Geonarratives of resilience and coping: Understanding lived experiences of urban extreme heat in Southeast Asia's informal settlement/low-income communities

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Introduction

- As urban environments increasingly face the challenges of rising temperatures—particularly evident in cities such as Bangkok, Thailand, and Quezon City, Philippines—the integration of community perspectives into risk assessments becomes paramount.
- The heightened vulnerability of informal settlements to these climatic stressors necessitates a thorough examination of the insights provided by residents.
- Geonarratives, as both a method and an approach (Palis, 2022), enable residents to share their spatial stories and lived experiences amidst extreme urban heat.

Objective

- To gather collective narratives from informal settlement communities in Southeast Asia through the lens of participatory mapping, thus encapsulating their lived experiences of extreme urban heat.

Methodology

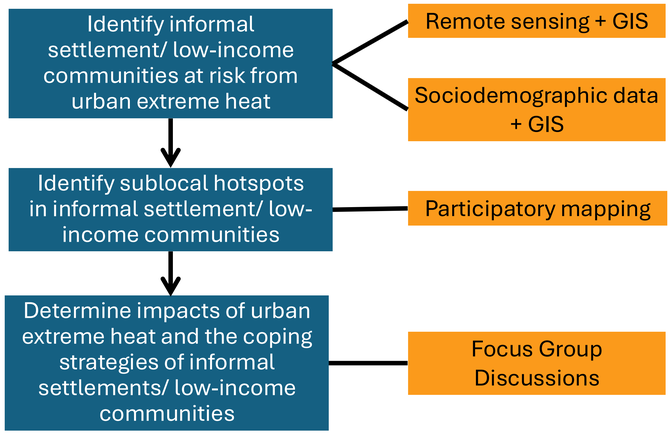

Fig. 1: Steps in data collection

Study sites

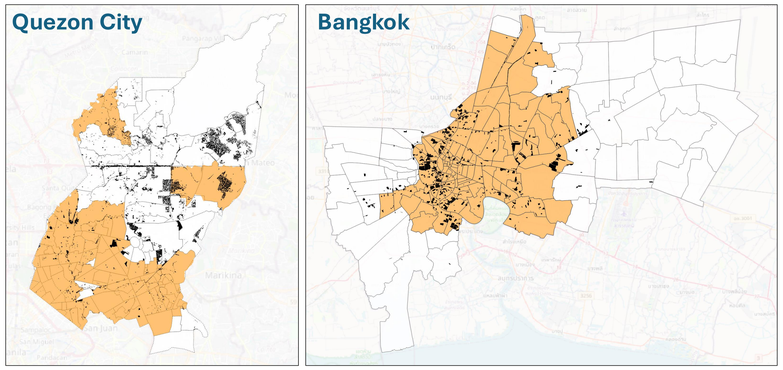

Fig. 2: Urban extreme heat areas in Quezon City, Philippines and Bangkok, Thailand, and the location of their informal settlements/ low-income communities

Lived experiences of urban extreme heat through participatory mapping

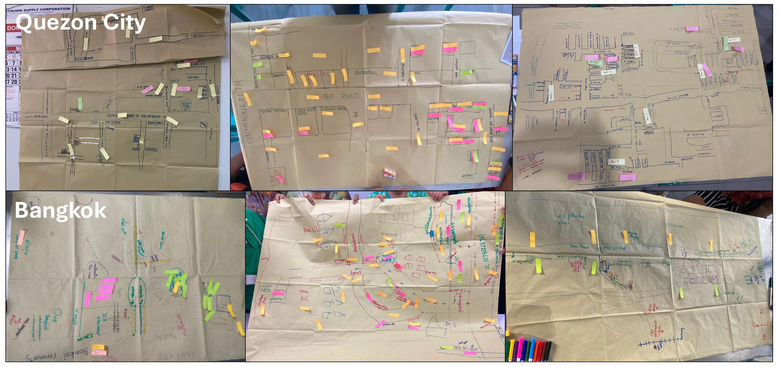

Fig. 3: Maps of hot spots (yellow/orange), cool spaces (green), and hangout places (pink) in selected informal settlements/ low-income communities in Quezon City and Bangkok.

> ***"You can't go outside without an umbrella anymore. It used to be okay. The way the sun directly hitting the skin is different. It hurts."*** *--QC_FGD21*

> ***"We only have two seasons: hot and hottest."*** *--BKK_FGD11*

Patterns of Resilience and Coping among informal settlements/ low-income communities

- Water is an essential resource for managing extreme urban heat among informal settlement/ low-income communities.
- Healthcare is more expensive and is likely to impose a greater financial burden compared to household expenses for water, electricity, or food.
- Cooling facilities, such as shopping malls, come with additional costs, and their proximity is also a factor when selecting this coping strategy. Otherwise, residents prefer to stay at home.
- Addressing the mental well-being impacts of urban heat is closely linked to social interactions within the community.
- Incremental solutions to heat are the only available options.
- Barriers to community coping strategies for urban heat stem from competing land uses within the city, limited space, and a lack of green areas in informal settlement/ low-income communities.

Fig. 4: Photos of selected informal settlements/ low-income communities in Quezon City and Bangkok

Conclusion

- Urban heat affects mental well-being, leading to discomfort in living conditions and concerns about utility and healthcare costs (Diallo et al., 2024). Consequently, coping mechanisms tend to be personal and individualised.
- Urban land planning and design significantly influence the adaptive capacity to climate stressors such as urban heat islands, making it essential to integrate adaptation into future land use planning (Xu et al., 2019). However, cities must balance competing demands for housing and green spaces, which is a critical issue in rapidly urbanising areas (Erlwein et al., 2023).

References

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