gender parity by placing women's self-help groups at the centre of the initiative and in decision-making and implementation roles, incorporating a gender perspective into all data and coordination mechanisms, and providing a safe and secure work environment for female workers.

2. Build the capacity of local urban communities to enhance their resilience

Through OUWEI, the knowledge transfer process from skilled to unskilled workers plays a pivotal role in enhancing employment potential and therefore livelihood opportunities, and in ensuring the highquality execution of projects. Assembling a core team of experts who have the ability to train and upskill nonexperts should be understood as a vital component in the capacity building process to boost the adaptive capacity and resilience of both local communities in their entirety and for individuals. This process has strengthened Odisha's ULBs offering organized, formal wage employment to informal workers. However, it should be noted that the success of upskilling and knowledge dissemination relied heavily on the technical capacity of implementing partners whereby weak support limited the ability of this process.

3. Promote innovate financing mechanisms to enhance spatially equitable infrastructure and services delivery

Where OUWEI focused on the enhancement and expansion of urban infrastructure and services across different ULBs, innovative funding mechanisms and solid investments were required to ensure such projects were delivered affordably and inclusively. Spatially contextual urban analysis and the assurance of wider financial planning was key to prevent certain communities from being left behind, taking into consideration the wider social costs and benefits and gap analysis. As a highly replicable initiative, local governments should understand the value in specifying the outcomes of projects to the context of the local community, promoting multi-level coordination and innovative financing mechanisms to maximize value and impact.

Buenos Aires, Argentina: Transforming Barrio Mugica - Reintegrating a **Socially Excluded Community**

Case background

As one of the most prosperous cities in Latin America with one of the highest per capita incomes in the region, Buenos Aires is also home to 250,000 residents living across 4,000 informal settlements. With a long history of unsuccessful attempts to eliminate urban informality through top-down governance, the city has sought to tackle this growing problem by establishing the Social and Urban Integration Secretariat in 2015. As Argentina's most symbolic informal settlement, Barrio Padre Carlos Mugica - formerly known as Villa 31 - was identified for comprehensive redevelopment through the Barrio Mugica Integration Project, seeking to reintegrate the community into the rest of the city. Dating back to the 1930's, the neighbourhood experienced an influx of European immigrants seeking work in Buenos Aires's prosperous port area and the population continued to grow exponentially for many decades. As of 2016-17, the community accommodated 40,203 inhabitants (of whom 35 percent were under 15 years old and 54 percent under 24 years old. 51 percent were Argentinian; 25 percent Paraguayan; 13 percent Bolivian; 10 percent Peruvian; and 1 percent others). With a young and diverse population, this further highlighted the importance of reinvigorating such a neglected demographic to secure inhabitants a more prosperous urban community. 14

Strategically situated just a few blocks from Buenos Aires's financial centre and surrounded by the wealthy neighbourhoods of Retiro, Recoleta and Puerto Madero, as shown in Figure 2.19, Barrio Mugica has long remained socially and economically excluded. Exacerbating these issues, physical constraints such as three railway tracks and the Illia highway sever its wider connections to the city resulting in an isolated neighbourhood, void of opportunities. Poor living conditions have severely hampered the quality of life for

Barrio Mugica Integration Project (Material provided by the Government of the City of Buenos Aires).



Source: Barrio Mugica Integration Project (Material provided by the Government of the City of Buenos Aires) Figure 2.19 The location of Barrio Mugica

local inhabitants. The street conditions and inadequate waste management systems have heightened the risk of disease, whilst openly exposed, informal electric grids and informal power lines have made for an extremely dangerous living environment. All of the local electricity connections were informal, with 79 percent produced via extensions from neighbouring houses. Recurring floods were also a major threat due to the lack of drainage and transit points, with heavy rainfall events frequently preventing children from accessing school and making commuting challenging for local workers.

Launched in 2016, the transformation aimed to ensure the residents of Barrio Mugica were afforded the same rights and opportunities as inhabitants in the rest of the city. Key works have included the enhancement of living conditions whereby infrastructural upgrades have aimed to improve safety and integrate basic services (e.g. public street lighting, pavements, proper drainage, sewerage, clean drinking water facilities and improved electrical connections), as well as increased access to public services such as formalized employment opportunities, education and healthcare. In addition, the renovation of public spaces, housing delivery and upgrading, and the construction of schools and health centres have also been integral in enhancing local development. The project has extended far beyond that of simple construction with a means of providing equal rights, conditions and opportunities, but has sought to fully reintegrate the underlying social, economic and urban fabric of the neighbourhood back into the city, creating living conditions that enhance socioeconomic development.

Implementation process

1. Initiating a participatory process by working with the local community

Community participation was an essential pillar of Barrio Mugica's urban integration process, an effective way to enable action on the ground and an opportunity to enrich urban policy and promote enhanced appropriation and ownership. In line with City Law 6129 (sanctioned in December 2018), the project was carried out within Buenos Aires's legal framework, whereby the bill to set the standards for the integration process was devised directly with local inhabitants complimenting Law 3343 previously deployed by the city. The law set out the guidelines and conditions for the conduction and implementation of the Barrio Mugica integration project, and allowed for the creation of the Participatory Management Council who served as an advisory body to assist with the management. Comprised of 25 members, the council meets at least once a month at different venues in the community, providing various functions such as encouraging participation of local residents, issuing recommendations and monitoring compliance with city laws.

Barrio Mugica has its own political system and is divided into 10 zones. As a complex network, monthly working groups are now held to ensure the participation of citizens from each area through which existing challenges, urbanization progress and other matters are discussed. Thematic roundtables also take place whereby topics are proposed to advance discussion without sectoral segmentation. Effective communities have therefore been integral and access to information (on urbanization) has been seen as a pillar of citizen participation. However, there have been obstacles, notably the amount of content to disseminate and the need for segmented channels to the local population. A dedicated team was subsequently deployed locally to access all areas of city government, organize messages and distribute appropriate communication to the population to avoid over-information.

2. Integrating and upgrading essential urban infrastructure

To ensure long-term sustainability regarding energy usage, work was conducted with the community to promote the rational use of electricity and the payment of service providers. In an unprecedented shift, this connected the formal services of the city's water and electricity providers to Barrio Mugica, ensuring the same standards and modes of maintenance as the rest of the city(see Figure 2.20). Elements such as the installation of pre-paid meters allowing for phased payments have marked a major step for the neighbourhood, increasing the affordability of energy. In addition, where mobility was deemed a core axis to unlock the neighbourhood to the surrounding areas of Buenos Aires, transversal streets and bus entrances were opened to better connect the area whilst the integration of cycling and soft transit routes offered new sustainable and safe mobility options.



Source: Government of the City of Buenos Aires. URL: https://wwwbuenosaires-gob-ar.translate.goog/jefaturadegabinete/integracion/obras/ infraestructura/red-de-agua-potable-cloacal-v-pluvial? x tr sl=es& x tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc (Accessed: 17/08/2022)

Figure 2.20 Construction of a pipe supplying safe drinking water marked the process of integrating formalized service delivery into the community

Road links were made into Retiro and works were undertaken to reduce congestion and improve flow/ circulation in Perette Street and Gendarmería Nacional Avenue, among others. The council also named public spaces and streets, providing people with official addresses. Through a participatory process, over 4,700 residents voted, and names were selected for each street and public space, resulting in over 90 formal names and 300 signs being established (representing Latin America's diversity/nature/cuisine/historical milestones in the neighbourhood). These actions have helped in the process of regularizing the ownership of land, with official nomenclature meaning every resident can now prove they have an official address (which has been key in helping to secure employment).

As a primary objective to ensure every resident was served a safe, accessible and adequate home, the Housing Improvement Programme was launched. Working through differentiated approaches according to the needs of each block, the programme has focused on both interior and exterior upgrading (e.g. improving stairs for safety, openings, waterproofing and durability, as well as room distribution and facilities integration such as those concerned with sanitation and hygiene). With around 12,000 homes subject to inadequate living conditions (e.g. poor luminosity, overcrowding and a lack of ventilation/basic services), the programme has worked with local families in renovation projects where the recycling and reuse of buildings/materials was seen as a priority. A self-management approach was encouraged with public-sector architects, engineers and social workers working side-by-side with local residents, identifying required materials and guiding through technical advice (see Figure 2.21).





Source: Government of the City of Buenos Aires - Secretariat of Social and Urban Integration

Figure 2.21 Housing, before and after renovation

In some instances, housing was unable to be upgraded - mostly under the Illia highway where building structures were precarious, lacked natural light and ventilation, and/or were absent of formal property rights which prevented their legal regularization under urban planning codes (approximately 30 ~ 40 percent of tenants were informal).15 Here, the unclear division of land and the complicated layout of streets/ urban spaces also made construction access difficult for the machinery required for infrastructure work. Some families had to move (1 in 10 families) and were provided with new housing made from hightech sustainable material. Steel-frame construction techniques were used in the new housing to improve the insulation of noise and temperature and thus promote energy saving, and renewable energy such as solar panels and solar hot-water tanks were fitted to advance the shift towards energy sustainable housing.

Solid waste management upgrades have seen over 5,000 homes separate their waste into three components: 1) dry material; 2) organic material; and 3 household waste. Barrio Mugica has become the first neighbourhood in Buenos Aires to implement a waste separation programme through the All Recycling Programme (A Todo Reciclaj). The city council works with the community to collect recyclable waste and reincorporate it back into the market providing social and economic value for the community. To date, 185 tons of recyclable waste and 115 tons of organic waste has been recovered.15

Work to enhance the security of tenure and on the regularization of property rights was also undertaken in new and existing homes. Moving forward, the aim is for all families within the community to own their own homes with property titles, paying for them with 30-year mortgages through increasing the ability of each family to pay year-by-year and providing tools for economic and professional development.

Other measures such as upgrading public squares and football pitches were instrumental in driving change, understanding that public spaces are indispensable elements for habitable co-living and community life. The integration of 27 new public spaces led to a 365 percent increase in public space availability per resident (see Figures 2.22 and 2.23). 16 Under the Illia highway, there is now a 18,000 m² public space

¹⁵ Metropolis Urban Sustainability Exchange. URL: https://use.metropolis.org/case-studies/social-and-urban-integration-in-barrio-mugica (Accessed: 15/07/2022).

Government of the City of Buenos Aires - Secretariat of Social and Urban Integration.





Source: Government of the City of Buenos Aires – Secretariat of Social and Urban Integration

Figure 2.22 Before and after the renovation of a small public space



Source: Government of the City of Buenos Aires. URL: https://www.buenosaires.gob.ar/jefaturadegabinete/integracion/obras/espacios-publicos/cancha-9 (Accessed: 23/08/2022)

Figure 2.23 Barrio Mugica's Court 9 has been transformed into a synthetic grass field used for sports competitions

acting as a communal meeting point. The unlocking of new space has been invaluable in enabling the establishment of key facilities including a health centre.

3. Ensuring equitable development through public service access and economic integration

Because only 30 percent of adults in Barrio Mugica have completed secondary education and only 10

percent possess an undergraduate degree, residents are severely restricted in gaining formal employment and developing professional careers. The city has therefore aimed to ensure all children and teenagers are afforded educational opportunities and can develop a better future, with each secured a place in school. As there were no public schools within Barrio Mugica, a renovation and upgrading project of the closest school was initiated transforming it into the Mugica Educational Hub. This is now the largest public school in the city with over 1,800 school places.

A new nursery school and professional training centre now operate in what was previously one of the community's most isolated areas. The training centre helps guide adolescents in their development via tutorials, lectures and extra-curricular activities, and support spaces are offered where adults can acquire knowledge and develop skills to help gain employment. Going beyond just formal schooling, opportunities here are diverse ranging from programming courses to workshops taught at the House of Culture.

Several schools, including the Walsh Hub as shown in Figure 2.24, have now been built in the area, as well as the new Ministry of Education and Innovation headquarters. Located next to new housing, the ministry has helped connect public education to local inhabitants. Over 2,200 employees work there on a



Source: Government of the City of Buenos Aires - Secretariat of Social and Urban Integration

Figure 2.24 Walsh Hub, the first public school in Barrio Mugica

daily basis, planning the city's education policy for the entire city whilst bringing socio-economic benefits to Barrio Mugica.

Health has long presented a major obstacle in the community where the risk of contracting diseases and injury was increased through deficient ventilation and poor physical infrastructure. The neighbourhood had been cut off from the formal healthcare system. leaving residents at far greater risk. The reintegration programme has sought to bridge the healthcare gap, strengthening access to high-quality, formalized healthcare whilst promoting healthier living habits. Three accessible health centres now provide modern facilities accommodating doctors and specialized services including dentists, nutritionists, gynecologists, psychologists and general medical practitioners, amongst others. Digital medical records have been integrated to ensure more efficient medical care enabling the tracking of medical history for local citizens. To expediate this process, communication was conducted directly with local families to help them register. Service provision from multiple health experts (covering issues such as nutrition, physical activity, smoking, and sexual and reproductive health) has been instrumental in promoting healthier lifestyles within the community. In line with the Infrastructure Plan, emergency routes have been linked into Barrio Mugica allowing emergency services to enter swiftly. A 'SAME' base was also created (the city's public emergency medical system) to respond to medical emergencies.

Decades of unplanned urban expansion have resulted in the development of a large informal economy. With over 9,000 merchants, this has amalgamated in a significant amount of commercial activity giving rise to localized consumption systems. With 19,600 active economic residents in the community, 50 percent receive an informal salary (double the number of Buenos Aires). Under a comprehensive and participatory integration plan, all actors were accounted for (e.g. entrepreneurs, traders, merchants, unemployed) in regard to policy. Offering a range of services from training, entrepreneurial support, formal employment and financial inclusion support, and a labour integration programme, the Centre for Entrepreneurial and Labour Development (CeDEL) serves as a prosperity nexus for local residents. In just two and a half years, over

60 percent of the economically active population have approached CeDEL. Key measures such as bolstering Barrio Mugica's economic circuits have been integral to empowering local workers. The Latin Markets, Barrio Mugica's open-air market, is now formalized with 260 registered stand-owners active with whom the city works to improve sales and manage their finances. A major regeneration of the community's commercial street subject to over 100 businesses over an open-air corridor has also been undertaken. Here, infrastructural and housing improvements have been made and training courses have been provided to improve business identities, increase sales and revenue, and formalize economic activities. Workers now trade across the wider vicinity, offering products and services to additional parts of the city. Market-leading companies have also been sensitively integrated into Barrio Mugica offering new employment, and the relocation of the Ministry of Education and Innovation into the community has further stimulated economic opportunities. More than 200 employees have become daily customers for local shops/entrepreneurs enhancing Barrio Mugica's visibility across wider Buenos Aires.

Reference experiences

1. Understand formalization as a key process in the enablement of spatially equitable and inclusive urban development

The process of formalization has been pivotal in transforming Barrio Mugica in regard to its service delivery, infrastructural quality and land tenure security. Where the integration project exemplifies a highly scalable approach to combating issues of urban exclusion, 'formalization' and 'legalization' should be viewed as integral processes for the successful regeneration and empowerment of such informal settlements. These processes can be seen to attract inward investment, advancing economic growth in informal areas and therefore not only helping to alleviate conditions of poverty but also promoting their integration into the wider urban fabric reducing issues of delineation between the 'formal' and 'informal'. Formalization thus not only improves the functionality

of the settlements but also enhances the quality of life for local people. The delivery of formal services such as electricity providers as well as the establishment of official nomenclature are marked examples of this.

2. Understand infrastructural quality as a core transformative component in enhancing the quality of life for inhabitants in urban informal settlements

The lack of access to basic services combined with the poor infrastructural quality of Barrio Mugica severely restricted the ability of local residents to live their everyday lives. Seemingly menial issues such as muddy streets in times of flooding hampered access to schooling and employment, leading to knockon educational development and socio-economic implications in an area where the majority survived day-by-day through informal wages. The delivery of new high-quality infrastructure across housing, waste management, water and electricity, and mobility dimensions made a profound difference in the ability of residents to carry out their daily lives creating a safer, and more socially and economically prosperous community. With rapid urbanization and the growth of urban informality widespread globally, cities and local governments must prioritize the delivery of quality infrastructure for the most marginalized urban inhabitants in these areas, reducing spatial disparities and stimulating new opportunities to balance out the urban playing field.

3. Encourage the delivery of integrated approaches to urban informal upgrading

As a holistic approach to urban development, Barrio Mugica's integration plan sought to tackle a multitude of challenges on the ground. With bold ambitions, the city's approach has highlighted the value in adopting integrated approaches to urban regeneration that consider the interlinkages between housing delivery, access to basic and public services, as well as social and economic integration. Where these factors have been approached together in Barrio Mugica, a more powerful impact has been realized in the local community reinforcing the necessity to acknowledge the potential of comprehensive development when performed sensitively in reinvigorating neglected urban communities.