Advocacy for Land Regularization in a Multi-risk Scenario: the case of the urban informal settlement 'Ocupação em Busca de Uma Moradia'

Rosim, D. Z
Universidade de São Paulo, Faculdade de Direito (FD/USP).
E-mail: danielle.rosim@usp.br

Santos, A. C. M.
Universidade de São Paulo, Faculdade de Direito de Ribeirão Preto (FDRP-USP) / Programa de Pós-graduação Direito e Desenvolvimento (mestrado).
E-mail: ana.mauer.santos@gmail.com

Scatena, T. P.
Instituto de Arquitetura e Urbanismo — IAU/USP, Programa de Pós-Graduação em Arquitetura e Urbanismo — IAU/USP (mestrado). E-mail: thiagopizzo@gmail.com

Baptista, D.
Programa de Pós-graduação em Ciências Ambientais Universidade Federal de São Carlos — PPGCAm/UFSCar. E-mail: baptistadnl@gmail.com

ABSTRACT: The article explores the interplay between urban planning and disaster risks in urban informal settlements, examining physical, social, economic, and environmental vulnerabilities alongside community response capacities. It presents the experience of a technical advisory project funded by CAU/BR in the "Ocupação Em Busca de Uma Moradia" (OEBUM) in São Carlos, SP. Despite the precarious land tenure and challenging urban-environmental conditions in this territory, self-managed strategies are employed to mitigate risks and advance the guarantee of adequate housing. While these initiatives are crucial, they cannot be the only means of addressing risks; public authorities must enhance these efforts and address gaps in disaster prevention and the promotion of fundamental rights. We argue that land regularization can act as a technical-political tool to increase legal security, foster a more democratic technical debate, and encourage popular participation. Finally, we assess the potential of social housing technical advisory (ATHIS) to contribute to Disaster Risk Reduction by addressing vulnerabilities and strengthening community resilience. Advocacy for a comprehensive land regularization, in this context, supports an integrated and participatory approach aimed at driving material transformations in these territories.

Keywords: advocacy; risk reduction; land regularization; community resilience; climate changes.

RESUMO: O artigo explora a relação entre o planejamento urbano e os riscos de desastres em assentamentos urbanos informais, analisando vulnerabilidades físicas, sociais, econômicas e ambientais, bem como as capacidades de resposta da comunidade. Apresenta a experiência de um projeto de assessoria técnica financiado pelo CAU/BR na "Ocupação Em Busca de Uma Moradia" (OEBUM) em São Carlos, SP. Apesar da precariedade fundiária e das desafiadoras condições urbano-ambientais nesse território, estratégias autogeridas são empregadas para mitigar riscos e avançar na garantia do direito à moradia adequada. Embora essas iniciativas sejam fundamentais, não podem ser o único meio de enfrentamento dos riscos; o poder público deve fortalecer essas ações e suprir lacunas na prevenção de desastres e na promoção de direitos fundamentais. Argumentamos que a regularização fundiária pode atuar como uma ferramenta técnico-política para aumentar a segurança jurídica, fomentar um debate técnico mais democrático e incentivar a participação popular. Por fim, avaliamos o potencial da assessoria técnica para habitação de interesse social (ATHIS) na contribuição para a Redução de Riscos de Desastres, abordando vulnerabilidades e fortalecendo a resiliência comunitária. A defesa de uma regularização fundiária abrangente, nesse contexto, apoia uma abordagem integrada e participativa voltada para impulsionar transformações materiais nesses territórios.

Palavras-Chave: advocacy; redução de riscos; regularização fundiária; resiliência comunitária; mudanças climáticas.

1. INTRODUCTION

Human actions, particularly through the exploitation and degradation of natural resources, have significantly contributed to global climate changes. In this context, reports from the Intergovernmental Panel on Climate Change — Working Group I and II (IPCC, 2021, 2022, 2023) demonstrate that socioeconomic development, unsustainable land use, and historical inequalities and marginalization not only influence but also shape the frequency, intensity, and duration of climate extremes, which can lead to disasters.

When we look at the Latin American and Caribbean reality, this correlation becomes even more dramatic, as it is the second most disaster-prone region in the world (OCHA; UNDRR, 2023; WMO, 2023). Although the geographical location of Latin America makes it vulnerable to hurricanes and storms, it is crucial to acknowledge that these are not the sole contributing factors. Climate change disproportionately impacts the region due to its historical vulnerabilities[1].

In fact, in Brazil, increased heavy rainfall is cited as one of the most likely consequences of climate change. However, the likelihood of these hydrometeorological events resulting in disasters is directly linked, for instance, to the lack or poor quality of infrastructure and the large number of precarious settlements in urban areas (Ribeiro, 2008; Perez et al., 2020). The distribution of sanitation services and housing infrastructure in the country is insufficiently addressed, particularly in cities. In the context of pervasive social inequalities and environmental degradation, socially vulnerable populations are even more affected. That is, socio-economic disparities in access to urban land often force these communities to live in areas more exposed to urban-environmental risks.

Moreover, the lack of formal land tenure security leads to the neglect by municipal administrations in providing access to urban infrastructure and essential services critical for risk reduction and resilience, such as

[1] According to Article 1, sole paragraph, item XV of Federal Law No. 12.608/2012, vulnerability can be understood as the "[...] physical, social, economic, or environmental fragility of a population or ecosystem in the face of an adverse event of natural origin or induced by human action" (our translation).

paved roads, drainage systems, piped water, emergency services, etc. Most informal settlements are ill-equipped to handle climate changes, facing not only floods and landslides but also heightened risks due to poor-quality housing construction and inadequate infrastructure (Dodman et al., 2022). Climate disasters expose underlying social, environmental, and climate injustices, laying bare the violation of various human rights.

Disaster Risk Reduction and Climate Adaptation both aim to minimize impacts and enhance the resilience of populations vulnerable to climate disasters (Broetto, 2024). These approaches emphasize preventive measures to propose risk mitigation actions, thereby reducing disaster susceptibility or even limiting their effects. To address the root causes of vulnerability rather than merely treating symptoms, it is essential to conduct a thorough investigation into the historical factors that contribute to these conditions. This includes gaining a deep understanding of the social, economic, political, and environmental factors that shape the risk scenario (Wisner et al., 2003).

Considering the origin of the factors that create risk situations and the impacts exacerbated by climate change on vulnerable populations, Acselrad (2008) argues that the climate justice movement has historically sought to demonstrate that there is no environmental issue to be resolved before addressing social issues. This challenges the notion that climate effects are 'democratic', affecting all citizens equally due to their 'natural' or 'ecological' origins. Not only do disasters not impact everyone in the same way, as outlined above, but the very origin of extreme events and the creation of risks are historically produced, fueling exposure to hazards and the creation of vulnerabilities (Maskrey et al., 1993).

Recognizing the inseparability of environment and society, understanding that disasters are socially constructed, rather than natural, carries significant practical implications. Viewing disasters as processes rooted in unresolved national development issues and social inequality brings vulnerability to the forefront of the debate. This perspective advocates for an approach that extends beyond emergency responses, emphasizing preventive measures that address the root causes of vulnerability. It is crucial to identify the mechanisms and strategies that perpetually reinforce risk and violate human and

fundamental rights, subjecting populations to 'disastrous' conditions (Carneiro; Souza, 2023) even before any imminent triggering event. Therefore, the absence of a catastrophic event does not mean that the territory is not undergoing a disaster process.

In this sense, disaster risk is not limited to the probability of hazards causing damage (deaths, injuries, material losses, etc.). The level of risk is determined by the interaction between present hazards and experienced vulnerability, which is influenced by the collective understanding and response capacity of a community, adjusted by the mitigation provided by preventive measures[2]. In this sense, capacity of response can be understood as the degree to which people, communities, or systems are prepared to react, resist, and absorb disruptions, as well as manage risks and prevent disasters (Monte et al., 2021). Thus, the participation of vulnerable groups — strengthening their organization, awareness, and territorial management — is crucial in decision-making processes to prevent the exacerbation of vulnerabilities, inequality, and injustice.

For this response capacity to effectively address risks, it requires coordination not only through support and solidarity networks but also with groups that provide information and technical-political assistance, such as universities and non-profit organizations (NGOs). Through advocacy, these groups develop both individual and collective actions focused on a specific cause, idea, or policy (Reid, 2000). In this context, they address public debates on risks in marginalized territories by challenging conventional notions of risk and emphasizing the centrality of vulnerability and its interplay with the urbanization process.

To this end, research and techniques are employed to interpret and analyze problems, aiming to shape and define public policy agendas by proposing solutions, concrete actions, public mobilizations, and institutional policies (Reid, 2000). In this case, the focus is on developing technical and political strategies to implement risk mitigation measures, promote the right to adequate housing, and adapt urban areas to climate change.

[2] DR = H [(V/C) — M], where DR is disaster risk, V stands for vulnerability, C represents capacity for personal protection and M symbolizes larger-scale risk mitigation by preventive action and social protection (Wisner; Gaillard; Kelman, 2011, p. 24).

Such challenges are exemplified by the 'Ocupação Em Busca de Uma Moradia' (OEBUM) experience, an informal and precarious urban settlement situated near a stream in a geologically unstable and socioeconomically marginalized area of São Carlos, SP. This article will present the a technical advisory project on social housing (ATHIS)[3] conducted in this territory, highlighting the urban planning activism strategies developed between December 2022 and December 2023. We will also reflect on whether the advocacy for a comprehensive land regularization is an effective tool for disaster risk management.

2. THE ADVOCACY STRATEGIES: CONTRIBUTIONS OF LAND REGULARIZATION PROCEDURE AND OF TECHNICAL TERRITORIAL ADVISORY TO RISK ASSESSMENT AND COMMUNITY RESILIENCE

The current risk society we live in embodies issues characteristic of reflexive modernity, meaning it is both a subject and a problem unto itself. This society must address problems systematically created by modernity, necessitating reflection on its core pillars, including: the logic of wealth production and distribution; the impacts of technical-scientific development and scientific truth on the environment; labor, employment, and the future of professions and classes; and the dissolution of political boundaries and the restructuring of democracy (Beck, 1997; 2011).

Our historical moment, enveloped in the *zeitgeist*[4] of climate change, demands reflection on modern life and the construction of solutions for a more adapted and resilient society, especially for the most vulnerable

[3] Federal Law No. 11.888/2008 "[...] ensures the right of low-income families to free public technical assistance for the design and construction of social housing, as an integral part of the social right to housing" (Art. 1, our translation). Although this law explicitly addresses the activities of architecture, urban planning, and civil engineering, technical territorial work aimed at promoting the right to housing is carried out by various professionals. Furthermore, the term "assistance" is contested by social movements and NGOs, with the term "advisory" being preferred as it emphasizes the agency of rights holders, the residents of informal settlements.

[4] *Zeitgeist* refers to the set of ideas, beliefs, behaviors, and influences that characterize the spirit of a particular time. To identify it, one only needs to observe signs such as

communities. The effort to understand the current amalgam of nature and society requires reformulating studies and research that address risks and disasters in conjunction with the multiple factors that create impacts on vulnerabilities typical of the risk society (Beck, 2011).

In response to the reflective demands of contemporary societies, within Disaster Management and Risk Reduction approaches, there are recent initiatives for risk mapping in collaboration with the directly affected populations, fostering a more participatory and comprehensive understanding (Sulaiman et al., 2022). The integration of technical knowledge with local expertise contributes to a nuanced understanding of risks and strengthens community resilience. This approach not only aids in protecting people and in helping to restore ecological processes but also positively impacts the overall resilience of the system. Therefore, rather than merely cataloging hazards—which can sometimes lead to forced removals—the focus shifts to enabling proposals for urban-environmental interventions that address hazards and enhance safety (Nogueira et al., 2023).

Building on this foundational reflection and a preventive and mitigating approach to risks, this article reports on the experience of the NGOs Associação Veracidade and Maitá ATHIS with the project 'Systemic and Participatory Approach: Transdisciplinary Technical Studies for Reurb-S in the Occupations Em Busca de um Sonho and Em Busca De Uma Moradia[5] for the Prevention and Mitigation of Socio-Environmental Risks and Recovery of Degraded Areas in the Monjolinho Creek Basin.' Supported by the Brazilian Council of Architecture and Urbanism — CAU/BR[6]. This project reflects political articulation and resource mobilization efforts for ATHIS, with this financial support by CAU/BR representing one of the first significant achievements of this urban (re)planning activism.

The project's design was informed by the prior relationship established with the territories of the two mentioned urban occupations,

political agendas, new social movements, the organization of institutions, film scripts and works of art, scientific proposals, among others.

[5] Hereafter referred to by the acronyms OEBUS and OEBUM, respectively. This article focuses on the latter occupation due to its greater exposure to urban-environmental hazards.

[6] Public Call CAU/BR No. 005/2022. CAU/BR Funding Agreement No. 005/2022.

utilizing legal parameters and tools provided by Brazilian national Land Regularization policies (Federal Law No. 13.465/2017) and Civil Protection and Defense (Federal Law No. 12.608/2012). For risk mapping and identification of land irregularities, we conducted diagnostic assessments both documentarily and on-site. This process included active territory recognition by the multidisciplinary team, the creation and application of a survey with input from community leaders, and workshops with residents. These actions facilitated a collaborative understanding of existing physical hazards, the causes of the population's vulnerability, and collective preparedness initiatives.

Reflecting the guidelines of the two legal frameworks underpinning the project, the collected data were analyzed and consolidated in the *Preliminary Study of Discrepancies and the Social, Legal, Urban, and Environmental Situation*, and in the *Emergency Community Plan for the Occupation Em Busca de Uma Moradia*. From this diagnosis, additional products offered proposals to address the issues, such as the *Feasibility Study of Areas for Resettlement of Occupants*; the *Survey of federal resource alternatives for the Municipality to access the federal budget for preventive risk reduction actions*; and the respective *Legal Opinions on Property Titling* relevant to each occupation[7].

These documents result from coordinated technical investigations, employing research techniques that facilitated the analysis of primary and secondary data derived from material reality and from judicial and administrative processes, legislation, regulations, urban and environmental plans, and urban projects, complemented by a literature review. This socially committed scientific approach provided technical support for successive meetings with municipal departments and agencies in São Carlos, SP, and for dialogue with the Specialized Housing and Urbanism Prosecutor's Office of the São Paulo State Public Prosecutor's Office (MPSP), in ongoing advocacy for human rights.

[7] These products are available on the official Maitá ATHIS website > activities > technical advisory > seeking land regularization: https://www.maitaathis.org

3. THE OEBUM CASE: EVIDENCING MULTIPLE RISKS AND COMMUNITY POTENTIAL IN A URBAN REPLANNING PROJECT TOWARDS PUBLIC INTERVENTION FOR HUMAN RIGHTS REALIZATION

OEBUM began in 2019 with the settlement of 11 wooden shacks after residents cleared an area previously used as a dump near the Água Quente Stream. The occupation expanded during the pandemic due to worsening financial difficulties faced by the families. Located in the Antenor Garcia neighborhood, a peripheral area of Cidade Aracy, this low-income informal urban settlement is not the only one in the region, nor is it the closest to the water body.

Situated in the Água Quente Stream Microbasin (MBCAQ), the area features sandy soil[8], degraded riparian vegetation, and remnants of Cerrado and Atlantic Forest. Covering 12.5 km^2, the MBCAQ is the third largest microbasin in the municipality and drains one of the regions with the most significant urban expansion in recent decades: Cidade Aracy. This area, approximately 32 hectares outskirts, includes 19 neighborhoods (Freitas; Santos, 2021).

According to the City of São Carlos' Master Plan (Law No. 18.053/2016), the region is classified as Zone 3 — Recovery and Controlled Occupation, which includes areas with slopes greater than 30%. The Geotechnical Mapping (Levy, 1989) identifies most of Cidade Aracy as unsuitable for urbanization. Despite these findings, urban expansion in the region has not been limited, with popular land subdivisions being developed that ignore these environmental constraints, resulting in both socio-spatial segregation and urban-environmental degradation.

Civil Defense reports highlight the region's susceptibility to soil runoff during rainy periods, a common occurrence in the city. These reports document a history of erosion and gullies with significant environmental impact, posing a threat to buildings and the entire urban system (Baptista et al., 2023b,c). The following image illustrates the main discrepancies identified in the Informal Urban Nucleus:

[8] Typical dystrophic soil, with a moderate or prominent soil horizon 'A', clayey or medium texture, acidic, with a gently undulating and undulated relief phase (SÃO PAULO, 2017).

Figure 1. Urban-Environmental Discrepancies in OEBUM, São Carlos — SP

Source: BAPTISTA et al., 2023c.

The OEBUM families experience and are mostly aware of these risks. In addition to the significant fear of forced removal due to legal insecurity of possession, they identify three major categories of risks: 1) flooding; 2) landslides; and 3) fires[9]. Regarding physical-natural

[9] While few people reported having seen their street (15.5%) or the entire community (17.9%) flooded, a significant portion of residents said their own homes had been affected by flooding at least once (38.1%). Everyone reported that the flooding occurred after rainfall. Regarding landslides, nearly half of the respondents indicated that there had been landslides in the street or community, associating them with rainfall (47.6%). However, the vast majority did not have their properties affected (91.7%). Nevertheless, a significant portion claimed that no landslides had occurred either in the street or in the settlement (28.6%). On fires, 90.5% reported that they had never occurred, compared to 3.6% who reported their occurrence in the settlement. Interestingly, 6% reported cases of fire in their street, and when questioned about the cause, the following were noted: short circuit in improvised electrical wiring (75%); lightning strikes during storms (12.5%); and as a secondary consequence of some residents setting fire to household waste (12.5%).

disasters, the most pressing concern for residents is the encroachment of a large gully erosion towards the nearest formal neighborhood and public road. This gully cuts through the settlement, threatening the safety of the population.

FIGURE 2. Orthophoto taken with an RPA (Remotely Piloted Aircraft) of OEBUM, overlaid on the Google Earth Pro database composed of satellite images, with the gully marked in red.

Source: Relatório das Desconformidades — OEBUM (Baptista et al., 2023c).

The reasons for this phenomenon were investigated in the project. Environmentally, the area is characterized by unfavorable topographic conditions and collapsible soil, combined with vegetation degradation and high water volumes reception, especially in the summer, which

makes it prone to erosive processes. Urbanistically, relevant issues were identified in the land subdivision layout and the insufficient drainage system, which are related not only to the precariousness of the informal settlement but also to broader urban planning deficiencies.

Indeed, the lack of a gray water channeling system and its accumulation in the OEBUM alleys contribute to soil erosion. However, the primary cause of the gully's development is the large volume of water flowing through extensive paved areas, which gains speed as it merges with runoff from neighboring neighborhoods. These neighboring areas are high impermeabilized and channeling systems are insufficient for stormwater reception. The redirection and accumulation of water towards OEBUM, situated in a lower topographical area, lead to erosion due to the high kinetic energy of the runoff (Baptista et al., 2023a). These increasingly hazardous conditions indicate that the territory is undergoing a disaster process.

Data collected in March 2023 via survey confirmed the presence of 84 families in OEBUM, approximately 250 people residing in the area. The socioeconomic profile reveals very low income levels[10] and low educational attainment[11], with most residents originating from Brazil's Southeast region, particularly the State of São Paulo. One-third being native to São Carlos[12]. This data indicates a latent and structural housing deficit in the municipality, not primarily explained by regional migration dynamics. Additionally, most families are headed by women[13], and the majority of the residents self-identify as Brown[14]. The population is relatively young,[15] with an average of more than one child per family[16].

[10] Household income: (1 minimum wage/month in 2023 = BRL 1.320,00/USD 249,00): 8.3% with no income; 50.2% earn less than 1 minimum wage; 14.3% earn exactly 1 minimum wage; 25% earn up to 2 minimum wages; 1.2% earn 3 or more minimum wages.

[11] Education: 2.4% illiterate; incomplete elementary (32.1%), complete elementary (16.7%); incomplete high school (28.6%), complete high school (19%); incomplete higher education (1.2%).

[12] Origin: Brazil's Southeast (71.5%) — SP (62%), São Carlos (31%), MG (9.5%); Northeast (21.7%) — AL (8.3%), PE (6%), BA (4.8%), SE (1.3%), MA (1.3%); North (1.2%) — PA (1.2%); South (4.8%) — PR (2.4%), RS (2.4%).

[13] Head of household: 70.2% women; 29.8% men.

[14] Race/ethnicity: Brown (57.1%), Black (26.2%), White (16.7%).

[15] Elderly (60+): 11 people.

[16] Children (up to 12 years old): 91 children across the 84 interviewed households.

There are also some members of the disability group, though very few receive social benefits or specialized services[17].

Besides a great vulnerability, these results justify classifying the land regularization of this nucleus as of social interest (Reurb-S), as all interviewees were identified as having low or no income (Art. 13, I, Law No. 13.465/2017). The survey provided a comprehensive diagnosis of the need for social assistance services, including access to rights through the Public Defender's Office if necessary. In addition to registration in CadÚnico and other forms of securing social benefits, many residents may already be eligible for retirement. The survey also highlighted a demand for professional training and education for both youth and adults.

OEBUM has initiated self-managed projects and coordinated with external partners to promote fundamental rights such as housing, food security, education, culture, and leisure. Examples include collective housing maintenance, the Community Kitchen, which provides lunch on Sundays; the Community Garden; school reinforcement and adult education programs; and cultural activities such as rap battles and movie sessions. This high level of social organization is also evident in mechanisms for resolving internal conflicts, maintaining makeshift housing and urban infrastructure, as well as implementing collective preparation and response procedures, especially during heavy rains in the region.

During such rain events, families monitor bird and wind movements, checking and reinforcing roof conditions and structures. In cases of flash floods and falling tree branches, residents document their situations with videos and share them in a *WhatsApp* group. This group facilitates alerts about potential dangers and coordination of collective responses, with community leaders serving as key decision-makers in emergencies. This community-driven risk management reflects a more autonomous approach to territorial management due to the lack of state support. While these initiatives are crucial, they

[17] People with Disabilities (PcD): Households with people with disabilities (6% — 7 PcD total); 3 PcDs receive some specialized social assistance, and 4 are not assisted; only 1 family receives the Continuous Cash Benefit (BPC).

must be complemented and enhanced by public authorities to ensure comprehensive risk mitigation and support.

Throughout the project, advocacy efforts were undertaken to urge the Municipality to implement emergency measures to halt the gully's advancement and to resettle families living in the most risk exposed conditions. Efforts were also made to advocate for the development of a Local Contingency Plan to effectively address the imminent danger. Beyond enhancing the technical understanding of the territory, the ATHIS project played a pivotal role in informing public authorities about the socio-environmental risks and needs at the local level. This approach ensured increased community involvement in decision-making and the development of administrative measures tailored to the real and pressing challenges faced by the residents.

Furthermore, the technical team conducted successive measurements with the help of residents and provided updated technical reports. Due to the inaction of public authorities, a public hearing was organized on 04/09/2023 with the support of a Legislative Mandate to put political pressure for appropriate, effective, and urgent administrative measures. While awaiting the fulfillment of commitments from municipal public bodies, we, the technical team, began discussing urgent solutions for risk mitigation with residents, continuing negotiations with the City Hall, and sending reports to the Public Prosecutor's Office.

At this point, the Public Prosecutor's Office of the State of São Paulo has emerged as a crucial ally, playing a significant role in securing access to current property registrations and ensuring that municipal public authorities are acting in accordance with the law. This includes initiating a Civil Inquiry related to the OEBUM case and requesting the commencement of the Reurb-S administrative process (PMSC No. 18.224/2023). This development was essential, especially given the Municipality's intentions to pursue judicial removal of the families, revealed in a meeting with the Department of Environment and Sustainable Development. As the area is classified as public, the initiation of the Reurb-S administrative process led to the suspension of any current or future forced removal actions[18] and marked the formalization

[18] According to Law No. 13.465/2017, Article 31, § 8 (our translation): "The request for the initiation of Reurb, or, as regulated, the expression of interest in this sense

of administrative measures by the SMHDU. This formalization had been anticipated as part of urban planning projects aimed at securing the families' continued residence in the area.

Thus, beyond shedding light on the political negotiations the Municipality had been conducting with residents, bringing these administrative actions into the realm of legality, transparency, and ethical governance, the Reurb-S process also elevated them to a due process. Instead of resorting to immediate forced removals, which would leave families without prospects for dignified resettlement, the administrative process formally acknowledged the community's presence, thereby enhancing the legal security of their tenure and fostering active, well-informed participation by residents. Even if partial or total resettlement were ultimately unavoidable, the process ensures a well-grounded decision through the legally mandated steps, particularly the development of technical studies that comprise the Reurb Project, which provides a procedural framework (Art. 28 c.c. Art. 35, Law No. 13.465/2017).

Moreover, the uncertainty regarding risk and the possibility of resettlement to a new safe location does not exclude the imperative of risk mitigation and disaster prevention, according to the PNPDEC (Art. 2, §2) and Decree No. 10.593/2020, which regulates it. In this context, the Reurb-S administrative procedure facilitates the understanding of reality and possible scenarios by requiring diagnostic studies of discrepancies and risks, as well as proposing environmental, urbanistic, legal, and social solutions to be incorporated into the urban project, and following infrastructure works, urban and environmental compensations, and other similar measures (Arts. 35 and 36, Law No. 13.465/2017), which also translate into risk mitigation. The technical studies produced, besides favoring the hypothesis of initiating Reurb-S, convincing the MPSP of this alternative, facilitate urban-environmental interventions understood from a broader perspective, combined with

by any of the legitimate parties, guarantees to the public authorities that occupants of informal urban settlements located on public areas to be regularized may remain in their respective property units, preserving the existing factual situations, until the eventual definitive dismissal of the procedure."

environmental protection and recovery of areas degraded by urban expansion along the Água Quente Stream (Baptista et al., 2023a).

Although the project's technical products advanced most of the minimum technical studies required by Law No. 13.465/2017, the feasibility of such interventions ultimately depends on the Municipality's actions and active budget provisions. In this aspect, advocacy efforts not only secured a commitment from the local Autonomous Water and Sewage Service (SAAE) to conduct more comprehensive engineering studies for urban drainage improvements, but also facilitated the allocation of 1.5 million Reais from municipal funds to the Department of Public Works for infrastructure upgrades. Additionally, while not a definitive solution, an urgent measure was implemented by the city administration to temporarily stabilize the gully with debris and soil. These are incremental steps, but much remains to be done.

4. CONCLUSIONS

The collected data revealed a situation marked by multiple risks, stemming from fragile environmental conditions, urban and construction inadequacies, compounded by the extreme poverty and legal-political threats of forced removal. Simultaneously, it also revealed a remarkable sense of solidarity and the community's response capacity in adverse situations, as well as its organization in securing fundamental rights.

Throughout the ATHIS project, in addition to underscoring this territorial complexity, the advocacy efforts by the technical advisory organizations, in collaboration with the residents, involved the community in public discussions on risk assessment through technical studies grounded in scientific principles and social participation. These documents were produced not in spite of the community's self-managed initiatives but by emphasizing their resilience and urgent adaptive needs, particularly highlighting the state's absence and its role in fostering vulnerabilities and its urgent duty to address at-risk exposure.

We recognize that ATHIS holds significant potential to align with the core objectives of Disaster Risk Reduction by tackling the root causes of vulnerability, mitigating and preventing risks linked to hazards,

utilizing techniques to reduce existing risks, strengthening community preparedness, and enhancing resilience and recovery capacity in the face of adverse events. Moreover, it bridges the gap between different types of knowledge and fosters the integration of humanitarian response with sustainable development initiatives.

However, for this to be effective, ATHIS initiatives must be deeply committed to understanding the social processes and political circumstances of the territory, reinforcing the principle of residents' leadership in decision-making. External partners, such as technical advisors, are crucial in supporting and enhancing community organization and autonomy. Our role is to support the community to advocate for and assert their rights in an informed and as independent manner as possible, with the goal of securing access to well-located, urbanized land that ensures security and well-being for both current and future generations.

Activism in urban planning for informal settlements, particularly the advocacy for comprehensive land regularization, is a practice that warrants greater recognition. This includes reevaluating traditional ATHIS approaches, which often focus predominantly on the development and delivery of architectural or urban projects (even if participatory) as the main product and ultimate goal. In fact, ATHIS should acknowledge that popular advisory practices and the technical knowledge accumulated across various professions have significant potential to enhance our understanding and transformation of complex urban realities.

The effort to democratize risk mapping and propose technical-popular solutions for enhanced safety underscored the inseparability of urban-environmental vulnerabilities from socio-legal issues. To initiate investigations and technically assess these risks, which ended up pointing to the need for improved urban infrastructure and environmental recovery, it was essential to advance possession security through the initiation of a Reurb-S process. Therefore, advocacy for comprehensive land regularization integrates both risk mitigation and the promotion of the right to adequate housing, emphasizing a holistic approach to the problem.

This approach emphasizes both the assessment of urban-environmental conditions that pose threats to the population, increasing disaster risk, and the evaluation of the territory's adaptive potentials

and the community's capacity for active risk management. In the reported experience, we tested the hypothesis that the land regularization instrument procedurally facilitates the diagnosis of risks and discrepancies, as well as the proposal of mitigating and preventive measures for disasters, within the practical context of urban-territorial planning.

A hypothesis that aligns with reflections on modern space production and the deep contradictions of urbanization processes in peripheral countries, with the primary goal of ensuring resilience and urban adaptation in the most marginalized territories. We assert that preventive measures in this context must focus on enhancing community capacities and autonomy over territories, combined with urban interventions sponsored by public authorities and designed with social participation. This requires not only technical and political commitment but also robust legal-institutional and financial support for these measures to be integrated and effective. This was contested throughout the project, through the dispute over the land regularization instrument as a public policy for sustainable territorial development.

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