UN-HABITAT

Large-Scale Housing Improvement in High-Density Slum Settlements (HABITATHIS)

Submitted By: Laboratory of Housing and Human Settlements (LabHab) of the Faculty of Architecture, Urbanism, and Design of the University of São Paulo (FAU-USP)



Organization Profile

Organization Name: Laboratory of Housing and Human Settlements (LabHab) of the Faculty of Architecture, Urbanism, and Design of the University of São Paulo (FAU-USP)

Organization Type: University and research institution

Website: www.labhab.fau.usp.br

Practice Details

Country(ies): Brazil

City(ies): Diadema, Sao Paulo

Start Year: 2023 **Ongoing:** No **End Year:** 2024

Main Adequate Housing Components:



Housing Thematic Areas:

Communal & Self-Build Housing

Housing Policy, Legislation & Governance

Housing Data & Monitoring

Relevant SDGs:



UN-HABITAT

Problem & Context

The municipality of Diadema, despite having established a solid track record of policies aimed at improving self-built housing in slum areas, carried out approximately 1,050 interventions in residential units over a period of 20 years. However, the qualitative deficit in relation to housing located in informal settlements is estimated at 10,245 dwellings. This situation indicated a limitation in the municipality's institutional capacity to efficiently implement this important housing intervention, due to the small number of civil servants, low financial resources, and lack of specific university and professional training for the development of plans, projects, and works aimed at housing and urban improvement in slums.

Solution Developed

1) The technical cooperation for large-scale housing improvement in slum areas introduced an innovative solution to address inadequate living conditions in low-income areas of Diadema. In partnership with the School of Architecture, Urbanism and Design at the University of São Paulo (USP), a specialization program offering scholarships for training and internships was created for recent graduates, combining academic education with practical work in the city's Housing Improvement Program.

2) This initiative strengthened the technical staff and directly supported low-income families in a consolidated yet still informal settlement. The program developed housing improvement projects focused on mitigating safety, waterproofing, and habitability issues.

3) To ensure scale and efficiency, new methodologies were created, including: physical-social survey models; tools linking design and budgeting; a process control panel; georeferenced data; standardized scopes of work based on public price tables; and a collaborative platform for decision-making on project solutions.

Implementation

1) Technical cooperation actions consist of: (a) Establishing a partnership between the university and the municipal government through a Cooperation Agreement, in which the university is responsible for selecting and training 20 professionals, and the city government is responsible for temporarily hiring those selected and integrating them into the implementation of public policy programs for housing improvement and slum urbanization; (b) Provision of municipal resources for hiring professionals through scholarships, including changes in municipal legislation to regulate this form of hiring; and (c) Implementation of a Specialization Program in Housing and Urban Improvements by the University of São Paulo, whose theoretical training is carried out at the university level and practical training at the municipal government, based on the actual performance of professional activities.

2) The actors are part of: the University, Municipality, Slum Residents' Association, Popular Technical Advisory, Federal Government, and Architecture Professional Council.

3) In 2023, a partnership agreement was signed between the parties, students were selected and hired as postgraduate interns by the city government, and training activities began. In 2024, field surveys were conducted and projects were produced for the units surveyed.

4) The funds used come from the municipal treasury, the university budget for extension activities, and fundraising through a public notice from the class council.

Enablers & Obstacles

1) (a) Governmental and institutional parties were involved since the beginning, ensuring political buy-in and strengthening the promotion of actions. (b) Integration with the national program “Periferia Viva” expanded the scope with interventions to improve the settlement’s infrastructure. (c) The Residents' Association acted in the communication and mobilization of residents, ensuring community engagement. (d) The municipality's political trajectory resulted in a database of previous interventions that supported the production of the material used in the cooperation.

2) (a) The complexity of the field survey exceeded the expected timeframe and impacted project delivery deadlines, which was resolved by equally redistributing the number of projects among professionals. (b) The 2024 electoral context, which threatened the continuity of actions, was mitigated by prioritizing the completion of as many projects and budgets as possible before the possible administrative transition.

Results & Impact

1) 500 housing improvement projects were carried out to serve 880 families, with public investments of more than R$16 million from the federal government. Of these families, 87 residents are people with disabilities, 309 have chronic respiratory diseases, and 343 have allergies intensified by environmental factors. In addition, 407 are children and 243 are elderly.

2) The interventions will enable fully subsidized construction work to be carried out, which is necessary to improve the built environment and complete self-built housing, which the residents would not otherwise be able to afford.

3) The housing improvement works, which are associated with an urbanization plan, will be carried out on a large scale, involving almost the entire settlement, and will enable a collective improvement in the health of residents, assist in conflict mediation, and improve living conditions due to conflicts arising between buildings, and reduce environmental impacts, given that these are interventions that enhance the value of existing buildings, carrying out renovations with little debris generation due to the low number of demolitions and removals.

Replication & Scale Up

The technical knowledge built by the students-interns through surveys, projects, and budgets allowed advances in the reflection and development of measures and parameter tools for more effective projects to mitigate safety, waterproofing, and habitability issues in popular housing in favelas in general. This material is serving as the basis for the creation of a public digital database of housing improvement projects being developed by the Public Office of the School of Architecture, Urbanism, and Design at the University of São Paulo (USP).

One of the main innovations of this practice was the creation of an institutional model of technical cooperation between the city government and a public university. This partnership can be replicated in new contexts of collaboration between municipalities and universities, reinforcing the innovative proposal of expanding municipal technical teams and training recent graduates to serve low-income families living in slum areas. The technical knowledge and project development accumulated by the student-interns through the cooperation can also be applied to new housing improvement programs.

Policy Uptake

This housing practice has been fully adopted into formal policy frameworks and legislation, and is being implemented at scale with institutional support.

The members selected by the technical cooperation were temporarily hired to join the municipal civil service. In addition, their activities included the implementation of a municipal public program aimed at improving housing conditions in the slums of the host city. In addition to this institutional support, consideration should be given to the documentation of the methodologies developed within the scope of the cooperation, which allowed for their large-scale replication in the municipality itself, even after the conclusion of the first process.

Lessons & Takeaways

The duration of the processes must be rethought, given the complexity involved in devising plans and projects to improve housing in slums, which are marked by a large number of inadequacies and pathological manifestations. In this sense, this technical cooperation, which aims to expand the institutional capacity of a municipality, should be built as a continuous practice and policy. In addition, the forms of financing and remuneration of selected members require more public resources for the proper operation of the programs and satisfaction of those involved.