STRATEGIES FOR IMPROVING INFORMAL SETTLEMENTS

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I. UNMET NEED FOR AFFORDABLE SHELTER PROPELS THE CONTINUING PREVALENCE OF INFORMAL SETTLEMENTS

A billion people—one-sixth of the world's population—live in informal settlements.[1] This number is forecast to double in the next decade, as increasing numbers of refugees from armed conflict and climate change seek safer environments, and as economic migrants continue to pursue opportunity in urbanizing areas. Though informal settlements offer at least some degree of promise to their residents, they also lack basic infrastructure to support health and wellness, including clean water, adequate sewage systems, durable housing, and public spaces for commerce and recreation. Additionally, informal settlements are frequently overcrowded and situated in political conflict zones, eco-sensitive environments, and locations vulnerable to extreme weather events (e.g., cyclones, hurricanes, and unusually-severe heat or cold) and natural disasters (e.g., earthquakes and flooding).

RESPONSES TO THE CHALLENGES OF INFORMAL SETTLEMENTS ARE VARIED AND EVOLVING.

For decades, governments in low- and middle-income countries (LMICs) have responded to informal settlements with a range of approaches, including denying their existence, reacting with benign indifference, evicting residents, and demolishing settlements in whole or in part. More recently, it has been understood that eviction and demolition do not address the cultural and material realities that drive the creation and expansion of informal settlements; this trend has prompted increasing interest in improving informal settlements and attempting to formalize land tenure for residents of these communities.

As a consequence, to ameliorate informal settlements, local governments in LMICs have commissioned remediation plans from architectural and urban planning firms, many of which are from high resource countries. Unfortunately, in developing plans and interventions, many such firms are not mindful of the economic limitations of LMICs, and also do not take into account the lived-experiences of people who reside in informal settlements. While geographically focused, Korydon Smith and Tomà Berlanda's book *Interpreting Kigali, Rwanda: Architectural Inquiries and Prospects for a Developing African City*[2] offers architects, planners, and policy makers strategies and principles—rather than prescriptions—to guide the improvement of informal settlements worldwide.

Figure 1, left: Photograph of steep hillside settlement in Kigali. Typical neighborhoods and buildings in Kigali are in strong contrast with other proposed plans and visions. Figure 2, right: Photograph of urban street with drainage ditch and entries to homes and businesses.

Figure 1 Source: R. Campbell, 2011 ; Figure 2 Source: K. Smith, 2011.

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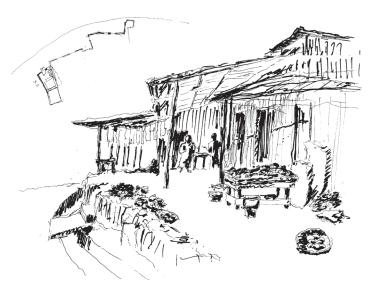Global Health Equity
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II. RECOMMENDATIONS FOR THE IMPROVEMENT OF INFORMAL SETTLEMENTS FROM PREVIOUS RESEARCH

Smith and Berlanda affirm a number of principles for improving informal settlements from previous research. John Lupala[3] has seven recommendations for neighborhood design in informal African cities: (1) contain city sprawl; (2) create tenure systems through land pooling and replotting; (3) effect participatory and incremental regularizing of "informal urban types" and properties; (4) implement localized planning and improved information management systems; (5) identify appropriate housing forms for the city's future; (6) reduce plot sizes; and (7) regularize and improve exterior public spaces.
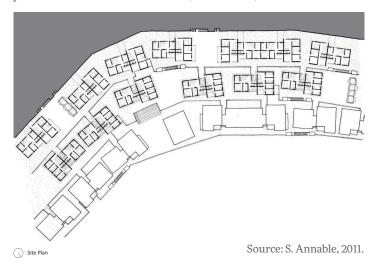
Additionally, Janice Perlman[4] sets forth eight recommendations for the improvement of informal settlements: (1) provide a variety of housing options in regards to tenure and payment, such as short-term rental, long-term lease, cohousing, and financed purchase; (2) invest in education, healthcare, and social services for people, not just in infrastructure and buildings; (3) involve the community in planning and ongoing decisions; (4) provide a stronger government presence in informal settlements; (5) continue improving and integrating previous government-sponsored projects and fringe neighborhoods; (6) prevent rogue developers and landlords from conducting fraudulent property sales and housing rental practices; (7) secure land and housing in anticipation of future migration and population growth; and (8) foster expansion and increased density according to the long-term needs of the city and the best interests of the residents.

Figure 3: Plan and perspectival sketch of urban informal commerce.

Source: S. Annable, 2011.

Figure 4: Plan of student-proposed neighborhood with public spaces, housing, and retaining walls. Integrated with the retaining walls, the first phase of development, are public amenities such as stairs, restrooms, and fresh water.

Site Plan

Source: S. Annable, 2011.

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III. POLICY TAKEAWAYS

1 Planners and architects should adopt an ethnographic approach to their work. **Start with the granular elements of an informal settlement before attempting its overall redesign.** It's crucial to document the residents' daily usage of both public and private physical spaces. One should also learn place and space names in the local vernacular, and translate these terms to understand the values, needs, and practices associated with public and private spaces. **See how the social order is scaled up to form larger and larger spatial patterns.**

2 **Look for the underlying order, logic, and creativity in informal settlements.** Attend to diversity of use and activity. When assessing what needs to be improved in an informal settlement, **assume that there is wisdom—rather than happenstance and chaos—to its form**.[5] Be alert for many strategies that architects and planners from the Global North seek in urban design, including mixed use development; urban agriculture; environmentally-sensitive design; and spatial plans that promote walking.

3 **Demographics matter.** Improvements to both informal and formal settlements should anticipate the specific needs of its residents. For example, in Kigali, some 42.4% of the population is under 15 years of age, which means improved informal settlement designs should anticipate multi-child households and include public recreational spaces, day care venues, schools, and footpath safety.

SAMPLES FROM KINYARWANDA GLOSSARY: ARCHITECTURAL, LAND AND INFRASTRUCTURE, AND CULTURAL TERMS

- akabande - small, occasionally-flooded valley
- guturana - to be neighbors
- ikibanza - land (especially referring to modified or constructed land, site, or property)
- ubukonde - traditional land-tenure system based on occupancy
- umuryango wo mu kuruganiriro - doorway connecting sitting/living space to semi-public courtyard

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4 Water and improved sanitation and hygiene (WaSH) are the biggest planning and design concerns of informal settlements and adjacent formal settlements as well. **The prioritization of inclusive access to WaSH should be encouraged.**

5 When commissioning guidelines to improve informal communities, **governments should identify their resources before contractors begin their planning efforts.** This should include not just financial resources but also other resources available to the government, such as the workforce and equipment that can be furnished by public sector divisions, NGO partners that can contribute with materials and volunteer labor, and the presence of local skilled workers. For example, the state might have the financial means to clear the land and lay the foundation for a development; an NGO might construct the posts and floors; and local laborers/future residents could complete the building envelope and do finishing work. For their part, **planners and architects working in LMICs should develop phased and flexible implementation plans that take into account the resources and material constraints of the local government.**

FOOTNOTES

1. With less of a derogatory connotation than alternatives such as squatter settlement, shantytown, favela, or ghetto, "informal settlement" is the preferred contemporary term to refer to unplanned, improvised human settlements without legal tenure systems and public infrastructure.

2. Smith, Korydon H., and Tomà Berlanda. Interpreting Kigali, Rwanda: Architectural Inquiries and Prospects for a Developing African City. The University of Arkansas Press, Fayetteville, 2018.

3. John M. Lupala, Urban Types in Rapidly Urbanizing Cities: Analysis of Formal and Informal Settlements in Dar es Salaam (PhD dissertation: Kungl Tekniska Högskolan [Royal Institute of Technology], Stockholm, Sweden, 2002, p. 250.

4. Janice Perlman, Favela: Four Decades of Living on the Edge in Rio de Janeiro, Oxford University Press, Oxford, 2010.

5. Smith and Berlanda point out that the term informal settlements refers to the absence of a higher order governing the settlement—for example, governance, land titling, and a predetermined urban plan. However, the word informal also implies an absence of form, custom, and order, none of which are necessarily true.

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