XIX Encontro Nacional de Tecnologia do Ambiente ‘
ENTAC 2022

Ambiente Construído: Resiliente e Sustentável
Canela, Brasil, 9 a 11 novembro de 2022

Mapping of Brazilian social housing studies: state of the art

Mapeamento de pesquisas brasileiras sobre habitação social: estado da arte

Elisa A. D. Muianga
Universidade Estadual de Campinas | Campinas | Brasil | elisa.atalia@gmail.com
Doris C. C. K. Kowaltowski
Universidade Estadual de Campinas | Campinas | Brasil | doris@fec.unicamp.br

Abstract
Brazilian Social Housing (SH) programmes have positively reduced the housing deficit. However, Brazilian SH studies still reveal negative impacts. Exploring the problem source is fundamental to understand and develop actions to mitigate the most influential SH issues. Thus, the study aims to categorise the main topics investigated in SH, identify and evaluate SH shortcoming, analyse the intersections of issues, and understand their overarching. A systematic literature review and a systematic mapping study were applied to analyse and map SH studies. Investments and public housing policies linked to the social interests of society are necessary to upgrading SH.

Keywords: Social Housing. MCMV. Housing Programmes. Urbanisation. Brazil.

Resumo
O programa brasileiro de Habitação de Interesse Social (HIS) reduziu positivamente o déficit habitacional. Contudo, estudos sobre HIS brasileiros ainda revelam impactos negativos. Investigar a causa do problema é fundamental para entender e desenvolver ações para mitigar as questões de HISs. Assim, o estudo tem como objetivo categorizar os principais tópicos estudados em HISs, identificar e avaliar erros, analisar intersecções e compreender a sua abrangência. Uma revisão sistemática e mapeamento sistemático da literatura foram aplicados para analisar e mapear os estudos de HIS. Investimentos e políticas públicas de habitação vinculadas aos interesses sociais da sociedade são necessários para melhorar HISs.

Palavras-chave: Habitação de interesse social. MCMV. Programa habitacional. Urbanização, Brasil.

INTRODUCTION

The topic of Social Housing (SH) programmes has been widely studied over the years in different housing policies around the world. However, barriers to achieve real

Como citar:
MUIANGA, E. A. D.; KOWALTOWSKI, D. C. C. K. Mapping of Brazilian social housing studies: state of the art. In: ENCONTRO NACIONAL DE TECNOLOGIA DO AMBIENTE CONSTRUÍDO, 19., 2022, Canela. **Anais**... Porto Alegre: ANTAC, 2022. p. 1-18.

benefits of SH Programmes, mostly in emerging economies, exist. Scientific research evidences that SH often fail to deliver the intended socio-economic benefits, and may trigger negative impacts for the society [1][2][3].

Brazil's SH policies began with expressive efforts in 1964 through the National Housing Bank policy which lasted until 1985 [4][5]. Then, the Ministry of Cities was created in 2003 (extinct 2019), envisaged the coordination, management and formulation of the National Urban Development Policy. In 2009, the Brazilian government launched a SH programme, called 'My house My life' (MCMV, '*Minha Casa Minha Vida*' in Portuguese) [6][7]. MCMV programme aimed to reduce the housing deficit, improve the living conditions of vulnerable people, and increase economic growth [8][9][10][11][12][13]. Although a new programme was announced in 2019 by the present federal government, named *Casa Verde e Amarela* (CVeA), so far, MCMV is still in operation [15].

Beneficiaries of MCMV are classified according to the income[1] groups or *Faixas*[2] that include: *Faixa 1* (income of up to USD 383,1); *Faixa* 1.5 (income up to USD 553,4), considered lower-income families; and *Faixa* 2 (gross income up to USD 851,4) as well as *Faixa* 3 (gross income of up to USD 1.489,8), considered middle-income families. Three architectural typologies of MCMV use repetitive models across the national territory, with the following types: (i) single-family homes, (ii) multifamily vertical buildings of four to five floors and (iii) multifamily vertical buildings with elevators [14].

Even with the effectiveness in reducing housing deficit, studies on SH in Brazil also emphasise negative impacts, mostly in urban and neighbourhood scale rather than building and unit [16][13]. Most of MCMV projects are characterised by socio-spatial segregation conditions [11][17][18][19][20][23][24]. Location therefore plays a significant role in the wellbeing of families, and there is a need for investments in such existing SH to reduce negative impacts [19][23][25][26].

A substantial volume of studies on SH in Brazil exists. However, the literature needs to be analysed to evaluate the roots of SH problems and consequences. Thus, two questions guided the development of our research: What are the main shortcomings of SH in Brazil? What are the main solutions presented by studies conducted?

To answer the questions, the research aims to categorise issues related to SH studies, also, identify and assess SH shortcomings, and analyse the intersections of SH issues to the state of the art. The research contributes with a visual panorama of SH issues that may be applied to develop actions for SH upgrading. As an additional contribution, an organised knowledge base on SH research in Brazil is presented.

[1] Federal Savings Bank Brazilian currency *Faixa* 1 (income of up to R$ 1,800.00); *Faixa* 1.5 (income up to R $ 2,600.00), considered lower-income families, and *Faixa* 2 (gross income up to R $ 4,000.00); *Faixa* 3 (gross income of up to R $ 7,000.00).

[2] Values converted on 03-04-2022. 1Real/BRL=0.188USD: https://www.bcb.gov.br/conversao.

METHOD

The study combined two Systematic Review (SR) methodologies: (1) Systematic Literature Review (SLR) to identify gaps in current research [27][28][29][30], and (2) a Systematic Mapping Study (SMS), or Systematic Literature Mapping (SLM) to contextualise a particular topic [31][32]. Snowballing techniques complement the study sample, also qualitative and quantitative analyses were applied to generate visual and descriptive results [33][34].

Research data were retrieved through the 'StArt' software. 'StArt' stands for 'State of the Art through SR was developed by LaPES (Laboratory of Research on Software Engineering), from Federal University of São Carlos (UFSCar), in Brazil. The 'StArt' software allows users to search for evidence in the scientific literature and automate coding processes through qualitative and quantitative methods [35][33][36].

RESEARCH PROCEDURE

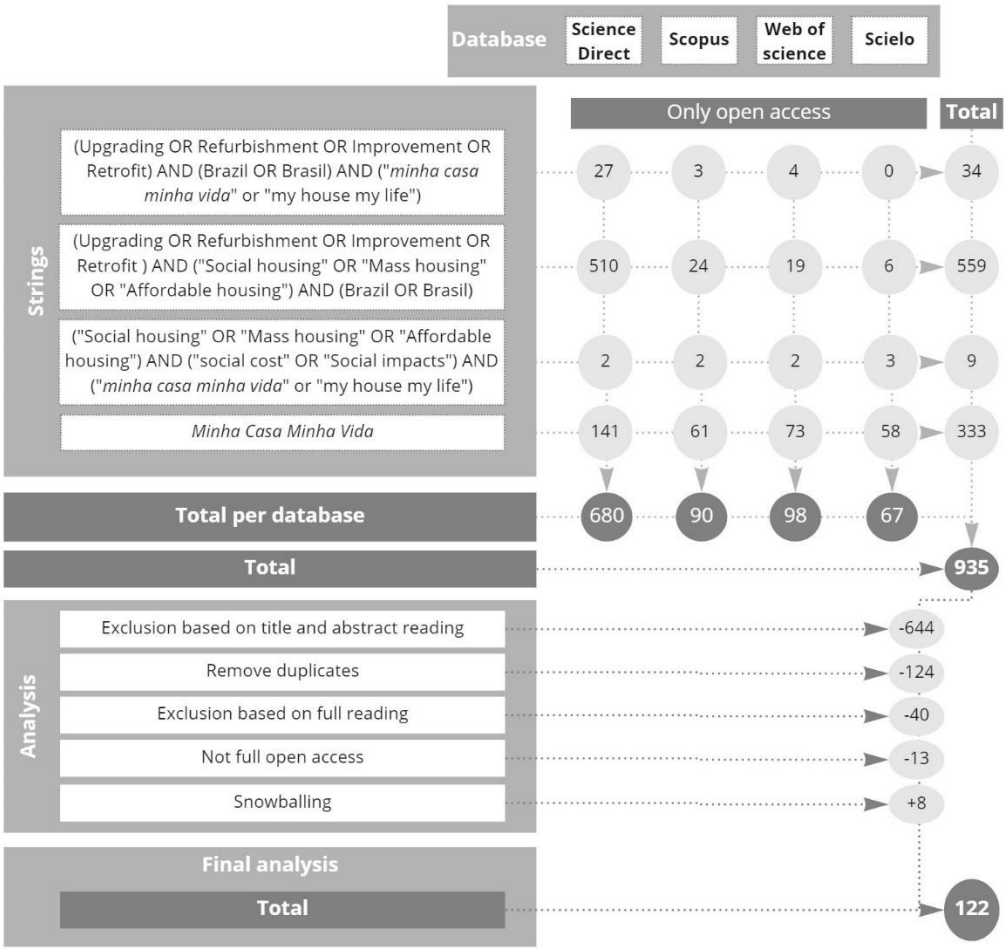
The SR process uses three steps: (1) planning of the review, (2) implementation of the review, and (3) analysis, synthesis, presentation and dissemination of research results [37][27].

- Planning of the review*:* the terms and search strings are presented in Figure 1. Boolean operators were included to define relations between search terms and construct appropriate strings. Strings were applied to selected Databases: Scopus, ScienceDirect, Web of Science, Scielo. Our analysis strategy used inclusion and exclusion criteria by title and abstract reading. All studies on Brazilian SH were selected, in both Portuguese or English. However, studies published in non-open access journals were excluded;
- Implementation of the review: after selection, accepted studies were read and data extracted. The SMS method was applied. Studies were classified by main topics (Figure 2), issues and organised by categories. Snowballing processes were applied to add studies to the sample. SLR method was applied for quality and data synthesis;
- Analysis, synthesis, presentation and dissemination: existing studies developed in Brazil related were identified and contextualised. Review outcomes were synthesised and documented for the dissemination.

QUANTITATIVE ANALYSIS

A panorama of studies selection is presented in Figure 1. The first search identified 935 studies. After the application of the SLR protocol, our study sample included 122 studies.

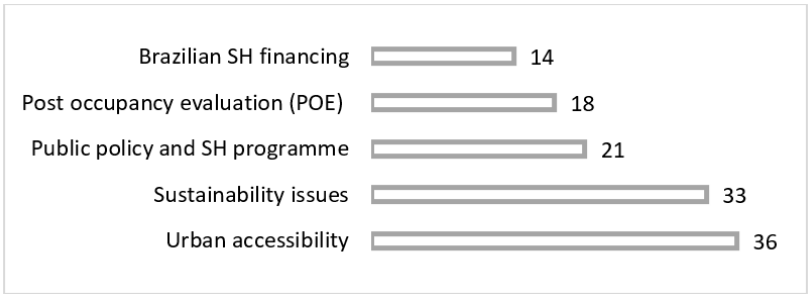
Figure 1: Identification and selection of studies on SH in Brazil according to specific strings



Source: The Authors

The research evaluated clusters of studies on SH. The analysis identified five topics outlined in SH studies: (1) urban accessibility, (2) sustainability, (3) public policies and SH programmes, (4) post-occupancy evaluation (POE), and (5) Brazilian SH financing. Figure 2 presents the topic of studies, and Figure 3 presents references considered in each topic.

Figure 2: Cluster of topics of SH studies



Source: The Authors

Figure 3: Studies considered in each topic

Topics	References
Urban accessibility	[12; 18; 19; 39; 40; 41; 42; 43; 44; 45; 46; 47; 48; 49; 50; 51; 52; 53; 55; 56; 57; 58; 59; 61; 60; 62; 63; 64; 65; 66; 67; 68; 69; 70; 111; 119]
Sustainability	[7; 13; 115; 116; 117; 118; 120; 121; 122; 123; 124; 125; 126; 127; 128; 129; 130; 131; 132; 133; 134; 135; 136; 137; 138; 139; 140; 141; 142;143; 144; 145]
Public policies and SH	[4; 6; 8; 23; 24; 71; 72; 73; 74; 75; 76; 77; 78; 79; 80; 81; 82; 84; 83; 85; 86]
Post-occupancy evaluation	[21; 22; 54; 99; 100; 101; 102; 103; 104; 105; 106; 107; 108; 109; 110; 112; 113; 114]
Brazilian SH financing	[9; 10; 11; 87; 88; 89; 90; 91; 92; 94; 95; 96; 97; 98]

Source: The Authors

Urban accessibility is a topic widely investigated in geography and architectural studies. In sociology, topics such as public policies that support the production of SH, as well as the organisational structure of the agents involved are frequently addressed in investigations. In economics, the process and performance of the financial market in SH productions, and the relationship between production quality, location of developments and the real estate market are investigated. In the construction area, including both architecture and civil engineering, POEs and sustainability issues exist. User satisfaction, transformations and possibilities of improvements of dwellings are investigated topics on POEs studies.

DESCRIPTION OF SH ISSUES – QUALITATIVE ANALYSIS

From each cluster of topics presented in Figure 2 and Figure 3, issues were identified and analysed. For each topic, the main impacts of SH are presented.

URBAN ACCESSIBILITY

Although urban environments have social implications, many Brazilian urban designs are fragmented, characterised by socio-spatial segregation [39][12][40][41]. The context of urban segregation also overarching most of *Faixa* 1 and *Faixa* 1,5 SHs projects, located at mono-functional neighbourhoods [42][43][44]. Even the SH systems have been designed to provide well inserted housings, those programmes fail in this context [45][46][47]. Real estate speculation also exerts pressure on urban morphologies favouring the finance of new homes for middle-class families, and expelling programmes such as MCMV to the periphery of urban areas [48][41].

Special Social Interest Zones, (*Zonas Especiais de Interesse Social* – ZEIS, in Portuguese), are demarcated areas within a city's territory, for housing settlements for low-income populations. However, ZEIS are not effective in relation to their social function for which they were intended [49][44][50]. Land values and, therefore, the final value of a housing unit are decisive in the marginalisation of the beneficiaries of MCMV [51][52]. As a consequence, residents have to move and spend a long time travelling to access jobs, education spaces, and daily activities [49].

Living in SH, very low income families also find themselves having to pay for new expenses such as utility bills and the instalments of their new home [26]. The financial state of such families does not enable them to assume new property spends, and return to the neighbourhood where they come from occurs as a way to minimise costs [53].

The impact of territorial segregation on intra-urban dynamics generates neighbourhoods that demand public infrastructure, public and private services and equipment, access to sewage systems, public transport, green areas, public spaces of leisure and culture [42][54][55][56][57], and trigger social costs [26]. Also the necessity of private cars, daily dislocations may cause health impacts due air pollution and stress, and also cause productivity losses [58][43][59]. In some cases, to overcome such shortcomings, in critical situations of urban fragmentation, local communities attempt to develop their own service cores that operate independently from the overall logic of an urban system [60][42].

SH programmes should be restructured to promote adequate locations with appropriate infrastructure [39] [44] [48][51]. In this sense, it is important to reduce real estate "businesses" which result in lawful procedures of SH production [61][62]. Thus, it is necessary to increase the institutional and regulatory capacity of SH programmes to overcome location impacts [62][63][64] and reduce the pressure for precarious occupations in environmentally fragile areas [52][50][41]. Municipal actions should provide infrastructure and equipment, and public transport lines based on social demands for work, health, education, leisure and culture services [65][66][67][59].

Understanding SH beneficiary and considerate they need and participation in the process is necessary to better define the integration of SH neighbourhoods and urban spaces [68][19][18]. The involvement of the communities, through participatory planning, is recommended to develop legitimate urban and SH planning with local interests in mind [45][46][69][55][70][5].

PUBLIC POLICY AND SH PROGRAMME

Socio-spatial segregation still represents an obstacle for SHs policy [71][4][72]. SHs still facilitate the outsourcing of programmes to private developers [8][73][74][23]. It is also evident that MCMV is guided by short-term business and economic logic, and is not part of an effective structural policy of planning and urban reform of long-term process, which is essential to improve the quality of life in cities [6][75].

National Rural Housing Program (*Programa Nacional de Habitação Rural* in Portuguese - PNHR), rural extension of the MCMV, provides housing access settlement for people in rural areas to maintain their activities [76][77]. Is designed to minimise the national housing deficit, allowing people to build a new house or even renovate the house they already own [78]. Nonetheless, PNHR fails in providing infrastructure, water, energy,

sewage, drainage, quality public transport networks, education, health and supply facilities [79][78][77].

Even though MCMV has improved life conditions for vulnerable families, this programme still intensifies stigma and social segregation [24]. Despite that dwellers demonstrate satisfaction for owning a property, which may be considered a positive social result [80], they still restricted to experience the city and its diversity [81][24]. Aspects related to health, education, work, leisure, culture, sociability, and other amenities are priority for long-term satisfaction [82].

Emphasising the value of the home besides the cost of production, focusing on the impacts on the lives of individuals should contribute with improvements of social programs [82]. Furthermore, the dissemination of shortcoming of SH may act to reduce and avoid failure repetitions and establish a continuous improvement process [83]. The local administrative capacities associated with the preference of dwellers and decentralised public policies autonomy, from historical evaluation of MCMV should contribute with improvements [84].

Refurbishment and upgrading actions with participatory processes may also have positive effects on SH programmes [85][86][81]. Upgrading of SH may touch on subjective details as well to advance long-term, sustainability-oriented solutions.

BRAZILIAN SH FINANCE

Although MCMV have made significant progress regarding housing deficit [10], housing programmes tend to transfer the leading role of its implementation to the real estate market (builders and developers). Real estate market has high autonomy in the project development and execution, with less consideration of social outcomes [87][88][89]. SH programmes should be aligned with the interests of social policies [89]. However, SH is mobilised as an instrument for including the low-income social strata in the consumer market [10][90][91][92].

Even with rules and restrictions, SH is developed in a contiguous model. For instance, an official limitation of housing units (UH) per project is stipulated by the regulations, considering 500 for single family units, and 250 for multi-family units, or apartments [93]. However, this does not prevent construction companies from implementing “contiguous developments” that spatially configure a much larger number of units [21][92]. The social costs of living in such large developments are still neglected [14][94].

The low effective income of beneficiaries, insufficient to cover the housing expenditures, play some significant role in the differential in delinquency rates between cities and peripheral locations [95][11]. The combination of low incomes with peripheral locations may produce an unsolvable equation, since jobs access and poor urban infrastructure tend to impose high costs on poor households, triggering higher delinquency rates and worse social outcomes [11].

There is a need to develop effective and targeted actions to minimise the problem of default in the MCMV and reduce real estate market business [10]. A public guarantee fund may eliminate the risk of loan defaults during the construction period, while thereafter units are sold to the national housing bank that assumes subsequent risks [96][97]. The situation of the workplace is a factor that leads families with lower income to be in constant change of residence, as they are more susceptible to job changes [9]. Thus, job and income should also be addressed, such as actions to map the profession of SH beneficiaries in surroundings, and provide services and employment systems [97][98].

POST OCCUPANCY EVALUATION (POE)

Despite all the adverse impacts of SH experienced by the residents regarding their poor quality neighbourhood, and housing unit, they keep adapting and seeking for alternatives to transform and improve their physical environment [99]. The transformations occur mainly with the purpose to amplify space dimensions, modify layout, provide new rooms for diverse activities, and to meet particular dwellers needs [100][101][102]. For instance, the creation of new rooms due to changes in the family profile, the separation between living room and kitchen, box and cabinet for the bathroom, and the adaptation of some rooms characterise different layout possibilities [103][104][105].

Also demands for outdoor transformations occur [100], such as adaptations of pathways, construction of wall and sidewalk, changing the floor and wall covering, and green areas [104][21]. On the other hand, transformations may cause various impacts in the unit performance [146]. The construction of roofs to accommodate balconies and new rooms, use of low thermal and performance materials, obstruction of openings may increase discomfort, reduce cross ventilation and natural light, and affect housing infrastructure [104][99].

Impacts on cost of living exist. Live-in condominium models represent a new problem for residents [22]. Furthermore, risk on security limits comfortably with the external environment. There is a less use of leisure spaces due to the depredation of areas and equipment, and lack of visibility for children control [106].

Actions properly designed and developed by specialists under end-users participation, may promote SH projects suitable to the residents needs in the long term [103][105][107][99][108][109][110]. In this context, public policies should ensure the interaction between society and SH stakeholders, enabling participatory discussions and actions for improvements [111][112].

The importance of space flexibility and individualization should be incorporated in SH programmes [21]. Functionality, spaces for appliances, solar control in openings, visual and thermal comfort, natural lighting, ventilation natural, private leisure spaces, balcony, backyard, spaces for pets and plants should be considered [113]. Also improve infrastructure, improve landscaping and provide shady trees around the buildings,

consider social networks of residents, communal spaces, leisure facilities, may improve the habitability of SH and represent major value for dwellers [101][102]. In general, detailed investigation of the existing design configuration of SH, may add value in the eyes of end-users and substitute these with improvements considered important [114][107].

SUSTAINABILITY ISSUES

Sustainability certification tools have been used to assess buildings and urban areas in order to promote more sustainable development goals and practices in civil construction and urban planning [115][116]. In Brazil, Blue House Label (*Selo Casa Azul* in Portuguese) is known as a certification of sustainability, focusing on the social sector [115][116]. User comfort level of a housing unit should meet compliance with NBR 15.575 standard, and NBR 15.220 considering minimum conditions for summer and winter in all Brazilian Bioclimatic Zones [117][118][119][120][121][122].

Brazilian housing is made by ceramic or block walls, covered by mortar, with a timber structure and ceramic roofs [13][123]. This pattern of construction may be not suitable in some locales with a high climatic temperature during all year, which imply air conditioning installations, or in cold areas that imply heat systems in winter, consequently, an increase in the electricity consumption [124].

The current challenge of promoting sustainability on SH requires an evaluation of the built environment [125][126]. Alternatives such as heating during winter, season adaptation for thermal comfort, water efficiency, rainwater, and photovoltaic electricity generation are necessary [127][128][117][118][129][124][130]. A well-ventilated building, adequate windows that fulfil daylighting, colour absorption of walls and in some cases for roofs, may provide thermal comfort for its users, reducing the energy consumption for conditioning [131][130][7][127].

Currently, the public policies for SH in Brazil have included the use of domestic Solar Water Heating (DSWH) [132][133][134][135], which represents a benefit of annual energy savings [136][130][7][137][138][139][140]. Thus, metamodels to analyse thermal performance of SH may promote thermal comfort assessment during the early stages of the design process [141][142][143][144][145].

FINAL REMARKS

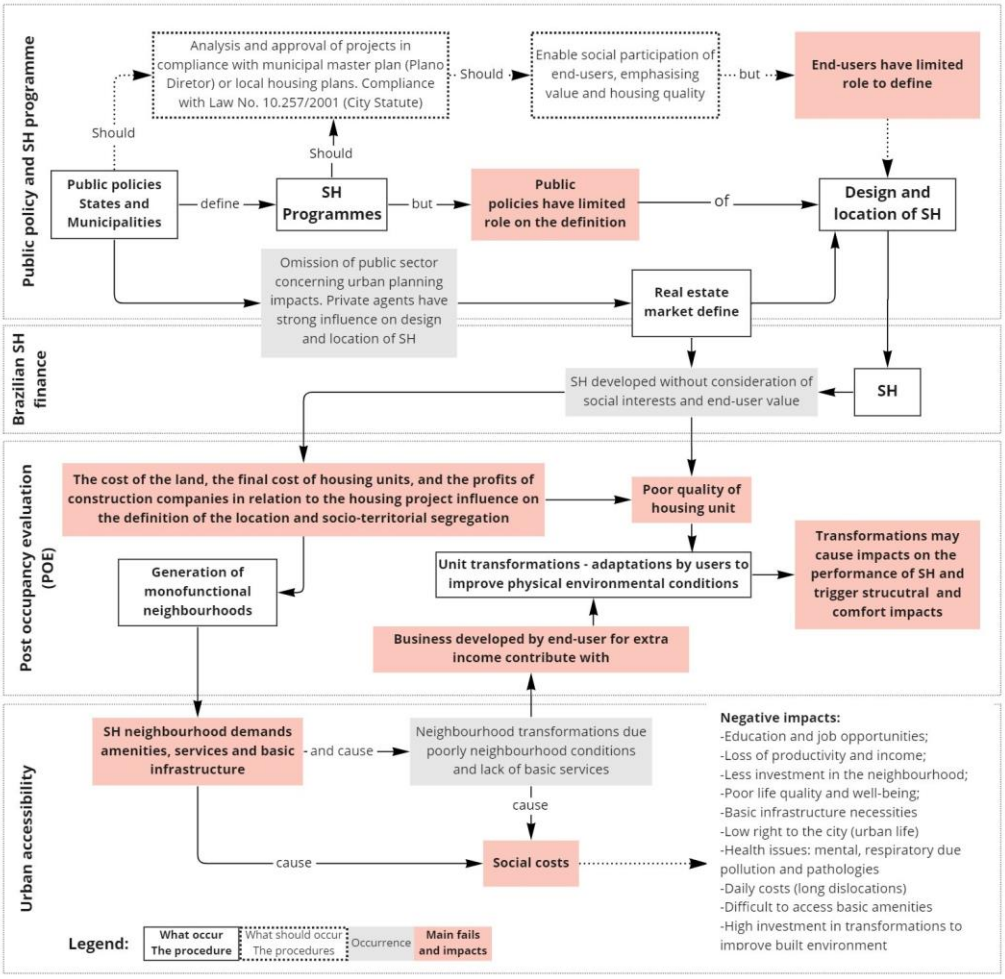
Urban accessibility, public policies and the production of SH programmes stimulate more studies in Brazilian SH topics. Also, there is a worldwide responsibility to improve the environmental issue, focused on energy efficiency. Therefore, various strategies and possibilities for implementing sustainable projects also foster the development of studies, covering various fields of study.

In the POE studies, although issues involving indoor and outdoor SH are raised, most of the studies analyse external issues and the location of these housing units. Few

studies detail the impacts of the physical environment of the units, or present opportunities for improvements aimed at the quality of life of the beneficiaries. In addition, financing, and high delinquency rates also drive research in economics, although with less impact.

Figure 4 presents a panorama of SH programmes and its impacts through topics analysis. It is presented in synthesis how the actions and decisions of public policies and financing made during the initial phase of the project may trigger negative impacts throughout the production and use (post-occupancy) of housing, also urban accessibility issues.

Figure 4: Main impacts of SH programmes



Source: The Authors

From Figure 4 analysis it is evident that public policies and SH programmes definition influence all SH development, and trigger negative impacts. The lack of public policy action and users' participation on SH definition and production, and less consideration of urban necessities reinforce the errors' repetition and result in less value for end-users.

In the absence of changes in the production of SH, in which public authorities and users could lead the main decisions on design and location, many of the recurrent problems

will be repetitive in future projects. It is necessary an overarching involvement and large investments in infrastructure and potentials to create public and private spaces, and essential services for segregated sites, to reduce daily costs of access to basic facilities. Thus, efforts to socially benefit the beneficiaries of these housing, in terms of satisfaction, quality of life, and sustainability are necessary and constitute a goal of a built environment. It is necessary to develop public housing policies linked to the social interests of society.

ACKNOWLEDGMENT

The authors would like to thank the *Fundação de Amparo à Pesquisa do Estado de São Paulo* - **FAPESP** [Process: 2020/06462-0; 2019/02240-5] for the generous funding support.

REFERENCES

[1] BUCKLEY, R. M.; KALLERGIS, A.; WAINER, L. The emergence of large-scale housing programs: Beyond a public finance perspective. **Habitat International, Housing the Planet: Evolution of Global Housing Policies**. v. 54, p. 199–209, 2016.

[2] GUSTAVSSON, E.; ELANDER, I. Sustainability potential of a redevelopment initiative in Swedish public housing: The ambiguous role of residents' participation and place identity. **Progress in Planning**, v. 103, p. 1–25, 1 jan. 2016.

[3] LIU, C.; O'SULLIVAN, D. An abstract model of gentrification as a spatially contagious succession process. **Computers, Environment and Urban Systems**, v. 59, p. 1–10, 1 set. 2016.

[4] CARDOSO, A. L.; MELLO, I. DE Q. E; JAENISCH, S. T. A implementação do Programa Minha Casa Minha Vida na Região Metropolitana do Rio de Janeiro: agentes, processos e contradições. **In: Minha Casa... e a Cidade?** [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 73–102.

[5] OLIVEIRA, J. A. DE; SOUZA, C. G. DE. A produção da habitação social numa cidade amazônica. **Confins, Revista franco-brasilera de geografia**, v. 42, 2019.

[6] LOUREIRO, M. R.; MACÁRIO, V.; GUERRA, P. H. Legitimidade e efetividade em arranjos institucionais de políticas públicas: O programa minha casa minha vida. **Revista de Administração Pública**, v. 49, n. 6, p. 1531–1554, 1 nov. 2015.

[7] TRIANA, M. A.; LAMBERTS, R.; SASSI, P. Characterisation of representative building typologies for social housing projects in Brazil and its energy performance. **Energy Policy,** v. 87, p. 524–541, 1 dez. 2015.

[8] ALBERT, V. A. Mobilising the Periphery: Brazil's My House My Life Programme and the Homeless Workers' Movement. **Bulletin of Latin American Research**, v. 40, n. 1, p. 84–99, 12 jan. 2021.

[9] CHAVES, C. A. B. M. The selling and renting of houses on the program "Minha Casa Minha Vida" in Parnamirim/RN. **Urbe,** v. 11, n. e20180033, p. 1–14, 2019.

[10] FALCHETTI, C. Social Policy and the Dynamics of Neoliberalism: The My House, My Life Program and the Commodified Mediation of Housing. **Latin American Perspectives**, v. 47, n. 2, p. 131–146, 10 mar. 2020.

[11] ACOLIN, A.; HOEK-SMIT, M. C.; ELOY, C. M. High delinquency rates in Brazil's Minha Casa Minha Vida housing program: Possible causes and necessary reforms. **Habitat International**, v. 83, p. 99–110, 1 jan. 2019.

[12] KOWALTOWSKI, D. C. C. K. et al. A critical analysis of research of a mass-housing programme. **Building Research and Information**, v. 47, n. 6, p. 716–733, 18 ago. 2019.

[13] TUBELO, R. et al. Cost-effective envelope optimisation for social housing in Brazil's moderate climates zones. **Building and Environment**, v. 133, p. 213–227, 1 abr. 2018.

[14] FERREIRA, J. S. W. **Produzir casas ou construir cidades? Desafios para um novo Brasil urbano. Parâmetros de qualidade para a implementação de projetos habitacionais e urbanos**. [s.l.] v. 2. Editora FUPAM, 2012.
[15] DEPIERI, L.; RAMOS, P. Austeridade e pandemia: perspectivas para as cidades brasileiras. **Ponto-e-Vírgula : Revista de Ciências Sociais,** v. 0, n. 27, p. 135–150, 2020.
[16] ANTUNES, L. Minha Casa perto do fim? Disponível em: <https://economia.uol.com.br/reportagens-especiais/minha-casa-minha-vida-dez-anos/#minha-casa-perto-do-fim>. Acesso em: 22 mar. 2020.
[17] RIZEK, C. Viver na cidade, fazer cidade, esperar cidade. Inserções urbanas e o PMCMV-entidades: incursões etnográficas. **In: Minha Casa... e a Cidade**? [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 289–322.
[18] SOBRINHA, M. D. P. B. et al. Minha Casa, Minha Vida na Região Metropolitana de Natal: inserção urbana, qualidade do projeto e seus efeitos na segregação socioespacial. **In: Minha Casa... E a cidade?** [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 323–352.
[19] VICENTIM, T. N.; KANASHIRO, M. Análise do comércio e dos serviços nos empreendimentos do Programa Minha Casa, Minha Vida (PMCMV): estudo de caso do Residencial Vista Bela - Londrina, PR. **Ambiente Construído**, v. 16, n. 4, p. 227–250, 2016.
[20] ANDRADE, L. S. É Possível Transformar em Cidade a Anticidade? Crítica ao Urbanismo de Empreendimentos do PMCMV. **In: Minha Casa... E a cidade**? [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 165–194.
[21] NASCIMENTO, D. et al. Programa Minha Casa Minha Vida: desafios e avanços na Região Metropolitana de Belo Horizonte**. In: Minha Casa... e a cidade**? [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 195–228.
[22] PAZ, R. D. O. DA et al. Trabalho social no Programa Minha Casa Minha Vida: a experiência da cidade de Osasco/São Paulo. **In: Minha Casa... e a Cidade?** [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 255–287.
[23] RUFINO, M. B. C. et al. A produção do Programa PMCMV na Baixada Santista: habitação de interesse social ou negócio imobiliário? **In: Minha Casa... e a Cidade?** [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 103–130.
[24] VANNUCHI, L. V. B. et al. Inserção urbana no MCMV e a efetivação do direito à moradia adequada: uma avaliação de sete empreendimentos no estado de São Paulo. XVI ENANPUR, p. 20, 2015.
[25] KOWALTOWSKI, D. C. C. K. et al. Housing Transformation In Search Of Well-Being. ANAIS DO XVI ENCONTRO NACIONAL DE CONFORTO NO AMBIENTE CONSTRUÍDO/ XII ENCONTRO LATINO-AMERICANO DE CONFORTO NO AMBIENTE CONSTRUÍDO. Anais...2021
[26] MUIANGA, E. A. D. et al. Critical analysis of housing condition impacts on residents' well-being and social cost. **Gestão & Tecnologia de Projetos**, v. 16, n. 4, p. 33–66, 22 out. 2021.
[27] CAHYO, W. N. Finding Novelty of Research with Systematic Literature Mapping (SLM). **Journal of Physics: Conference Series**, v. 1764, n. 1, 012186, 1 fev. 2021.
[28] KITCHENHAM, B. et al. Systematic literature reviews in software engineering - A systematic literature review. **Information and Software Technology**, v. 51, n. 1, p. 7–15, 1 jan. 2009.
[29] OKOLI, C. A guide to conducting a standalone systematic literature review. **Communications of the Association for Information Systems,** v. 37, n. 43, p. 879–910, 2015.
[30] KOÇ, H. Methods in designing and developing capabilities: A systematic mapping study. 8TH WORKING CONFERENCE ON THE PRACTICE OF ENTERPRISE MODELLING, PoEM 2015, Valencia. Anais...2015
[31] KAUR, R.; KAUR CHAHAL, K.; SAINI, M. Understanding community participation and engagement in open source software Projects: A systematic mapping study**. Journal of King Saud University - Computer and Information Sciences**, 30 out. 2020.
[32] YAÑEZ-FIGUEROA, J. A.; RAMÍREZ-MONTOYA, M. S.; GARCÍA-PEÑALVO, F. J. Systematic mapping of the literature: social innovation laboratories for the collaborative construction of knowledge from the perspective of open innovation. TEEM ’16:

PROCEEDINGS OF THE FOURTH INTERNATIONAL CONFERENCE ON TECHNOLOGICAL ECOSYSTEMS FOR ENHANCING MULTICULTURALITY. Anais...2016.

[33] FABBRI, S. et al. Improvements in the StArt tool to better support the systematic review process. ACM International Conference Proceeding Series. Anais...New York, New York, USA: EASE '16: PROCEEDINGS OF THE 20TH INTERNATIONAL CONFERENCE ON EVALUATION AND ASSESSMENT IN SOFTWARE ENGINEERING. ASSOCIATION FOR COMPUTING MACHINERY, 1 jun. 2016

[34] WOHLIN, C. Guidelines for Snowballing in Systematic Literature Studies and a Replication in Software Engineering. PROCEEDINGS OF THE 18TH INTERNATIONAL CONFERENCE ON EVALUATION AND ASSESSMENT IN SOFTWARE ENGINEERING - EASE '14, 2014.

[35] BHATTACHERJEE, A. **Social Science Research: Principles, Methods, and Practice**. 2. ed. University of South Florida: Textbooks Collection, 2012.

[36] FABBRI, S. et al. Managing Literature reviews information through visualization. In: INTERNATIONAL CONFERENCE ON ENTERPRISE INFORMATION SYSTEMS.14TH. ICEIS. Anais...Wroclaw, Poland: Lisbon: SCITEPRESS, 2012

[37] BARAT, S. et al. A Model-Based Approach to Systematic Review of Research Literature. PROCEEDINGS OF THE 10TH INNOVATIONS IN SOFTWARE ENGINEERING CONFERENCE, 2017.

[38] MOREIRA, V. D. S.; SILVEIRA, S. D. F. R.; EUCLYDES, F. M. "MINHA CASA, MINHA VIDA" EM NÚMEROS: quais conclusões podemos extrair? IV ENCONTRO BRASILEIRO DE ADMINISTRAÇÃO PÚBLICA. Anais...2017

[39] MEDRANO, L.; SPINELLI, J. Urban policies and projects for social housing in central areas. The case of the Habitasampa competition (São Paulo, Brazil). **Habitat International**, v. 42, p. 39–47, 1 abr. 2014.

[40] CARVALHO, A. DE A. V. DE; MEDEIROS, V. A. S. DE. O papel do programa Minha casa, minha vida no processo de construção das cidades: a perspectiva configuracional. **Urbe**, v. 9, n. suppl 1, p. 396–407, 2017.

[41] DE SOUSA, I. C. N.; BRAGA, R. Social Housing and the Minha Casa Minha Vida Program - range 1: Environmental issue in housing production. **Urbe,** v. 12, n. e20190312, p. 1–15, 2020.

[42] LEITÃO, G.; ARAUJO, H. Quando o futuro repete o passado: Uma análise dos conjuntos habitacionais produzidos pelo programa minha casa/ minha vida na cidade do Rio de Janeiro. **Cuadernos de Vivienda y Urbanismo**. Pontificia Universidad Javeriana, 2013.

[43] MIOTO, B. O programa "minha casa, minha vida" e a segregação sócio-espacial: A atuação do capital incorporador e do estado na construção do urbano Brasileiro. **Cuadernos de Vivienda y Urbanismo**. Pontificia Universidad Javeriana, 2013.

[44] MASTRODI, J.; SILVEIRA ZACCARA, S. M. L. Sobre a Promoção Do Direito À Moradia E Do Direito À Cidade: Um Estudo À Luz Da Política Urbana Do Município De Campinas. **Revista de Direito da Cidade**, v. 8, n. 1, p. 1–28, 2016.

[45] MATOS, C. A Face Do Tecido Urbano E As Mazelas Ao Acesso À Moradia Social: Como O Caso Do Município De Petrópolis Desvenda a Construção De Uma Lenda Urbana / the Face of Urban Tissue and the Maladies Regarding To the Access of Social Housing. **Geo UERJ,** n. 31, p. 219–248, 2017.

[46] SILVA, R. D.; SILVA, B. F. E. O programa habitacional minha casa minha vida: Uma avaliação através do caso do conjunto Albino Meneguetti em Maringá - PR. **Cuadernos de Vivienda y Urbanismo: X Seminário Investigación Urbana y Regional**. Pontificia Universidad Javeriana, 2013

[47] DE MOURA, J. M. O Programa Minha Casa, Minha Vida na Região Metropolitana de Natal: uma análise espacial dos padrões de segregação e desterritorialização. **Urbe**, v. 6, n. 3, p. 339–359, 2014.

[48] GARCIA, D. V.; FERNANDES, Q. E. An overview of rural areas in Brazil and urban land changes due to the "Minha Casa Minha Vida" affordable housing programme. History of the Future: 52ND WORLD CONGRESS OF THE INTERNATIONAL FEDERATION OF LANDSCAPE ARCHITECTS, IFLA 2015 - Congress Proceedings. Anais...Saint-Petersburg State Polytechnic University, Polytechnic University Publishing, 2015

[49] DE FRANÇA, K. C. B. Os gargalos para a provisão habitacional em municípios de pequeno porte: análise do programa Minha Casa, Minha Vida. **Urbe**, v. 7, n. 3, p. 325–339, 2015.

[50] ACOLIN, A.; GREEN, R. K. Measuring housing affordability in São Paulo metropolitan region: Incorporating location. **Cities**, v. 62, p. 41–49, 1 fev. 2017.
[51] CUNHA, T. A. DA; SILVA, M. S. DA. Evidências de imprecisão nas políticas habitacionais brasileiras: o caso de São Paulo. **Urbe**, v. 10, n. 1, p. 52–71, 2018.
[52] CAMPOS, B. F. O ímpeto privado na definição da socioespacialidade urbana: as habitações sociais de mercado e de interesse social em Dourados/ms (2007-2013). **PEGADA - A Revista da Geografia do Trabalho**, v. 19, n. 1, p. 182–203, 4 jun. 2018.
[53] BALTRUSIS, N.; MOURAD, L. N. Política habitacional e locação social em Salvador. **Caderno CRH,** v. 27, n. 71, p. 267–284, 2014.
[54] ANDRADE PRUDENTE, A.; DE SIQUEIRA LEIRO, M. Inserção Urbana no Programa Minha Casa Minha Vida (MCMV): Avaliação do Conjunto Habitacional Coração de Maria no Município de Salvador, Bahia, Brasil. **Hábitat y Sociedad,** n. 10, p. 269–288, 2017.
[55] LIMA, J. J. et al. Estratégias de produção habitacional de interesse social através do PMCMC na Região Metropolitana de Belém e no sudeste do Pará. **In: Minha casa... e a cidade**? [s.l.] OBSERVATÓRIO DAS METRÓPOLES - IPPUR/UFRJ, 2015. p. 353–390.
[56] MENEZES, V. M. O. DE. Arranjos familiares de beneficiários do Programa Minha Casa Minha Vida: trajetórias de benefício e percepções de bem-estar social. **Cadernos Metrópole**, v. 18, n. 35, p. 257–282, 2016.
[57] MEIRELES, E.; CASTRO, C. M. P. DE. Provisão do Programa Minha Casa, Minha Vida em São José do Rio Preto, SP: inserção urbana e adequação socioeconômica e ambiental - um estudo de caso do conjunto habitacional Nova Esperança. **Ambiente Construído**, v. 17, n. 3, p. 219–233, 2017.
[58] BORGES, E. D. M.; BARREIRA, C. C. M.; DA COSTA, E. P. V. DA S. M. Habitação Social E Desenvolvimento Urbano Sustentável: O Caso Da Região Metropolitana De Goiânia / Social Housing and Sustainable Urban Development: the Case of Goiania Metropolitan Region. **Geo UERJ**, v. 0, n. 30, p. 122–144, 2017.
[59] SOUZA, E. L.; SUGAI, M. I. Minha Casa Minha Vida: periferização, segregação e mobilidade intraurbana na área conurbada de Florianópolis. **Cadernos Metrópole**, v. 20, n. 41, p. 75–98, 2018.
[60] HEHL, R. Cultivating the Field in the Global Hinterland: Community Building for Mass Housing in the Amazon Region. **Architectural Design**, v. 86, n. 4, p. 34–41, 1 jul. 2016.
[61] RIZEK, C. S.; AMORE, C. S.; CAMARGO, C. M. DE. Política social, gestão e negócio na produção das cidades: o programa minha casa minha vida "entidades". **Caderno CRH**, v. 27, n. 72, p. 531–546, 2014.
[62] PEQUENO, R.; ELIAS, D. Estruturação Urbana E Desigualdades Socioespaciais. **Revista Geográfica de América Central**, v. 2, n. 1995, p. 1–18, 2011.
[63] SANTOS, A. M. S. P.; MATOS, C. O Mito Da Escassez Fundiária E O Acesso À Moradia Social:O Caso Do Município De Petrópolis / the Myth of Housing Cash and Access To Social Housing: the Case of the Municipality of Petrópolis. **Geo UERJ**, v. 0, n. 31, p. 648–668, 2017.
[64] JESUS, P.; DENALDI, R. Experiências de regulação urbana e suas possibilidades: Análise a partir do programa minha casa minha vida na região do grande ABC (São Paulo). **Eure,** v. 44, n. 132, p. 67–87, 1 maio 2018.
[65] CAMPOS, A. C.; SANTOS, F. H. M. Estado e reestruturação urbana em Sergipe (2000 - 2018): uma análise sobre os principais programas de habitação de interesse social. **Confins, Revista franco-brasilera de geografia**, n. 41, 2019.
[66] MOREIRA, V. D. S.; SILVEIRA, S. D. F. R.; EUCLYDES, F. M. Dinâmicas locais na implementação de políticas públicas: análise do programa Minha Casa, Minha Vida em Minas Gerais. **Cadernos Gestão Pública e Cidadania,** v. 23, n. 75, p. 170–193, 24 ago. 2018.
[67] KOPPER, M. House-ing urban kin family configurations, household economies and inequality in brazil's public housing. **Articulo – revue de sciences humaines**, v. 20, n. 20, 5 jun. 2017.
[68] DE LIMA PAES, T. H. S.; DAS NEVES, R. M. Contribuições para minimização de impacto negativo gerado por intervenções de urbanização em área de ocupação irregular: Estudo de caso em Belém (PA). **Arquiteturarevista**, v. 13, n. 1, p. 1–8, 1 jan. 2017.

[69] ALVARENGA, D. D. N.; RESCHILIAN, P. R. O Lugar Da Moradia Social Em São José Dos Campos - Sp**. Revista Univap**, v. 23, n. 43, p. 73–84, 2017.
[70] PEREIRA, A. M. Habitação de interesse social e os impactos para os serviços públicos Social housing and the impacts on public services O direito à moradia é visto enquanto elemento eminente. **Conhecimento & Diversidade**, v. 11, n. 25, p. 146–164, 2019.
[71] MONTEIRO, F. A. A habitação social na atualidade na Região Metropolitana de Curitiba/Pr. **Geo UERJ**, n. 27, p. 156–175, 2015.
[72] FERREIRA, G. G. et al. Housing policy in Brazil: An advocacy coalition analysis of the national social interest housing system versus minha casa, minha vida program. **Urbe,** v. 11, n. e20180012 1/15, p. 1–15, 2019.
[73] THERY, H.; Novas Paisagens Urbanas Do Programa Minha Casa, Minha Vida. **Mercartor**, v. 16, p. 1–14, 2017.
[74] SILVEIRA ZACCARA, S. M. L.; MASTRODI, J. O que é o objeto "moradia" do Programa Minha Casa, Minha Vida? **Revista de Direito da Cidade**, v. 8, n. 3, p. 859–885, 2016.
[75] ESKES, N.; VIEIRA, A. Rethinking Minha Casa, Minha Vida: The Resurgence of Public Space. **Architectural Design**, v. 86, n. 3, p. 54–59, 1 maio 2016.
[76] COSTA, M. F. B. F. et al. Rural housing and sustainable regional development - The national rural housing program in Nova Olinda/Ce. **Fronteiras**, v. 8, n. 3, p. 379–396, 2019.
[77] COSTA, M. DE L. P. M.; SILVA, M. H. DA; SANTOS, T. R. B. DOS. Os caminhos da dispersão urbana no bairro de Campo Grande - cidade do Rio de Janeiro / The ways of the urban dispersion in Campo Grande - city of Rio de Janeiro. **Geograficidade**, v. 8, n. 1, p. 95–107, 28 out. 2018.
[78] RANGEL, J. A. et al. Minha casa minha vida program and its repercussion in a regional scale: A study about the amazon river delta. **Revista Brasileira de Gestão e Desenvolvimento Regional,** v. 16, n. 1, p. 32–44, 1 jan. 2020.
[79] BUONFIGLIO, L. V. **Housing of Social Interest. Mercator**, v. 17, n. 2, p. 1–16, 2018.
[80] QUIRINO, B. S. et al. Analysis of housing program "Minha Casa, Minha Vida" on the perspective of social innovation and evolution of public policy. **Revista de Gestão Social e Ambiental**, v. 9, n. 3, p. 97–117, 1 set. 2015.
[81] SERAPIÃO, F. Linking the Formal and Informal: Favela Urbanisation and Social Housing in São Paulo. **Architectural Design**, v. 86, n. 3, p. 70–79, 1 maio 2016.
[82] MENEZES, G.; MOURÃO, L. Programa Minha Casa Minha Vida sob a perspectiva da qualidade de vida. **Psicoperspectivas**, v. 16, n. 3, p. 149–163, 2017.
[83] FINGER, F. B.; GONZÁLEZ, M. S.; KERN, A. P. Control of finished work - Final quality inspection in a social housing project. **Revista Ingenieria de Construccion**, v. 30, n. 2, p. 147–153, 2015.
[84] LAVALLE, A. G.; RODRIGUES, M.; GUICHENEY, H. Local agency and federal inducement: The workings of the municipal housing policy in Recife and Curitiba. **Revista de Sociologia e Politica**, v. 27, n. 71, p. 1–27, 2019.
[85] STIPHANY, K. M.; WARD, P. M. Autogestão in an era of mass social housing: the case of Brazil's Minha Casa Minha Vida-Entidades Programme. **International Journal of Housing Policy,** v. 19, n. 3, p. 311–336, 2019.
[86] DE CAMARGO, C. M. Minha Casa Minha Vida - Entities: New arrangements for the operations of Brazilian housing policy. **Revista Brasileira de Ciências Sociais**, v. 35, n. 102: e3510219, 2020.
[87] CAMPOS, R. B. A.; GUILHOTO, J. J. M. The socioeconomic impact of low-income housing programs: An interregional input-output model for the state of Sao Paulo and the rest of Brazil. **Habitat International, Elsevier** Ltd, , 1 jul. 2017.
[88] ALVARENGA, D. D. N.; RESCHILIAN, P. R. Financeirização da moradia e segregação socioespacial: Minha Casa, Minha Vida em São José dos Campos, Taubaté e Jacareí/SP. **Urbe**, v. 10, n. 3, p. 473–484, 2018.
[89] OUTEIRO, G. M.; NASCIMENTO, D. M. A trajetória da política habitacional a partir da perspectiva do institucionalismo histórico. **Revista de Direito da Cidade**, v. 12, n. 2, p. 1160–1183, 21 maio 2020.
[90] CONCEIÇÃO, P. G. DA; MASTRODI, J. Da Carga Normativa do Direito à Moradia e sua Eficácia Social. **Revista de Direito da Cidade**, v. 8, n. 4, p. 1468–1494, 2016.

[91] KOPPER, M. “Minha Casa, Minha Vida”: experts, sentidos de classe e a invenção do “mercado” da casa própria no Brasil contemporâneo. **Horizontes Antropológicos**, v. 22, n. 45, p. 185–215, jun. 2016.
[92] SANTORO, P. F.; CHIAVONE, J. DE A. Negócios de impacto e habitação social: uma nova fronteira do capital financeirizado? **Cadernos Metrópole**, v. 22, n. 49, p. 683–704, 2020.
[93] CAIXA. Minha Casa Minha Vida - Habitação Urbana. Disponível em: <https://www.caixa.gov.br/voce/habitacao/minha-casa-minha-vida/urbana/Paginas/default.aspx>.
[94] DA SILVA, C. F.; ALVES, T. W. Dinâmica dos financiamentos habitacionais nos municípios do Rio Grande do Sul de 2006 a 2010: Uma avaliação do Programa “Minha Casa, Minha Vida”. **Revista de Administração Pública**, v. 48, n. 1, p. 27–54, 2014.
[95] DE CASTRO VIEIRA, J. R. et al. Machine learning models for credit analysis improvements: Predicting low-income families’ default. **Applied Soft Computing Journal**, v. 83, n. 105640, 1 out. 2019.
[96] KLINK, J.; DENALDI, R. On financialization and state spatial fixes in Brazil. A geographical and historical interpretation of the housing program My House My Life. **Habitat International,** v. 44, p. 220–226, 1 out. 2014.
[97] FRAGA, L. DOS S.; VIEIRA, K. M. Retrato da inadimplência dos beneficiários da Faixa 1 do “Minha Casa, Minha Vida”: análise da associação da inadimplência com variáveis socioeconômicas e de gerenciamento financeiro. **Administração Pública e Gestão Social**, v. 11, n. 3, p. 1–24, 1 jul. 2019.
[98] LIMA, L. P. et al. Perceived value in social housing projects. PROCEEDINGS OF IGLC17: 17TH ANNUAL CONFERENCE OF THE INTERNATIONAL GROUP FOR LEAN CONSTRUCTION. Anais...2009
[99] VILLA, S. B. et al. Co-production and resilience in a Brazilian social housing: The case of shopping park neighbourhood. PROCEEDINGS OF 33RD PLEA INTERNATIONAL CONFERENCE: DESIGN TO THRIVE, PLEA 2017. Anais...NCEUB 2017 - Network for Comfort and Energy Use in Buildings, 2017
[100] KOWALTOWSKI, D. C. C. K. et al. Quality of life and sustainability issues as seen by the population of low-income housing in the region of Campinas, Brazil. **Habitat International**, v. 30, n. 4, p. 1100–1114, 1 dez. 2006.
[101] BERR, L. R. et al. Indicador de falhas de qualidade baseado na percepção dos usuários de Habitação de Interesse Social. **Ambiente Construído,** v. 15, n. 4, p. 19–35, dez. 2015.
[102] CAVALHEIRO, D. DE C.; ABIKO, A. Evaluating slum (favela) resettlements: The case of the Serra do Mar Project, São Paulo, Brazil. **Habitat International**, v. 49, p. 340–348, 1 out. 2015.
[103] ARAGÃO, D. L. L. J. DE; HIROTA, E. H. Sistematização de requisitos do usuário com o uso da Casa da Qualidade do QFD na etapa de concepção de unidades habitacionais de interesse social no âmbito do Programa Minha Casa, Minha Vida. **Ambiente Construído**, v. 16, n. 4, p. 271–291, dez. 2016.
[104] BORTOLI, K. C. R. DE; VILLA, S. B. Adequação ambiental como atributo facilitador da resiliência no ambiente construído em Habitações de Interesse Social**. Ambiente Construído**, v. 20, n. 1, p. 391–422, 2020.
[105] TAUBE, J.; HIROTA, E. H. Customização em massa no processo de provisão de Habitações de Interesse Social: um estudo de caso. **Ambiente Construído**, v. 17, n. 4, p. 253–268, 2017.
[106] MÜLLER, S. C.; LIMA, J. J. F. O espaço para crianças produzido pelo Programa Minha Casa, Minha Vida: estudo de caso na região metropolitana de Belém, PA. **Ambiente Construído**, v. 17, n. 2, p. 97–117, 2017.
[107] KOWALTOWSKI, D. C. C. K.; GRANJA, A. D. The concept of desired value as a stimulus for change in social housing in Brazil. **Habitat International**, v. 35, n. 3, p. 435–446, 1 jul. 2011.
[108] SILVEIRA, D. C.; CARMO, R. F.; DA LUZ, Z. M. P. Planning in four areas of the Vila Viva Program in the city of Belo Horizonte, Brazil: A documentary analysis. **Ciência e Saúde Coletiva**, v. 24, n. 3, p. 1165–1174, 1 mar. 2019.
[109] PIMENTEL WALKER, A. P. Self-help or public housing? Lessons from co-managed slum upgrading via participatory budget. **Habitat International**, v. 55, p. 58–66, 1 jul. 2016.

[110] VASCONCELLOS, A. et al. Social Participation in the Management of the Program Minha Casa Minha Vida (PMCMV) in Brazil: the case of Abaetetuba, Pará State. **Revista Espacios**, v. 38, n. 9, p. 1–12, 2017.
[111] MOREIRA, V. D. S.; SILVEIRA, S. D. F. R. Indicadores de desempenho do Programa Minha Casa,Minha Vida: avaliação com base na satisfação dos beneficiários. **Cadernos Gestão Pública e Cidadania**, v. 20, n. 66, p. 94–117, 2015.
[112] RAMOS SILVEIRA, S. et al. Social participation in the program "Minha Casa, Minha Vida": analysis of municipal housing councils. **Praxis sociológica**, n. 23, p. 101–121, 2018.
[113] HORONGOSO, B. .; BOGO, A. J. Avaliação pós-ocupação das condições de habitação em conjuntos habitacionais do PMCMV em Blumenau SC. **HOLOS**, v. 8, n. 0, p. 59–71, 31 dez. 2018.
[114] FERNANDES, G. VON DER H.; FORMOSO, C. T.; TZORTZOPOULOS-FAZENDA, P. Método para verificação automatizada de requisitos em empreendimentos Habitacionais de Interesse Social. **Ambiente Construído**, v. 18, n. 4, p. 259–278, 2018.
[115] GOMES, V.; ADÃO, M. Sustainability performance tracking of social housing: The tale of two projects in Brazil. PROCEEDINGS OF 33RD PLEA INTERNATIONAL CONFERENCE: DESIGN TO THRIVE, PLEA 2017. Anais...NCEUB 2017 - Network for Comfort and Energy Use in Buildings, 2017
[116] GONÇALVES, D. K. DE O. et al. Qualitative and Quantitative Assessment of Urban Sustainability in Social Housing Using the Casa Azul Label and SBTool Urban in Brazil. **Applied Sciences**, v. 10, n. 18, p. 6246, 9 set. 2020.
[117] OLIVEIRA, R. D. et al. Concrete walls thermal performance analysis by Brazilian Standards. **Energy Procedia**. Elsevier Ltd, 1 nov. 2015a
[118] OLIVEIRA, R. D. et al. Thermal Comfort for users according to the Brazilian Housing Buildings Performance Standards. **Energy Procedia**. Elsevier Ltd, 1 nov. 2015b
[119] OLIVEIRA, R. D.; SOUZA, R. V. G. DE; DA SILVA, R. M. Issues to be Improved on the Thermal Performance Standards for Sustainable Buildings Consolidation: An Overview of Brazil. **Energy Procedia**. Elsevier Ltd, 1 mar. 2017
[120] GIANNETTI, B. F. et al. Towards more sustainable social housing projects: Recognizing the importance of using local resources. **Building and Environment**, v. 127, p. 187–203, 1 jan. 2018.
[121] MASOTTI, C. et al. Self-help retrofitting technologies for low-cost housing construction.The case study of Vila Novo Ouro Preto, Brasil. **Procedia Engineering.** Elsevier Ltd, 1 jan. 2011
[122] MUSSE, J. DE O. et al. Applying backcasting and system dynamics towards sustainable development: The housing planning case for low-income citizens in Brazil. **Journal of Cleaner Production**, v. 193, p. 97–114, 20 ago. 2018.
[123] RUPPENTHAL, J. E. et al. Experiências sobre a implementação da filosofia lean em uma obra de condomínio horizontal de interesse social em Santa Maria – RS. **Revista Espacios**, v. 36, n. 16, p. 1–4, 23 ago. 2015.
[124] GONZÁLEZ MAHECHA, R. E. et al. Constructive systems for social housing deployment in developing countries: A case study using dynamic life cycle carbon assessment and cost analysis in Brazil. **Energy and Buildings**, v. 227, p. 110395, 15 nov. 2020.
[125] SIQUEIRA-GAY, J.; GALLARDO, A. L. C. F.; GIANNOTTI, M. Integrating socio-environmental spatial information to support housing plans. **Cities**, v. 91, p. 106–115, 1 ago. 2019.
[126] SIQUEIRA-GAY, J.; SÁNCHEZ, L. E. Mainstreaming environmental issues into housing plans: the approach of Strategic Environmental Assessment. **Environmental Impact Assessment Review**, v. 77, p. 145–153, 1 jul. 2019.
[127] MESQUITA, L.; RIPPER KÓS, J. Towards more resilient and energy efficient social housing in Brazil. **Energy Procedia.** Elsevier Ltd, 1 set. 2017
[128] MORENO, A. C. R.; MORAIS, I. S. DE; SOUZA, R. G. DE. Thermal Performance of Social Housing-A Study Based on Brazilian Regulations. **Energy Procedia.** Elsevier Ltd, 1 mar. 2017
[129] AZEVEDO, L. D. DE; GERALDI, M. S.; GHISI, E. Avaliação do Ciclo de Vida de diferentes envoltórias para habitações de interesse social em Florianópolis. **Ambiente Construído**, v. 20, n. 4, p. 123–141, 2020.

[130] DALBEM, R. et al. Optimisation of a social housing for south of Brazil: From basic performance standard to passive house concept. **Energy**, v. 167, p. 1278–1296, 15 jan. 2019.
[131] MORAIS, J. M. DA S. C.; LABAKI, L. C. CFD como ferramenta para simular ventilação natural interna por ação dos ventos: estudos de caso em tipologias verticais do "Programa Minha Casa, Minha Vida". **Ambiente Construído**, v. 17, n. 1, p. 223–244, 2017.
[132] BESSA, V. M. T.; PRADO, R. T. A. Reduction of carbon dioxide emissions by solar water heating systems and passive technologies in social housing. **Energy Policy**, v. 83, p. 138–150, 1 ago. 2015.
[133] GIGLIO, T. et al. A procedure for analysing energy savings in multiple small solar water heaters installed in low-income housing in Brazil. **Energy Policy**, v. 72, p. 43–55, 1 set. 2014.
[134] GIGLIO, T.; LAMBERTS, R. Savings related to solar water heating system: A case study of low-income families in Brazil. **Energy and Buildings**, v. 130, p. 434–442, 15 out. 2016.
[135] PAULSEN, J. S.; SPOSTO, R. M. A life cycle energy analysis of social housing in Brazil: Case study for the program "mY HOUSE MY LIFE". **Energy and Buildings**, v. 57, p. 95–102, 1 fev. 2013.
[136] NASPOLINI, H. F.; RÜTHER, R. Impacts of Domestic Solar Water Heating (DSWH) systems on the cost of a hot shower in low-income dwellings in Brazil. **Renewable Energy,** v. 111, p. 124–130, 1 out. 2017.
[137] TRIANA, M. A.; LAMBERTS, R.; SASSI, P. Should we consider climate change for Brazilian social housing? Assessment of energy efficiency adaptation measures. **Energy and Buildings**, v. 158, p. 1379–1392, 1 jan. 2018.
[138] BAVARESCO, M. V et al. Aspectos impactantes no desempenho energético de habitações de interesse social brasileiras: revisão de literatura. **Ambiente Construído**, v. 21, n. 1, p. 263–292, 2021.
[139] PINTO, J. T. M.; AMARAL, K. J.; JANISSEK, P. R. Deployment of photovoltaics in Brazil: Scenarios, perspectives and policies for low-income housing. **Solar Energy**, v. 133, p. 73–84, 1 ago. 2016.
[140] VALE, A. M. et al. Analysis of the economic viability of a photovoltaic generation project applied to the Brazilian housing program "Minha Casa Minha Vida". **Energy Policy**, v. 108, p. 292–298, 1 set. 2017.
[141] BODACH, S.; HAMHABER, J. Energy efficiency in social housing: Opportunities and barriers from a case study in Brazil. **Energy Policy**, v. 38, n. 12, p. 7898–7910, 1 dez. 2010.
[142] KRÜGER, E. L. Urban heat island and indoor comfort effects in social housing dwellings. **Landscape and Urban Planning,** v. 134, p. 147–156, 1 fev. 2015.
[143] KRÜGER, E. L.; LAROCA, C. Thermal performance evaluation of a low-cost housing prototype made with plywood panels in Southern Brazil. **Applied Energy**, v. 87, n. 2, p. 661–672, 1 fev. 2010.
[144] ROSSI, M. M. et al. Metamodels to assess the thermal performance of naturally ventilated, low-cost houses in Brazil**. Energy and Buildings**, v. 204, p. 109457, 1 dez. 2019.
[145] NUNES, G. et al. Thermo-energetic performance of wooden dwellings: Benefits of cross-laminated timber in Brazilian climates. **Journal of Building Engineering**, v. 32, p. 101468, 1 nov. 2020.
[146] MUIANGA, E. A. D.; KOWALTOWSKI, D. C. C. K.; SILVA, V. G. da; GRANJA, A. D.; MOREIRA, D. de C.; RUSCHEL, R. C. Housing transformations and their impacts on the well-being of dwellers. **Ambiente Construído**, Porto Alegre, v. 22, n. 4, p. 255-274, 2022.