Resilience service technologies for identifying climate change adaptation gaps: The flood resilience dashboard

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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)
Knowledge or capacity needs?

Standard risk maps mostly fail communicating needs for local action...
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 (Glofiris) and empirical datasets (EM-DAT)

Abel from Practical Action interviewing Consuelo, a community member in San Miguel de Vviso, Peru as part of FRMC data collection ©Giorgio Madueño –
Preparation using spatio-temporal data technologies

Precipitation seasonality & directly impacted people \( (\text{corr}=0.43, p=0.043) \)

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

- 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

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 feedback [Here].

If you want more in depth information please...
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