

Community-based green retrofit and healthy housing adaptation in coastal Kuala Simpang Ulim, East Aceh

INDONESIA · East Aceh · Kuala Simpang Ulim

CATEGORY **CITIES & SETTLEMENTS** **RESIDENTIAL BUILDINGS**

PRIMARY HAZARDS

Heat stress · Changes to marine conditions

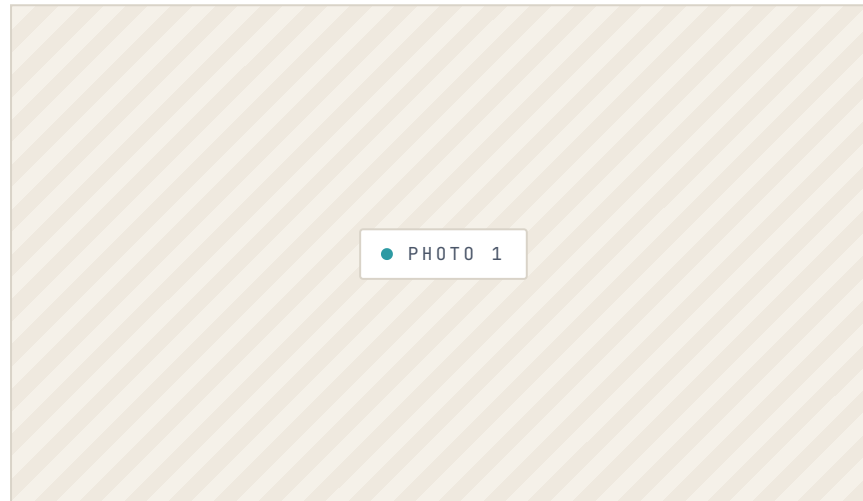
MOBILITY DIMENSION

Avoided displacement

RICD RISK TIER



Very high



● PHOTO 1

GRANT RECIPIENT

Institut Teknologi Bandung

PARTNERS

Universitas Malikussaleh · Universitas Indonesia · Yayasan Lampoh Inovasi Nusantara

TOTAL PROJECT VALUE

28,026 USD 12 months**50%** CCF GRANT **14,013 USD****50%** MATCHING FUNDS **14,013 USD**

Institut Teknologi Bandung + Universitas Malikussaleh (in-kind)

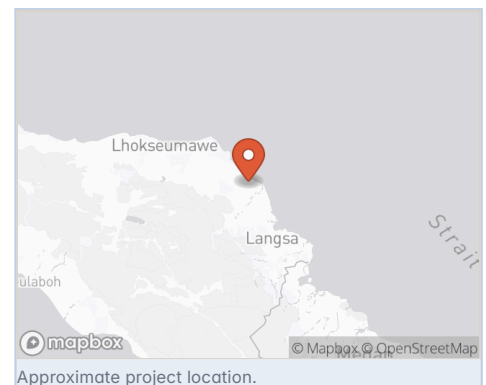
Context and approach

Kuala Simpang Ulim's low-income fishing families live in homes exposed to rising heat, tidal flooding and damp. Poor ventilation and sanitation drive skin and waterborne illness, and each flood pushes households closer to leaving the coast.

Rather than building new houses, Institut Teknologi Bandung and partner universities upgrade existing ones with passive cooling, reflective roofing, cross ventilation, shading vegetation and better sanitation, aiming to cut indoor temperatures by 3 to 4°C without extra energy.

Project outputs

- Retrofit 20 pilot homes using local materials and community labour
- Map microclimate risks through participatory assessment
- Train local builders, women and youth in green retrofit techniques
- Publish a Community Retrofit and Healthy Housing Guideline for village planning
- Cooler, healthier homes for 86 residents directly affected by heat stress
- Local builders can replicate low-cost retrofits across the settlement
- The guideline feeds into ProKlim and village development planning



Approximate project location.

Reach & deliverables

312 ESTIMATED POPULATION IMPACTED Kuala Simpang Ulim	20 HOMES RETROFITTED local materials, community- built	3-4°C COOLER INDOORS without extra electricity
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Milestones

12 MONTHS TOTAL

M.01 2 months Participatory assessment and microclimate mapping	M.02 2 months Co-design and training workshops for builders, women and youth	M.03 4 months Implementation of 20 pilot retrofits	M.04 2 months Monitoring through low-cost sensors and community learning	M.05 2 months Community Retrofit and Healthy Housing Guideline developed
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the European Union