



# LEVERAGING WITH BARRIERS: A PROBE INTO INFRASTRUCTURE SAFETY PERCEPTION INFLUENCE ON RESIDENTIAL LOCATION DECISIONS

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## Abstract

The eruption of Mount Pinatubo in 1991 and the aftermath of the enormous mudflow displaced thousands of households in Central Luzon. Rehabilitation projects of various categories, including resettlement housing sites and infrastructure projects, had been deemed necessary in order to regain stability in terms of quality of life and well-being of affected residents, encouraging investors that would result to more economic activities after the disaster, and in mitigating further damage caused by the mudflow.

One of the largest projects undertaken is the Pinatubo Hazard Urgent Mitigation Project which includes the major renovation of the mega dike and mudflow defense facilities along the river basins. Beneficiary surveys from over a decade ago reported that a majority of the residents, with samples taken from contrasting sites, felt safer in their areas of residence after the construction of the infrastructure projects. The same trend of positive response was concluded in terms of living conditions, employability, and number of businesses established.

This emerging study aims to probe how the perception of safety, better living conditions, and economic progress viewed in relation to the construction and rehabilitation of the infrastructure project as an agent of change, have influenced the residential location decision of households. In its preliminary stage, the study intends to trace the significant improvement in the infrastructure project and the indicators for residential location decision – returning to the disaster affected area or to relocate in the resettlement sites. Survey, key informant interviews, desk review, mapping and photo documentation are among the tactics comprising the qualitative research design to be carried out in selected case sites in Bacolor, Guagua, Mabalacat in Pampanga.

## Main Problem

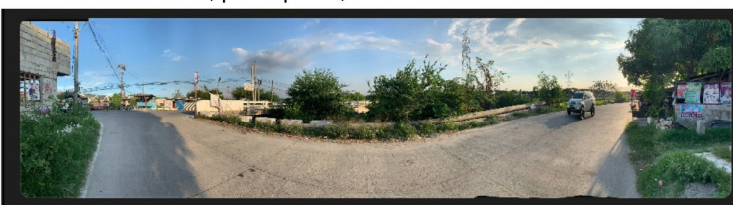
How has the Pinatubo Hazard Urgent Mitigation Project (mega dike) influenced the residential location decision of households that were affected by the Mt. Pinatubo eruption and the consequential lahar flow?

## Subproblems

- How do residents around the infrastructure view safety relative to the mega-dike?
- What are the residential location decision indicators in the subject area?
- To what extent is the difference in the density of houses in the subject area before and after the improvement of the mega-dike?
- How many of the original households in the subject area have reconstructed their houses and also have a housing unit in the resettlement sites?

## Keywords

Residential location decision, infrastructure, housing resettlement sites, perception, disasters



Source: Lejarde, 2022

## Overview

Topic	Case site	Disruptor	Transformative Agent	Observation Indicator (before and after the Transformative agent)
Relocation and urban layout transformation	Relocation sites One residential block in Bacolor parallel to the dike	Mt. Pinatubo eruption and mud flow / lahar flow / pyroclastic sediments	Improvement of dike into a Mega-dike	Households that remained in affected areas vs. households that relocated  Residential location decision

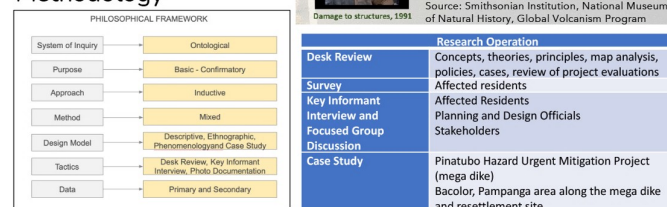


Source: Mount Pinatubo Emergency Project Management Office

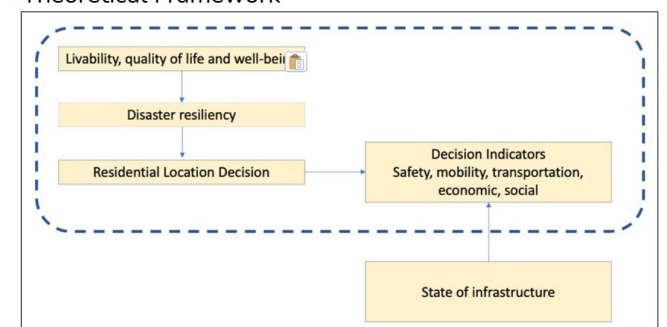


Source: Lejarde, 2022

## Methodology



## Theoretical Framework



## Preliminary Survey Results

Motivations for staying near the mega dike	Safety perception of the infrastructure
Sense of safety	High
Near family members	Medium
Economic	Low
Social/community roots	View of better living conditions as a result of the infrastructure
	Significantly improved
	Just the same
	Lowered conditions

8 households
6
2
6 households
6
4

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