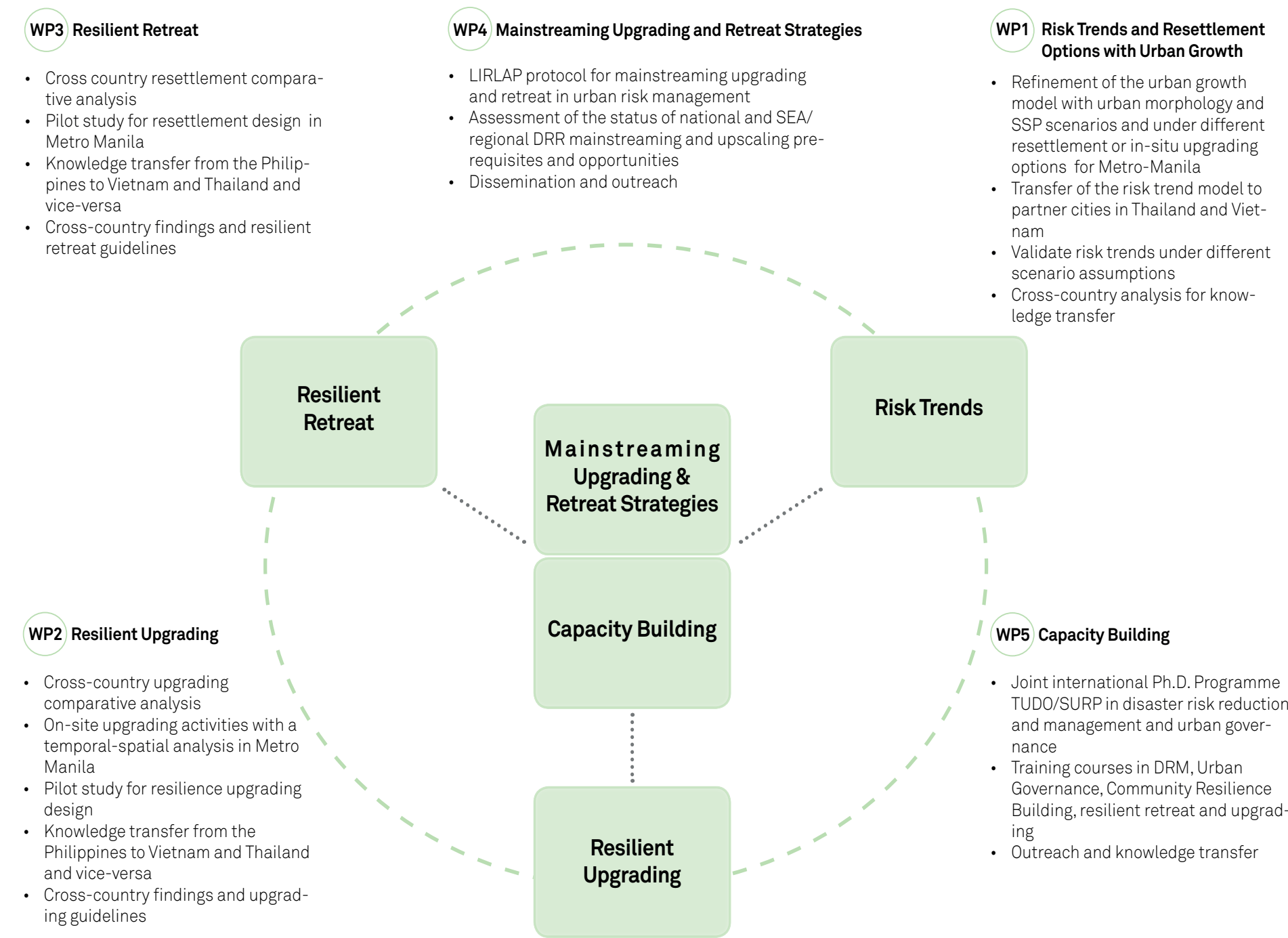


LIRLAP

Linking disaster risk governance and land-use planning: the case of informal settlements in hazard prone areas in the Philippines

Conceptual framework



LIRLAP Conceptual Framework for R&D Phase

Informal settlement in flood prone area



Visiting a low-lying flood-prone informal settlement in Marikina City, Metro Manila on 04.02.2020, photograph by LIRLAP team

Stakeholder Workshop in Manila 2020



LIRLAP multi-stakeholder interim results workshop, photograph by LIRLAP team

Aim of the project

LIRLAP focuses on informal settlements in the Philippines and mitigates the risk for residents to bear the consequences of environmental disasters. LIRLAP endeavours climate adaptive enhancement and resettlement programmes together with the local residents in order to improve their livelihoods. Locally viable strategies for upgrading and resettlement are integrated into resilience planning. LIRLAP project focuses on three objectives.

- (1) Urban development approaches for resettlement and upgrading will be developed based on pilot projects in selected areas of Metro Manila.
- (2) Climate adaptive evaluation and resettlement approaches will be co-produced with local residents to improve their livelihoods.
- (3) LIRLAP plans to mainstream locally sustainable upgrading and resettlement strategies and to integrate resilient planning through training programmes and dual doctorates between Dortmund and the School of Urban and Regional Planning - University of the Philippines.

Project description

LIRLAP takes a dynamic perspective and assesses the impact of future urban growth and densification scenarios in Metro Manila, especially for informal settlements. It considers the urban morphology, the socio-economic factor and the future availability of land suitable for resettlement. This is deepened in field work on upgrading and resettlement of informal settlements, complemented by knowledge transfer to and from Thailand and Vietnam. This leads to two pilot studies for resilient upgrading and resettlement designs in the field and application guidelines. The aim is to embed upgrading and resettlement strategies into urban risk management. The same applies to tailor-made training courses and a joint Dual PhD programme in which knowledge and solutions are generated, transferred, and disseminated.

Findings of the definition phase revealed a challenge facing local government units of Metro Manila is the need for resettling Informal Settler Families (ISFs) in endangered areas, while avoiding the future return of ISFs in exposed zones. The question is what is the most sustainable way concerning ISFs resettlement, given that the priority of the Philippine government is „on-site, in-city or near-city“relocation, mainly through in-city multi-storey housing development utilizing government-owned lands.

All results of the R&D phase are transferable to partner countries and countries with similar development contexts. The R&D phase aims to develop urban growth models under different resettlement or in-situ upgrade options for Metro Manila and transfer the risk trend model to partner cities in Thailand and Vietnam.

A cross-country analysis of upgrading and retreat will be developed on these topics. Pilot studies with upgrading design guidelines will be politically approved at the end of the R&D phase. They will be replicated at other upgrading sites of informal high-risk settlements in Metro Manila. Concrete upgrading measures will be tested in the implementation phase and are expected to lead to commercial follow-up activities for »KaiserIngenieure«. A resettlement policy will address a strategy of selective resettlement. Mainstreaming activities will influence policy and decision-making at different planning levels in the Philippines. It will promote risk-based spatial planning involving multiple stakeholders and institutions. Building on the themes of LIRLAP, training and a joint Dual PhD programme will be conducted.

Goals and work packages

Envisaged Output of the R&D Phase

The ongoing Research and Development Phase (2021-2025) focuses on:

- approaches of relocation and upgrading in urban development with pilot projects in selected areas in Metro Manila;
- co-producing climate-adapted upgrading and retreat with inhabitants to sustain livelihoods;
- mainstreaming locally viable strategies for upgrading and retreat and integrating resilience planning via stakeholder capacity building training and a Dual PhD between Dortmund and SURP.

LIRLAP has developed six work packages for the capital Research and Development phase (3/2021 - 2/2025), which were assigned to technical expertise according to the LIRLAP cooperation partners. All WPs are carried out in close cooperation in real laboratory formats with the local partner SURP (School of Urban and Regional Planning, University of the Philippines) - as the central scientific institution in the Philippines in the field of urban, regional and environmental planning and a long-term cooperation partner.

- **WP 1** (lead LMU): Risk trends and resettlement options with urban growth. Development of alternative scenarios of future trends of exposure and urbanization pattern and identification of suitable land at regional level for retreat and upgrading
- **WP 2** (lead TU DO): Resilient upgrading. Development of resilient solutions for physical, ecological and socio-economic dimensions and typologies of upgrading, based on the identified suitable land through games simulation with those actors which are responsible on the ground
- **WP 3** (lead University of Stuttgart): Resilient retreat. Development of resilient solutions with various identified tools and strategies of retreat, based on the identified suitable lands through gaming simulations with those actors which are responsible on the ground
- **WP 4** (lead LMU): Mainstreaming upgrading and retreat strategies, Dissemination
- **WP 5** (lead TU DO): Capacity building and dissemination. PhD program and training courses in operation
- **WP 6** Project coordination and management (TUDO + SURP)

Funding and time frame

The project is funded by the German Federal Ministry of Education and Research in the funding scheme of Sustainable Urban Regions



Project duration:
07/2019 to 02/2021 (definition phase)
03/2021 to 02/2025 (research and development phase)

Cooperation partners

- Universität Stuttgart**: Institute of Spatial and Regional Planning at University of Stuttgart, Prof. Jörn Birkmann.
- LMU** (Ludwig-Maximilians-Universität München): Unit on Human-Environment-Relations at the Ludwig-Maximilians-University, Department of Geography in Munich (LMU), Prof. Mathias Garschagen.
- University of the Philippines**, School of Urban and Regional Planning (SURP), Prof. Mario de los Reyes.

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