

THE HOUSING FIRST PROGRAM: ACTING FOR BOP DESIGN

O PROGRAMA MORADIA PRIMEIRO: ATUAÇÃO NO DESIGN PARA A BASE DA PIRÂMIDE

*EL PROGRAMA VIVIENDA PRIMERO: ACTUACIÓN EN EL DISEÑO
PARA LA BASE DE LA PIRÁMIDE*

ISABELA MACÁRIO CUSTÓDIO | UNESP – Universidade Estadual Paulista, Brasil

AGUINALDO DOS SANTOS, Dr. | UFPR – Universidade Federal do Paraná, Brasil

TOMÁS QUEIROZ FERREIRA BARATA, Dr. | USP – Universidade de São Paulo, Brasil

ABSTRACT

This article explores the social aspect of Sustainable Design and investigates the potential of implementing the Housing First (HF) philosophy as public policy. The HF philosophy is a form of Design for the Base of the Pyramid (BoP) that aims to include homeless people in the community, promoting equity and social cohesion. This research paper's theoretical foundation describes BoP Design concepts and relates them to the HF service through a bibliographic review of authors who discuss these definitions. The article also provides context to the subject in Brazil and analyzes the Moradia Cidadã program, which utilizes the Housing First concept. Additionally, the article explores the Low Income Housing Institute (LIHI), located in Seattle, and more specifically, its Tiny House Villages program. After discussing the organizational and project guidelines proposed by these programs, the information collected is compared and associated with the social context of Brazil.

KEYWORDS

Sustainable Design; Base of the Pyramid; Housing First; People Living on the Streets; Moradia Cidadã Program.

RESUMO

Considerando a dimensão social do Design Sustentável, este artigo tem como objetivo verificar as possibilidades de implementação da filosofia Housing First (HF) como política pública, visto que se caracteriza como uma forma de atuação do Design para a Base da Pirâmide (BoP) que favorece a inclusão da população em situação de rua na comunidade, proporcionando equidade e coesão social. A fundamentação teórica descreve os conceitos do Design BoP relacionando-o com o serviço de HF por meio de revisão bibliográfica de autores que tratam destas definições. Em seguida, é realizada a contextualização do assunto no Brasil, bem como análise do programa Moradia Cidadã, que utiliza o conceito de Moradia Primeiro. Também é feita análise da organização denominada Low Income Housing Institute (LIHI), localizado em Seattle, mais especificamente o programa Tiny House Villages. Após discussão sobre as diretrizes organizacionais e projetuais propostas por eles, as informações coletadas são comparadas e associadas ao contexto social do Brasil.

PALAVRAS-CHAVE

Design Sustentável; Base da Pirâmide; Moradia Primeiro; População em Situação de Rua; Moradia Cidadã



RESUMEN

Considerando la dimensión social del Diseño Sostenible, este artículo tiene como objetivo verificar las posibilidades de implementar la filosofía Housing First (HF) como política pública, ya que se caracteriza como una forma de Diseño para la Base de la Pirámide (BoP) que favorece la inclusión. de la población sin hogar en la comunidad, brindando equidad y cohesión social. La fundamentación teórica describe los conceptos del Diseño BoP relacionándolo con el servicio de HF a través de una revisión bibliográfica de autores que abordan estas definiciones. A continuación, se contextualiza el tema en Brasil, así como se analiza el programa Moradia Cidadã, que utiliza el concepto de Vivienda Primero. También se hace un análisis de la organización denominada Low Income Housing Institute (LIHI), ubicada en Seattle, más específicamente el programa Tiny House Villages. Después de discutir las directrices organizativas y de proyecto propuestas por ellos, las informaciones recopiladas se comparan y asocian con el contexto social de Brasil.

PALABRAS CLAVE

Diseño sostenible; Base de la Pirámide; Vivienda primero; Población sin hogar; Programa Moradia Cidadã.

1. INTRODUCTION

In the realm of sustainable design, the social component is marked by disparities and transgressions against fundamental human rights. The demographic residing at the base of the worldwide economic hierarchy is highly varied, with a significant proportion experiencing dire poverty, fractured familial relationships, and inadequate housing accommodations. Consequently, these individuals are compelled to seek shelter in public locales, which are frequently inhospitable and disregarded zones, whether for a brief or indefinite duration.

The concept of designing for the base of the pyramid (BOP) is centered around providing sustainable and cost-effective solutions for individuals and communities with lower incomes. This approach involves a thorough understanding of their distinct requirements and obstacles, as well as the creation of tailored products, services, and systems. Collaboration with local communities and interested parties is crucial to identifying and resolving issues (Santos, Kramer; Vessoli, 2009).

The United Nations Center for Human Settlements (UNCHS - Habitat) reports a concerning trend: an ever-growing number of individuals residing at the base of the pyramid. An estimated 1.1 billion people currently live in inadequate housing conditions, and this number is expected to double by 2030. To combat this issue and provide suitable living conditions, developing countries such as Brazil require an average of 95 thousand new housing units constructed each day (Kandachar; Jongh; Diehl, 2009).

Homelessness is a constantly changing situation, which makes it hard to have precise data on this population in the country. However, recent estimates show a significant increase in the number of homeless people. From 2018 to July 2023, the number of homeless people registered in CadÚnico nearly doubled, reaching 221,113 (Brazil, 2023c). It is challenging for the government to include individuals in its planning, resource allocation, and policymaking processes when there is no official count at the national level. This lack of data makes it difficult to adequately address the needs of such individuals.

From another perspective, design for social innovation presents itself as an approach that seeks creative and innovative solutions to social and environmental problems, intending to improve people's quality of life and promote sustainability. Similar to BOP design, it entails collaboration among designers, users, and other stakeholders. The focus is on creating solutions that are

accessible, inclusive, and meet people's genuine needs (Manzini, 2008).

In other words, the goal of social design is to comprehend the requirements and aspirations of individuals within a particular social environment, to devise solutions that can enhance their standard of living, and to foster beneficial transformations in society in general (Freire & Oliveira, 2017).

Considering this situation, to implement efficient public housing policies it is necessary to seek to guarantee social cohesion through actions that favor the inclusion and participation of all citizens, especially those who will use these services, in discussions and decision-making. In this way, it aims for social equity, which is the "continuous search to reduce social, cultural, economic and political barriers that result in exclusion or inequality" (Santos et al. 2019, p.49).

The purpose of this article is to examine the potential impact of the Housing First (HF) approach on housing initiatives in Brazil. Specifically, the article explores the viability of utilizing this model as a public policy solution to address the needs of individuals experiencing homelessness. This analysis aligns with the principles of sustainable design by prioritizing the social dimension and designing for the base of the socioeconomic pyramid. Ultimately, the goal is to improve the quality of life for this vulnerable population by providing safe and stable housing.

2. APPLICATION OF THE BASE OF THE PYRAMID (BOP) DESIGN CONCEPT TO THE HOUSING FIRST (HF) MODEL

Around 4.5 billion people are at the base of the economic pyramid, a number that corresponds to approximately two-thirds of the world's population. To develop the offer of products and services designed for the BOP, it is necessary to have a global perspective and the use of strategies aimed at meeting basic human needs. Thus, it will be possible to develop environmentally sustainable technologies and products that can be disseminated throughout the world (Prahalad; Hart, 2008).

One of the most pressing challenges of our time is to find ways to distribute products and services that enhance the quality of life of people while also being economically sustainable, culturally sensitive, and environmentally friendly. This goal demands radical innovation in various areas, including technology and

business models. As Prahalad and Hart (2008) have noted, meeting this challenge will require us to think creatively and work collaboratively to develop new solutions that benefit everyone.

Several theories define the concept of innovation, such as that found in the Oslo Manual, which establishes innovation as the “implementation of a new or significantly improved product (good or service), a process, a new marketing method or a new organizational method in business practices, workplace organization or external relations” (OECD, 2005, p. 46).

However, this definition does not cover the implications that this new product or process causes in the cultural context of a specific location. A more comprehensive definition of innovation is presented by Wijnberg (2004), as being “something new, which is presented in such a way that the value will be determined by the selectors” (Wijnberg, 2004, p. 1416).

The role of design is to comprehend the deadlock between the necessity for corporations to generate profits and the responsibility to preserve the environment. This understanding leads to a rethinking of the existing production and distribution processes. Consequently, it becomes crucial to consider the scale of the company's operations. Small-scale operations that address local issues and offer solutions that can be adapted to meet global needs should be the focus.

Encouraging the use of renewable resources and prioritizing local markets through a distributed economy network can greatly benefit communities. By viewing the population as active participants in the process, rather than just potential customers, we can foster social, economic, and environmental advantages. (Santos, Kramer; Vessoli, 2009).

The presence of high levels of poverty and social inequality in society indicates the failure of various actors to address these issues. While government bodies can regulate these issues to some extent, other organizations can also work to reduce their impact. In this context, providing businesses, products, and services to the population at the base of the pyramid presents a significant challenge (Bataglin, 2013).

This market presents itself as an opportunity for companies, government, and civil society to come together for a common cause (Prahalad; Hart, 2008). For these new contexts to become understandable, it is necessary to use innovative participatory techniques to obtain truthful information that goes beyond

observational research methods carried out in common focus groups (Kandachar; Jongh; Diehl, 2009).

Thus, to create significant solutions for the BOP, a systemic approach based on evolutionary or revolutionary innovation strategies needs to be employed. These strategies should incorporate new technologies, but most importantly, should bring new meanings to users (Castillo, Diehl; Brezet, 2012).

The Housing First (HF) program is an example of a theory designed for the BOP, more specifically for people experiencing homelessness (PSR). It has characteristics such as: looking globally while proposing solutions to local problems, strategies that meet basic human needs, improving users' quality of life, and using participatory techniques. In other words, ways of including the community in the creation process and the involvement of government, companies, and society for a cause, are characterized as a likely public policy.

This theory was originally developed in the USA, but several services are being tested in other locations. Basically, HF breaks the line of “ladder services” that are widely used in Brazil to provide care for PSR. This service is characterized by immediately providing these people with safe and permanent housing before anything else, separating housing from the support services used by that community, this means that the person receives housing without having to effectively participate in other services such as psychiatric treatment or abstinence from drugs and alcohol.

Housing First has become very influential because it is the first homelessness service that can demonstrate that it provides an enduring solution that provides housing stability for the majority of chronically homeless people. There is strong evidence that Housing First does what no other homelessness service has managed to achieve, providing lasting solutions to the most extreme form of homelessness. (Pleace, 2012, p.41).

It has been observed that the Housing First (HF) model can be implemented to design services in various countries with different characteristics. However, despite being flexible, the model has some guidelines that need to be followed to ensure its effectiveness. The key elements that must be adhered to include providing immediate access to housing, separating housing from support services, and adopting a harm reduction approach (Pleace, 2012).

3. METHODOLOGICAL PROCEDURES

This article is an exploratory study that uses a qualitative approach. The methodology adopted for this study involves a literature review and data analysis to gain a deeper understanding of the topic. The study begins with bibliographical research by consulting articles, books, and other related documents to establish a theoretical basis needed to support it. This also allows for an unsystematic literature review and identification of points that need to be observed and analyzed in the following stages.

The study proceeds with the contextualization of the homeless population in Brazil and an analysis of the model proposed through the National Policy for the Homeless Population, *Moradia Cidadã*, which uses the concepts of Housing First. The study also investigates a specific situation that applies the concepts previously covered differently. The *Tiny House Villages* program in Seattle was chosen for analysis, which also uses the concepts of Housing First. This analysis was carried out based on data provided by the organization to identify contextual factors.

Finally, the study compares the data obtained, demonstrating the similarities and differences in the applicability of the Housing First concept. The advantages and disadvantages of applying the model in the social context of Brazil are also discussed.

4. RESULTS

The results section was organized into three topics for better understanding, they are Homeless people in Brazil (item 4.1), Housing First in Brazil – Citizen Housing Program (item 4.2), and Tiny Houses as a Housing First model (item 4.3).

4.1 Homeless People in Brazil

Although there is no precise data on the number of socially vulnerable people living on the streets in Brazil, the Federal Government carries out diagnoses based on data and information available in administrative records and Federal Government systems. The most recent document uses data from the *Cadastro Único* from December 2016 to December 2022, incorporating data provided by the Ministry of Development and Social Assistance, Family and Fight Against Hunger (MDS) until July 2023 (Brazil, 2023c).

As can be seen in Figure 1, the homeless population is on a continuous upward trend, tripling the number of people in these conditions between the years analyzed. The most significant increase was in 2022 when more than 40 thousand people were registered about the previous year. This trend justifies the establishment of public policies at the national level to help these 221,113 people registered by July 2023.

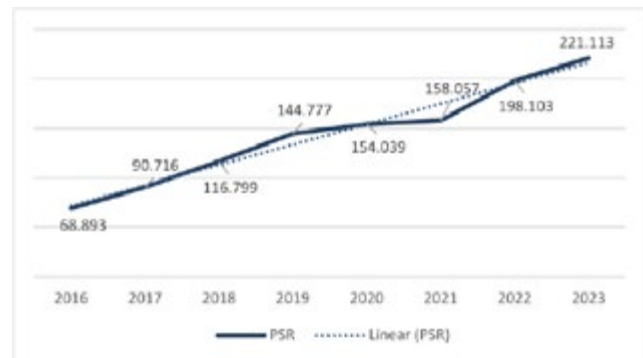


Figure 01: Total PSR in Brazil.

Source: Prepared by the author from Brazil, 2023.

In Figure 02, it can be seen that when analyzing the number of PSRs by geographic region, the Southeast region is the one with the most people in vulnerable situations, with every year analyzed a number higher than the sum recorded in the other 4 regions.

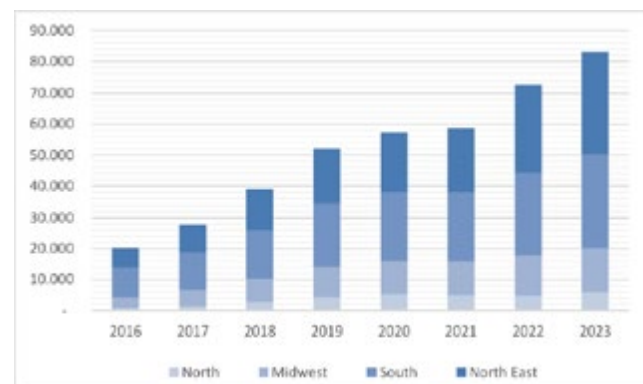


Figure 02: PSR in Brazil by region.

Source: Prepared by the author from Brazil, 2023.

The reasons why people find themselves homeless reveal a complex combination of social, economic, and personal factors. As can be seen in Figure 3, family problems are the biggest responsibility (26.64%) for this condition, highlighting the importance of family relationships in supporting conflict resolution. Unemployment (22.85%) is the second most reported reason, which indicates the fragility of networks of social security and the importance of generating employment for the economic inclusion of vulnerable groups.

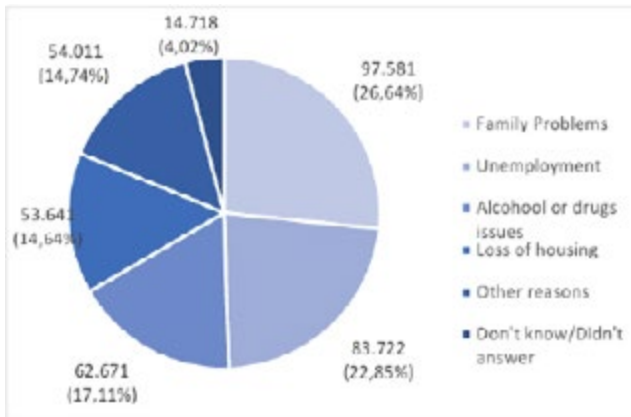


Figure 03: Reasons for homeless.

Source: Prepared by the author from Brazil, 2023.

Alcoholism and drug use (17.11%) and loss of housing (14.64%) were also cited as the main reasons for living on the streets, which highlights the challenge of drug addiction in society, the need for appropriate treatment and support approaches to deal with this problem and the provision of shelter through public policies that serve this population.

The "other reasons" category (14.74%) can include a variety of factors such as mental health issues not related to alcohol or drugs, and situations of violence or abuse, among others, demonstrating the diversity of situations that can lead to conditions on the road. Furthermore, around 4% do not know, remember, or did not answer the reason for finding themselves in this situation.

Information about where these people spend the night (Figure 4) offers an important analysis of the operating patterns of shelters and support services, such as hostels and transit centers.

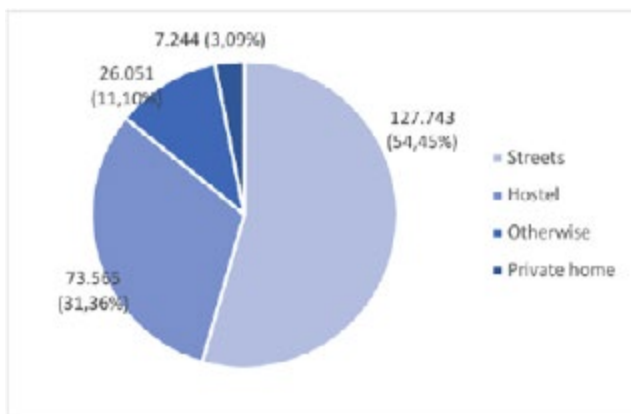


Figure 04: Place where they usually spend the night.

Source: Prepared by the author from Brazil, 2023.

The use of hostels (31.36%) indicates that people access support services and forms of temporary shelter, but in comparison with the number of people who spend

the night directly on the street (54.45%) suggests the importance of expanding the availability and quality of services offered. This may be related to personal challenges related to a lack of feeling of belonging, the limited availability of shelters, or the way the services offered operate, which also make staying difficult.

It should be noted that these data do not portray the country's reality, as they only account for PSR who effectively accessed a social assistance policy and had their registration completed.

4.2 Housing First in Brasil– Moradia Cidadã Program

On December 23, 2009, the National Policy for the Homeless Population (PNPSR) was established through Decree No. 7,053, its objectives include "ensuring broad, simplified and safe access for the homeless population to services and programs that they integrate the various public policies developed by federal government bodies" (Brazil, 2023c, p.04).

From the PNPSR, specific services were created for this population and their inclusion in the Federal Government's Single Registry for Social Programs, facilitating access to health services even for those who do not have proof of residence (Brazil, 2023c).

In 2023, the Directorate for the Promotion of the Rights of the Homeless Population (DDPR) was created, which aims to develop plans, projects, programs, and other activities related to the implementation of the PNPSR. Na Action and Monitoring Plan was also created to act as a way of promoting and implementing the PNPSR (Brazil, 2023c).

Among the action axes of this plan, there is one aimed at housing, the intention of which is to expand the possibilities of decent housing for PSR, through prioritization of access to the Minha Casa Minha Vida Program (MCMV) and the implementation of the Housing Program Citizen.

As a way to start this project, Law No. 14,620, of July 13, 2023, which provides for the *Minha Casa, Minha Vida* (MCMV) program, cites in its Article 4 that the objectives of the program will be achieved through service lines that consider housing needs, including the Housing First project. Furthermore, in Article 8, when talking about the families that will have priority in receiving subsidized provision of housing units, there is an item about those who are homeless (Brazil, 2023a).

Having a place to call home is not only a necessity but also a crucial opportunity for people experiencing homelessness to promote autonomy and integration into society. Therefore, government policies relating to housing must consider and respond to the specific needs of these individuals. It's necessary to recognize the right to housing as a fundamental and universal human right to ensure that everyone has a roof over their heads.

Considering this notion, the Moradia Cidadã Program was established, to tackle the persistent plight of homeless individuals through an inventive and compassionate approach. Drawing on the Housing First methodology, the program recognizes that secure and sound housing is the primary and essential measure for individuals to confront other obstacles in their lives (Brasil, 2023c).

The traditional reception approach implemented in Brazil follows the steps, or “staircase” script (Figure 5), characterized initially by a social approach carried out in the POP Centers, followed by institutional reception also carried out in the POP Centers, later this user is referred to transitional housing and only then can they access permanent housing (ENAP, 2021).

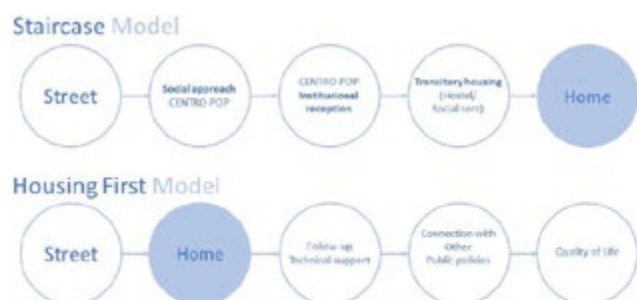


Figure 05: Social approach models.
Source: Translated by the author from ENAP, 2021.

The Housing First model, used by the Moradia Cidadã Program, reverses this order, bringing access to permanent housing as the first step towards obtaining better housing life conditions. However, it still has a subsequent support system with monitoring by multidisciplinary teams and technical support, as well as connection with other public policies, security, education, and health, among others.

With pilot projects planned for three cities in 2024, the program will seek to adapt and improve the application of the methodology in the Brazilian context, with the ultimate goal of expanding its reach throughout the country (Brazil, 2023c).

Moradia Cidadã Program is based on European Housing First and follows some fundamental principles that reflect the philosophical values contained in the

ideology. The quest to understand and comply with these topics guides the application and functioning of the programs, in addition to assisting so that they can be carried out effectively. According to Pleace (2016), the eight service priorities are:

- Housing is a human right;
- Choice and control for service users;
- Separation of housing and treatment;
- Recovery orientation;
- Harm reduction;
- Active engagement without coercion;
- Person-centered planning;
- Flexible Support for as long as required;

These objectives can be met in several ways, and there is not just one way to apply the Housing First model. Some programs, for example, usually work “through payment of subsidized rents in public social rental programs; local institutions have a stock of publicly owned housing units or use housing units available on the private market” (Brazil, 2019).

In other words, one way to adopt HF is through rental contracts between private owners and program organizations. The properties (apartment, house, or similar) are then subleased to participants and, from the moment these beneficiaries have an income, the program can request a percentage of their monthly income to share in expenses (Brazil, 2019).

The Moradia Cidadã program will adopt and test a solution in three planned pilot projects. This solution involves using HF to allocate homeless people almost immediately, depending on location and property availability. However, since the service is provided on an individual or family basis, it is important to deliver all properties furnished and in good housing conditions.

4.3 Tiny Houses as a Housing First Model

Regardless of the way housing is offered, the most important thing for Housing First is the reversal of the order of this event, no longer being the last step in the process, and yes, the first step towards the reintegration of PSR into society. As an example of another way of using this model, we can mention the actions used by the Low Income Housing Institute (LIHI).

LIHI is located in the city of Seattle and is committed

to defending low-income and homeless people. Its work began with offering defense and technical assistance services to promote the interests of this population and is currently working on offering transitional and permanent housing, using HF concepts.

Among its works, we can mention the renovation of abandoned buildings to implement low-income housing units, self-management of these buildings, and development of innovative housing solutions. By using creative projects and sustainable design features, the Institute can offer affordable housing for low-income and homeless people. It also works to defend fair public policies at the local and national level, seeks to assist in self-sufficiency, and promotes housing stability to form a strong and committed community.

In addition to providing housing, they manage the so-called Urban Rest Stops, hygiene centers that offer bathing and laundry services in a clean, safe, and dignified environment, as well as the distribution of hygiene items, all free of charge to people in street situations.

The LIHI organization offers various services, but the Tiny House Villages program is particularly noteworthy for this research as it employs the Housing First philosophy. Initially, the program started as a tent camp to provide shelter for homeless individuals at LIHI's headquarters. However, to improve the quality of service, the program evolved to include wooden shelters (Figure 6), making it a model program for cities that seek more effective and sustainable solutions to support individuals experiencing social vulnerability.



Figure 06: Tiny House Villages.
Source: LIHI, 2023.

Currently, the institute has 18 villages that are operated or supported by them, with the capacity to serve more than 2000 people annually. Each house is approximately

8' x 12' (8.82m²) and the materials for its construction cost around US\$4,500, equivalent to approximately R\$22,000.00. All of them have structures to keep residents in safe conditions, with electricity, insulation, and heaters.

Each village has hygiene, laundry, and communal kitchen facilities, which contribute to reducing production and maintenance costs. In addition, they have access to public services and a supportive neighboring community that is committed to the success of the program and its residents. LIHI has a partnership program with neighbors, volunteers, community groups, NGOs, religious organizations, companies, clubs, and schools that help support residents with donations and meals.

The success of the project hinges on a robust network of collaborators that fosters community involvement and a sense of belonging among future residents in their new social context. The institute's data indicates that support and housing services have been instrumental in removing individuals from the streets, with 65% of participants securing employment and permanent housing within six months of joining the program, as shown in Figure 7.

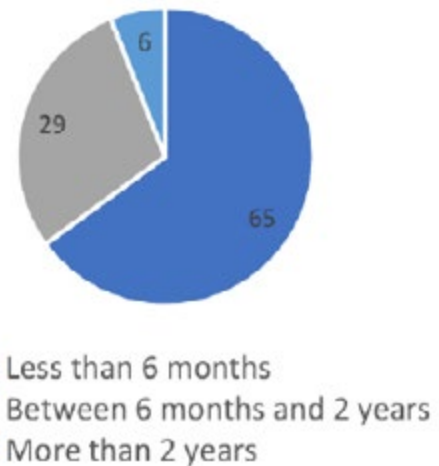


Figure 07: Tiny House Villages.
Source: LIHI, 2023.

One of the interesting points of this project is that LIHI works with open-source design, having a complete database with files that help in the implementation of Tiny Houses Villages by anyone, anywhere in the world.

The data shares information from various models, such as safety guidelines, forms, a list of materials, tools and equipment needed for construction, photos of all assembly stages, and a complete guide with all the steps for building a Tiny House (Figure 8).

chosen solution.

It can be seen that, regardless of the way housing is offered, the most important thing for Housing First is the reversal of the order of this event, no longer being the last stage of the process, but the first step towards the reintegration of PSR into society.

BOP design can be a source of local transformation, but it also seeks global sustainability in terms of production and consumption. In this way, being complex makes the development of products and services for an audience made up of billions of people with limited access to basic elements such as health, food, basic sanitation, and shelter, among others.

Accessibility, both physical and economic, and sustainability are also critical aspects of the program. Therefore, it is crucial to consider the complete life cycle of products and systems, the construction techniques used, and the environmental and social impacts over time. Design solutions seek to resolve the specific challenges faced by populations in vulnerable situations, which is why a user-centered approach that involves potential residents in the process is of great importance.

The program must be flexible and adaptable, acknowledging that solutions can vary depending on deployment region.

Adapting Housing First (HF) to the Brazilian context presents both challenges and opportunities. However, it must be done with sensitivity, empathy and based on technical knowledge. Sustainable design for the Bottom of the Pyramid (BOP) is crucial in integrating the concept of decent housing with the responsibility to promote equity. By achieving this feat, a project using Housing First in Brazil can become a prime example of promoting positive changes in society, fairly and innovatively.

REFERÊNCIAS

BATAGLIN, Jaiarys. **Inovação Sustentável e a Base da Pirâmide (BOP):** Um Estudo de Caso na Unilever. XVI ENGEMA - Inovação e sustentabilidade: um desafio para enfrentar as mudanças climáticas e seus impactos planetários. Encontro Internacional sobre Gestão Empresarial e Meio Ambiente-ENGEMA, São Paulo, 2014, v. 6. Disponível em: https://engema.submissao.com.br/16/resultado/an_resumo.asp?cod_trabalho=346 Acesso em: 25 ago. 2023

BRAZIL, Ministério do Desenvolvimento Social e Combate à Fome. **Rua: aprendendo a contar: Pesquisa Nacional sobre a População em Situação de Rua.** Brasília, DF: MDS; Secretaria de Avaliação e Gestão da Informação, Secretaria Nacional de Assistência Social, 2009. Disponível em: <https://fpabramo.org.br/acervosocial/estante/rua-aprendendo-contar-pesquisa-nacional-sobre-populacao-em-situacao-de-rua/> Acesso em: 25 jul. 2023.

BRAZIL. Ministério da Mulher, da Família e dos Direitos Humanos. **É possível Housing First no Brasil?:** experiências de moradia para população em situação de rua na Europa e no Brasil. Brasília, DF: MMFDH, 2019. Disponível em: https://www.gov.br/mdh/pt-br/navegue-por-temas/populacao-em-situacao-de-rua/DHUM0117_21x26cm_WEB4Pg.Separadas.pdf Acesso em: 19 dez. 2023.

BRAZIL. **Lei nº 14.620**, de 13 de julho de 2023a. Dispõe sobre o Programa Minha casa, Minha Vida. Disponível em: https://www.planalto.gov.br/ccivil_03/_ato2023-2026/2023/lei/l14620.htm. Acesso em: 07 nov. 2023.

BRAZIL. Ministério dos Direitos Humanos e da Cidadania. **População em Situação de Rua:** diagnóstico com base nos dados e informações disponíveis em registros administrativos e sistemas do Governo Federal. Brasília, DF: MDHC, Secretaria Nacional de Promoção e Defesa dos Direitos Humanos, 2023b. Disponível em: https://www.gov.br/mdh/pt-br/navegue-por-temas/populacao-em-situacao-de-rua/publicacoes/relat_pop_rua_digital.pdf Acesso em: 25 nov. 2023.

BRAZIL. Ministério dos Direitos Humanos e da Cidadania. **Plano nacional Ruas Visíveis.** Brasília, DF: MDHC, 2023c. Disponível em: https://www.gov.br/mdh/pt-br/assuntos/noticias/2023/dezembro/governo-federal-lanca-201cplano-ruas-visiveis-pelo-direito-ao-futuro-da-populacao-em-situacao-de-rua201d-com-investimento-de-cerca-de-r-1-bilhao/copy2_of_V3_plano_acoes_populacao_de_rua1.pdf Acesso em: 15 nov. 2023.

CASTILLO, L.; DIEHL, J. C. BREZET, H. **Design Considerations for Base of the Pyramid (BoP)**

Projects. Cumulus 2012 Conference, Helsinki, 2012. Disponível em: https://www.researchgate.net/publication/257927083_Design_Considerations_for_Base_of_the_Pyramid_BoP_Projects. Acesso em: 22 jul. 2023.

ENAP – Escola Nacional de Administração Pública. **Modelo Moradia Primeiro (Housing First) para a População em Situação de Rua – Módulo 1.** Pasta Pública. Brasília: ENAP, 2021.

FREIRE, K. de M.; OLIVEIRA, C. M. M.. Comunidades criativas e codesign. In: ARRUDA, A. J. V. (org.). **Design e inovação social.** São Paulo: Blucher, 2017. p. 109-132.

IPEA, Instituto de Pesquisa Econômica Aplicada. **Estimativa da população em situação de rua no Brasil (setembro de 2012 a março de 2020).** Brasília: Ipea, 2020. (Nota Técnica, n. 73) Disponível em: <http://repositorio.ipea.gov.br/handle/11058/10074>. Acesso em: 12 ago. 2023.

KANDACHAR, P.; DE JONGH, I.; DIEHL, J. C. (ed.). **Designing for Emerging Markets: Design of Products and Services.** Delf: Delf University of Technology, 2009. Disponível em: https://www.researchgate.net/publication/257926843_Designing_with_Emerging_Markets_Design_of_Products_and_Services Acesso em: 14 ago. 2023.

LHI. **Low Income House Institute**, c2023. Homepage. Disponível em: <http://www.lihohousing.org/>. Acesso em: 14 de ago. de 2023.

MANZINI, E. **Design para a inovação social e sustentabilidade:** Comunidades criativas, organizações colaborativas e novas redes projetuais. Rio de Janeiro: E-papers, 2008.

OECD. Organisation For Economic Co-Operation and Development Statistical Office of the European Communities. **Guidelines for Collecting and Interpreting Innovation Data.** Oslo Manual. 3. ed. Paris: OECD Publishing, 2005. Disponível em: https://www.oecd-ilibrary.org/science-and-technology/oslo-manual_9789264013100-en Acesso em: 10 ago. 2023. PLEACE, N. **Housing first:** European Observatory on Homelessness. França, DIHAL, 2012. Disponível em:

https://www.feantsaresearch.org/download/housing_first_pleace3790695452176551843.pdf. Acesso em: 22 jul. 2023.

PLEACE, N. **Housing first guide Europe: Research report.** Brussels: FEANTSA, 2016. Disponível em: https://www.feantsa.org/download/hfg_full_digital1907983494259831639.pdf Acesso em: 05 nov. 2023.

PRAHALAD, C. K.; HART, S. L. The Fortune at the Bottom of the Pyramid. **Estratégia & Negócios**, Florianópolis, v.1, n. 2, jul./dez.2008. Disponível em: https://www.researchgate.net/publication/260943834_The_Fortune_at_the_Bottom_of_the_Pyramid. Acesso em: 15 jul. 2023.

SANTOS, A. et al. **Design e Sustentabilidade: Dimensão Social.** 1. ed. Curitiba: Insight, 2019.

SANTOS, A.; KRÄMER, A.; VEZZOLI, C.. Design brings innovation to the Base of the Pyramid. **Design Management Review**, v. 20, n. 2, p. 78-85, out., 2009. Disponível em: https://www.researchgate.net/publication/230375861_Design_Brings_Innovation_to_the_Base_of_the_Pyramid. Acesso em: 15 jul. 2023.

WIJNBERG, N. M. Innovation and Organization: Value and Competition in Selection Systems. **Organization Studies**, 25(8), p. (1413-1433), out., 2004. Disponível em: https://www.researchgate.net/publication/240279694_Innovation_and_Organization_Value_and_Competition_in_Selection_Systems. Acesso em: 12 ago. 2023.

AUTHORS

ORCID: 0009-0007-2036-9517

ISABELA MACÁRIO CUSTÓDIO | Faculdade de Arquitetura, Artes, Comunicação e Design - FAAC Unesp | PPG Design | Bauru, SP - Brasil | Correspondência para: Rua Caetés, 115 - Jardim Campo Belo II, Dracena - SP, 17910-308 | e-mail: isabela.macario@unesp.br

ORCID: 0000-0002-8645-6919

AGUINALDO DOS SANTOS | Doutor em Gestão da Produção | Pós graduação em Design - Universidade Federal do Paraná - Curitiba - Paraná - PR - Brasil | Endereço: Rua General Carneiro, 460 - Centro - Curitiba - PR - CEP: 80060-150 - E-mail: asantos@ufpr.br

ORCID: 0000-0002-1573-5590

TOMÁS QUEIROZ FERREIRA BARATA, Dr. | Faculdade de Arquitetura e Urbanismo e de Design FAUUSP | Design | Sao Paulo, SP - Brasil | Rua Abilio Borin, 158, ap 73, Torre 1, São Paulo, 04729 030 | E-mail: barata@usp.br

HOW TO CITE THIS ARTICLE

CUSTÓDIO, Isabela Macário; SANTOS, Aguinaldo dos; BARATA, Tomás Queiroz Ferreira. MIX Sustentável, v. 10, n. 2, p. 195-206, 2024. ISSN 2447-3073. Disponível em: <<http://www.nexos.ufsc.br/index.php/mix-sustentavel>>. Acesso em: _/_/_doi: <<https://doi.org/10.29183/2447-3073.MIX2023.v10.n2.195-206>>.

SUBMITTED ON: 23/04/2024

ACCEPTED ON: 12/05/2024

PUBLISHED ON: 17/06/2024

RESPONSIBLE EDITORS: Lisiane Ilha Librelotto e Paulo Cesar Machado Ferroli

Record of authorship contribution:

CRedit Taxonomy (<http://credit.niso.org/>)

IMC: conceptualization, formal analysis, research, methodology, project management, visualization, writing - original draft, writing - revision & editing.

AS: conceptualization, formal analysis, research, methodology, project management, visualization, writing - original draft, writing - revision & editing.

TQFB: conceptualization, research, methodology, writing - revision & editing.

Conflict declaration: nothing has been declared.