

TERMS OF REFERENCE (TOR)

Specialist Sustainability in the Incremental Housing Sector

(based in Lima, Peru)

Context

In 2023, the Terwilliger Center for Innovation in Shelter at Habitat for Humanity International (HFHI) developed the study "Sustainable Progressive Construction in the Vulnerable Population of Metropolitan Lima," which identified, through a methodology based on design thinking and fieldwork with families and construction workers, the main challenges and opportunities for incorporating sustainability in progressive construction processes. This study proposed Technological Solutions for Sustainable Progressive Construction (STCPS) with high adoption potential for social interest housing and progressive growth typologies A, B, C, and D, prioritizing low-cost, minimally disruptive, and culturally compatible measures.

The main conclusions of the study include:

- A high level of unawareness of sustainable alternatives among families.
- Barriers from the supply side (such as limited technical availability and materials) and from the demand side (associated with informality, household economy, and lack of technical advice).
- The need to strengthen a market for sustainable progressive construction by linking public, private, and social actors.

This study not only provided a deep diagnosis of the progressive housing ecosystem in Lima but also proposed practical interventions under the category of passive solution design, such as ventilated roofs, walls with thermal insulation, water harvesting systems, cross ventilation, and green roofs, among others, which can now move from theory to action.

This framework serves as a strategic input and reinforces the design and implementation of the international project Passive Solutions in Self-build and Incremental Housing (PSSI), led by HafenCity Universität Hamburg in partnership with Habitat for Humanity and the NGO Kota Kita. The PSSI project, to be implemented in Lima and Semarang/Solo, seeks to explore, co-design, and validate passive and sustainable solutions for incremental housing in vulnerable urban contexts.

Both initiatives share the following:

- A comprehensive vision of housing as a driver of socio-environmental transformation.
- A co-design approach with communities and actors in the local ecosystem.
- The goal of developing scalable and locally applicable interventions with affordable materials and replicable techniques.
- The interest in translating sustainability into tangible benefits for vulnerable families: energy savings, thermal comfort, emission reduction, and improved quality of life with minimally disruptive, high-impact solutions.

Thus, the local implementation of the PSSI pilot in Peru builds on the previous experience from Knowledge Product #5: Sustainable Solutions in Progressive Construction (2023) and aims to deepen its impact through an applied research platform that will validate, monitor, and scale the identified passive solutions through inter-institutional, academic, and community alliances.

1. Project Background

The Passive Solutions in Self-build and Incremental Housing (PSSI) project is applied research aimed at promoting inclusive socio-ecological transformation in vulnerable urban contexts, through passive and sustainable solutions applied to progressive housing. Led by HafenCity Universität Hamburg, in partnership with Habitat for Humanity (Peru) and Kota Kita (Indonesia), the project seeks to develop, prototype, and scale accessible solutions to climate and habitability challenges in vulnerable housing sectors.

2. Position Objective

To design, implement, and monitor sustainable and passive solutions in progressive housing, with an emphasis on rural and peri-urban areas, integrating participatory approaches, local knowledge, and criteria of energy efficiency, environmental sustainability, and economic viability, aligned with the goals of the PSSI project.

3. Functions and Responsibilities

- Project coordination and reporting
- Coordinate participatory diagnostics on building conditions, climate risks, and local capacities.
- Co-design ad hoc solutions for progressive housing with allied partners.
- Participate in the execution and monitoring of pilot interventions.
- Contribute to manuals and training materials.
- Train local actors (families, builders and allied partners).
- Systematize lessons learned, evaluate and measure impact.
- Coordinate with local governments and NGOs.
- Work with national and international multidisciplinary research teams.

- Availability to travel domestically for field data collection and internationally for project representation.

4. Consultant Profile

Academic Background:

- Degree in Architecture, Civil Engineering, or related fields.
- Desirable: proven specialization in:
 - sustainability, energy efficiency, rural habitat
 - Bioclimatic design
 - Sustainability
 - Energy efficiency
 - Sustainable urban planning in peri urban and rural environments

Experience:

- Minimum 3–5 years in the design and implementation of sustainable solutions in social or progressive housing.
- Experience in environmental conditioning in diverse climates (especially urban-rural).
- Prior work in construction contexts within vulnerable populations.
- Experience in pilot or applied research projects (ideally with a co-design or participatory action focus).
- Practical knowledge of using sustainable local materials, passive systems for ventilation, lighting, water harvesting, among others.
- Desirable: experience working with NGOs, local governments, or international cooperation agencies.

5. Specific Technical Knowledge:

- Principles of passive architecture: solar orientation, cross ventilation, thermal insulation, solar protection.
- Basic thermal modeling or tools such as DesignBuilder, Ecotect, or similar (desirable).
- Knowledge of environmental regulations and certifications (e.g., EDGE, LEED, or others).
- advanced English, fluent Spanish.

6. Key Soft Skills:

- Empathy and social sensitivity: Ability to understand the realities, priorities, and aspirations of families in vulnerable contexts. Able to listen without imposing solutions.

- Ability to communicate in simple language: Translate technical concepts into understandable messages for families, community promoters, and non-technical actors.
- Active listening and participatory facilitation: Capable of guiding co-design processes, workshops, and community validations to encourage solution adoption.
- Collaborative leadership: Ability to engage with multidisciplinary teams (engineers, sociologists, field technicians), promoting a respectful and horizontal work environment.
- Intercultural approach: Understanding and respect for local cultural dynamics, capable of adapting proposals to the environment without imposing external models.
- Commitment to continuous improvement and innovation: Open to learning from field experience, adjusting solutions based on real validations, and promoting practical learning.
- Professional ethics and social responsibility: Act with transparency, integrity, and commitment to the well-being of all stakeholders.

7. Expected Results from the Specialist:

a. Technical diagnosis adapted to the local context:

- Delivery of a technical analysis report on climatic, construction, and socioeconomic conditions of the pilot area to be determined with the area manager.
- Identification of opportunities to improve passive and sustainable solutions in progressive housing in urban/rural contexts.

b. Validated technical proposal of passive solutions:

- Development passive technical-architectural typologies or measures, adapted to incremental housing in urban-marginal areas.

c. Pilot implementation of validated solutions:

- Technical supervision of the field implementation of the measures designed in homes selected for the pilot.
- Photographic record, adapted plans, and technical sheets of the applied solutions.

d. Training and local capacity development:

- Preparation of training materials (short manuals, illustrated sheets, videos, or others) for community and technical use.
- Facilitation and support of practical workshops aimed at local technicians and families.

e. Systematization of lessons and recommendations for scaling:

- Final report to include:
 - Technical evaluation and user perception.
 - Reference cost estimation of solutions, based on field findings after pilot implementation.
 - Recommendations for adaptation and replication in other areas of Lima or other vulnerable urban contexts on the coast, highlands, and jungle.

f. Contribution to institutional coordination strategies: Project coordination and participation in coordination meetings with key actors (NGOs, academia, local governments, technical companies).

8. Duration of the Consultancy

The consultant will be contracted for an initial period of **twelve (12) months**, starting on **June 15, 2025** (dates to be coordinated with CTIV). The contract may be renewed on an annual basis, subject to satisfactory performance, continued funding and organizational needs. The consultant will carry out their work in full time capacity in close coordination with the Construction Services Manager, Rosario Reaño.

9. Fees

The assigned amount for this consultancy will be US\$ 26,400 per year. This amount includes any tax obligations the consultant may be subject to.

10. How to Apply

Interested consultants should submit the following under the subject "Sustainability Specialist Application" to Rosario Reano at rreano@habitat.org:

- A formal letter of interest (Max 2 pages)
- A comprehensive proposal (Max 4 pages)
- A page with professional references

11. Submission Deadline

Submissions will be evaluated based on the information provided by June 6th, 2025 and in relation to the described needs and qualifications. This document provides a general description of the consultancy's requirements and scope. It does not represent a contract, and the terms and conditions of any consultancy agreement will be negotiated separately. The client reserves the right to modify the TOR at any time, subject to agreement with the consultant. We encourage people from diverse backgrounds and experiences, especially women and individuals of various sexual orientations and gender identities, to submit their proposals.

12. Ethical Standards

The consultant must adhere to HFHI's policies on data protection, confidentiality, and conflict of interest. Specific safeguards should be considered based on regional contexts as we actively live the values that we at Habitat for Humanity aim to share with our collaborators: humility, courage, and responsibility.