

BUILDING FLOOD RESILIENCE IN VULNERABLE COMMUNITIES



Rainfall monitoring station for Early Warning System
(Practical Action / Rodrigo Rodrich)

PRACTICAL ACTION AND THE ZURICH FLOOD RESILIENCE ALLIANCE

Floods affect more people globally than any other type of natural hazard and cause huge economic, social and humanitarian losses.

Between 2010–2019 floods impacted more than 673 million people¹. Climate change combined with population growth, urbanization and economic development will make flooding worse in many regions². Yet the poorest and worst affected by man-made climate change bear little responsibility for causing the problem, and often lack resources to cope.

Affected people usually know best how and where to focus resilience activities for maximum impact. Yet, despite the impact of floods being experienced most severely by communities, decisions that affect their resilience are often made at global and national levels where their voices are not heard.

The pace of worsening climate hazards is overwhelming capacities to cope. Without significantly increased investment this gap will continue to grow. We know that pre-event investment reduces the losses and damages caused by floods. Every \$1 invested in flood risk reduction can save on average \$5 in future losses.³

However, a lack of evidence about what works, and weak capacity for planning to reduce risk, results in a lack of confidence and ability to invest effectively. There is finance available, but polluting nations need to accept their responsibility to invest in adaptation and compensate for the losses of those worst affected. Insurance can be an important part of the solution alongside other strategies but it doesn't yet work in poor communities.

1 <https://floodresilience.net/resources/item/world-disasters-report-2020-come-heat-or-high-water/>

2 <https://www.ipcc.ch/sr15/>

3 <https://floodresilience.net/resources/item/risk-nexus-making-communities-more-flood-resilient-the-role-of-cost-benefit-analysis-and-other-decision-support-tools/>

WHAT ARE WE TRYING TO ACHIEVE?

- Increase funding for flood resilience
- Policies at global, national and sub-national levels are improved
- Improve flood resilience practice

Practical Action is working with communities to make resilience a way of life, by advising people how to adapt and plan for predictable flood events. By 2025, we aim to have enhanced risk knowledge systems so that 4 million people living in climate-vulnerable communities are better protected.

We believe we can be more effective working with others, which is why Practical Action has been a member of the Zurich Flood Resilience Alliance⁴ since it was established in 2013 by the Zurich Insurance Group and funded by the Z Zurich Foundation.

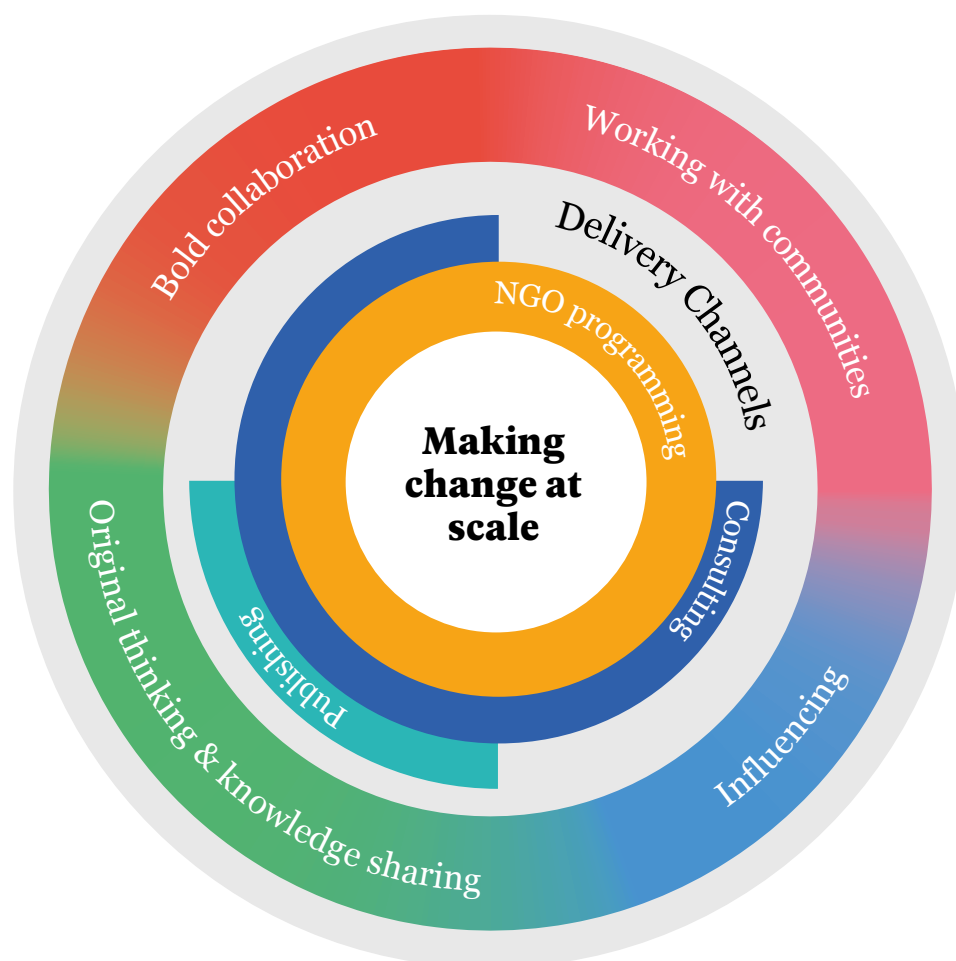
The Alliance consists of humanitarian, development, research and private sector partners who share the common vision that floods should have no negative impact on people's and business' ability to thrive.

⁴ <https://floodresilience.net/zurich-flood-resilience-alliance/>

HOW ARE WE DOING THIS?

Practical Action is a global change-making group. We bring together a UK registered charity with regional offices in Africa, Asia and Latin America, with a consulting service and a development publishing company allowing for a model that delivers impact at scale.

Our work within the Zurich Flood Resilience Alliance demonstrates how all of Practical Action's delivery channels work together to achieve change. This bold collaboration with diverse partners enables us to amplify our impact.



Practical Action's delivery model builds greater commitment to the change we want to see and more resources to support it



Manual rain gauge for river monitoring
(Zurich Insurance Group /
Michael Szoenyi)



We work with local people across the globe, using the innovative Flood Resilience Measurement for Communities⁵ approach to help them understand why they're at risk, plan interventions that build resilience and empower them to have a say in how development and disaster risk reduction investment happens.

We generate evidence of what works by demonstrating simple, ingenious solutions, building on local resources and capacities. We use our online Flood Resilience Portals⁶ to broker our own and others' knowledge. We target practitioners, organizations, institutions and decision-makers who design and implement flood resilience policy and practices.

We use the evidence gained from our own and our partners' work and research to influence decision makers at all levels to invest in climate change adaptation and resilience. And where adaptation is no longer an option, to encourage those with the means and responsibility to pay for the losses and damages incurred.

5 https://floodresilience.net/frmc_story/

6 <https://floodresilience.net/>

OUR IMPACT SO FAR

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During previous floods we could not prepare as we rarely received any flood early warning in this remote area. I am very happy this year as every member of my family is safe and healthy despite the pandemic and flood.

- Recipient of early warning alerts in Bangladesh during 2020 monsoon

- In Peru, 30,000 people annually are using weather information services that we have helped establish for their daily planning. In 2017, during the devastating coastal El Niño flooding, there was no loss of life in the areas where we work. Our team is developing a regional Early Warning System collaboration across the Pacific Coastal river basins of Peru, Bolivia and Ecuador in partnership with the Swiss Agency for Development and Cooperation (SDC), the Red Cross Red Crescent Climate Centre and Peruvian government services.
- In Bangladesh, we recently launched a National Disaster Alert mobile app jointly with the Ministry of Disaster Management and Relief that connects local volunteers to government response teams ensuring a better coordinated response, maximizing efficiency and reducing duplication.
- In Nepal, we have created 89 Community Disaster Management Committees (CDMCs) who are connected to local governments. Early Warning System (EWS) lead times have increased from 2-3 hours, to 5-7 hours, and loss of life is lower where we work compared to in river basins without EWS. We have influenced local governments to increase their investment in resilience building activities.
- We manage a global knowledge-sharing online Portal and 4 connected regional or national portals. In 2020-2021 the Global Portal had 47,949 visits from people in 198 different countries. More than 9,000 resources were accessed, 3,000 videos watched and 13,150 blogs read.
- We have worked with allies to persuade the UK COP26 Presidency team to raise the profile of loss and damage in the negotiations. And we are working with donors to link COVID-19 support to help developing countries meet their Paris Agreement commitments.

WHAT NEXT?

Floods are not the only hazard facing poor and marginalized communities. Increasing climate events are forcing more people to migrate. Often to nearby urban centres, placing additional pressure on rapidly expanding urban communities, exacerbating disaster risk.

Our focus is on flooding, but our experience of what works for floods can inform multi-hazard risk reduction. We will use this expertise to inform risk planning at multiple scales and in complex multi-hazard environments. Along with the Z Zurich Foundation our ambition is to help build the resilience of those most at risk to all types of climate-related hazards.

We work with colleagues from our Agriculture team in Practical Action to support interventions that help people maintain sustainable adaptive rural livelihoods.

We are looking to grow our Urban Resilience work by transferring approaches to analysis and planning for climate-smart risk-proofed development gained through our work in the Zurich Flood Resilience Alliance to more urban contexts and other hazard types (such as extreme heat).

Young people hold the solutions of tomorrow and will carry the burden of poor decisions taken today – so galvanizing and harnessing the power of youth in making change happen will be critical in achieving the impact we want to see.

FACTS & FIGURES

Donor: Z Zurich Foundation

Project dates: The Alliance originally launched in 2013. Based on the successes achieved in this first phase, the Z Zurich Foundation extended funding for a second five-year phase in 2018, and in 2020 support was further extended to 2024.

Locations: Practical Action is working in Bangladesh, Bolivia, Nepal, Peru, Senegal and Zimbabwe. We also manage a network of linked online Flood Resilience Portals: www.floodresilience.net

Supporting: 121,395 people directly **Funding:** 9,029,408 CHF (2018–2024)

Project partners:



Further Reading:

- Practical Action (2020) *Transforming lives through ingenuity: Practical Action and early warning systems*, Rugby, UK: Practical Action Publishing.
- Brown et al. (2019) *Missing Voices: Experiences of floods and early warning from marginalized women in Nepal and Peru*, Rugby, UK: Practical Action.
- Irfanullah, H. M. and McQuistan, C. (2020) Eco-solutions – how to measure their effectiveness. May 29. *Flood Resilience Portal Blog*



About Practical Action

We are an international development organization putting ingenious ideas to work so people in poverty can change their world. Our vision is for a world that works better for everyone.

We help people find solutions to some of the world's toughest problems, including challenges made worse by catastrophic climate change and persistent gender inequality.

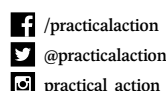
We believe in the power of small to change the big picture. And that together we can take practical action to build futures free from poverty.

Big change starts small.

Practical Action
25 Albert Street, Rugby,
CV21 2SD, UK

+44 (0)1926 634400
practicalaction.org

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