to services for the urban poor living in kampung, making them “smart” communities that are connected to broader city infrastructure and opportunities. It is hard to prioritize the interests of both big real estate and poor informal communities. Another conflict arises because cities desire economic development but not the poor migrants that such development attracts. Similar to administrations before hers and in other cities, and despite the overall championing of pro-poor policies, Mayor Risma has been generally unwelcoming to migrant communities in Surabaya. This indicates insufficient understanding of how urbanization and informality are linked in a developing society. Research shows that large real estate projects stimulate the informal sector and bring in migrant workers. But because Mayor Risma has so far perpetuated a traditional bias against informal migrant communities in the city center, she has pushed to relocate manufacturing units and housing to surrounding regions. Whereas Mayor Risma made public high school free for Surabaya’s legal residents, enrollment of migrant children, even in primary schools, is greatly restricted. The city has banned informal vendors on many streets, and it regularly conducts “sweeps” (unannounced raids) to apprehend those squatters and vagrants who lack identification cards. Whisked away to facilities for the mentally ill and street children (liponsos), these persons are fingerprinted, “reformed,” and urged to return to their families outside Surabaya. Given Surabaya’s robust administration and transparency initiatives, it is unclear why city-level data on slums and squatters are unavailable or inaccessible. Allegedly, the city planning department has such information but does not publish it for fear of jeopardizing its status as an Adipura awardee.

The exclusionary treatment of migrants and squatters in Surabaya (which is a pervasive problem across developing countries), is partly attributable to the technocratic nature of urban planning education. Surabaya’s planning officials are mostly engineers and architects who have had little exposure to social science theories of equity, justice, inclusivity, social learning, or the nuances of civil society and governance. Without interdisciplinary training, progressive, pro-poor urban planning that protects the interests of the most vulnerable city dwellers is hard to achieve. Compounding this challenge is the legacy of Indonesian planning efforts to manage development through rigid population controls, discouraging migration as well as forcing migrants into specific areas, usually outside of the city center. Despite the inclusive nature of Silas’s outlook—which held kampung to be an abundant, inclusive, and affordable shelter option—few housing improvement projects have been targeted at migrants. Progressive shelter policy has almost never taken into account migrants and squatters because they are generally considered illegal. Despite their ample exposure to kampung, few ITS architecture students (many of whom are now city practitioners) question this exclusionary propensity.

Lasting political leadership on pro-poor shelter policies is uncertain and threatens progressive planning. Change agents like Silas and Mayor Risma promoted affordable housing by preserving Surabaya’s kampung and helping their residents thrive, and continuing this positive legacy will require new leaders to champion pro-poor policies.

5. CONCLUSION

Surabaya’s pro-poor shelter planning has affected broader transformations for more than 50 years. In situ participatory urban upgrading remains one of the most viable planning interventions for providing secure and affordable housing to the poor in developing countries. Surabaya’s success with upgrading kampung is due to multiple factors—visionary and zealous leadership; political will and commitment; sustained, long-term financial support; continuous city-university-community collaboration that built institutional capacity and intellectual credibility; and, consequently, enhanced community capacity and trust in local government. Democratization and decentralization in 1999 overhauled planning and governance and yielded considerable improvements. But resource constraints, rising land values, an expanding real estate sector, and the absence of a comprehensive affordable housing policy are eroding Surabaya’s pro-poor shelter commitment. A lingering vestige of the New Order is the local planning apparatus’s prejudice against poor migrants and wariness of CSOs. Current siloed academic curricula inhibit progressive innovation and fail to inspire students to believe that urban planning can and should address issues of social injustice. Still, Surabaya serves as an exemplar for developing cities faced with the shelter challenges associated with rapid urbanization.
Surabaya: The Legacy of Participatory Upgrading of Informal Settlements

KIP—Surabaya’s famed low-cost innovation—upgraded and sustained poor kampung through community participation for nearly three decades. The unique partnership between Silas, the LPP, and the city government fostered policy consistency and innovation around KIPs and brought attention and credibility to the program. Long-term international funding during the New Order helped to scale KIPs, improving affordable housing across urban Indonesia. Successive mayoral support for KIPs built invaluable trust in kampung communities and bolstered their capacity for participatory planning, which is reflected in their strong communitarian ethos. Surabaya’s successful upgrading programs have preserved abundant, centrally located kampung that still provide affordable rental options and informal livelihoods to most of the city’s poor, including migrants. People of different incomes mix across varied land uses in kampung, as do formality and informality, while regulations and norms are flexibly enforced; yet kampung boast good infrastructure, clean and safe environments, and cohesive and proud communities. Unfortunately, rising property values and real estate demand are pushing modest-income households out to peripheral regions and are threatening the unique kampung ecosystem and the resilience of poor communities. Unprecedented spatial expansion, traffic congestion, and nonexistent public transit are further burdening the poor.

Although decentralization empowers cities to design better policies and customized implementation plans, Surabaya experienced growing pains after the sudden change in national governance in 1999 and received limited guidance or support along with newfound autonomy. This explains why CKIP, Surabaya’s postdecentralization KIP variant for community-led economic development, was much less impactful. Upgrading efforts have since dwindled. The incumbent mayor, Risma, is avowedly pro-poor and pro-kampung; nonetheless, she favors rusunawa because the city only has to provide the land and the national government pays the construction costs. Yet demand for these public rental housing flats far outstrips supply, and rusunawa discourage the poor’s home-based livelihoods. The execution of reform measures that Mayor Risma has introduced has been aided by the existence of adequate capacity and trust in the city’s departments and communities, due to efforts dating back to the earliest KIPs. Still, the fact that Risma continues to deny migrants access to rusunawa, welfare, and work, or encourages them to move out of the city entirely, reflects an institutional history of prejudice against poor migrants and has proved counterproductive to the city’s progressive reforms.

Surabaya’s planners and policymakers receive a highly technical education, with scant exposure to contemporary planning perspectives on social justice and inclusivity; this means that the exclusionary treatment of poor migrants tends to go unchallenged. Planning curricula need to be more interdisciplinary, critical, and contextual. Surabaya’s participatory planning model for kampung has excluded independent CSOs—no formal shelter initiative has ever involved NGOs, which have mainly focused on supporting informal settlements instead of kampung. This stymies the innovation, efficiency, and accountability of robust state–civil society collaboration. Nascent civil society efforts to generate dialogue around urban issues are afoot, but NGOs that focus on housing do not exist. Surabaya’s first grassroots squatter movement, too, is dissipating. Surabaya has long been a model for other cities; yet to broaden its pro-poor perspective to make it more inclusive, its planners should draw inspiration and ideas from other cities. In Surakarta, Indonesia, for instance, the mayor led the inclusive relocation of over a thousand squatter households and informal vendors and extended welfare services to poor migrants. Likewise, in Jakarta, where even given that city’s fraught context, thousands of the poorest kampung households benefited from in situ upgrading and low-rise redevelopment under the Kampung Deret program. Another example comes from Thailand’s Baan Mankong program, where participatory upgrading has included squatters and has involved numerous civil society stakeholders.

Charismatic individuals like Silas and Mayor Risma have been instrumental in transforming attitudes and institutions in Surabaya. To ensure that their transformative energy and prowess will endure, it is important that reform-oriented thinking and progressive leadership be institutionalized by expanding the range of involved stakeholders. More critical research is needed to grow the emerging scholarship on leadership in governance and planning—something local universities, public agencies, and CSOs could promote locally and nationally. With land pressures intensifying and prices soaring, private sector development supported by government leaders threaten the city’s admirable shelter planning legacy and public good imperative. Relying solely on the KIP or CKIP approaches may not be sufficient to respond to the increasing complexities of today’s urban development context.
# APPENDIX A: LIST OF INTERVIEWEES

<table>
<thead>
<tr>
<th>INTERVIEW NUMBER</th>
<th>DATE</th>
<th>POSITION AND AFFILIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>August 10, 2017</td>
<td>Johan Silas, public university professor; KIP founder</td>
</tr>
<tr>
<td>2</td>
<td>August 10, 2017</td>
<td>City planning official</td>
</tr>
<tr>
<td>3</td>
<td>August 13, 2017</td>
<td>Private sector and civil society representative (architecture, urbanism)</td>
</tr>
<tr>
<td>4</td>
<td>August 14, 2017</td>
<td>Private citizen (upper-middle class)</td>
</tr>
<tr>
<td>5</td>
<td>August 16, 2017</td>
<td>Public university professor (environmental engineering)</td>
</tr>
<tr>
<td>6</td>
<td>August 16, 2017</td>
<td>Private sector representative (senior director with real estate developer)</td>
</tr>
<tr>
<td>7</td>
<td>August 16, 2017</td>
<td>Private sector representative (architect with real estate developer)</td>
</tr>
<tr>
<td>8</td>
<td>August 18, 2017</td>
<td>Private university professor (architecture)</td>
</tr>
<tr>
<td>9</td>
<td>August 18, 2017</td>
<td>Private university professor (architecture)</td>
</tr>
<tr>
<td>10</td>
<td>August 19, 2017</td>
<td>Civil society representative and grassroots activist</td>
</tr>
<tr>
<td>11</td>
<td>August 20, 2017</td>
<td>Foreign university professor (arts, architecture) and civil society representative</td>
</tr>
<tr>
<td>12</td>
<td>August 20, 2017</td>
<td>Civil society representative (product design, urbanism)</td>
</tr>
<tr>
<td>13</td>
<td>August 20, 2017</td>
<td>Private citizen (lower-middle class)</td>
</tr>
<tr>
<td>14</td>
<td>August 21, 2017</td>
<td>Public university researcher (architecture, housing)</td>
</tr>
<tr>
<td>15</td>
<td>August 21, 2017</td>
<td>Public university researcher (architecture, housing)</td>
</tr>
<tr>
<td>16</td>
<td>August 22, 2017</td>
<td>Private university researcher (architecture, civil society)</td>
</tr>
<tr>
<td>17</td>
<td>August 23, 2017</td>
<td>Tri Rismaharini, Mayor of Surabaya</td>
</tr>
<tr>
<td>18</td>
<td>August 23, 2017</td>
<td>Private citizen (lower-middle class)</td>
</tr>
<tr>
<td>19</td>
<td>August 24, 2017</td>
<td>City planning official</td>
</tr>
<tr>
<td>20</td>
<td>August 25, 2017</td>
<td>Public university professor and researcher (architecture, housing)</td>
</tr>
</tbody>
</table>
ENDNOTES
1. Beard et al., 2016.
2. In the national language (Bahasa Indonesia), the word kampung refers to formal low-income settlements, traditional neighborhoods, and squatter settlements, as well as village or hometown. Unlike the common perception of a slum, many kampung were never illegal encroachments. However, prior to upgrading, most had slum-like physical and socioeconomic conditions. We use the term kampung to denote both the singular and the plural meanings.
3. Urban upgrading, slum upgrading, or just upgrading are similar terms that reflect personal preferences, nuances in the literature, or contextual differences. This paper uses them interchangeably; unless specified otherwise, in Indonesia they imply upgrading kampung.
6. Inspired by Surabaya's success, KIPs were implemented in many cities as part of national five-year development programs, but there was no nationwide slum upgrading plan. Few cities do initiate a slum upgrading plan on their own, without national support.
7. Das, 2017; Ostojic et al., 2013: 139.
8. A portmanteau term alluding to the names of Surabaya and six neighboring regencies.
17. World Bank, 2016b.
18. World Bank, 2016b.
22. Das, 2018b; Tunas and Darmoyono, 2014.
23. Most recently, through the Mayoral Regulations (Peraturan Wali Kota) of 2016 (e.g., nos. 33, 43, 44, 45, 69).
27. Das, 2018b: 244; Tunas and Darmoyono, 2014: 168.
30. Interview 1.
38. World Bank, 1995; Patton and Subanu, 1988; and scores of articles on individual projects.
44. Swanendri, 2002.
46. Das, 2015c.
48. Das, 2015b: 26; Antlőv et al., 2010: 434.
49. Das, 2015a.
50. Interview 1.
54. The LPP (until 2002) and two private civil engineering/construction consultants—Cipta Surya Wahana (CSW) (2003–2005) and Compagnie Vereniging Triwira Jasatama (2006–2007)—were the only ones the city appointed as so-called NGO facilitators (Das, 2008: 303–4). In part, this reflects Indonesia’s ambiguity and ambivalence about NGOs—a New Order vestige (Eldridge, 2006).
Das, 2015a.
Interviews 14 and 15.
Roy, 2005; Tacoli et al., 2014.
See Das (2017) on why it is imprudent to deny services to poor migrants who do not possess KTP.
Das, 2015c.
Interview 15.
World Bank, 2016a: 47.
Das, 2017; Rolnik, 2013.
Interviews 10 and 16.
Interview 10.
Interview 10; Das, 2017.
Interview 10.
Taylor, 2015.
Squatter communities were demolished on August 12, 2016, just days after Surabaya hosted PrepCom3—the final deliberations before Habitat-III in Quito, where the New Urban Agenda was adopted.
Perumnas has since built over half a million rusunawa and rusunami units (see http://perumnas.co.id).
Rusunawa is a portmanteau term for rumah susun sederhana sewa, and rusunami for rumah susun sederhana milik.
Interview 1.
Interview 1.
Das, 2018b.
Das, 2018b.
Rolnik, 2013: 9–10. The aim of the program was to build 1,000 towers by 2011; however, by 2012 only about 100 had been built (Pathoni, 2012).
Beritasatu, 2015.
Rismaharini, 2016.
Previously, rusunawa renters were allowed to reside for a maximum of nine years, including extensions.
Yuniati, 2013.
Widoyoko, 2007; Yuniati, 2013.
Tunas and Darmoyoono, 2014.
Rusunawa Sombo (1994), designed by a Silas-led LPP team, exemplifies how patient community consultations and careful design re-created kampung life in vertical space (field visit; interviews 11 and 12).
Mukhija et al., 2015.
Interview 6.
Das, 2017; interviews 1, 5, 11, 14, 15, 19, and 20.
The traditional prototype is a yellow, lidded receptacle made of recycled rubber tires. Concrete cubes are more common now, and the use of different colored plastic bins, for organic and inorganic waste, is spreading fast.
Interview 18; Das, 2015c: 262.
Interview 18.
Interviews 2, 3, and 4.
Interview 17.
Diliani and Susanti (2015) argue that her approach is perceived as being “motherly”; Fionna, 2017.
IE Singapore, 2014.
Interview 19.
Interview 17.
Risma personally monitors major intersections from her office using a wall of large LCD screens with live closed-circuit television feeds.
The two main sources are the land and building tax and the property transfer tax (von Haldenwang et al., 2015).
Based on figures provided by mayoral staff in Surabaya over multiple days, August 2017.
For instance, see Turner, 1977.
Interview 1. As a young, inspired architect during the mid-1960s, Johan Silas and a few like-minded architects established the first three architecture schools in Surabaya, including those at Petra Christian University and the ITS. Soekotjo had appreciated these efforts and knew Silas as his firm’s civil defense volunteer with the army—a mandatory requirement then.
Colombijn, 2016.
Interviews 1 and 5.
As an undergraduate architecture student, she successfully persuaded Silas to use her as his research assistant on the Dupak rusunawa project.
For more information on the city’s awards and recognition, see its official website, http://surabaya.go.id/id/cari?q=penghargaan.
Indonesia’s Ministry of the Environment initiated this competition in 1986 to recognize cities for cleanliness and environmental management. It stopped in 1997 and was resumed in 2002. For details, see Dethier, 2017.
Fortune, 2015.
Interview 20.
Interview 9.
Interview 18; Das, 2008: 295.
116. Surabaya’s population growth rate fell from around 3 percent in 1980 to 0.65 percent in 2010 (Ostojic et al., 2013: 139). Among Indonesia’s 11 largest cities, Surabaya’s projected rate of population growth through 2025 is the lowest (see World Bank, 2012: 25.)


119. Interviews 2, 3, 9, 11, 12, and 20.

120. Multiple Tunjungan Plaza (TP) malls have since appeared on adjacent sites; the latest, TP-VI, became operational in 2017. Out of 14 shopping centers and mixed-use retail projects that were to start operating from 2016 (Salanto, 2015: 16), 5 have opened and another 5 should be functional before 2021 (Salanto, 2018: 2, Retail).

121. Interview 6.


123. Interview 3.

124. In 2013, it was 233 percent, and in 2014 it was 207 percent (see Salanto, 2015: 9.)

125. Interview 3.

126. Local currency figures were converted using the 1980 US$ exchange rate at 627.

127. Interview 18. Local currency figures were converted using the 2017 US$ exchange rate from the Organisation for Economic Co-operation and Development (OECD) at 13,380.87.

128. Interview 6. Local currency figures were converted using the 2017 US$ exchange rate from OECD at 13,380.87.

129. Interview 6.


131. Interview 9.

132. Today, a 20 km commute by car from Surabaya’s edge to neighboring Sidoarjo takes up to three hours (interview 16).

133. Almost every key informant pointed to this as Surabaya’s key planning lacuna.


135. Interviews 1, 19, and 20.

136. Interview 3; Bertaud and Bertaud, 2012.

137. The difficulty of coordinating with the national government to expand JI. Achmadyani, a major road, led Mayor Risma to instead seek its approbation to acquire adjoining land to construct five one-way lanes on either side of the existing road. However, it is nearly impossible for pedestrians and nonmotorized traffic to cross this 4.3 km stretch (interviews 9 and 19).


139. Interviews 8 and 9.


141. Interview 17.

142. Interview 17; Jawa Pos, 2017.

143. Interview 9; Das, 2017.

144. Interview 19.

145. Interview 9.

146. Das, 2018a.

147. Das, 2018a; Kumar et al., 2016.

148. For a long time, Indonesia’s transmigration program (transmigrasi) relocated landless people from densely populated to sparsely populated regions, but this also induced ethnic strife, communal violence, and separatist movements (Fearnside, 1997).

149. King et al., 2017.

150. Antlöv et al., 2010.

151. Das, 2018a.

152. Das, 2018b.


156. Berman and Haque, 2015; Fahmi et al., 2016.

157. Interview 10; Rolnik, 2013.
REFERENCES


BSHF (Building and Social Housing Foundation). 2004. The Kampung Improvement Programme, Surabaya. Coalville, UK: BSHF.


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