



## RESEARCH PROGRAM: Climate, environment and health (SG-CEH)

Policy Brief | Project SG-CEH-01

### Multidimensional vulnerability to dengue and diarrhea in the context of the climate crisis

**Country:** Peru

**Principal investigator:** Bertha Luz Pineda

#### The challenge

The climate crisis is intensifying dengue and diarrheal diseases in Amazonian territories with structural deficits in water, sanitation and health services, especially in border contexts.

#### The approach

- Transdisciplinary and participatory research, based on:
  - Knowledge Dialogues with local communities and institutions.
  - Integration of health, environmental, and social data.
  - Co-creation of decision-making tools.

#### What was done

- Development of a Multidimensional Vulnerability Index (MVI).
- Creation of territorial vulnerability maps.
- Design of intersectoral action plans.
- Community communication strategies with youth participation.

#### Main findings

- Health vulnerability is multidimensional (social, environmental, and institutional).
- The lack of safe water, sanitation, and waste management is a key factor in transmission.
- Climate change exacerbates existing risks.
- Pregnant women, children, and older adults are the most affected groups.

#### Impact and application

- Local action plans for dengue and diarrhea are underway.
- Community radio with cross-border reach (Peru–Brazil–Colombia). Youth volunteers leading prevention and education efforts.
- Use of the IVM to guide local and regional policies.

#### Key lessons

- Health adaptation requires intersectoral and territorial responses.
- Community and youth participation are key to sustainability.
- In border regions, local actions have regional impact.

#### Publication

Mezza, M., Doig-Alba, L., Ruiz-Ruiz, M. I., & Pineda Restrepo, B. L. (2026). Exploring vulnerabilities: A mixed-method transdisciplinary study of dengue and diarrhea in Peru. *The Journal of Climate Change and Health*. <https://www.sciencedirect.com/science/article/pii/S2667278226000246>



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Edificio #104, Ciudad del Saber, Clayton, Panamá



iai@dir.iai.int



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