From Kibera to Kalobeyei.  
Public Space as a Catalyst for Transformation and Integrated Planning

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Abstract
Public spaces are key to inclusion and sustainability in urban Africa. Too often, public space is seen as an add-on, to be included at the end when funding or space allows. In this paper, written by two collaborating organisations working on public space in Kenya (and beyond), we argue that public space should be seen less as an optional outcome of sustainable development and more as a necessary and active agent in catalysing such development. We illustrate this with two case studies of public space initiatives in very different settlements. The first case study - in Kibera, Nairobi - demonstrates how a series of co-designed public spaces can address local, site-specific objectives within an informal settlement context, while responding to regional-scale challenges, including the development of stormwater management and infrastructure that improves access to public health, economic opportunities, education, transport, social equity and emergency services. The second case - in the Kalobeyei settlement in Kakuma - represents a paradigm shift in refugee settlement design, demonstrating the critical role of participatory public space design within an integrated planning strategy to promote the socio-economic integration of host and refugee communities. Other benefits include improving the safety of women and children, providing shelter and respite from inclement weather exacerbated by climate change, and improving access to economic opportunities, basic infrastructure and services. A common feature of the projects is the way in which communities have been substantially involved in all stages of planning, design and construction. By analysing the process, we draw lessons for replication in other neighbourhoods facing the challenges posed by the intersection of climate change, social inequality and rapid urbanisation. Overall, we hope to demonstrate the potential of public spaces developed through localised and participatory design approaches as an accelerator of sustainable development in African cities.

Keywords: public space, sustainable development, inclusivity, refugee settlements

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Public spaces are key to inclusion and sustainability in urban Africa. As communities in these cities and around the world look to advance sustainable development goals, public space can, oftentimes, be but one of the elements in a long list of strategies. All too often, public space is considered as an additive, included toward the end if funds or space allow. Public space should be seen less as an outcome of sustainable development and more as an active agent in catalysing such viable and vibrant cities. Using the work the authors have undertaken in designing, planning, and building public spaces in dense and dynamic urban environments in Kenya as case studies, this essay explores the potential role of public spaces in catalysing transformation and integrated development.

In the informal settlements of African cities, characterised by normalised socio-spatial inequality due to a dearth of basic infrastructure and public facilities and owing to resource constraint, public spaces are a critical and complementary entry point through which residents can access infrastructure, services, and livelihoods essential for a dignified standard of life. Beyond the traditional benefits of providing spaces for recreation, community gatherings and interactions, as well as promoting improved air quality, our experience demonstrates that introducing new public space can confer a long roster of other benefits to residents of informal settlements, serving as a catalyst for sustainable development.

For too long, public space in the context of sustainable development has tended to be seen from a North American or European lens, in the aesthetic tradition of picturesque gardens and in the patronage model of grands projects - civic undertakings that are the result of considerable investments and years, if not decades, of planning and execution. But while that approach may have worked for the large urban parks of the 19th and 20th century in the capital cities of Europe and new cities in North America, that model also created extreme public space inequity, and no longer meets the needs of communities around the world most in need of safe and healthy public space - and least able to afford such spaces. What that European model assumes is a kind of fixed spatial context, where urban areas slowly evolve around formal parks, transportation infrastructure, and accretions of capital. In a global 21st century context, though, where cities rapidly urbanise and change and where infrastructure can be less formal, new models are needed that allow for growth and adaptability to change.

Recognizing the shortcomings of formal urban parks model, it is imperative that actors explore localised models that are appropriate under such circumstances covered above. Kounkuey Design Initiative (KDI), a non-profit design and planning firm, delivers public spaces in a more equitable way using processes that under-resourced communities can afford and that deliver change more expeditiously. Since 2007, KDI has had an active footprint in Kibera informal settlement, where, together with a roster of local partners, it has planned, designed, and delivered a growing network of 11 new public spaces along with a range of other public space-related initiatives, including urban flood resilience strategies. Globally, UN-Habitat works with partners to build inclusive, safe, resilient, and sustainable cities and communities, and capitalises on urbanisation as a key catalyst to achieve these goals. KDI and UN-Habitat have been working together since 2012 on public space development in Kibera and elsewhere in Nairobi and, in 2021 have been able to bring together their programs to work on the assessment and design of public space further afield in the Kalobeyei Settlement.

In this essay, we present two projects that each, in different ways, represent a model for sustainable development initiated and catalysed by public space design. In one, the
Kibera Public Space Project, a series of new public spaces within the context of an informal settlement address both highly localised site-specific goals, including recreation and sanitation, while, in aggregate, they respond to regional-scale challenges, including the development of stormwater management and infrastructure related to public health, economic opportunity, education, transportation, social equity, and emergency services. In the other example, the Kalobeyei integrated settlement through its spatial plan, public spaces are used as a way to improve the immediate day-to-day conditions in a refugee settlement as well as to incorporate a series of measures meant to render the settlement a permanent and sustainable community.

Kibera
Set in Kibera, an informal settlement in Nairobi, the Kibera Public Space Project (KPSP) is an innovative approach to deliver new public spaces in dense urban environments that do not otherwise have the underlying infrastructural framework for new public spaces. Led by KDI, the project is an ongoing initiative that has created not only needed change in a community long overlooked by (and, in many cases, actively harmed by) traditional design and planning processes, but it has also served as a vehicle to support broader sustainable development goals, including environmental resilience, income-earning opportunities, education and childcare program, communication infrastructure, public health and safety measures, and enhanced transportation.

![Figure 1: Map of the network of public spaces forming the Kibera Public Space Project.](source)

There, KDI has developed an incremental strategy, delivering projects at a scale, cost, and delivery schedule that allows them to be realised relatively quickly, allowing these projects to address urgent needs. As a collective network, they create demonstrable regional impact, mitigating flood risks, addressing long-running sanitation and public health-related challenges, introducing income-earning opportunities for local residents, and adding to essential civic services.
KDI undertakes a participatory approach to design, planning, and construction, giving local residents full agency in decision-making. Structured in this way, the project has been an effective way to meet the most immediate needs of residents. Each new public space is programmed with community groups, meaning that residents identify the types of amenities and services each new public space will include. The outcome of this approach has been the introduction of new schools, sanitation services, health facilities, income-earning opportunities, greenhouses, and flood-resistant pedestrian routes—all integrated into new public spaces. Collectively, these public spaces have galvanised social bonds throughout the community, serving not only as places for residents to gather collectively, but also as
ongoing projects in which community members have shared stakes. Though they function as such in a year-round basis, during the Covid-19 pandemic, this effect was all the more pronounced as the public spaces in KPSP (and the organised network of residents that administer programs in these spaces) became places to safely gather, vital nodes of public health information, and a network through which to distribute critical health and education supplies.

**Kalobeyei Settlement**
KDI is now adapting this approach in geographies around the world, including in several states in the USA and in Argentina. The firm is also working on a similar strategy in Kenya’s Kalobeyei Settlement in support of UN-Habitat’s efforts to bridge humanitarian-development-peace nexus and spur sustainable development in the Kakuma-Kalobeyei area. This settlement, which UN-Habitat has been developing since 2016, under the Kalobeyei Integrated Socio-Economic Development Programme (KISED), is a pioneering model for refugee settlements across the world. Key planning principles that guide Kalobeyei Settlement’s sustainable development, including providing opportunities for integration of host and refugee communities, promoting self-reliance, and developing inclusive service delivery are also integrated in the planning and development of public spaces throughout the settlement.

![A bird’s eye view of Kalobeyei Settlement's Village 2, 2019. Source: UN-Habitat, 2019.](image)

Under the KISED framework, Kalobeyei Settlement has seen continued efforts to improve permanence of infrastructure that both host and refugee communities can come to rely on. This includes micro-grids powered by solar energy, construction of permanent shelters and social infrastructure, and implementation of resilience infrastructure like water dams. UN-Habitat’s Advisory Development Plan helps to guide
these developments in a sustainable manner, as opposed to traditional approaches in provision of services and infrastructure in ad hoc ways, which creates a landscape of improvisation and impermanence. In reality, refugee settlements are most often long-term propositions, with refugees taking up residence for many years. The UNHCR estimates that more than 84 million people globally are currently living as refugees, after having been forcibly displaced due to conflict, violence and climate change (2021, p. 1). This figure is on a steep growth curve.

Over the years, the settlement continues to see a protracted situation with increasing influx of refugees and host communities settling in the area. This is further compounded by existing challenges, including conflicts and tensions between host and refugee communities, sustainability of the settlement in the long-term, environmental risks including droughts and flash flooding, and resource constraints. The design of public spaces in such circumstances requires an integrated approach, which saw a collaboration between UN-Habitat and several partners including KDI - building on a collective experience in urban planning and implementation in humanitarian settings, multi-stakeholder engagement including with the communities, and development of inclusive, safe, and healthy spaces for all.

KDI and UN-Habitat are planning a series of three key public spaces, which, like the ones in Kibera, will provide the community with shared open space, but will also deliver a range of other benefits, including income-earning opportunities, water distribution, and much-needed shade. The public spaces, key nodes in Kalobeyei Settlement’s three villages, are built upon UN-Habitat’s strategy to improve walkability, interconnectivity, and safety by integrating the public space as part of a network of streets, parks, and green corridors. Two of these public spaces have been built, while the third is in design.
KDI’s work includes retrofits to improve the first two and develop a design for the third based on the collective experiences from implementing the two public spaces in Kalobeyei Settlement and eleven in Kibera.

Figure 5: Map of the Kalobeyei settlement showing location of the connected public space sites. From the left is Public Space 1, developed in 2018 and currently being rehabilitated. In the middle is Public Space 2 where construction is ongoing. The third site is where a third public space is proposed and a co-design process for this is ongoing. Source: KDI, 2022.

These public spaces will offer many benefits to communities. Equipped with sports fields and playground equipment, they will offer an environment to engage in healthy physical activity and to assist with childcare. As Covid made clear to communities around the world, public spaces are essential elements of comprehensive public health strategies, and in Kalobeyei, these public spaces will allow residents to safely gather outside. They will also provide a venue in which to vend goods, giving residents much-needed income-earning opportunities. And, as they do in Kibera, they will become critical tools for regional environmental resilience, providing shade from intense sun and becoming integral to water-related infrastructure and water delivery. Beyond these direct and measurable outcomes, though, the Kalobeyei Public Space Project will also support objectives that are harder to define, but no less important to the overall health and safety of the community living there: that is, the role of public spaces in building social cohesion. Research clearly demonstrates the critical role of social bonds in building a community’s resilience and opportunity, and, in this regard, the Kalobeyei public spaces have become essential tools. In refugee settlements, social bonds are of paramount importance. Not only can populations quickly fluctuate, but
they also tend to include blocs of different nationalities, cultures, languages, and religions. Relationships between refugees and host communities can also be challenged, as they were in Kalobeyei. Given the cultural hybridity of these settlements, public space can serve as a critical tool in establishing and reinforcing social bonds. In 2021, KDI conducted a survey of Kalobeyei residents and UN-Habitat staff based in Kalobeyei, and the social dynamics of the new public spaces were a recurring theme. As one UN-Habitat representative put it, “within neighbourhoods, public spaces can provide a space for refugees from different nationalities and tribes, arriving at different times, to gather, interact, and build relationships.”

Figure 6: Proposed neighbourhood concept under the Spatial Plan for Kalobeyei settlement with public spaces as key supporting and connective infrastructure. Source: UN-Habitat, 2018.

And as another UN-Habitat representative remarked:

*Neighbourhoods in Kalobeyei are made of communities of not only different countries of origin, but also with a very diverse cultural background. Public spaces not only offer a place to engage in common activities, but also offer a rare chance to these communities to learn various cultural aspects that may be different from their own. This sort of learning entrenches trust that gradually grows into relationships such as inter-community trade, inter-community sports and even inter-community marriages.*
For every public space project undertaken, a participatory design and planning process is applied, creating platforms for people to engage—in substantive and meaningful ways—in the design of their own community. In Kalobeyei, the approach was no different. To ensure these public spaces meet the needs of a diverse community comprising people from multiple national backgrounds and languages, we created a novel participatory process. For each public space in Kalobeyei, 60 residents were engaged in a long-term design and planning collaboration. 20 of those residents were men, 20 were women, and 20 were youth (with 10 girls and 10 boys). These groups also drew from a range of different nationalities and cultures, ensuring each group was adequately represented.

Conclusion
Though each of these ongoing initiatives—the Kibera Public Space Project and the Kalobeyei Settlement Advisory Development Plan—has different environmental, cultural, architectural, and governance-related contexts, both share a common aim: creating inclusive and sustainable communities where residents have equitable access to opportunity and civic services. And, importantly, both share landscape design as a common vehicle to achieve those sustainable development goals. Because they emerge from cultural engagement and ecological analysis, both designs are fundamentally site specific and tied to their place and time. Yet they both provide a replicable framework to adapt elsewhere, to places that face the diverse challenges introduced by the intersection of climate change, social inequity, and rapid urbanisation. In making public spaces that address immediate environmental needs (stormwater management, relief from heat, air quality) coupled with programs identified by the local community as high priorities, the model is eminently adaptable to other sets of circumstances in other geographies.
What makes these projects successful, though, is the ways in which the communities were substantively involved through all phases of planning, design, and construction. All too often, sustainable development can be conceived from afar by teams of well-intentioned designers, planners, and administrators who approach challenges remotely, through fields of data. With this approach residents can shape the decisions that in turn influence and activate the development of the wider neighbourhood.
Figure 7: Kalobeyei settlement public space with children play area and basketball court in view. Extreme heat due to a semi-arid climate limit use of the public space, with shaded zones of the public space experiencing high usage in the afternoon, especially by young and older men. Source: KDI, 2022.

Figure 8: Kalobeyei settlement public space with children play area and tree shading in view. Swings are tied up in the afternoon to discourage usage by children due to extreme heat which poses significant health and safety risk to children, and adults as well. Source: KDI, 2021.
Figure 9: A workshop within a community pop-up event in Kalobeyei public space to understand public spaces in Kalobeyei, and the challenges the host and refugee communities face regarding access and inclusion in public spaces. The community pop-up event included participation from KDI, UN-Habitat, and the host and refugee communities in Kalobeyei settlement. Source: KDI, 2021.

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