

Urban Regeneration as a Catalyst for Slum Transformation



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This paper discusses how linking urban regeneration with slum transformation can create more inclusive, resilient, and equitable cities

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United Nations Human Settlements Programme (UN-Habitat)

P. O. Box 30030, 00100 Nairobi

www.unhabitat.org

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Authors

Selenge Dima, Robjason Placido, Alexandre Arcos Pujades,

Contributors

Joshua Maviti, Kerstin Sommer, Nuo Xu, Naiara Yumiko

Design and Layout

Robjason Placido



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Introduction

Urban regeneration is an integrated and multi-agent collaborative planning process that combines physical, economic, social, environmental, and governance measures (UN-Habitat, 2021). Embedding regeneration as a dimension in slum upgrading processes could help to deal with pressing spatial injustice challenges, such as gentrification and displacement, serving as a powerful catalyst for broader, more comprehensive, and just urban planning projects. This combination could serve to address social inequalities more effectively, fostering participation, bottom-up planning processes and inclusion, and creating stronger mechanisms for socio-economic development and tenure security in deprived areas. An interlinked approach can support consolidated and growing cities to face social, economic, environmental, and cultural challenges in a more integrated manner. This paper explores the synergies between Slum Transformation and Urban Regeneration, investigating the potential opportunities its correlations present.

According to the UN Stats¹, “over half of the global population currently resides in urban areas, a rate projected to reach 70 per cent by 2050. Approximately 1.1 billion people currently live in slums or slum-like conditions in cities, with 2 billion more expected in the next 30 years”, with the largest portions living in East Asia, South Asia, Sub-Saharan Africa, Latin America, and the Caribbean². UN-Habitat defines a ‘slum household’ as those in which the inhabitants suffer from one or more of the following: **1) lack of access to improved water source; 2) lack of access to improved sanitation facilities; 3) lack of sufficient living area; 4) lack of housing durability; and 5) lack of security of tenure.**³ This means that, according to the current trend, an important aspect of cities’ growth is directly related to an expansion of inadequate or insufficient standards of living. This represents an imperative dispute being operated in the built environment that planning processes, including urban regeneration, will increasingly need to face: the periodic consolidation of spatial informality.

The development and growth of slums result from a complex interplay of various factors, such as rapid urbanisation, inadequate urban planning, insufficient affordable housing, the influx of rural-to-urban migrants, displacement caused by conflicts and political instability, and the effects of climate-induced mobility. Slums are a global phenomenon that, not rarely, offers the only type of affordable settlement that is accessible for the urban poor and serve as crucial shelters and community hubs for migrants, offering a starting point for improving their families’ lives, especially in large or growing cities. However, the challenges faced by slum residents worldwide are significant: insecurity of tenure, inadequate or absent educational and healthcare

facilities, overcrowding, limited green and public spaces, poor mobility, restricted job prospects, limited access to safe water, and inadequate waste management are among the difficulties stemming from the frequent disconnection of slums with the broader urban fabric.

Slum transformation principles are established on the basis of inclusiveness and participation, data-driven and evidence-based actions, integration, continuity, equity, sustainability, affordability, and replicability⁴. It is a critical element across many of the Sustainable Development Goals (SDGs) and, according to the Participatory Slum Upgrading Programme (PSUP), “the Keys for Successful Slum Upgrading and Prevention within the Framework of the 2030 Agenda for Sustainable Development and the New Urban Agenda include: (1) recognition of the slum challenge, (2) government leadership, (3) strengthening of a policy response, (4) systemic and city-wide/‘at scale’ approaches, (5) integration of people and systems, (6) appropriate long term financial investment and inclusive financing options, (7) address land issues and provide slum dwellers with security of tenure, (8) participatory approach and community participation, (9) combine slum upgrading with employment generation and local economic development, (10) development of participatory, robust, standardized and computerized data collection processes, and (11) creating peer learning platforms”.

During the UN-Habitat Expert Group Meeting in Bilbao in December 2021, Urban regeneration was recognized as a powerful and comprehensive tool for economic recovery and the creation of sustainable, inclusive, and vibrant cities. Its scope encompasses a variety of initiatives, such as: smart infill housing, developing new infrastructure, repurposing historic buildings, adaptive reuse of existing buildings, culture-led regeneration, constructing new high-density apartment buildings, education, and tourism, and enhancing the overall character of cities. The regenerative aspect of this planning approach stems beyond physical transformation processes, comprising a more strategic, long-term vision of urban development, placing a growing emphasis on social equity and environmental sustainability.⁵

Urban Regeneration occurs in five dimensions: **1) physical; 2) economic; 3) social 4) environmental; and 5) governance**. The following table showcases how common complex challenges of slums can be addressed within those dimensions to propose a roadmap of actions within the UR scope. It represents the interconnectedness between the two approaches and gives primary hints on how to link both processes.

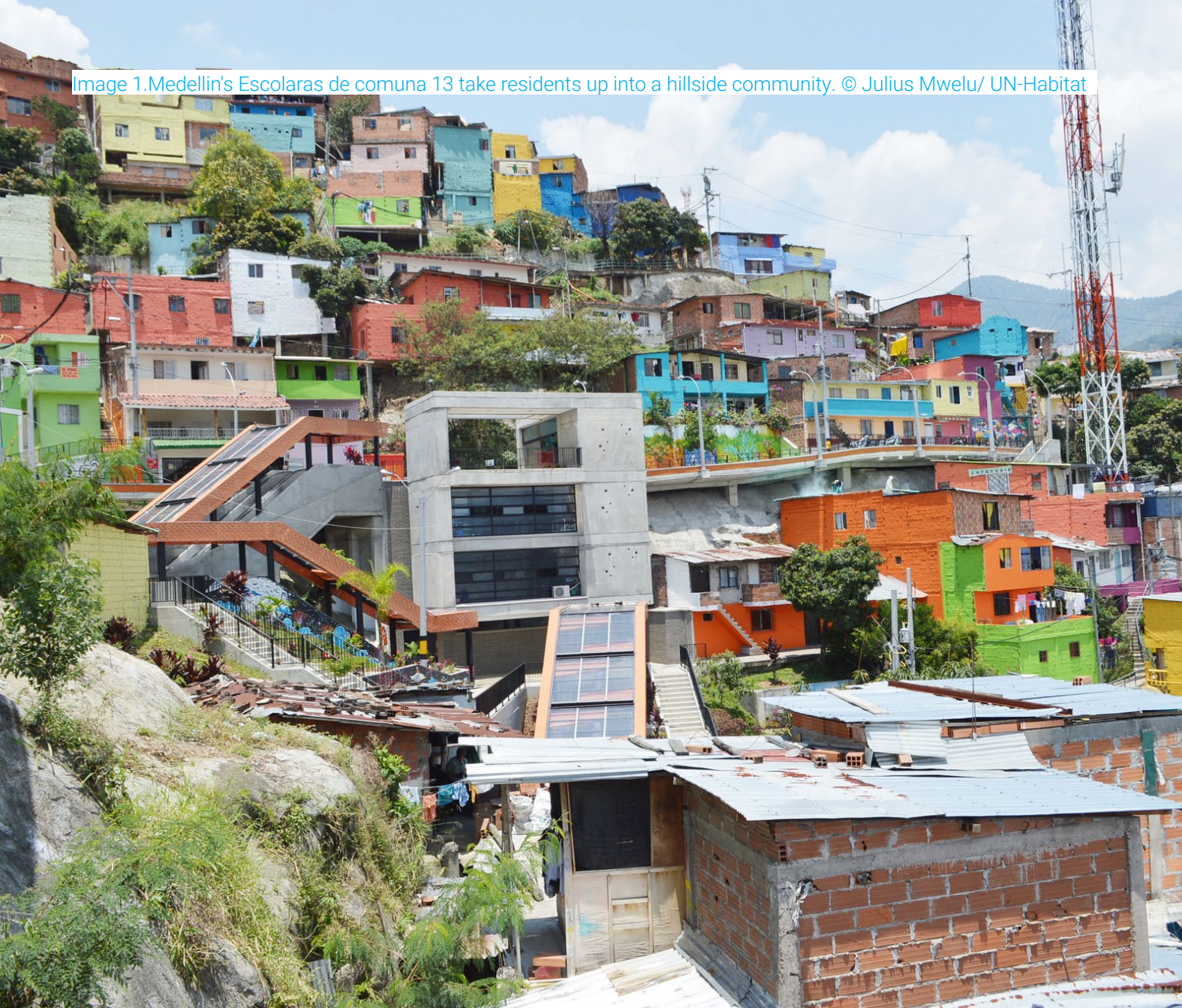
Table 1. Slum Challenges Across Five Dimensions of Urban Regeneration

Dimension	Challenges in Slums connected to Urban Regeneration	Examples of Urban Regeneration actions specific to the slum context
Physical	- Substandard housing structures, often self-built with non-permanent materials inadequate for housing - Inadequate accessibility and connectivity (within the area and towards other parts of the city) - Insufficient supply of affordable housing	- Provide technical assistance for construction in situ and strategic plans for social housing programmes focusing on housing upgrading and internal relocations - Integrated plans to enhance walkability and access within the settlement, and to identify main points of city-wide connections
Economic	- High level of unemployment and informal economy with lack of livelihood opportunities - Limited capacity building and skill development programmes	Use of socio-economic development mechanisms such as creation of microfinance and saving groups; development of livelihood support programmes; plan for formalisation of micro-entrepreneurship; capacity building for resource finding and application for open calls
Social	- Insecurity of tenure - Social exclusion and stigma faced by slum residents - Inadequate healthcare and educational facilities - Scarcity of public spaces and community centres - Inadequate public safety measures - Overcrowding and congestion - Unique challenges faced by women, children, the elderly, and people with disabilities	- Provision of land tenure and use of land capture value tools focused on social housing and local business - Implementation of social services, inclusion initiatives, and empowerment campaigns - Integrated plan for derelict and decaying areas envisioning the creation of community spaces - Campaigns for intergenerational knowledge exchanges
Environmental	- Uncontrolled environmental degradation - Lack of green spaces - Increased vulnerability to climate change and natural disasters - Poor waste management practices - Elevated levels of air and water pollution - Construction in prone-to-disaster areas/lack of environmental regulation	- Development of degraded areas into green public spaces planned through nature-based and climate resilient solutions - Capacity building for environmental and resources management - Housing upgrading plans utilizing local and resilient resources and techniques - Mapping and rehabilitation of local natural resources
Governance	- Implementations of top-down interventions - Lack of recognition and work with local leadership – which leads to, in many contexts, power being taken by organized crime parties, militia, and other localized violent groups	- Establishment of financial and institutional frameworks for long-term slum transformation initiatives - Investment in local leadership programmes with the establishment of official communication and local governance channels

This table offers a tangible manifestation of the alignment between the two programmes by illustrating targeted actions in slums that resonate with regeneration processes and mechanisms. When aligned, urban regeneration and slum transformation projects can support residents to exercise their human rights and citizenship, providing

adequate living standards, and producing broader socio-economic development mechanisms for inhabitants to fully achieve their potential. In this way, slum residents can be safeguarded from issues related with insecurity of tenure, being less vulnerable to spatial violence and injustice actions.

Image 1. Medellín's Escolas de comuna 13 take residents up into a hillside community. © Julius Mwelu/ UN-Habitat



Case Studies

This final section offers an overview of four distinct slum transformation programmes and projects, showcasing their tailored interventions within the framework of the five dimensions of urban regeneration. The case studies from Jamaica, Kenya, Brazil, and Colombia, provide insight into different cities' efforts to address challenges and drive positive change in slums and informal settlements while also emphasizing the significance of a holistic approach to urban regeneration within the unique context of slum transformation.

These case studies gives a practical idea of how the comprehensive development of urban areas encompasses both urban regeneration, addressing broader issues of urban decay into its five dimensions, and slum upgrading, focusing on specific challenges within informal settlements. Integrating these approaches ensures a more inclusive and balanced development strategy, fostering social and spatial inclusion by considering the needs of all residents, including those in informal settlements. This prevents marginalization and addresses eminent inequalities, providing equal opportunities and access to services, public spaces, education, and economic prospects. Combining urban regeneration with slum upgrading also embeds climate resilience, addressing environmental concerns inherent in uncontrolled settlement growth. This integration promotes sustainable living conditions and local, nature-based solutions. Efficient resource utilization, coordinated by urban planners and governments, maximizes the impact of investments. Recognizing the expertise within communities fosters community-driven solutions, empowering residents and ensuring long-term positive changes across the urban landscape, breaking cycles of poverty and inadequate living conditions.

Enhanced slum transformation through urban regeneration: Case studies

Community Centre and Public Space Project in Canterbury⁶

City/Country: Canterbury, Jamaica

Region: Latin America and the Caribbean



Physical

Construction of a resilient, green multi-purpose community centre having a meeting room, office, and post office for community activities

Creation of public spaces such as multi-purpose court, playground, and children's library

Provision for drainage and installation of permeable paving for stormwater management



Economic

Establishment of the Canterbury Social Enterprise provided with a business plan and operations manual

Livelihood and skills development programme for the youth, women, and vulnerable households

Micro-businesses identified by the community such as barbershop and food stalls



Social

Recreational and cultural programming activities such as sports tournaments and movie nights

Shift on the identity of the community from being unsafe and stigmatized to being welcoming and family-friendly



Environmental

Utilisation of nature-based solutions such as permeable surfaces, rainwater collection, home composting and vegetable plots

Awareness programmes for solid waste management and hygiene practices for the community



Governance

Utilisation of a participatory design process such as MethodKit workshops, Block by block (Minecraft Design), and validation meetings

Strong multi-stakeholder partnerships among the community, local government, NGOs, and private sector

Image 2. Community workshop on social enterprise modelling & community managed fund. © UN-Habitat



The Kenya Slum Upgrading Programme (KENSUP)⁴

City/Country: Kenya



Region: Sub-Saharan Africa



Physical

Integrated pilot infrastructure projects starting with water, sanitation, and storm drain systems in Kibera, lowering housing costs by 40%

Constructed low-volume roads that enable non-motorized transport routes

Promoted self-help housing in Mavoko through training, income support, and demonstration houses



Economic

Established Kenya Slum Upgrading Fund (KENSUF) that attracts donors and private investment

Supported diverse income-generating activities including micro-enterprises from modified bicycles for passenger transport

Developed housing cooperatives for collective land acquisition and accessible housing finance



Social

Granted secure tenure through community land trusts

Enhanced social infrastructure and amenities like schools and clinics based on community priorities

Ensured inclusive community participation, recognizing residents as partners for project ownership



Environmental

Implemented solid waste management programs including door to door waste collection and recycling

Constructed storm drains and sanitation facilities to mitigate waterborne diseases such as cholera and typhoid

Integrated economic sustainability with shelter upgrading to ensure poverty reduction at neighbourhood level where households are major consumers and waste generators



Governance

National Slum Upgrading Strategy supported by strong political will and national budget allocation

Good governance that promoted inclusiveness, participation, accountability, and transparency

Enhanced planning, service delivery, and regulation through strengthened local authority capacity

Favela Upgrading (Favela-Bairro Program)⁷

City/Country: Rio de Janeiro, Brazil



Region: Latin America and the Caribbean



Physical

Extensive urban infrastructure development including street pavements and water and sanitary networks

Constructed 600,000 sqm of social and leisure facilities such as nurseries, sports centres, public squares, and primary healthcare facilities

Connecting the favelas with the formal city through access road upgrades and public lighting that promotes public safety



Economic

Provided job training and support to cooperatives and entrepreneurs to enhance income-generation opportunities

Strengthened adult education with social development components to further economic empowerment

Removed barriers to the development of favela residents through improving livelihoods and encouraging economic independence



Social

Prevented early school dropouts through comprehensive childcare and youth support services

Adopted a gender-sensitive approach by tackling the needs of women for safe childcare options while ensuring equal participation in income-generating activities

Active residents' participation in planning, needs assessment, and implementation of programs



Environmental

Implemented measures against geological risk for urban upgrading of precarious settlement locations

Improved waste management systems for a cleaner and more attractive neighborhood



Governance

Employed a flexible "intervention matrix" to include the residents in deciding the interventions to prioritize

Institutional development through monitoring, evaluation, research, and technical assistance

Created Posto de Orientação Urbanística (POUSOS) desks to provide local support for infrastructure maintenance

Image 3. Slum upgrading with community labour force for construction activities. © UN-Habitat



Image 4. Community participation in planning, Rio de Janeiro, Brazil. © UN-Habitat



Medellín Integrated Slum-Upgrading Programme (PRIMED)⁷

City/Country: Medellin, Colombia

Region: Latin America and the Caribbean



Physical

Housing upgrade in high-risk settlements and relocation for families in unsafe areas

Improved mobility through new pedestrian bridges and stairways and connectivity of barrios to the city through access roads

Expanded public spaces with new parks, plazas, and cultural facilities especially in underserved communes



Economic

Zonal Centre for Economic Development (CEDEZO) supported local entrepreneurship and micro-enterprises

Prioritized hiring local residents in construction projects to reduce unemployment

Boosted neighbourhood businesses through revitalizing commercial corridors near Metro cable stations



Social

Formalized land tenure, securing property rights among residents

Strengthened social cohesion through cultural and educational hubs such as parks and libraries

Prevented violence and exclusion among youth through vocational trainings and civic education



Environmental

Geological hazard mitigation including slope stabilization, retaining walls, and drainage improvements in steep areas

Encouraged greening and reforestation in hillside settlements

Improved sanitation through extended water and sewerage network into informal communities



Governance

Established participatory budgeting and neighbourhood assemblies to influence local investments

Developed training for community committees to manage projects in collaboration with the local government

Promoted peacebuilding by reintegrating former combatants into community projects

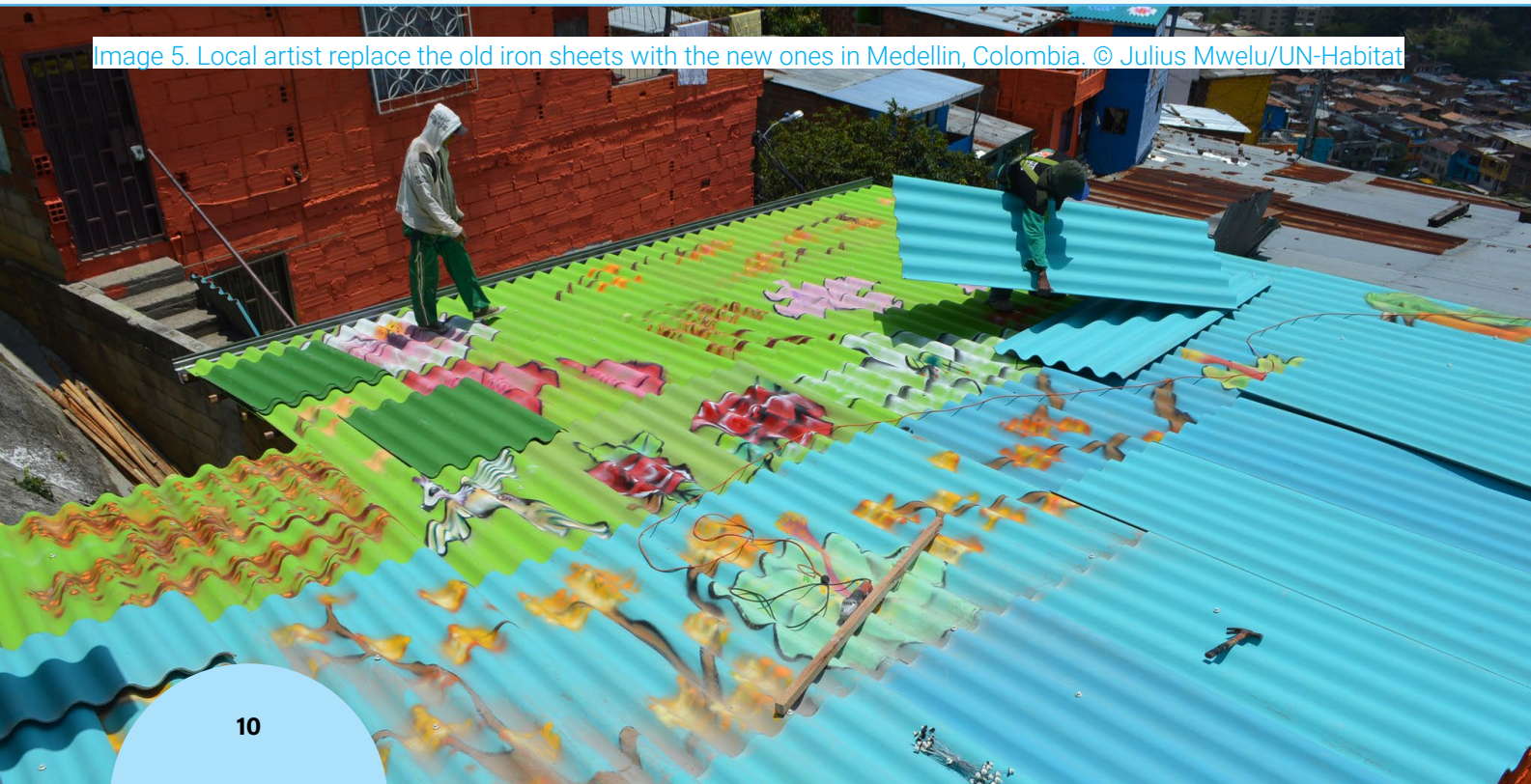
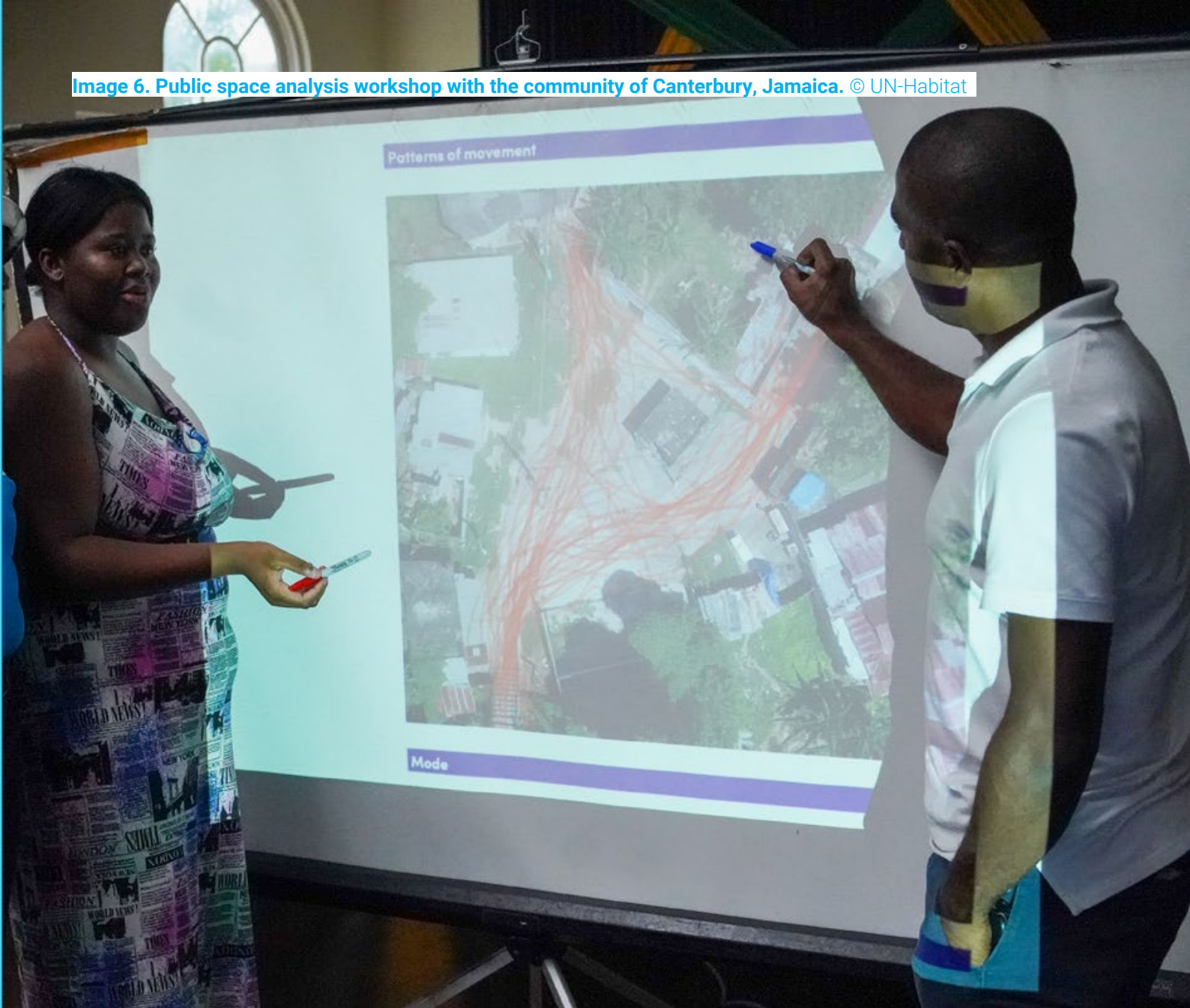


Image 5. Local artist replace the old iron sheets with the new ones in Medellin, Colombia. © Julius Mwelu/UN-Habitat

Image 6. Public space analysis workshop with the community of Canterbury, Jamaica. © UN-Habitat



Conclusion

Urban regeneration applied across its physical, economic, social, environmental and governance dimensions can catalyse slum transformation by upgrading housing and services, securing tenure, expanding livelihoods and strengthening local leadership while embedding climate resilience. Evidence from Jamaica, Kenya, Brazil and Colombia shows that participatory, citywide, policy-enabled and adequately financed programmes reduce displacement and spatial injustice and deliver durable socio-economic gains. Aligning data-driven planning with inclusive institutions and sustained investment can turn informal settlements into resilient, connected neighbourhoods and advance a just, liveable urban future.

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