

RISE AFRICA

Inspiring Action for Sustainable Cities

Discussion Series

Development on the edge: Can we bring affordability and social capital to the core of developing African cities?

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THEME:
Supporting urban
informality for
inclusive African
cities



Abstract

Inclusiveness in African cities has different facets that require an in-depth understanding. As an urban planner working in Egypt, I explore informal urbanism within various urban contexts around the country advocating for participatory development. What makes this urbanism unique and widely attractive is the affordable livelihood it provides. Throughout my years of practice and teaching, I investigated affordability and social capital as the backbone of informal areas. The produced physical environment in such areas is just a manifestation of social capital flow without which households are seriously vulnerable. With this understanding, it is vital to acknowledge these assets and act accordingly: trying to improve liveability within existing informal areas. It is naïve to think we can eradicate urban informality in African cities and relocate people into new housing projects that do not consider the whole livelihood beyond providing a living space. At the same time, it is not enough that we provide or improve services in existing informal areas while leaving them subject to the current spatial divide. If African cities pursue an inclusive future for their dwellers, they would surely need to curtail barriers and edges between formal and informal parts of the city, ensuring connectivity, integration, and co-benefits.

Growing up in Cairo, I used to hear the train, especially at night, sounding its horn as it passed by the edges of my neighbourhood. As a child, it symbolised the edge for me, something that I knew nothing beyond. As I grew older and became more familiar with the city, I came to understand that the train was not running on the edge, rather it cut through the heart of the city. There was a whole world beyond the edge; one that presents the main body of Cairo. In the city, edges formed by train tracks or major roads cut between planned and unplanned areas. There are certain points for crossing: bridges, stairs or rail crossings that allow selective connectivity between the two lobes of the city. A question arises: how do these barriers create linkages and opportunities for inclusiveness?

In many cases, these connection points are the only way to access certain services not available in unplanned areas. Examples include schools (especially secondary schools), universities, and hospitals, and extend to cultural, recreational and sports facilities.

For decades, informal urbanism has been successful in providing affordable housing, and in many cases job opportunities. However, this piecemeal, demand-driven urbanism comes at a cost. It rarely affords some of the attributes of an adequate quality of life, namely green or open spaces, adequate services, and efficient mobility (Khalil H. E., 2010; Khalil & Khalil, 2015; Khalil & Gammaz, 2020). It suffers the consequences of its own attractiveness with its contested spaces and poor street networks. Looking at the energy benefits, many buildings enjoy reduced heat gain due to low exposure of the compact form (Khalil & Khalil, 2015). However, ventilation becomes an

issue within narrow streets perpendicular to wind direction, which suffer from stagnant air flow (Khalil, Ibrahim, Elgendy & Makhoulf, 2018). Such conditions should be addressed when intervening in informal areas.

Looking at the resource intensity of informal urbanism, it is clear that it is low and quite efficient. Studies have shown the high reuse rate and low production of waste per capita (Khalil & Al-Ahwal, 2021). However, it is the hyper density of people residing there that produces the sheer amount of waste. As an urbanist, one should adopt a systems thinking approach when addressing informal areas. Looking at the complete cycle of resource flows from source to sink, or noting both the environmental gains and costs of the hyper compactness of such areas, becomes vital. Rather than treating informal areas as an illness or romanticising them as heroic solutions, urban planners should embrace informal urbanism as a mode of development, as advised by Roy (2005). It is a mode that is currently overtaking urban growth in developing countries, specifically in Africa. If we intervene in a strategic manner, it would surely help make our cities more inclusive. Identifying “acupuncture spots” that address local needs is an approach that, in my opinion, mimics the way these areas were developed in the first place: it is demand driven. However, we should not limit the demand to residents; it should extend to the surrounding planned areas. If a city would reach an inclusive future, it would be by weaving informal and formal areas into a connected tapestry, reducing the edge effect in a more gradual transition from one pattern to another. Interestingly, from a resource flow perspective, some resources do not recognise edges: water, food, and energy (Attia & Khalil, 2015). Other resources do see the edges, such as



Ring Road in Cairo cuts through informal areas as well as creates an edge between planned and unplanned areas around the city. Advertisement is for newly constructed green gated communities in new developments on the outskirts of the city. (Photo credit: Heba Khalil)

mobility and waste (material) (Khalil & Al-Ahwal, 2021). While others represent a strong divide, specifically Information and Communication Technology (ICT).

Despite the importance of resource efficiency that prevails in such contexts, the attractiveness of informal areas boils down to their affordability – affordability that manifests itself both physically and non-physically. Physically, informal areas defy urban planning regulations and zoning as seen by most officials and urban planners. However, this is how these areas achieve affordability and create a feasible livelihood that is sought by many urban residents.

Informal areas provide land plots and building patterns that

maximise the use of land. The produced housing variety responds to local needs and financial means (Khalil, 2012). Several years ago, I learned a lesson through an urban planning exercise. A family relative asked me to help him subdivide his former agricultural plot as it had been annexed to the urban boundaries of the nearby city. I welcomed the opportunity to work closely in a peri-urban context. I followed all the urban planning regulations and the knowledge I had acquired throughout my studies, as I had just completed my Master's in Town Planning at the time. The produced plan was excellent, in my opinion, and the landowner was pleased. Next came the step of involving the local broker to sell the divided land parcels to local customers. The broker strongly refused my proposal as according to him "it would not sell". So, I sat with him to understand his reasons. How could he object to an expert opinion?! He explained that the regulations would directly affect the affordability of the parcel. The parcel sizes were not adequate to local needs, the streets were too wide, and I had reduced the number of corner parcels. He explained that customers preferred corner parcels since this location provides two free facades facilitating room ventilation. In practice, owners do not implement any side or rear setbacks and hence if only one facade is free, several rooms would need ventilation using small shafts which is not attractive. Of course, this does not follow the Egyptian building regulations but, in such contexts, this is the norm. I tried to explain the health gains from proper ventilation and better accessibility with wider streets. We discussed options and negotiated thoroughly until we reached a compromise, one that



would provide better quality than the local practices but at the same time does not sacrifice affordability or attractiveness. It was an eye opener for me to deeply understand and appreciate local knowledge and practices and define an entry point for negotiation with “local development professionals”.

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If affordability is the underlying quality of informal areas, we must acknowledge that it is not limited to the physical arrangement of the area: buildings, mixed use, street patterns, resource flows, etc. The backbone of informal areas is social capital. Actually, social capital flow is the only backbone of these areas for getting by each month. It is the social capital that is shared and embedded in the local community that allows development to occur in the first place. It provides the main resource that local residents use to get through life’s hardships. It is repeatedly reported by residents who have been relocated into new areas that the absence or destruction of their local social network (and thus their social capital) has drastically affected their livelihoods. It could be the main reason why many relocated households opt to leave their new, higher quality apartments and revert to their old, deteriorated areas or similar ones. They seek to retrieve the ability to tap into the social capital asset to be able to make ends meet. In many cases, social networks provide job opportunities and customers for microenterprises, without which households are extremely vulnerable.

Seeking affordability is not limited to low-income households. It is rather a pursuit sought by even middle-income strata. In many Egyptian cities, growth is taking place as informal urban expansion on surrounding agricultural land. This poses not only a threat to the economy with the reduction in arable land, but also a challenge to urban planning and management. During a strategic planning consultancy as a housing expert, I conducted interviews and focus groups to identify housing provision patterns and practices. One local owner stated that he, as do many others, prefers to buy one karat (1/24 of a feddan, the local area unit in Egypt) which is approximately 175 m² on the outskirts of the city within an agricultural basin. He would leave it without cultivation for a while to claim it is inarable. Afterwards, he would build on it using a reinforced concrete skeleton structure and bricks for a design that satisfies his needs. When I asked him what he would do for basic infrastructure services such as electricity, water, and sanitation, he replied that this was easy. He would dig a well for water, build a septic tank for sanitation and buy a generator for electricity. He would operate like this for a year or two until he sorted out his situation with the local municipality and obtained the proper permits, after paying fines for encroaching on agricultural land. He saw this as more affordable (despite the hassle) than buying a piece of land and developing it according to the city's building codes and land use plans within the city boundaries! I assured him that he could declare himself as an independent state as he was providing himself with almost all amenities. Such an attitude provides freedom of choice for local residents. One could say it is a truly democratic, bottom-up, grassroots development, but that is another discussion altogether.

As urban planners and policy makers, such narratives open our eyes to the realities that informal urbanism is creating. It is naïve to ignore the magnitude and power of informality, let alone trying to eliminate it. Yes, there are areas that pose life threats to their inhabitants, but these are not the majority of informal areas. In Egypt, the percentage of unsafe areas is confined to below 5% of all urban areas (ISDF, 2011). However, informal areas comprise around 60% of urban areas (Sims, 2012). There is a great difference between these two statistics and they should not be mixed up when formulating development policies, strategies, and plans.

The debate then becomes about improving the situation and closing the open holes, rather than replacing these areas altogether. In such a pursuit, tailored solutions that provide “acupuncture” interventions would be most suitable both economically and socially. The aim is to improve liveability but not compromise social networks, social capital, and affordability. Acknowledging quality of life (QOL) aspects that informal areas already provide is key. One study investigated QOL aspects in several areas in Egypt and produced a relevant index. This could be useful in other cities of the Global South (Abdel-Moneim, Khalil, & Kamel, 2021). However, localising this index and others is of paramount importance to capture local knowledge and wisdom and not recreate mistakes of the past.

It is quite misleading to think of informality as restricted to certain groups or strata. Informal areas in most cases house a variety of social and economic strata. However, with the current

physical delineation they remain physically segregated. It is also worth noting that most of the formal/planned parts of the city rely on the informal/unplanned areas for many services. Waste recycling is just one example of many. In Cairo, as in many megacities of the South, waste management relies heavily on informal waste pickers who actually provide an extremely efficient system with quite high rates of recycling (Fahmi & Sutton, 2010; Zafar, 2016). But let us not forget the unhygienic conditions under which they work. Hence, if Africa is to pursue a different path to development than the Global North models, one that responds to local needs and aspirations, African cities should support informal areas and informal dwellers and weave them into the city to create an African model for inclusiveness. It is not enough to provide services to all, but to create a city that removes boundaries and edges. A city that recognises its assets manifested in its youth and flow of social capital.

References

Abdel-Moneim, N., Khalil, H., & Kamel, R. (2021). Developing QOL Index for Resettlement Projects of Unsafe Areas in Egypt. *Urban Forum*. doi:<https://doi.org/10.1007/s12132-021-09419-7>

Attia, S., & Khalil, H. A. (2015). Urban Metabolism and Quality of Life in Informal Areas. In M. Schrenk, V. V. Popovich, P. Zeile, P. Elisei, & C. Beyer (Ed.), *Proceedings REAL CORP 2015: Plan Together – Right Now – Overall*, (pp. 661-674). Ghent, Belgium. Retrieved from <http://www.corp.at>

Fahmi, W., & Sutton, K. (2010). Cairo's Contested Garbage: Sustainable Solid Waste Management and the Zabaleen's Right to the City. *Sustainability*, 2(6), 1765-1783. doi:10.3390/su2061765

ISDF, Informal Settlements Development Facility. (2011). *National Map for Unsafe Areas*. Cairo: Ministry of Local Development.

Khalil, H. (2012, April). Affordable Housing: Quantifying the Concept in the Egyptian Context. *JEAS, Journal of Engineering and Applied Science, Faculty of Engineering, Cairo University*, 59(2), 129-148.

Khalil, H. E. (2010). New Urbanism, Smart Growth and Informal Areas: A Quest for Sustainability. In S. Lehmann, H. AlWaer, & J. Al-Qawasmi (Ed.), *Sustainable Architecture & Urban Development* (pp. 137-156). Amman: CSAAR.

Khalil, H., & Al-Ahwal, A. (2021). Reunderstanding Cairo through urban metabolism: Formal versus informal districts resource flow performance in fast urbanizing cities. *Journal of Industrial Ecology*, 25, 176–192. doi:10.1111/jiec.13056

Khalil, H., & Gammaz, S. (2020). Supporting informal areas resilience: reinforcing hidden green potentials for a better quality of life. In J. Moore, S. Attia, A. Abdel-Kader, & A. Narasimhan (Eds.), *Ecocities now: Building the bridge to socially just and ecologically sustainable cities* (pp. 11-40). Springer. doi:10.1007/978-3-030-58399-6_2

Khalil, H., & Khalil, E. E. (2015). *Energy Efficiency in the Urban Environment*. Boca Raton, London, New York: CRC press, Taylor & Francis.

Khalil, H., Ibrahim, A., Elgendy, N., & Makhoul, N. (2018). Could/Should Improving The Environmental Performance in Informal Areas of Fast Growing Cities Be A Priority? Case Study Cairo. *Urban Climate*, 24, 63-79. doi:10.1016/j.uclim.2018.01.007

Roy, A. (2005). Urban Informality: Toward an Epistemology of Planning. *Journal of the American Planning Association*, 71(2).

Sims, D. (2012). *Understanding Cairo: The Logic of a City out of Control*. Cairo: AUC Press.

Zafar, S. (2016, November 2). Garbage Woes in Cairo. Retrieved from EcoMENA, Echoing Sustainability: <http://www.ecomena.org/tag/waste-management-in-cairo/>



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RISE Africa is ICLEI Africa's platform for inspiring and fostering new connections that lead to swift and impactful actions for enhanced sustainability and resilience in Africa's urban areas. Exposure to forward-thinking ideas from different disciplines through a range of curated interactions will provide an antidote to outdated "silo" thinking that is well recognised to inhibit innovation. Instead of being another 'talk shop' amongst like-minded individuals, RISE Africa will bring a diversity of city role players together in innovative sessions to identify new opportunities for collaborative action.