

Mercy Corps Indonesia

Scope of Work

Feasibility Study on Coastal Resettlement Affected by Permanent Coastal Inundation Using a Managed Retreat Approach in Coastal Areas

Case Study of Dukuh Bogorame, Timbulsloko Village, Demak Regency

Project/Consultancy Title	: Feasibility Study on Coastal Resettlement Affected by Permanent Coastal Inundation Using a Managed Retreat Approach in Coastal Areas. Case Study of Dukuh Bogorame, Timbulsloko Village, Demak Regency
Project Location(s)	: Central Java, Indonesia

BACKGROUND

Mercy Corps Indonesia is part of Mercy Corps, a global organization dedicated to helping communities build resilience in the face of crises, including disasters and climate change. One of its key initiatives is through the **Zurich Climate Resilience Alliance (ZCRA)**, formerly known as the Zurich Flood Resilience Alliance (ZFRA), a cross-sector collaboration involving Zurich Insurance Group, NGOs, and academic institutions. The Alliance aims to strengthen community resilience to climate risks, particularly through an **evidence-based approach** and interventions that include community collaboration, research, and policy advocacy.

The northern coastal region of Central Java, including Demak Regency, is one of the area's most vulnerable to the impacts of climate change in Indonesia. The combination of land subsidence, sea level rise, and coastal abrasion is causing tidal flooding (rob) that is becoming more frequent, more extensive, and increasingly difficult to recede¹. Water as Leverage: City Report Semarang records that Semarang is experiencing land subsidence of up to 8 centimetres per year². Semarang, Demak, and Pekalongan share similar geological conditions, namely low-lying alluvial plains formed from the sediment of small rivers, which are naturally prone to subsidence, a vulnerability further worsened by groundwater extraction and development pressure. At a number of points, what was once periodic flooding has turned into Permanent Coastal Inundation (PCI), altering the region's topography and submerging rice fields, fishponds, jasmine plantations, and residents' settlements. As a result, residents' livelihoods have undergone change and adjustment in response to these shifting conditions. Artiningsih (2018) highlights communities that have adapted and continued to survive in affected areas by managing productive assets such as jasmine gardens, which have gradually been lost to seawater intrusion³.

Faced with these conditions, some residents have chosen to stay and cope through various self-directed adaptation strategies, such as raising the floor level of their homes, building local embankments, and operating self-funded pumps. Others, particularly in areas where the inundation has become permanent, have begun or already undertaken gradual retreat (managed retreat) whether through self-initiated relocation, government-facilitated relocation, or the phased abandonment of an area. The Central Java Provincial Housing and Settlement Agency (Disperakim) has built floating houses in Timbulsloko Village as

¹ Mercy Corps Indonesia. (2026). Strategi pengelolaan kawasan pesisir terpadu berbasis Integrated Coastal Zone Management (ICZM).

² World Water Atlas. (n.d.). Water as Leverage in Semarang. <https://www.worldwateratlas.org/narratives/water-as-leverage/semarang/>

³ Artiningsih (2018). Pola kognisi spasial ekologis rumah tangga terhadap kerentanan wilayah akibat banjir dan rob pada bentanglahan pesisir (studi kasus Kecamatan Pekalongan Utara). Disertasi Universitas Gajah Mada.

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an adaptive response to the rising levels of inundation. However, gaps remain in infrastructure planning and procurement policy that still require adjustment, including the need for structured financing support to help reduce socio-economic inequality for vulnerable groups.

Bogorame Hamlet is located in Timbulsloko Village, Sayung Sub-district, Demak Regency, on the north coast, which has experienced significant coastal area changes in the form of land use shifts and even the loss of the shoreline, along with increasingly permanent tidal flooding (rob). This has impacted residents' livelihoods and caused a shift in their sources of income, as well as changes in their settlement patterns.

For this reason, this Feasibility Study on Coastal Area Resettlement Affected by Permanent Coastal Inundation (GPP) using a Managed Retreat Approach in Coastal Areas is important to examine systematically, so as to produce a response framework consisting of an initial area-planning concept, proposed governance arrangements for addressing the issue, and adaptive financing opportunities that can serve as the basis for formulating fairer policy.

CONSULTANT OBJECTIVES

The objectives of this consultancy are to:

- 1) **Identifying the Baseline**, the analysis examines existing phenomena using secondary data to track the progression of permanent coastal inundation, land subsidence, sea-level rise, abrasion, land-use change, damage to assets and infrastructure, and patterns of retreat that have already occurred, whether self-initiated or government-facilitated.
- 2) **Household and Community Transition Needs**, addressing the current state of communities in coping with these impacts and the extent to which government interventions so far have been effective. What communities actually need in order to carry out retreat not merely whether they are willing to relocate.
- 3) **Managed Retreat Intervention Packages**, including developing an initial area-planning concept. Interventions are broken down by retreat stage (preparation, relocation-preparation stage, land provision and spatial adjustment, physical relocation, socio-economic and livelihood rehabilitation, post-retreat management, etc.)
- 4) **Financing Gap Analysis**, not only in terms of the nominal gap, but also why that gap exists (availability, eligibility, coordination gaps, timing).
- 5) **Financing Architecture Recommendations**, including a financing governance mechanism comprising public finance, complementary finance (CSR, philanthropy, donors/development partners, etc.), and private/market-based finance.
- 6) **Managed Retreat (Investment) Roadmap**. Bring together the findings from the baseline, community needs assessment, intervention packages, and financing analysis into one combined roadmap.

CONSULTANT ACTIVITIES

Activities to be taken by the consultant team under this works including:

1. **Baseline: Permanent Inundation, Adaptation Limits & Existing Retreat**

- Conduct a secondary data review of satellite imagery, land subsidence records, sea-level rise data, and existing spatial plans (RTRW/RZWP3K).

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- Map the extent and expansion rate of permanent coastal inundation (GPP) in Dukuh Bogorame relative to subsidence trends and historical shorelines.
- Inventory asset and infrastructure damage (housing, agriculture, aquaculture, public facilities) attributable to permanent inundation.
- Conduct field verification through site visits and direct measurement to validate secondary data.
- Develop and apply an adaptation-limit assessment framework distinguishing hard limits (areas rendered uninhabitable by permanent inundation) from soft limits (budgetary, technical, or institutional constraints).

2. Household and Community Transition Needs

- Administer a household survey capturing socioeconomic profiles, livelihoods, assets, and exposure to inundation.
- Conduct disaggregated focus group discussions (by gender and vulnerability status) to identify transition needs and barriers.
- Interview previously relocated households to evaluate the effectiveness of existing interventions in terms of livelihood continuity, service access, and satisfaction.
- Identify specific transition requirements, including land tenure, basic services, livelihood continuity, and psychosocial support.

3. Managed Retreat Intervention Packages

- Review comparative managed retreat practices, domestic and international, to inform package design.
- Structure the retreat process into defined stages: preparation, pre-relocation planning, land provision and spatial adjustment, physical relocation, socioeconomic rehabilitation, and post-retreat management. Specify the technical, institutional, and financial requirements for each stage.
- Consult with local government agencies to identify existing programs suitable for scaling or replication.
- Map applicable budget lines and sectoral programs across national, provincial, district, and village levels for potential convergence.
- Develop a preliminary spatial design for relocation sites and for post-retreat land use and validate the proposed intervention package through a multi-stakeholder workshop.

4. Financing Gap Analysis

- Compile existing financing allocations relevant to GPP response and retreat in both sites. Estimate total financing requirements for each retreat stage.
- Quantify the financing gap between requirements and available resources.
- Analyze the underlying causes of the gap, including availability, eligibility, inter-agency coordination, and disbursement timing.

5. Financing Architecture Recommendations

- Map potential financing sources: public finance, complementary finance (CSR, philanthropy, development partners), and private or market-based finance.
- Consult prospective financing partners regarding interest and conditions for engagement.

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- Design a financing governance mechanism, including fund pooling and disbursement arrangements.
- Assess regulatory feasibility of proposed blended financing mechanisms.
- Present recommendations as a financing architecture diagram with accompanying governance narrative.
- Validate recommendations with key stakeholders through a workshop or targeted consultation.

6. Managed Retreat (Investment) Roadmap

- Synthesize findings from the baseline, community needs assessment, intervention packages, and financing analysis into an integrated roadmap.
- Develop a phased roadmap (short, medium and long-term) specifying priority locations, investment requirements, target funding sources, and responsible actors.

CONSULTANT DELIVERABLES

The expected deliverables from the consultant are:

- 1) Inception report (work plan, methodology, and timeline).
- 2) Draft final report for review.
- 3) Final comprehensive study report (Bahasa Indonesia and/or English, per agreement) incorporating all of the above.
- 4) Executive summary / policy brief suitable for advocacy use.
- 5) Presentation materials for the final validation workshop.
- 6) All raw data, field materials, and consent documentation handed over to Mercy Corps Indonesia.

TIMEFRAME / SCHEDULE

The consultancy work is expected to be completed in **maximum 6 (six) month period**, starting from 2nd Week of October 2026 to 2nd Week of April 2027. Detailed workplan will be submitted by the consultant early in preparation stage, after initial meeting is held with the ZCRA Indonesia team.

THE CONSULTANT WILL REPORT TO:

- ZCRA Indonesia Program Manager and Advocacy Specialist
- ZCRA National Advocacy Support

THE CONSULTANT WILL WORK CLOSELY WITH:

- ZCRA Indonesia Program Manager
- ZCRA National Advocacy Support
- ZCRA Indonesia Local Leald
- ZCRA Indonesia Resilient Livelihood Coordinator

REQUIRED EXPERIENCE & SKILLS

1. Extensive expertise and a minimum of 10 years of professional experience in water resources and water security issues;

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2. Strong knowledge of water supply systems, hydrology, and clean water supply strategies;
3. Good understanding of climate change, environmental sustainability, flooding, and land subsidence issues;
4. Good understanding of national and local policies and regulations related to water resources and water supply.
5. Familiarity with national and local policies, regulations, and institutional frameworks relevant to water resources management, climate resilience, and sustainable development
6. Ability to work collaboratively with the ZCRA team and other stakeholders, including providing regular updates, seeking input, and incorporating feedback into the process.

How to Apply

Interested candidates may submit their CV and proposal by email to procurement@id.mercycorps.org by 1 October 2026 at the latest. Only shortlisted candidates will be contacted.

DIVERSITY, EQUITY & INCLUSION

Achieving our mission begins with how we build our team and work together. Through our commitment to enriching our organization with people of different origins, beliefs, backgrounds, and ways of thinking, we are better able to leverage the collective power of our teams and solve the world's most complex challenges. We strive for a culture of trust and respect, where everyone contributes their perspectives and authentic selves, reaches their potential as individuals and teams, and collaborates to do the best work of their lives. We recognize that diversity and inclusion is a journey, and we are committed to learning, listening and evolving to become more diverse, equitable and inclusive than we are today.

EQUAL EMPLOYMENT OPPORTUNITY

We are committed to providing an environment of respect and psychological safety where equal employment opportunities are available to all. We do not engage in or tolerate discrimination on the basis of race, color, gender identity, gender expression, religion, age, sexual orientation, national or ethnic origin, disability (including HIV/AIDS status), marital status, military veteran status or any other protected group in the locations where we work.

SAFEGUARDING & ETHICS

Mercy Corps team members are expected to support all efforts toward accountability, specifically to our stakeholders and to international standards guiding international relief and development work, while actively engaging communities as equal partners in the design, monitoring and evaluation of our field projects. Team members are expected to conduct themselves in a professional manner and respect local laws, customs and MC's policies, procedures, and values at all times and in all in-country venues.