

Resilience service technologies for identifying climate change adaptation gaps:

The flood resilience dashboard

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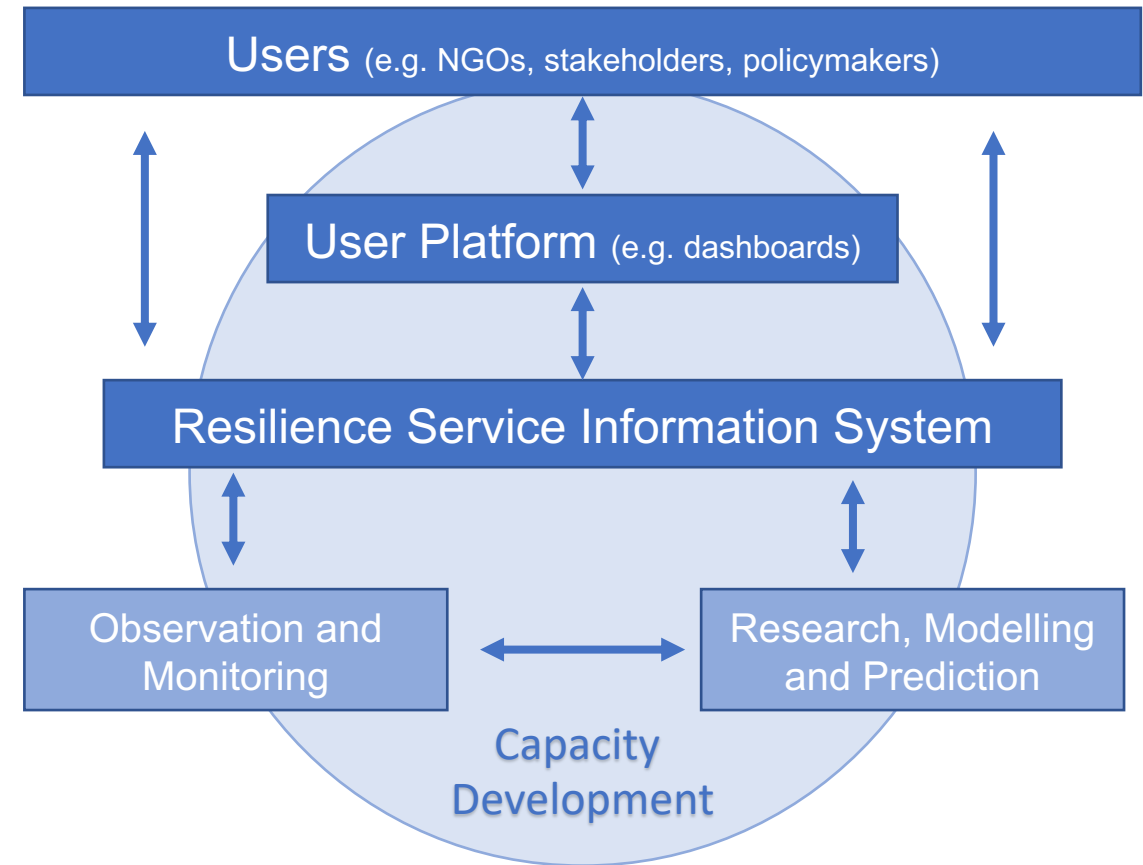
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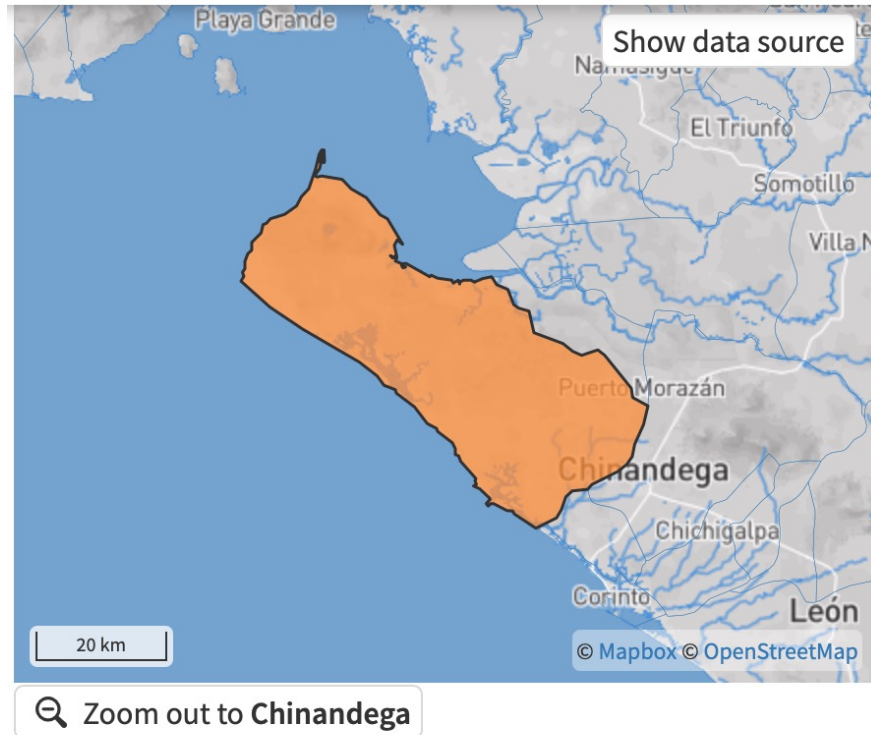
Resilience service

Resilience “[Climate] services, which provide timely, tailored information and knowledge to decision makers (generally in the form of tools, products, websites, or bulletins), are seen as an important part of improving our capacity to manage climate-related risk.” (Vaughan and Desai, 2014)



Adapted from WMO, 2011;
See global climate service framework

Knowledge or capacity needs?



High

Medium

Low

Very low

Standard risk maps mostly fail
communicating needs for local action...

Thinkhazard.org

Launching the flood resilience dashboard – a resilience service platform

Method

- Indicator-based resilience data (based on the FRMC)
- Citizens science and crowdsourcing approaches
- Spatio-temporal data about exposure & vulnerability
- Exploring useful and reliable data and methods
- Identify resilience, risk and vulnerability data across scale
- Building on hazard and exposure data from models (Glofris) and empirical datasets (EM-DAT)



Abel from Practical Action interviewing Consuelo, a community member in San Miguel de Viso, Peru as part of FRMC data collection ©Giorgio Madueño –

Preparation using spatio-temporal data technologies

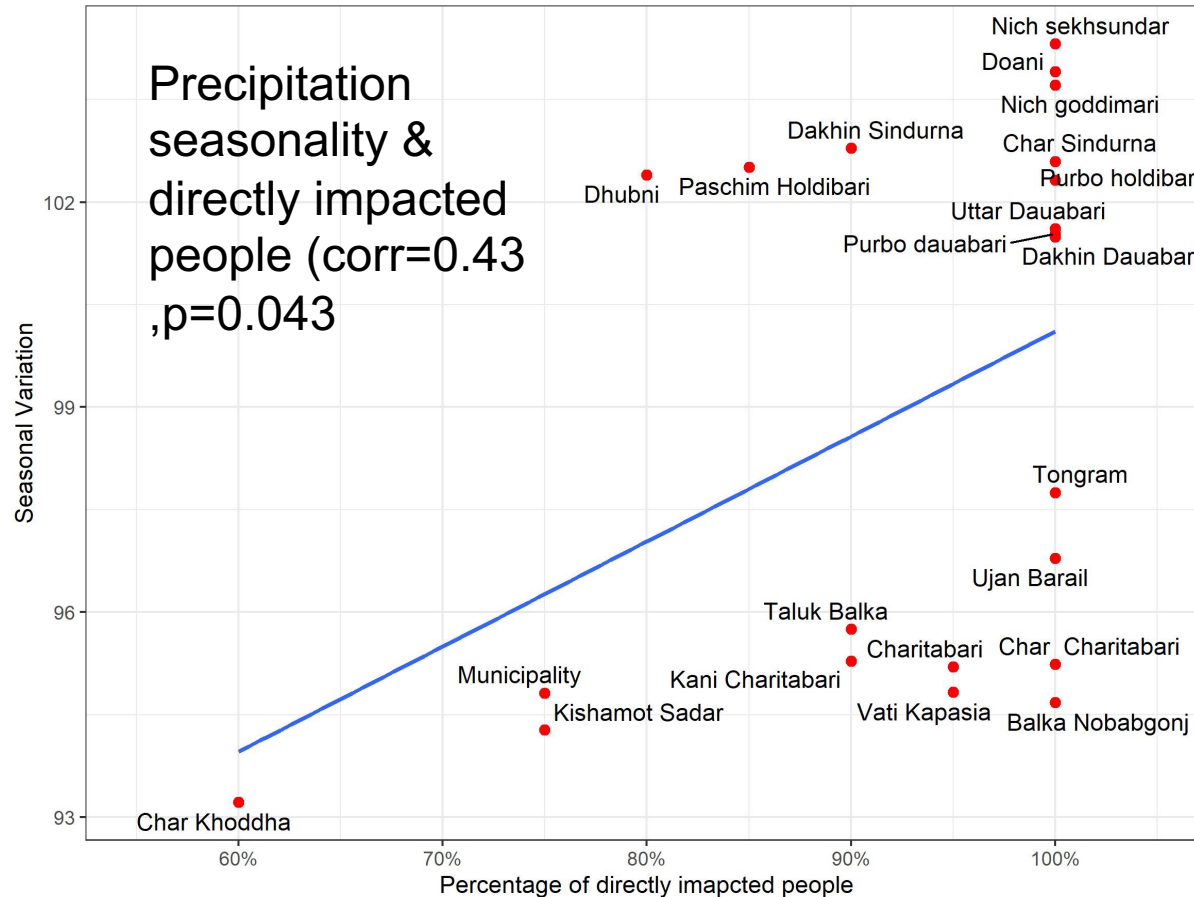
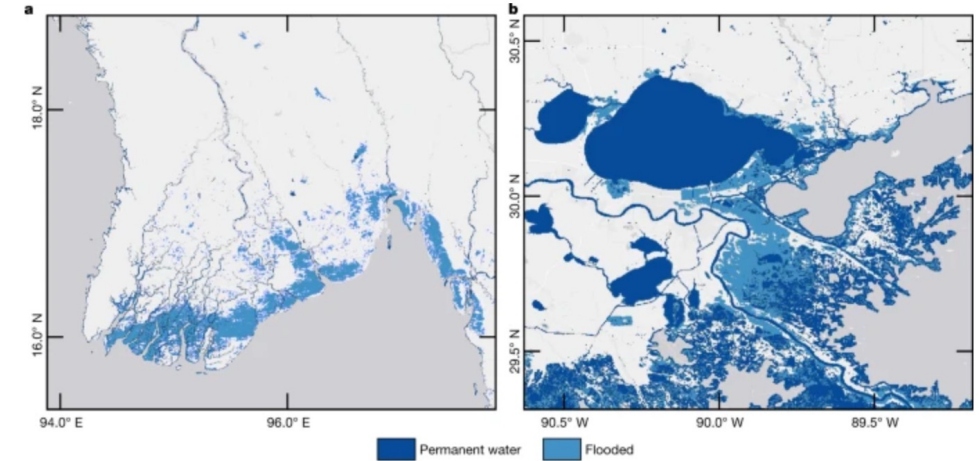
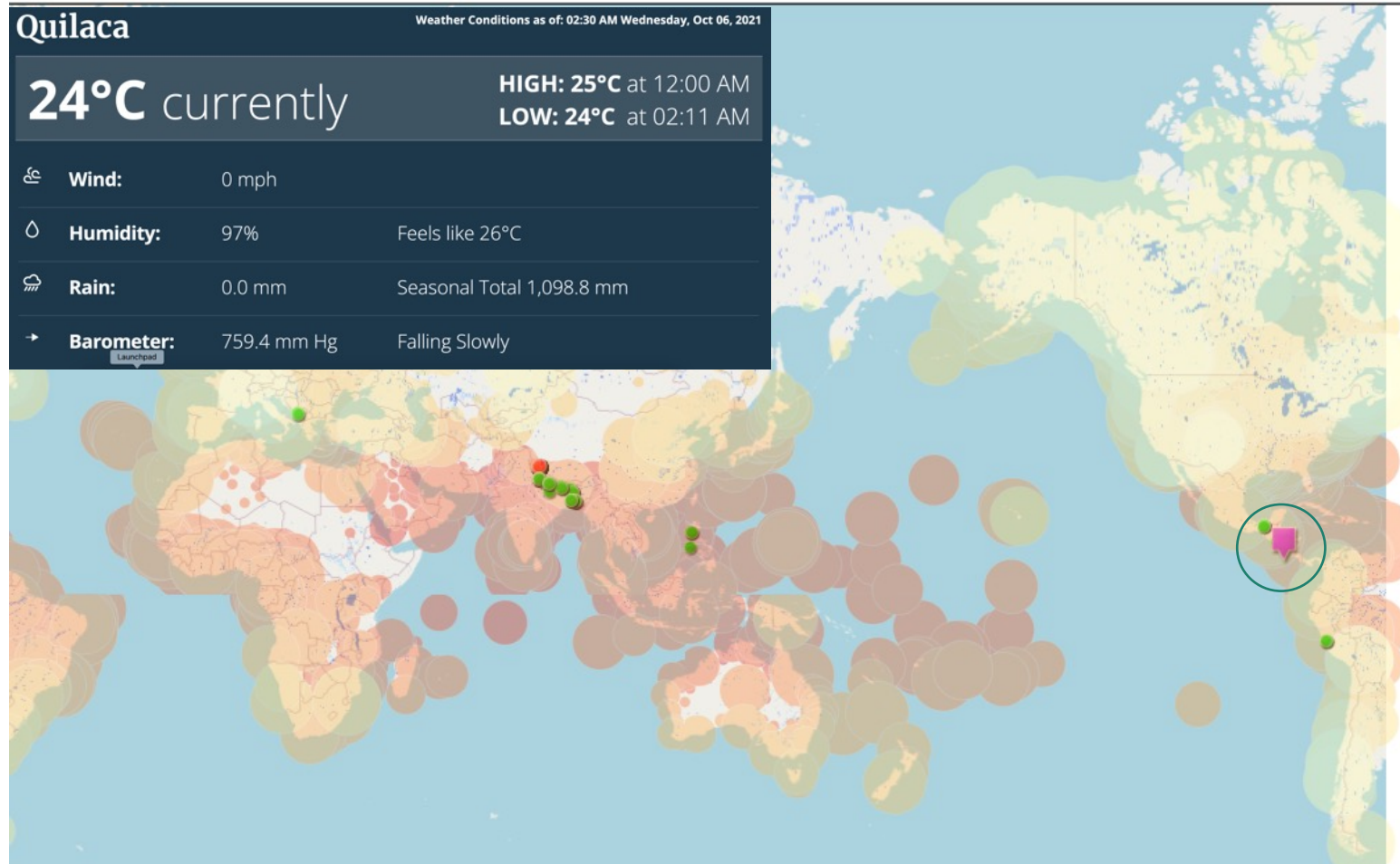


Fig. 2: Observed inundation and flood duration for selected extreme events.



Based on data from FRMC & Tellman et al. 2021, [Nature](#): Satellite imaging reveals increased proportion of population exposed to floods

Response during an event using real-time data technologies



- Temperature;
- rain;
- wind;

Assessing ex-post impacts using citizens science technologies – Picture Pile App

Picture Pile



- Building materials? Brick, tin, wood, tarps
- Building height? Floors, 1,2,3,...
- Building safety? – robustness?
- Flood resilience infrastructure? Dams, walls, canals, bridges – probably harder to find.
- Overall resilience? Low, med, high – could we train people to qualify resilience?

Flood Resilience Dashboard

About Print Analysis

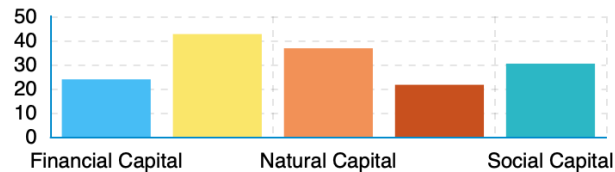
Providing open, peer-reviewed flood resilience related spatial data with data from the Flood Resilience Alliance, which in turn can be used to inform community-level decisions to increase resilience around the globe. [More](#)

If you like you can leave a short feed back [Here](#).

If you want more in depth information please

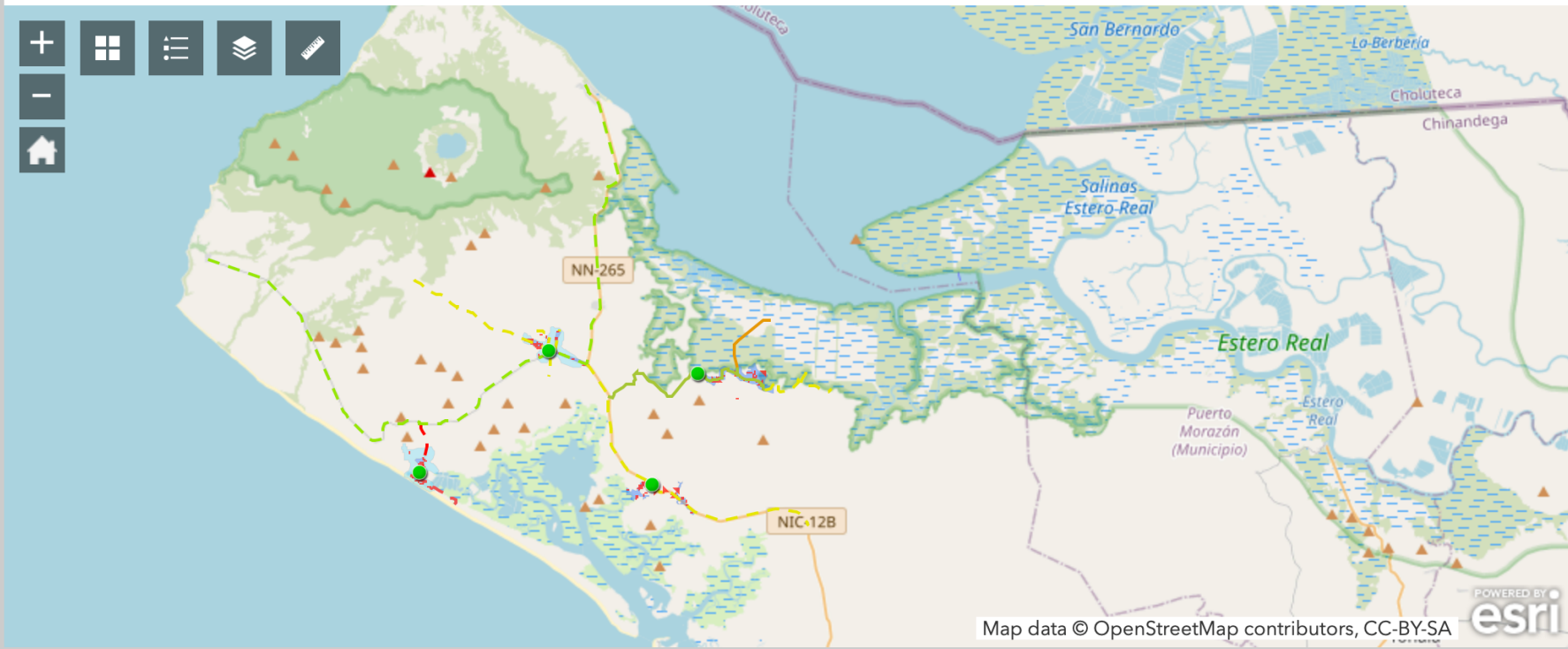
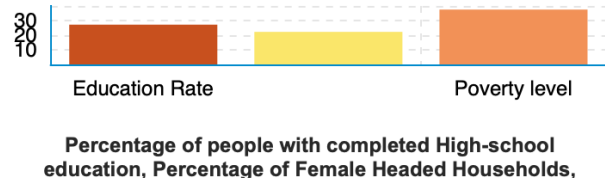
Phase 2 Capitals Themes Phase 2

FIVE CAPITALS PHASE 2



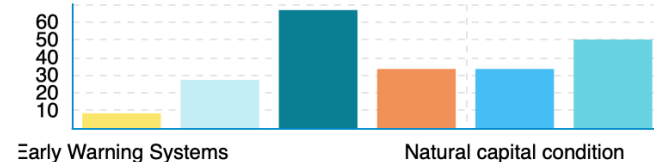
Socio-Economic Development Education EWS

SOCIO-ECONOMIC DEVELOPMENT



Source Level High Sources Low Sources

SOURCES



Buildings at risk Infrastructure at Risk Buildings Total Infrastructure

HOUSES AT RISK



NUMBER OF BUILDINGS

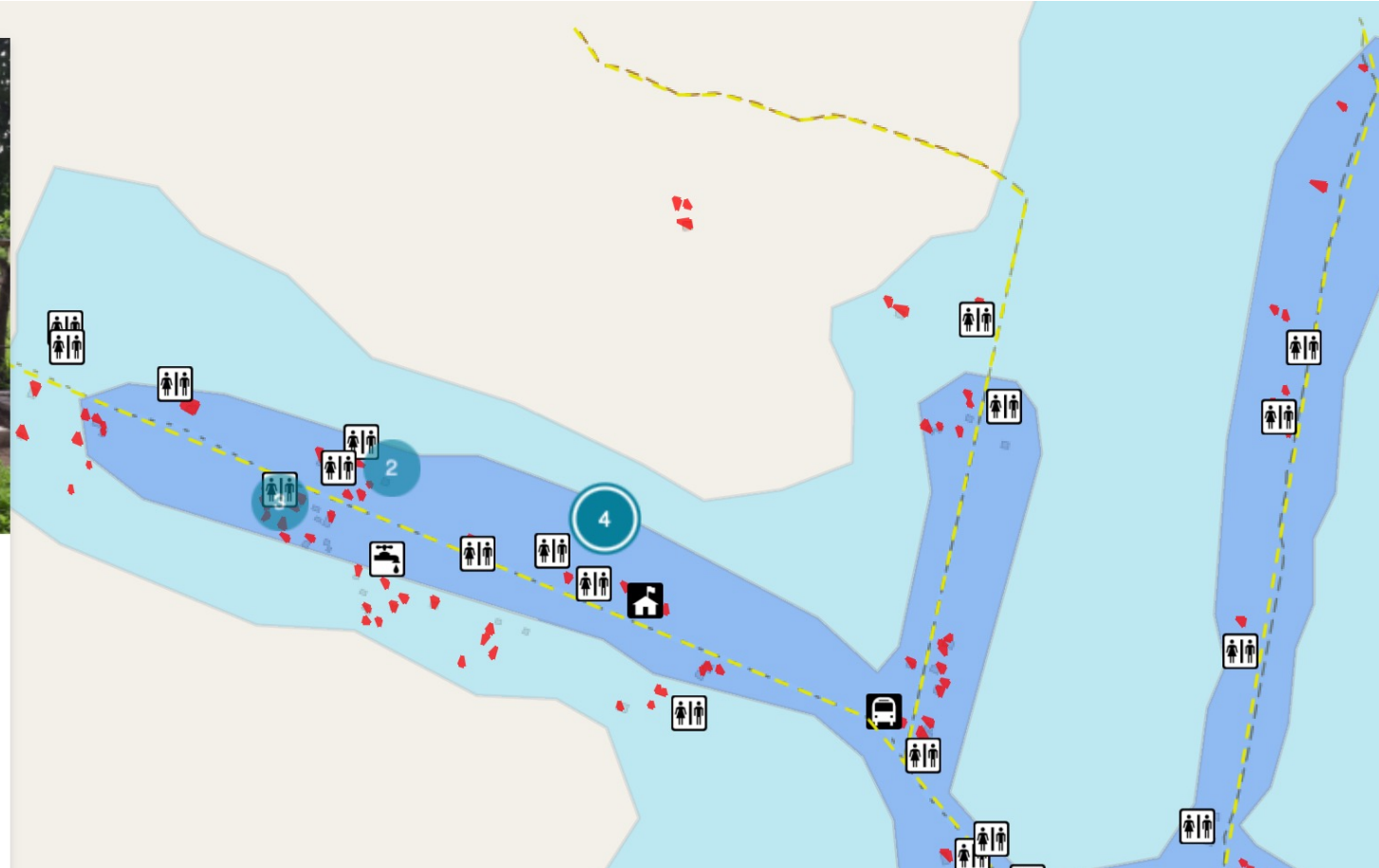


Example of WASH measures in Nicaragua to communicate adaptation action to society and stakeholders



Two new latrines were built at the school in Paniquines, Chinandega.

Something important to highlight is



Further applications

C) Nepal:

Expected in Sept 22

- Continuity of IIASA-PA collaborations
- Demand for regional resilience assessments; early warning systems; advocacy and evaluating intervention

B) Bangladesh:

Expected in Sept 22

- Intensifying discourse on L&D
- Demand for disaggregated data assessment; citizen mapping

