

📍 Manila, Philippines; Bangkok, Thailand; Hanoi, Vietnam

LIRLAP

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

LIRLAP focuses on informal settlements in the Philippines and lowers the risk for residents to bear the consequences of environmental disasters. LIRLAP produces 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.

Project Objectives

The 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.

Challenges

Worldwide, rapid urbanization of urban regions is contributing to an increase in disaster risks. The phenomenon of informal settlements in hazardous areas poses a particular challenge. While focusing on global city competition and urban economy efficiency, extremely marginalised urban poor have often been excluded from national planning agendas, including those in the Philippines and other Southeast Asian countries. »Urban risk governance«, risk-based land use planning to reduce the inhabitants’ socio-economic vulnerability and improving their adaptability – those are the main goals of LIRLAP. As poorly managed urbanisation is a major driver of disaster risk and poor people are often the ones most severely affected by disasters, it is imperative to introduce risk-informed spatial planning mechanisms in areas where the urban poor mainly live.

Addressed Sustainable Development Goals of the United Nations





Informal Settlement Colo-ong, Valenzuela City. Image provided by Wolfgang Scholz

Research Approach and Methods

LIRLAP takes a dynamic perspective and assesses the impact of future urban growth and densification scenarios in Metro Manila, especially for informal settlements. It takes into account 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 PhD programme in which knowledge and solutions are generated, transferred and disseminated.

Focus Topics

- Integrated urban development and sustainable neighbourhoods
- Urban quality of life
- Environmentally friendly behaviour and sustainable living
- Strategic risk reduction of informal settlements
- Improving socio-economic vulnerability
- Participatory urban development
- Transferability of resilient urban planning



»The Philippines advocates the building of safe, resilient, and sustainable communities. Human settlements are planned to be responsive to the public health system, adherent to hazard and safety standards, and adaptable to the shelter needs of the low-income and vulnerable market. For empowering stakeholders of informal and hazard-exposed human settlements urban risk governance and risk-based land use planning become particularly relevant.«

Dina Cartagena Magnaye



Expected Solutions and Innovations

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 will be developed on these topics. Pilot studies with upgrade design guidelines will be politically approved at the end of the R&D phase. They will be replicated at other upgrade sites of informal high-risk settlements in Metro Manila. Concrete upgrade 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. In particular, it will promote risk-based spatial planning involving multiple stakeholders and institutions. Building on the themes of LIRLAP, training and a PhD programme will be conducted.



Site visit in one of the resettlement schemes in Manila. LIRLAP team with local stakeholders and partners from Vietnam and Thailand 2020

Image provided Juan Du



»In many countries of the Global South, residents of informal settlements tend to be more vulnerable to climate events due to very limited risk-reducing infrastructure, poor housing quality and limited capacity to cope. Therefore, mainstreaming urban risk governance and risk-based land use planning is necessary to reduce the socio-economic vulnerability of residents and improve the resilience capacity of communities.«

Prof. Dr. Stefan Greiving

Cooperation Partners

German Partners

- University of Stuttgart, Institute for Spatial Planning and Development Planning
- Ludwig-Maximilians-University Munich, Department of Geography
- KaiserIngenieure Dortmund

Asian Partners

- University of the Philippines, School of Urban and Regional Planning
- Thammasat University (Thailand), Urban Futures & Policy Research Unit
- Vietnam National University of Agriculture, Faculty of Natural Resources and Environment



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