

PhD Thesis

Title: The lived experience of flood risk: Envisioning a participatory process at the neighbourhood scale for spatial planning

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Abstract: Urban flood risk management is recognized as requiring locally grounded, context-sensitive and participatory approaches, yet risk assessment and adaptation planning in India remain largely expert-driven and quantitative. This thesis examines how flood risk is experienced by at-risk communities and how lived experience and local knowledge can be incorporated into spatial planning and risk governance at the neighbourhood scale. It addresses how communities experience chronic flood risk, how community-based assessment can add value to mainstream approaches, and how lived experience can inform adaptation planning. It uses a single-case study of chronic flooding in Panayappilly, Fort Kochi, Kerala, combining analysis of policy documents and semi-structured interviews of planners and policymakers with focus group discussions, transect walks, map-based surveys, and a participatory co-production workshop with local residents using Public Participation Geographic Information Systems (PPGIS).

The research finds that Panayappilly's low-intensity, high-frequency flooding produces a complex experience of risk extending beyond physical damage and conventional quantitative indicators. Residents identified contaminated water, health impacts, livelihood disruptions, property damage, inadequate canal and drainage maintenance, solid-waste dumping, institutional fragmentation, and planning failures. Equally significant were loss of dignity, chronic precarity, helplessness, and a deep trust deficit arising from decades of inadequate institutional response. These latter dimensions and context-specific factors were largely absent from mainstream risk assessments. Analysis of Kerala's progressive Risk-Informed Master Plan framework further shows that, despite formal recognition of participation, expert-defined quantitative categories continue to dominate, while communities are often positioned as sources of validation rather than contributors to knowledge production.

The thesis distinguishes between community-based risk assessment and a community-shaped definition of risk. It demonstrates that a carefully facilitated, neighbourhood-scale participatory process can generate richer risk understanding and concrete spatial and non-spatial adaptation interventions. Substantive participation, it argues, requires changes in planners' epistemic attitudes, stronger neighbourhood institutions, sustained trust-building, and movement beyond representative proxies and episodic stakeholder consultation. It brings participatory planning, community-based disaster risk assessment, and community-based adaptation into dialogue through a Global South lens, showing how lived experience can reshape the understanding of disaster risk and planning/policy responses.