Prioritizing Recovery Spending: Lessons from the 2017 Peru Floods

This brief is based on a Zurich Flood Resilience Alliance Post Event Review Capability (PERC) study analyzing the 2017 "El Niño Costero" floods in Peru. This document, and companion briefs, have been produced as quick, at-a-glance summaries of the Peruvian PERC report. The full report, can be found at: floodresilience.net/resources/collection/perc. Additional information about flood resilience can be found at www.floodresilience.net

Globally, long-term disaster recovery efforts typically focus on rebuilding infrastructure - core services, markets, and transportation are fundamental to maintaining livelihoods and economic activity. However, as Peru designs and implements recovery plans in response to the 2017 flood, attention to a few additional principles will allow the country to leverage expenditures to deliver not just reconstruction but also build long-term resilience.

What is Being Done

The Peruvian government has implemented the "Preliminary Plan for Reconstruction con Cambios" and has announced plans for a three-year period of reconstruction. The National Authority for Reconstruction was created to approve and disburse reconstruction funds, which will be implemented through public and private funds and tax works. As of August 2017, 75% of funds have been devoted to recovery of gray infrastructure, including repairs to roads, flood protection infrastructure and drainage systems. Twenty-three per cent

of the budget will be allocated for prevention works. Only 2% of the budget is earmarked for strengthening of institutional capacities[1].

Challenges Moving Forward

- Reconstruction is a long-term process and will likely take more than three years.
- Local governments feel that local priorities are not being considered and local opinions are not being taking into account in the decision process regarding allocation of funds.
- The focus on infrastructure reconstruction means that social and livelihood recovery are largely being left to households and communities to enact on their own. This is true even in resettlement discussions, where the focus is on physical housing rather than helping recover lives and livelihoods. This approach is likely to result in increased vulnerability for many households.
- Re-building protection infrastructure frequently repeats past mistakes. Plans to improve maintenance of structures and riverbeds are aspirational, particularly when funding is limited and there is frequent change in leadership. Without ongoing, dedicated funding and regularly executed maintenance, similar failures will occur in the next flood.
- Existing technical capacity such as universities and civil society are not being effectively used to inform reconstruction and recovery processes.

Recommendations

- Link reconstruction to long-term development. Reconstruction will take more than three years. The initial three-year period should be used to repair core services and functionality, to rebuild houses in the areas where there is not unmitigable risks, and in parallel to begin discussion between state, non-state, and decentralized government actors on how to institutionalize reconstruction into development.

1 Plan Integral de Reconstrucción con Cambios: Versión para Consulta de Gobiernos Regionales y Locales, 18 August 2017, page 10.

SOCIAL SYSTEMS TO ADDRESS RESIDUAL RISK

Even in the strongest, most resilient city or country, there is residual risk - risk from unexpected events, from systems that fail or break, from events that exceed design thresholds, from deferred maintenance. In parallel with good design, construction, and maintenance of systems and services, communities need capacities and skills to deal with the unexpected. Institutions such as community civil defense units provide an opportunity to train residents to identify, plan for, and respond to local risks, enhancing their ability to self-respond in disaster, and reducing the demands for time-critical government response. The post-disaster policy development window can be used as an opportunity to institutionalize such systems and approaches.

- Non-state and decentralized government actors need to be included in decision-making around prioritizing allocation of reconstruction funds.
- Reconstruction needs to take a basin-scale focus, particularly for infrastructure design, and disaster risk management needs to be incorporated. A series of independently executed projects including roads, protection infrastructure and drainage that are not integrated as part of a basin-wide evaluation and not designed with disaster risk management in mind will likely carry forward many of the weaknesses and failure points seen in this event.
- Expand the recovery focus to include social and livelihood recovery. Compared to the cost of large infrastructure, social programs are inexpensive, and the cost-benefit of this work is frequently far greater than that of bricks and mortar projects.
- Leverage the reconstruction period to ‘build back better’. This includes

incorporating resilience principles of 'safe failure[2]', 'redundancy[3]', and 'flexibility[4]' into infrastructure design, and developing clear plans, funding streams, and expectations for on-going maintenance.

- Promote small-scale infrastructure that utilizes local knowledge and technology wherever it is relevant.
- Establish transparent, timely citizen access to reconstruction spending to minimize corruption and mismanagement and guarantee quality.
- Leverage in-country capacity in reconstruction planning. Technical agencies, universities and civil society groups can provide not just technical and expert capacity, but capacity that is grounded in an understanding of local values, priorities and needs. Reconstruction will be more effective and efficient where these stakeholders are involved.
- Link reconstruction plans to regional and national development plans (Plan Bicentenario), urban plans, concerted development plans (PDC) and other planning tools.
- Evaluate the success of recovery efforts, and institutionalize successful elements in existing planning and response systems. Once a government finds itself in the reconstruction phase, there is little capacity to develop new systems and learn new approaches. By learning from this recovery and incorporating that learning into business-as-usual, the Peruvian government can ensure that the next reconstruction phase is more efficient and effective.

Conclusion

Too often, disaster reconstruction is done hastily in an effort to return things to "normal". The long-term effect, however, is to leave core weaknesses in place and sweep vulnerabilities out of view — weaknesses and vulnerabilities that are then reactivated in the next disaster event.

Instead, reconstruction should be used as the opportunity it is — to learn where weaknesses lie and to develop systems and services to address those weaknesses at their foundation.

2 Safe failure refers to the ability of a physical system to fail in a predictable and/or planned way that will minimize damage and cascading failures (e.g. fuses and circuit breakers 'fail', rather than let a power surge destroy electronics).

3 Redundancy refers to the ability of a physical system to accommodate disruptions through multiple pathways for service delivery (e.g. multiple roads into and out of a city).

4 Flexibility refers to the ability of a physical system to perform essential tasks under a wide range of conditions (e.g. city bike paths function as storm water drains during a flood).

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The Zurich Flood Resilience Alliance PERC provides research and independent reviews of large flood events. It seeks to answer questions related to aspects of flood resilience, flood risk management and catastrophe intervention. It looks at what has worked well (identifying best practice) and opportunities for further improvements.

Prepared by the Zurich Flood Resilience Alliance and ISET-International, this publication is intended solely for informational purposes. All information has been compiled from reliable and credible sources; however, the opinions expressed are those of the Zurich Flood Resilience Alliance and ISET-International. — August 2017