

Foundations for Change

Zurich Flood Resilience Alliance Phase II

Lessons from Year 2



learning

 /'lɜːnɪŋ/

noun

- 1 the activity or process of gaining knowledge or skill by studying, practicing, being taught, or experiencing something: the activity of someone who learns
- 2 knowledge or skill gained from learning

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Year **2**



The Zurich Flood Resilience Alliance is a multi-sectoral partnership which brings together community programmes, new research, shared knowledge, and evidence-based influencing to build community flood resilience in developed and developing countries. We help people measure their resilience to floods and identify appropriate solutions before disaster strikes. Our vision is that floods should have no negative impact on people's ability to thrive. To achieve this we are working to: increase funding for flood resilience; strengthen global, national, and sub-national policies; and improve flood resilience practice. Find out more: www.floodresilience.net

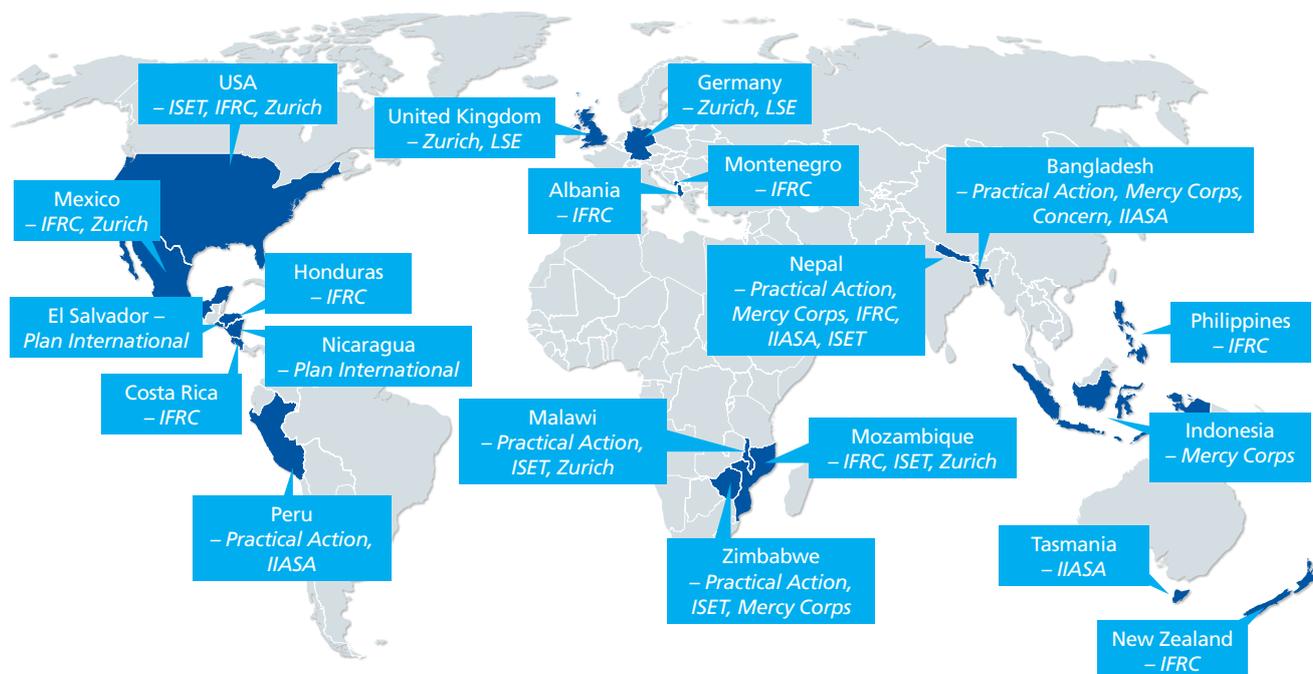
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1.0 Introduction

Figure 1 Zurich Flood Resilience Alliance phase 2 country-level engagement

Map indicates community-based programmes, post-event analysis (PERC), research studies, and public policy advocacy



The Alliance is a multi-sector collaboration between the humanitarian sector, academia, and the private sector focusing on shifting from the traditional emphasis on post-event recovery to pre-event resilience. As an Alliance we work to achieve our objectives through long-term flexible programming. The Alliance's goals are to increase the investment going into pre-event resilience building by USD 1 billion and to help make 2 million people more resilient to flooding.

Phase II of the Zurich Flood Resilience Alliance (the Alliance) was launched in July 2018. Year 1, from July 2018 – June 2019, largely focused on setting up the internal systems and structures to achieve our broader objectives. To learn more about the Alliance and how we are set-up, please see our report, [Foundations for Change: Lessons from Year 1](#).

In Year 2, from July 2019 – June 2020, Alliance organisations started to implement resilience programming in communities and move forward with influencing policy and spending in the flood resilience, disaster risk reduction, disaster risk management, and climate change adaptation arenas. In this report we review the progress made towards Alliance objectives over the course of Year 2, where we stand relative to our goals, and what we have learned about building flood and multi-hazard resilience as a result of grappling with the COVID-19 crisis. The information included in this annual report has been gathered from the second year of outcomes-based monitoring and reporting by all Alliance organisations, complemented by interviews with Alliance members.

Box 1. Flood Resilience Measurement for Communities Framework and Tool

The Alliance's approach to building flood resilience is defined by the Flood Resilience Measurement for Communities (FRMC), a holistic approach that promotes systems thinking to understand the resilience context of a community. Alliance communities and Alliance partners work together to use knowledge gained from application of the FRMC to identify critical flood resilience strategies that generate co-benefits across a broad range of issues and areas. This deep analysis of the community as a system, conducted prior to considering how to intervene, is critically different from more traditional approaches, which often conduct minimal analysis and rely on off-the-shelf solutions that do not fully reflect the local context.

The FRMC comprises two parts:

- The Alliance's **framework** for measuring community resilience. The 5C-4R framework combines 44 indicators ('sources of resilience'), on five complementary capitals (5C) and four properties derived from resilient system-thinking (4R), that can help people on their development path while providing the capacity to reduce risk and withstand and respond to shocks. The 5Cs comprise human, social, physical, financial, and natural capital; they provide greater richness of data about a community's sources of resilience than any single metric such as average income. The 4Rs include robustness (ability to withstand a shock), redundancy (functional diversity), resourcefulness (ability to mobilise when threatened), and rapidity (ability to contain losses and recover in a timely manner).
- A **tool** for implementing the framework in practice. The tool is a practical hybrid software application designed for organisations working with flood-prone communities to help: 1) analyse the current situation and determine where in the local context resilience can be built pre-event to reduce potential loss of lives and assets during a hazard event; 2) measure if and how outcomes of resilience have manifested during and after a hazard event; and 3) track changes in community flood resilience over time.

The FRMC guides the systematic collection of community information and provides a method to convert this to a quantitative set of resilience measures. The rigour and thinking behind the FRMC and its application across more than 150 communities gives these measures significant credibility.

Section 1 describes the change we have accomplished over Year 2 and the challenges faced both in regards to advocacy and our on the ground community programming. Section 2 details the insights we have garnered from our experiences in Year 2, both in building flood resilience and in confronting the obstacles presented by the COVID-19 pandemic. In Section 3 we share best practices and lessons learned, which can improve flood resilience programming and resilience more broadly.

2.0 Summary of change

2.1 Advocacy

The Alliance is now two years into a five year programme and already achieving important progress towards our advocacy goals. As of July 2020, the Alliance has both influenced USD 243 million¹ of commitments and spending on flood resilience and improved policies and policy guidelines and tools in sub-national, national, and global spaces.

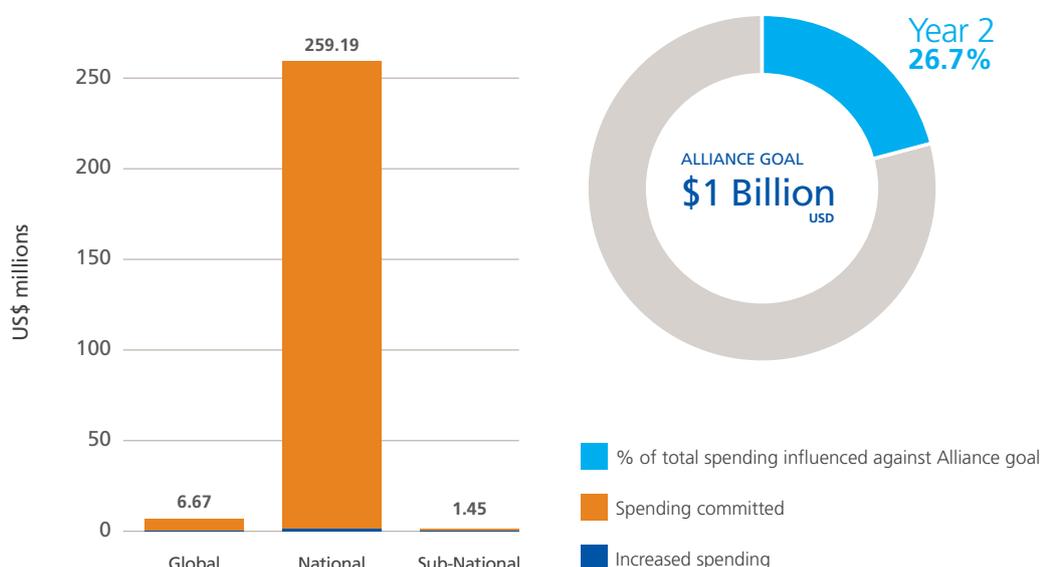
These changes have largely been achieved by:

- building relationships;
- increasing knowledge around flood resilience and related issues like climate change and adaptation; and
- participating in policy dialogues, including policy reviews.

Activities to increase knowledge and build relationships have been layered and linked to increase buy-in to the programme and build credibility of Alliance partners in the flood resilience, disaster risk reduction (DRR), and climate change adaptation (CCA) spaces. We have gained significant buy-in and credibility among policy stakeholders from the local to global levels, which has increased demand for Alliance knowledge and technical expertise to inform decision-making. The Alliance has considerable and growing access to policymakers, policy dialogues, and policymaking processes, which has led to several advocacy wins.

¹ This figure has been weighted by Alliance contribution to account for the fact that spending 'wins' often result from the efforts of multiple stakeholders and coalitions.

Figure 2 Spending influenced in Year 2 of Phase II of the Alliance



The Alliance has contributed to wins in:

- **Global spending and policy:** achievements comprise (1) spending commitments made at global policy coordinating events such as the UN Climate Action Summit to increase funding towards climate change and (2) the uptake of the Alliance's flood resilience messaging and policy recommendations in multilateral and bilateral institutional documents designed to inform national policies. Attributing influence of the Alliance's contributions at the global level is challenging given that policy processes and mechanisms are negotiated within and pushed by large, diverse coalitions and working groups. We have chosen to be conservative as to where we claim success.

Example: The Marrakesh Partnership Climate Action Pathways included the Alliance ask for USD 50 billion in financing for adaptation as a target. This is an ambitious funding milestone for the broader climate and donor community.

- **National spending and policy:** achievements include (1) uptake of Alliance policy recommendations, such as nature-based solutions or the use of the Alliance-backed triple dividend approach in decision-making², to prioritise spending in national policies and plans and (2) uptake of Alliance methodological recommendations in national policy tools and guidelines to ensure that sub-national governments use locally-grounded, holistic, and evidence-based approaches to develop sub-national policies and plans. These policy successes have largely been achieved by participating in formal consultations that are a part of policymaking processes.

Example: LSE together with Zurich UK influenced the doubling of investment in flood and coastal defenses in England in 2020, to GBP 5.2 billion. GBP 2.6 billion will be used to better protect 300,000 homes by 2021. Money has been allocated using the triple dividend approach and the UK government's policy report specifically cites Alliance peer-review literature to recommend using our framework's 4Rs as a part of the approach to flood and coastal erosion resilience.³ In addition, the triple resilience dividend framework has been used by local authorities when requesting and allocating funding for flood risk management.

- **Sub-national spending and policy:** achievements consist of uptake of Alliance policy recommendations and good practices in sub-national policies and plans. Policy recommendations and good practices have been taken up most successfully where the Alliance has had strong evidence of resilience gaps and successful solutions for resilience needs.

Example: In Nepal, Practical Action Nepal successfully negotiated the inclusion of FRMC results and community-defined resilience priorities in three local government fiscal plans (2019-2020, see case study 2). The three municipalities have spent CHF 105,613 implementing these plans as of June 2020.

- **Donor spending and practices:** though Alliance advocacy has not resulted in broad shifts in flood resilience spending and practice among donors to date, donors are showing increased interest in Alliance knowledge and practice approaches. There are a few instances of donors co-financing Alliance partners to produce knowledge on how to build flood resilience in different contexts, and investing in using FRMC data in their programme locations.

Example: UNEP has spent CHF 80,000 implementing projects based on FRMC findings in 10 communities in Nepal.

2 The triple dividend approach advocates for conducting development in ways that: (i) avoids and reduces direct and indirect disaster risk and losses, (ii) unlocks economic potential by simulating economic activity, and (iii) generates development co-benefits by ensuring that investments, where possible, serve multiple uses (Tanner et al, 2015).

3 See the report [here](#).



Explanation of the capitals using images at a community fair © Paulo Cerino, Mexican Red Cross

From commitment to action

Many of the Alliance Year 2 wins are on paper; they have not yet moved from commitment to action. Global spending and policy commitments, though important for giving credence to issues such as flood resilience and thereby mobilising and setting the tone for national and sub-national flood resilience policy and action, take a long time to materialise as concrete spending and action. Particularly now, as nations globally reallocate attention and funds to grapple with COVID-19 response and economic recovery, it is uncertain how global spending and policy commitments towards the diverse aspects of climate change adaptation and flood resilience will be honored.

National and especially sub-national spending and policy changes seem more tangible and likely to materialise. In Bangladesh, the national government has installed weather boards nationwide based on the Alliance's model. In Nepal, we are already seeing the implementation of annual plans that integrate FRMC priorities in the municipalities of Geruwa, Tikapur, and Rajapur (see case study 2). Sudurpaschim province in Nepal is also in the process of formalising Alliance recommendations to allocate 5% of the municipal budget to disaster risk reduction (DRR) and climate change adaptation (CCA) activities. These shifts in Nepal may be indicative of a fundamental shift in how risk governance is approached.

In general, the Alliance has found most success in the following conditions:

- *In Alliance countries where single or multi-organisation teams are working on both community programming and advocacy.* The end-to-end set up is important because advocacy teams gain credibility from the success of community programming and are able to shape advocacy strategies based on a strong understanding of what is needed at the local level. An excellent example comes from Mexico where the Mexican Red Cross' community brigades programme was institutionalised in the Tabasco State Development Plan 2019-2024 (see case study 1). Furthermore, advocating as a coordinated group of credible, known organisations is more effective than advocating as a lone organisation. In Nepal, for example, Practical Action, Mercy Corps, and the Nepal Red Cross Society have leveraged both Alliance community programming work and access to policymakers to collectively and successfully advocate for the inclusion of Alliance recommendations in DRR policies and policy tools designed to improve local DRR governance.
- *When the Alliance has been able to feed into emerging or ongoing policy windows and processes.* Key to this has been willingness to reframe Alliance flood resilience expertise to align with policy dialogues and interests in a variety of related fields and opportunities, such as disaster risk management (DRM), DRR, and CCA. Alliance teams have created opportunities by finding common ground between flood resilience and broader policy issues and by providing policymakers with evidence-based recommendations. Policymakers, in turn, have made policy commitments, taken up recommendations, or increasingly, have requested Alliance inputs into policymaking processes. For example, the LSE's success in influencing UK government flood and coastal resilience policy stemmed from their ability to tailor the triple dividend approach to the policy opportunity and, in particular, outline how the approach could be used to fulfill policy goals and support local partners.
- *In areas where Alliance teams have both a long history of conducting advocacy and established relationships with government and other organisations working on DRM.* Alliance teams that have been engaged in flood resilience since the beginning

of Phase I (2013) and/or have strong relationships and access to governments and policymakers. Teams in Nepal and Mexico, for example, have seen advocacy successes via community programming and local level policy changes (see case studies 1 and 2). In Indonesia and Bangladesh, strong relationships with government and significant access to policymakers pre-dating the Phase II programme resulted in the inclusion of Mercy Corps Indonesia, Practical Action Bangladesh, and Concern Bangladesh in their nations' COP25 delegations. The Albanian Red Cross was able to participate in the development of Albania's new national disaster law – which has broadened disaster governance from response to protection and DRM – due to their legally enshrined role as auxiliary to and thus strong relationship with the government.

- *In areas where the Alliance has been able to leverage its political influence.*
Alliance members are active in critical spaces that operate at high levels within the humanitarian, international development, research, and financial sectors. The Alliance has leveraged the political influence of partner organisations to quickly access high-level decision-makers, policy dialogues, and policymakers, especially at the national and global levels. In particular, as a major global private sector entity, Zurich has expansive networks with high-level decision-makers globally. Consequently, the Alliance has leveraged Zurich's relationships to secure access to major policy fora such as Insurance Europe and the EU Commission's flood and climate change policy tracks. With Zurich's support, the Alliance is advocating for the insurance industry to build societal access to risk information and risk awareness. If successful, this will lead to a greater role for the insurance industry and set a precedent for private sector involvement in climate change adaptation and financing resilience.



Workshop supporting the data collection process for the FRMC, United Kingdom © Sara Mehryar, **London School of Economics**

COVID-19 Challenges and Opportunities

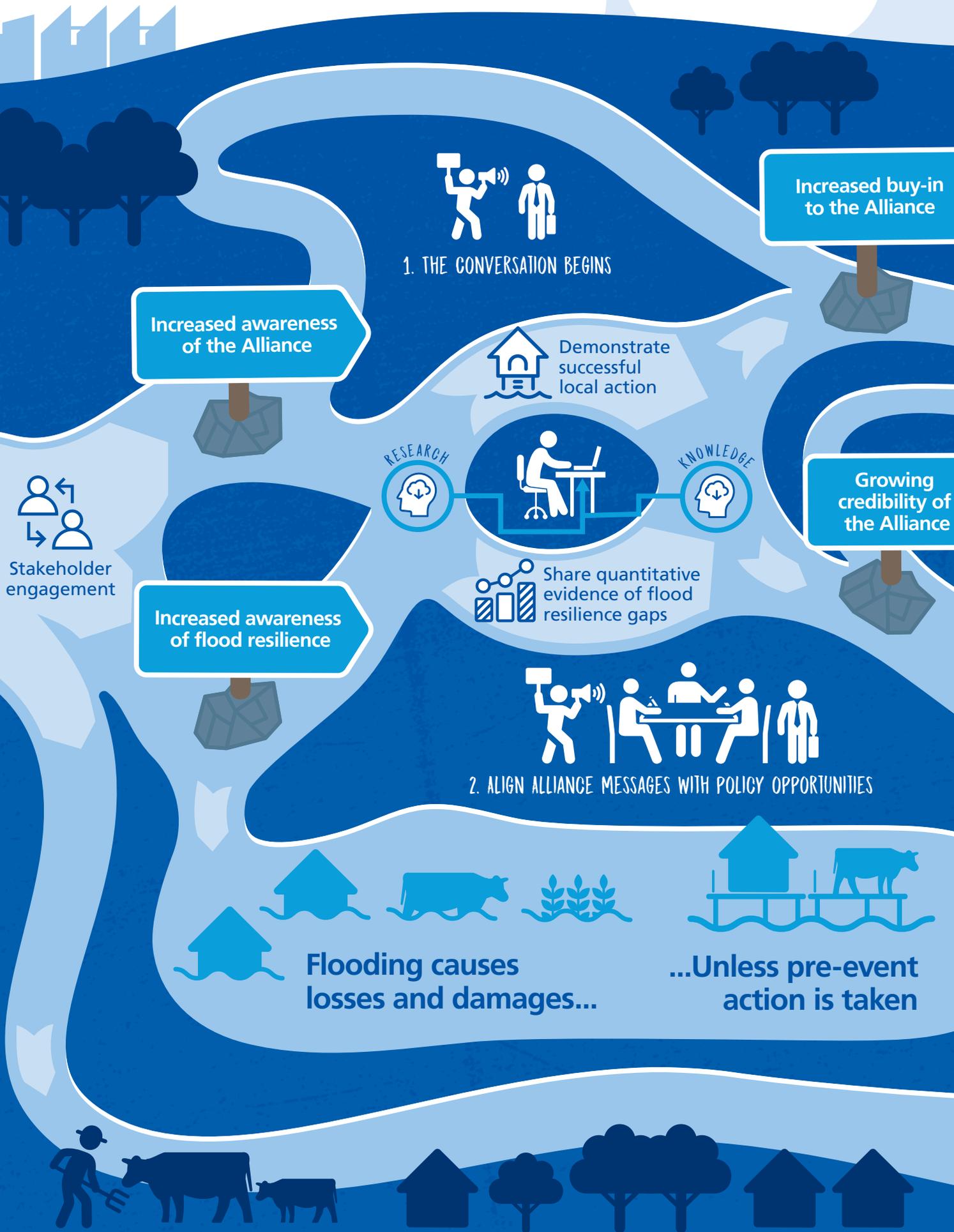
Alliance spending and policy achievements significantly slowed in the second half of Year 2 as governments, donors, and other key policy stakeholders shifted their attention to the COVID-19 pandemic. For the Alliance, this has raised questions regarding: (1) how to ensure that investments in development and humanitarian work are protected as funds are used for COVID-19 response and recovery, (2) how to respond to and recover from the pandemic using strategies that simultaneously strengthen flood resilience while minimising risk and vulnerability to other hazards, and (3) to what extent does building flood resilience build resilience to other hazards such as COVID-19. It has also pushed both the Alliance and the Z Zurich Foundation (the Foundation) to recognise that, by limiting programme operations, COVID-19 potentially threatens our ability to achieve the targets we set at the beginning of Phase II. However, rather than consider reducing those targets, we are instead asking how much additional time we might need to achieve the same objectives while providing continuity to both programmes and implementing organisation staff.

We have also found that COVID-19, while slowing Alliance progress in some areas, has provided opportunity in others. Alliance teams have pivoted to align their advocacy efforts with the pandemic situation and provide policy stakeholders from the local to global levels with advisory support around COVID-19 response and recovery in the context of compound risk⁴, multi-hazard resilience⁵, and 'Building Back Better'. Alliance messaging was incorporated into the UN HELP principles document on COVID-19 and disasters, an effort early in the pandemic that is shaping UN guidance to the broader UN system, governments, and practitioners on COVID-19 and compound risks. Alliance partners have received considerable media attention for their insights around building resilience at the intersection of COVID-19 and flood risk and leveraging the COVID-19 recovery process to 'build back better'. Research conducted by the Bangladesh and Nepal teams on the local impacts of COVID-19 have provided strong evidence to advocate for greater assistance to impacted areas. In Nepal, these efforts garnered over ten independent press pieces. Alliance partners have reported that government stakeholders have been engaging in discussions on how to best manage the changing risk landscape, in particular adapting emergency shelter practices to incorporate physical distancing considerations and maintaining Water, Sanitation, and Hygiene (WASH) best practices during floods.

Alliance partners have received considerable media attention for their insights around building resilience at the intersection of COVID-19 and flood risk.

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- 4 Compound risk refers to two or more extreme events happening at the same time. The Alliance is specifically working to address compound risk resulting from a flood event occurring during the COVID-19 pandemic, particularly with regard to how the pandemic has exacerbated the vulnerability of marginalised populations, depleted emergency funding reserves, and presents challenges regarding maintaining pandemic hygiene and physical distancing during flood response.
- 5 Building multi-hazard resilience requires taking the full risk landscape of the target area into consideration when prioritising and designing resilience projects and programmes, to ensure that: (1) strategies have co-benefits for other hazards and/or (2) strategies for one type of hazard do not cause maladaptation to another type of hazard.

Linking and layering activities



for improving policy

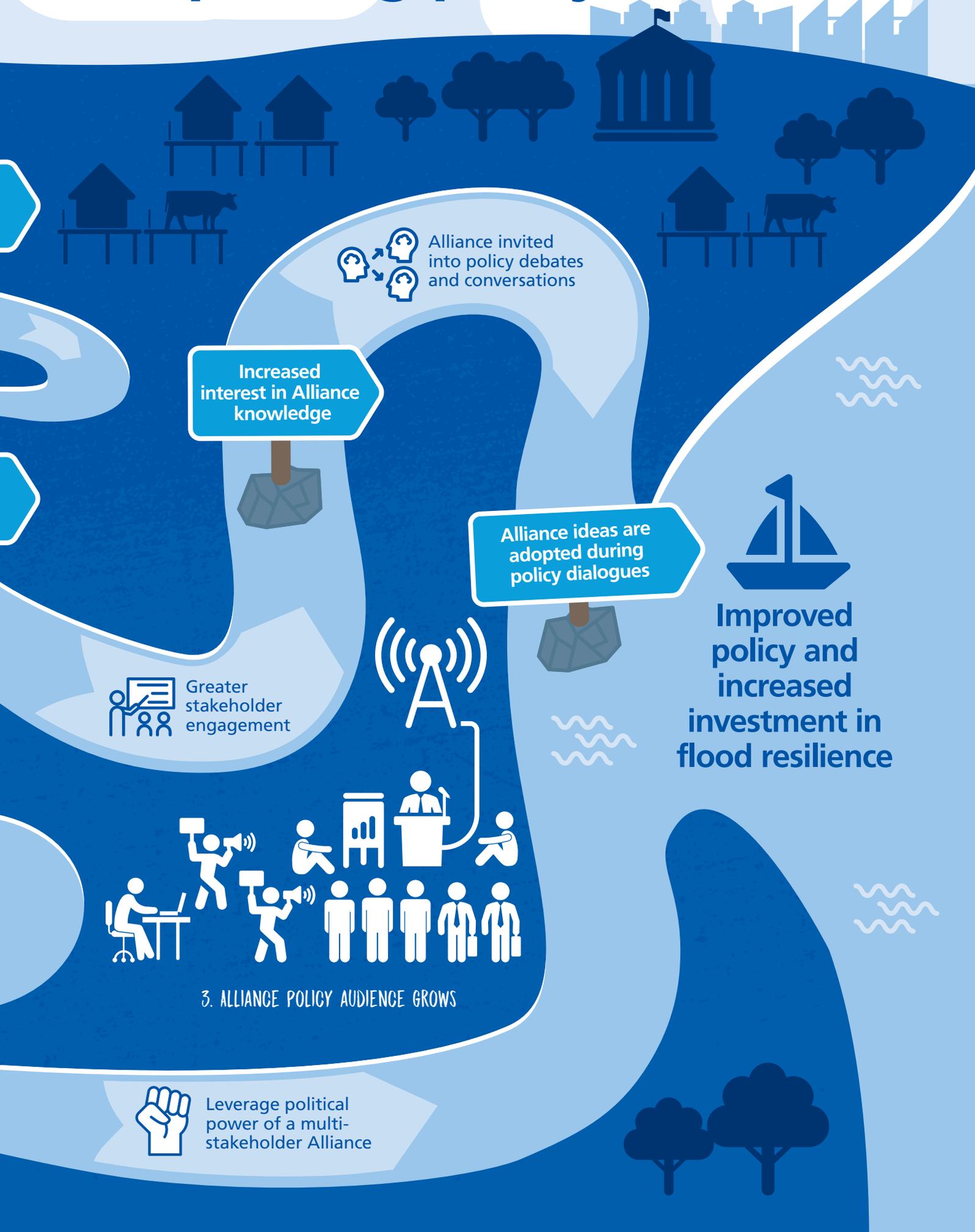
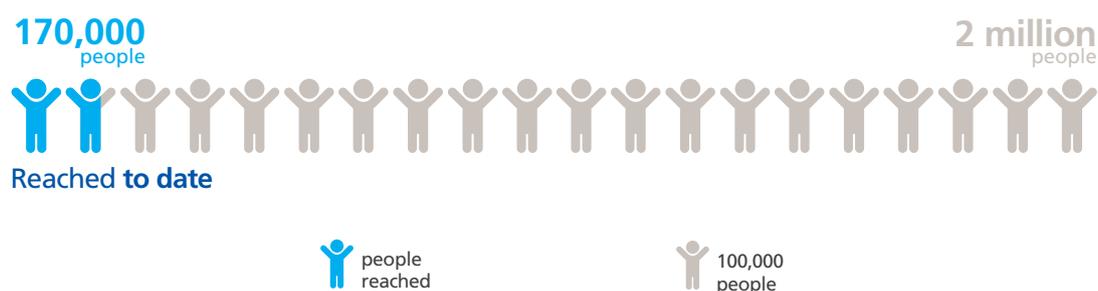


Figure 3 People reached, both directly and indirectly, via community programming in Year 2



2.2 Community programming

In Year 2, most Alliance organisations shared FRMC results and co-generated community action plans and solutions with communities and local governments, and started implementing flood resilience activities. Although we have not yet seen measurable increases in resilience as it is still early in the programme, there is some anecdotal evidence of better community-led DRR and preparedness practices. The Mexican Red Cross, for example, reported that during floods, the communities they worked with were better prepared and able to respond more rapidly than they were prior to their work with the Alliance. Plan El Salvador reported that community flood monitoring efforts led to the identification of a low pressure system that could cause heavy and prolonged rains throughout the country.

Because projects have been co-designed with local stakeholders, Alliance teams have reported increased community and government interest in flood resilience. In all of the communities we work in, application of the FRMC guides comprehensive research to understand the community context and resilience gaps. This knowledge then forms the platform to engage communities and local government in co-generating a broad range of activities and strategies for building resilience while also addressing community priorities and needs. This is resulting in high buy-in to Alliance programmes, as evidenced by growing community and government participation in community programmes.

Our Bangladesh work provides a clear example of how the Alliance approach facilitates participation and collaboration from local stakeholders. Upon completing the FRMC baseline study, Concern Bangladesh shared baseline results with community groups. With support from Concern Bangladesh and the local project partner, Assistance for Social Organization and Development (ASOD), community representatives met with the sub-national office of the Department of Public Health Engineering representative (DPHE), the government department responsible for drinking water & sanitation, to share FRMC findings about community vulnerability on water issues in relation to flooding events. Based on this, DPHE and the community representatives jointly developed a plan to improve resilience in drinking water in the vulnerable communities.

Figure 4 Examples of the diverse projects and activities, derived from the FRMC process, that are being undertaken in the communities we are working in

Communities have increased knowledge

and capacities regarding flood resilience. For example, they are better able to maintain and use information from early warning systems.

Livelihood security is being increased by protecting livelihood assets and diversifying livelihood practices in the face of a changing climate.

Nature-based solutions like biodykes are being implemented as alternatives to grey infrastructure solutions.



Increased collaboration

between local governments, communities, and Alliance organisations is supporting management of compound flood and COVID-19 risk.

Access to water, sanitation and hygiene services are being increased to reduce disease transmission during floods.

Across the communities we work in, the range of strategies and activities resulting from application of the FRMC are highly diverse.

A key area of focus has been social capital. Alliance teams have worked to build social cohesion and trust between communities and the Alliance team, between communities and their local governments, and within communities. Social cohesion is in large part being achieved through the formation or strengthening of community-based groups such as Mexico’s community brigades described in Box 3. Alliance community-based groups are generally responsible for increasing flood risk awareness, promoting preparedness, and conducting response functions in collaboration with local government. One of the encouraging developments we have seen in the second half of Year 2 is the pivoting of these groups to respond to the COVID-19 crisis. Although the groups were created to address flood risk, since March they have been sharing information with their communities and local government to manage the health and economic impacts of COVID-19 within their communities (see case study 3).

Alliance teams have additionally reported that uptake of risk information within Alliance communities has been high during the pandemic due to improved trust, and knowledge of what to do with risk information that stems from Alliance flood early warning efforts. These experiences highlight how building flood resilience, in particular via human and social capital, can build multi-hazard resilience

Nevertheless, it is difficult to say how the COVID-19 pandemic will affect the trajectory and pace of community change over the long-term. Community activities came to a standstill due to mobility issues stemming from lockdowns and physical distancing mandates. Teams are actively monitoring evolving needs and contexts through communication with communities and authorities, to make informed decisions around if and when to shift their implementation strategies.



Stories from the field

1 CASE STUDY 1 From practice to policy in Mexico

In Phase I of the Alliance, the Mexican Red Cross organised community brigades to improve social cohesion and community collaboration. This was designed to fill two particularly critical gaps: (1) slow and difficult access to emergency aid and (2) lack of social mechanisms for preparing for and responding to floods. A community brigade was formed and funded in each Alliance community. Each brigade consists of 7 to 10 people who are trained both in specific roles (i.e. evacuation, shelter, communications with communities and local authorities, first aid, etc.) and in how to work as a team to respond to crises. They are responsible for raising risk awareness in their communities, developing a community emergency plan that is linked with the government, and shortening response time by starting emergency response before other responders arrive.

The community brigades were a major success and have received significant state and national level recognition, in large part due to a collaborative effort between the Mexican Red Cross and Zurich Mexico to amplify the programme. However, this path was not smooth or organic. In 2013, at the onset of Phase I of the Alliance work, the Mexican Red Cross had limited involvement in decision-making related to DRR. They were one of many organisations in the DRM space and were widely perceived as solely a response organisation. In launching their Alliance work, they undertook a concerted relationship building effort, knocking on the doors of government officials to build awareness of the Alliance work and build their own credibility within the DRR and flood resilience spaces. It took almost three years to build relationships with local government alone, but in 2018 that paid off when state authorities recognised the community brigades.

With the buy-in and support of both local and state government, the Alliance team in Mexico was able to start talking with federal authorities about the community brigades, in particular what they entailed and what the community brigades have achieved. This led to the 2019 National Civil Protection award, and to the Mexican Red Cross becoming the national reference for the development of community groups, as well as being recognised as an important institution for DRR and preparedness. With buy-in from the local, state, and federal authorities, the Mexican Red Cross were able to successfully influence the inclusion of the community brigades programme in Tabasco's most recent State Development Plan (2019-2024).



Red Cross staff train community brigade members on proper hand hygiene techniques © Paulo Cerino, Mexican Red Cross

The experience of Mexico illustrates that influencing uptake of community flood resilience strategies and projects in policies and plans is a long-term process, but one worth the investment. It requires a combination of relationships with government from local to national levels, their buy-in, and long-term demonstration of programme success. Undertaking this work can pave the way to institutionalising best-practices in both policy and budgets.



Stories from the Field

2 CASE STUDY 2 Integrating resilience into local government plans in Nepal

In Nepal, annual local government planning follows formal planning steps, but does not adequately mainstream DRR and climate change. It often takes place within a knowledge deficit - there is a lack of information on both critical services and community needs. Adaptation, resilience, and ex ante action are considered low priority. Local governments prioritise development, especially infrastructure, yet these gains are often reversed by disasters, indicating that resilience and adaptation need to be integrated more actively into planning processes.

Practical Action Nepal saw an opportunity to inform annual Local Disaster and Climate Resilience Plans (LDCRP) in three municipalities in southwestern Nepal - Geruwa, Tikapur, and Rajapur - by leveraging the data and knowledge produced through the FRMC process. Practical Action Nepal has been working in these municipalities since 2013, when Phase I of the Alliance began. They have successfully established relationships, with the local governments and communities, that were a key entry point for identifying community resilience needs and generating the political capital necessary to influence the local government planning process. The team integrated community needs into local plans by:

1. Identifying an opportunity to influence - the team aligned the FRMC process with the local government planning process calendar.
2. Identifying community resilience needs - the team shared the FRMC results with the communities and facilitated participatory discussions to identify and prioritise the resilience needs of women, men, and minority groups within the community.
3. Receiving buy-in from local community leaders - the team shared FRMC results and community needs and received commitments from community leaders to push the recommendations to the 'tole sudhar' committee, a committee responsible for local planning.
4. Receiving buy-in from the local tole sudhar committee - the team shared FRMC results and needs with the committee directly. The committee committed to include community needs in the tole sudhar plans and to push the recommendations to the ward-level planning committee.
5. Negotiating with ward representatives - the team promoted FRMC-identified needs to ward representatives. The representatives committed to include the agreed upon FRMC priorities in ward-level plans and to push their inclusion in the local government council's municipal planning process.



FRMC result sharing in community © CSDR, Practical Action

Practical Action Nepal found success working through the local administrative structure to highlight resilience building options that were inclusive of marginalised groups and build a common understanding and strong base of support for addressing FRMC priorities among local stakeholders. The FRMC provided an evidence base that showed how past government support had been used and how previous plans and spending had not addressed the needs of community and marginalised groups. For community members, the entire process has been a significant source of empowerment.

As of June 2020, the local governments had spent CHF 150,875 of the allocated CHF 215,600 implementing these plans. This money has gone towards improving response capacities within local government and communities, improving access to early warnings and climate information, increasing livelihood options and livelihood security, and increasing access to emergency health services. These activities do not address all of the needs identified by communities; influencing local policy change is expected to be an ongoing and iterative process to ensure that FRMC-identified needs continue to be addressed by future local government fiscal plans. The difference now, however, is that the communities themselves are invited to participate in the local government planning process.



Stories from the field

3 CASE STUDY 3 Pivoting towards multi-hazard resilience in Nicaragua

Beginning in September 2019, Plan International Nicaragua facilitated the establishment of community groups to help build resilience and address the lack of community social organisation and leadership for disasters. With the onset of the COVID-19 crisis, the community groups expanded their mandate beyond the flood resilience programme to address the social, economic, and health impacts of COVID-19.

Working with local stakeholders, the Mayor's Office, and the Department of Civil Defense, Plan International Nicaragua organised community groups, consisting of equal numbers of men and women, to focus on a number of different topics including search and rescue, volunteers, and developing strategic activities around disaster prevention. Group members were trained in:

- National disaster laws, to bolster knowledge of group responsibilities;
- Roles and responsibilities of the groups and group members;
- Local leadership, community coordination, and community planning;
- Updating and utilising a database on vulnerable populations; and
- Hazard mapping.

Plan International Nicaragua found that the creation and operations of these community groups helped to strengthen relationships between local government and communities. Community groups were well placed to utilise their newly acquired skills and knowledge, and to leverage these improved relationships to help manage the pandemic when it arrived in their communities. Importantly, it was the community groups themselves who decided to apply their skills, originally developed to build flood resilience, to address the issues emerging from the pandemic. Working together, with support from Plan International Nicaragua, the local committees started informing their local health department about vulnerable migrants needing assistance to access testing, coordinating health visits to track COVID-19 cases, relaying critical information about day-to-day community life to key stakeholders, and developing strong channels of communication with local actors, the Ministry of Health, the Ministry of Schools, and the Mayor's office. Plan International Nicaragua worked with the groups to provide communities with hygiene kits and handwashing stations to reduce transmission.



Community group in Nicaragua © Felix Rugama, **Plan International Nicaragua**

Though Plan International Nicaragua’s Alliance work focuses on floods, the integral role that community groups took in responding to the pandemic illustrates that the training itself and participation in the flood resilience building process is, in fact, preparing these groups to act in a multi-hazard context. That the situation is being managed by the community and that the groups feel empowered to take the initiative to work with key local actors and government to manage risk is critical for strengthening multi-hazard resilience moving forward, especially as COVID-19 persists and overlaps with other hazards.

3.0 Emergent learning

Year 2 saw Alliance teams making headway towards our core objectives and the need to pivot as the COVID-19 pandemic took hold. Below are the key themes that have emerged over the course of the year. Interestingly, all of these themes reflect the foundational role of knowledge in resilience policy and practice.

3.1 The role of knowledge in resilience

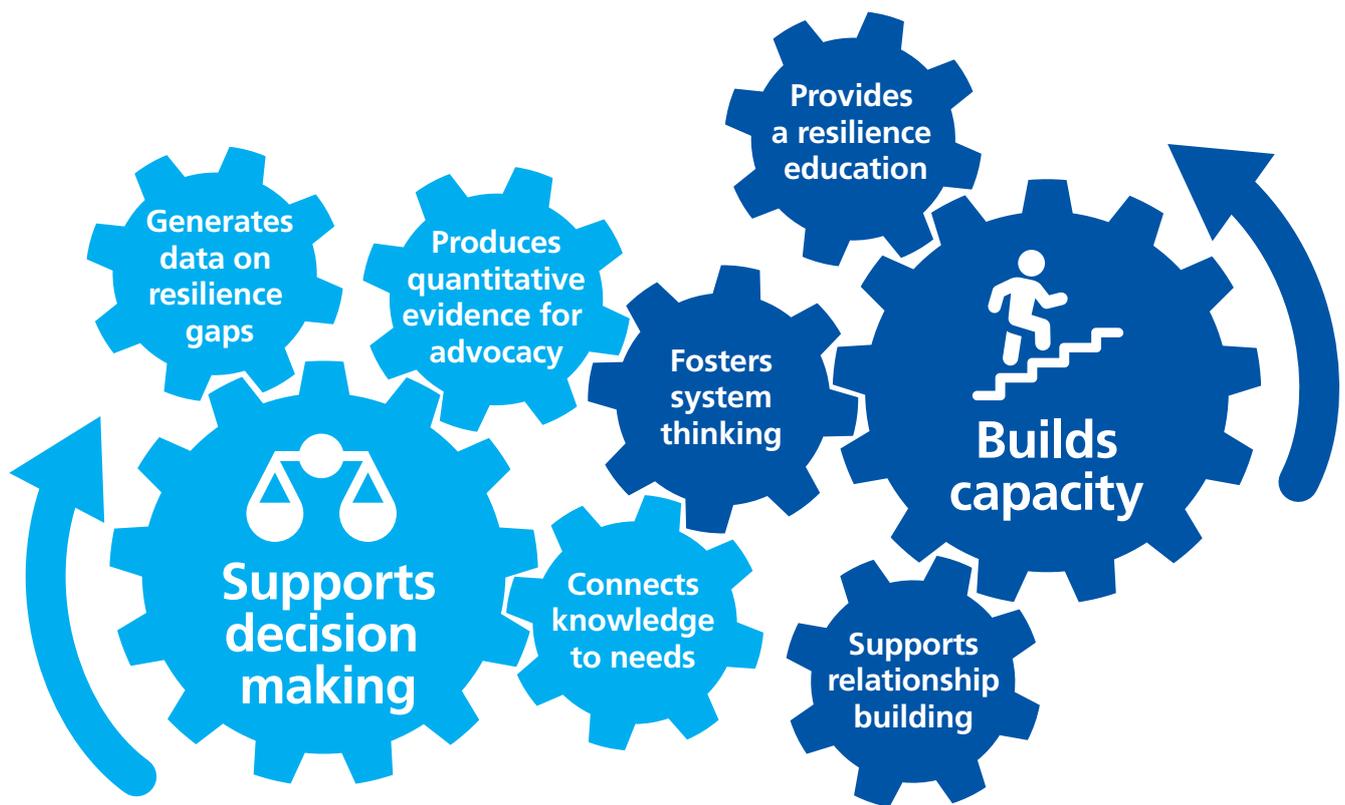
In Year 2, the Alliance spent considerable time generating knowledge to share with decision-makers to influence policy, spending, and practice changes. We saw clearly documented success, as discussed in section 2.0, particularly at the country level where teams have:

- Connected advocacy, knowledge generation, and dissemination to existing opportunities. Teams have tailored Alliance knowledge to fulfil stakeholder needs and priorities.
- Conducted research or used the FRMC to provide locally contextualised quantitative evidence to ground policy recommendations. Alliance teams have spent considerable time and resources conducting research, generating research products, and presenting that research to key stakeholders to influence change (see case study 2).
- Demonstrated long-term success of community actions to back up advocacy asks. Alliance organisations involved in Phase I of the programme have been able to gain considerable traction around resilience projects and strategies they implemented in Phase I during Phase II (see case study 1).

These successes notwithstanding, achieving uptake of new practices in global and national policy processes remains a challenge. We have seen uptake of Alliance practice at the national level in Nepal, Peru, and Mexico where there has been sustained Alliance engagement since 2013 and where the Alliance teams have been able to build credibility around our community work and engage with national policy stakeholders. Comparatively, there has been limited uptake of community programming started in 2018, at the beginning of Phase II, because these programmes are still in their early stages and are at most generating anecdotal evidence of success.

At the global level, collecting sufficient examples from community programmes to influence changes in bilateral and multilateral policies has been a challenge. Thus, a time lag exists between the development of good practice, subsequent policy recommendations, and the uptake of that knowledge into policy. Influencing donor policies or global policy discourse using knowledge from our community work will take time. This gap is potentially illustrative of broader challenges in linking policy and practice globally and needs to be bridged to ensure that time sensitive, urgent issues like the COVID-19 pandemic and climate change are being addressed cohesively and in evidence-based ways from the ground up.

Figure 5 The multiple benefits of utilising the FRMC



3.2 FRMC as a foundational approach for building resilience

The FRMC is a key approach within the Alliance for generating and enabling uptake of knowledge. The FRMC supports measurement of flood resilience through its 5C-4R framework (see Box 1). Over the past year its role as a foundational support tool for the resilience building process has manifested in manifold ways including:

- As a **decision support tool** for both community programming and policy change, the FRMC *generates data on community resilience gaps and strengths*. This data helps to generate resilience strategies and solutions by allowing users to *connect knowledge generated to gaps* through a systematic exploration of: (1) how gaps and strengths interact, (2) entry points for action, and (3) co-benefits of particular activities across a range of sectors to build resilience. Donors, organisations, and governments are starting to see the value of utilising the FRMC approach to aid community programming. Some have adopted the application of the FRMC, such as Lutheran World Relief in Nepal and India. Others have been able to fund FRMC generated priorities and activities. For example, local government officials in Cologne, Germany are interested in using FRMC results for planning purposes and are providing households with free flood consultations to incentivise their participation in the FRMC process run by LSE. There is also early but compelling evidence that the data generation and analysis functionality of the FRMC can be leveraged to *support advocacy*. The tool helps quantify community gaps and strengths, which in

turn makes it easier to communicate and justify needs. As discussed in Section 1.0, Practical Action Nepal has been particularly successful in utilising FRMC results and understanding to influence local level policy and spending.

- As a **capacity development** tool, the FRMC cultivates a foundation for shared understanding of flood resilience, thus providing a *platform for relationship building* with and between community members and local government. Specifically, the tool *fosters systems thinking* which is fundamental to resilience and which supports informed decision-making. Implementing partners develop a deep understanding of what it means to engage in a flood resilience process by: exploring gaps and strengths across the range of sources of resilience and recognising the wide range of sectors involved in resilience; conducting analysis at a systems level; identifying both co-benefits and maladaptive consequences of various activities. The capacity building functionality of the FRMC has resulted from an underlying and enabling Alliance structure that prioritises responsive internal learning to close knowledge gaps .

Although the FRMC is resource and time intensive, the success resulting from its use is illustrative of the importance of investing in a *structured learning process* to aid resilience programming. Community activities generated through the FRMC process may appear similar to business as usual, however the way in which they are selected by communities is not. By leading implementing organisations and local stakeholders through a structured learning process, the FRMC concretises the otherwise 'fuzzy' concept of resilience and builds their understanding. Their capacity to engage in and sustain the right resilience choices is also greatly enhanced.



Handwashing station in Indonesia © Dian Anggoro, **Pekalongan City Disaster Management Agency**

3.3 Resilience during crisis

The Alliance was founded with a focus on flood resilience and has intentionally resisted shifting to a multi-hazard focus. However, with the onset of the COVID-19 pandemic, we recognised the need to quickly adapt our practices in the context of compound risk to ensure that flood risk continues to be recognised and planned for even as attention globally shifted to the pandemic. We also realised that our flood resilience knowledge, processes, and tools, because of their foundation in systems-thinking, could be leveraged to address current compound risk conditions - both flood and disease risk - and build multi-hazard resilience.

The Alliance uses a 'learning before doing' approach to develop programming and advocacy approaches. This is, in large part, enabled by the flexible funding that Alliance programmes receive to conduct in-depth analyses of their project contexts. Context analysis ensures that project design is evidence-based and in alignment with existing opportunities to build resilience. For both practice and advocacy, this in turn has provided the flexibility to reframe or align flood resilience issues with broader opportunities in the DRR, DRM, and CCA spaces that may not explicitly be about flood resilience, but nevertheless have implications for flood resilience.

We are utilising the same 'learning before doing' approach to address the compound risk posed by COVID-19. All Alliance teams mobilised rapidly to assess stakeholder needs and opportunities to engage those stakeholders in the new COVID-19 context. Our advocacy teams conducted context analyses to identify key information gaps faced by governments, help them manage the crisis, and bring light to compound risk issues. By supporting government in their COVID-19 response and recovery, we are also maintaining relationships critical for improving flood resilience policy in the long-term.

In a similar vein, Alliance community programming teams have applied relevant FRMC data to identify pandemic-related resilience gaps and generate evidence on systemic risk related to those resilience gaps. In particular, teams have been able to repurpose knowledge of community demographics, health systems access and WASH, livelihoods, risk awareness, and communications systems and channels to address the emergent risk from COVID-19 at the local through global levels.

Finally, community-based groups formed or strengthened by Alliance teams have pivoted to provide their communities and local government with much needed information related to COVID-19.

The ability of communities to pivot has been enabled by:

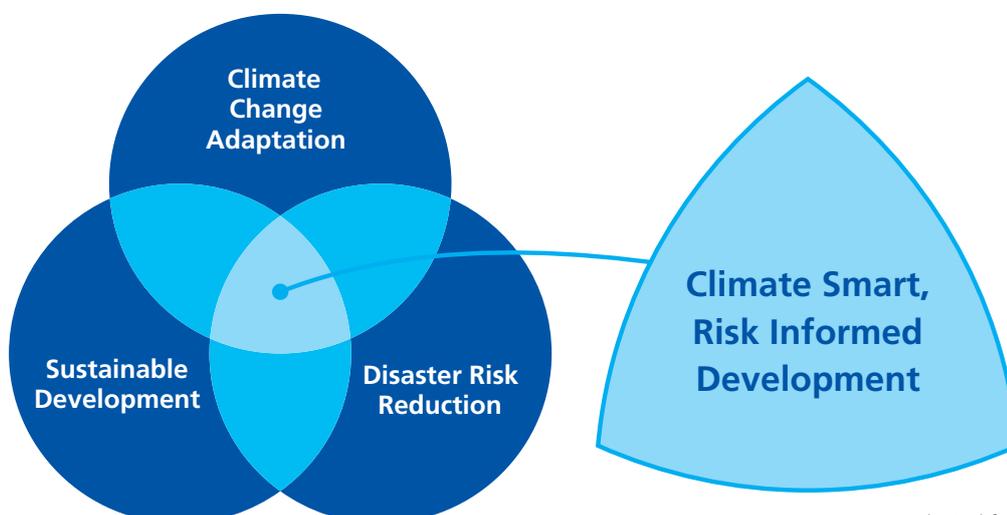
- (1) the local ownership generated by the Alliance community programming approach where communities play an instrumental role in prioritising and implementing projects, and**
- (2) the significantly improved relationships between communities, Alliance partners, and local governments such that these groups are able to access one another, share knowledge, and work collaboratively.**

4.0 Implications for resilience programming

COVID-19 has killed hundreds of thousands, disrupted lives, and shut down countries and communities. For the Alliance, it has impacted the lives and livelihoods of community members and slowed our flood resilience programming and advocacy efforts. However, the pandemic has also provided the Alliance with the opportunity to apply our flood resilience knowledge and tools in a novel way to address the emergent public health and economic crisis while minimising disruptions to our ongoing programme and the gains made. We present the insights below with the goal of sharing best practices and lessons learned to improve both flood resilience programming and resilience more broadly.

- **Invest in multi-hazard resilience.** COVID-19 did not occur in a hazardless world. The pandemic has already overlapped with hurricanes, monsoons, cyclones, floods, and other hazards around the globe. Organisations and governments are grappling with how to protect development and DRR investments and sustain pre-pandemic humanitarian efforts while also appropriately managing the crisis at hand. While the Alliance focuses on building flood resilience, our systems-focused approach has been critical for addressing the compound risks caused by the overlap of COVID-19 with other hazards. Because we have gone beyond traditional flood risk mitigation to identify resilience strategies based on underlying vulnerabilities and community needs, communities have been able to repurpose some of their Alliance activities to address needs arising from the COVID-19 pandemic. Because activities are locally owned they have required little external input during the COVID-19 shutdown; because they address systemic issues applicable across a spectrum of hazards, such as a lack of risk information or weak collaboration between communities and local government, they have had continued value for other perils.

Figure 6 The Alliance's focus is on climate smart, risk informed development, which lies at the intersection of sustainable development, climate change adaptation, and disaster risk reduction. Development, adaptation, and DRR do not have to be a matter of "either-or"; we can and should think of them as "and"



Adapted from: UNDRR

- **Invest in a resilience learning process.** Resilience is a complex concept. Building resilience understanding and capacity through a structured and iterative learning process is vital for building resilience. The FRMC, while foremost an approach for measuring community resilience, requires significant capacity development before use. Although this capacity development process is resource and time intensive, understanding how to use the tool and analyse the data based on the different sources of resilience and their inter-linkages provides practitioners with a highly tangible picture of what resilience entails. This, in turn, provides a knowledge foundation for working towards resilience outcomes in collaboration with local stakeholders. Donors that are truly committed to achieving resilience outcomes should invest in a resilience learning process, rooted in a systems approach.
- **Shift expectations for what programme sustainability entails.** Traditionally, planning for programme sustainability involves ensuring the longevity of specific solutions by building local ownership over programmes or institutionalising the programme in policy and plans. We have found that a critical, and sometimes under-appreciated, element of programme sustainability is the establishment of strong relationships, primarily within communities and between communities and local government. Our experience shows that strengthening these relationships can lead to local ownership of programme activities and results and enable collaboration, particularly in times of crises. This has been evident during the COVID-19 pandemic, where community-based groups and local governments are working together to manage the crisis in the communities we work in. Of course, local governments are subject to turnover and maintaining relationships takes work; however, at least now a space has been created for communities and governments to engage, and they have a relationship model that they have seen work.
- **Focus on the production of strong quantitative evidence to back resilience ‘asks’.** Our experience over the past two years indicates that successful advocacy at the sub-national, national, and global levels is supported by strong evidence. Decision-makers are particularly drawn to quantitative evidence and thus more likely to take up policy recommendations that are backed by such evidence. This poses a challenge for the uptake of community programming in policy, where much of the evidence of success is largely narrative and anecdotal and where producing quantitative evidence of success is a long-term endeavor that is not often invested in. One way to overcome this challenge in the short term is by providing quantitative evidence of resilience gaps. Within the Alliance, we have used FRMC evidence, which quantifies community strengths and weaknesses in ways that can be used to develop evidence-based policy recommendations, to successfully influence decision-makers to act.
- **Develop a broad resilience vision and strategy that can be realised over time through a series of practical grounded recommendations and activities.** Systems thinking can be difficult to foster among decision-makers and in sectorally-specific departments. As a result, individual governments, departments or agencies are likely to favor highly practical, evidence-based, and locally-grounded recommendations (i.e., budget to fill specific gaps in DRR funding, install an EWS, etc.) over broad, general guidelines (e.g. think holistically about land use planning). Yet such specific recommendations are not, in and of themselves, ‘resilience’. Rather, they are individual activities that constitute critical elements of what is needed to build broader resilience, and thus need to be derived from a broad resilience strategy that targets multiple policy stakeholders and sectors.

5.0 Conclusions

The COVID-19 pandemic has resulted in a global reckoning. It has brought economies to a screeching halt, exposed our underlying vulnerabilities and system fragilities, ignited long-simmering social and political unrest, and highlighted how all of these are interconnected. Successfully addressing this crisis requires resilience and systems level thinking, and necessitates that we also think about multi-hazard and compound risk.

We have already seen that hazards will continue to occur despite the pandemic - floods, hurricanes, heatwaves, and fires continue to intensify globally due to climate change. Our response and recovery to the pandemic cannot be short-sighted or done in isolation from the important work that has already been done and continues to be done in the DRR and CCA communities of practice. Fortunately, there is growing coalescence around the need to build resilience into our COVID-19 recovery globally, as a means to cope with both current and future challenges. However, building this resilience will require significant learning on the part of donors, decision-makers from the local to global levels, and organisations, including us at the Zurich Flood Resilience Alliance.

It will take time to see the results of the policies we have improved, whether flood resilience spending commitments are honored, how improved spending impacts the lives of the vulnerable, and if our community programming measurably builds resilience in either planned or unanticipated ways. However, two years into our five year programme, we see growing evidence of improved disaster risk management in the communities we are engaging with, and increasing stakeholder mobilisation around the need for flood resilience. We continue to adapt our programme as we build our skills and knowledge in the resilience space.

Our experience conducting resilience programming and advocacy have resulted in insights that are relevant for building back better on the heels of the COVID-19 pandemic and avoiding the build-up of compound risk, which would further devastate already reeling communities and nations. Ultimately, we have found that if we want to build multi-hazard resilience, then we truly need to invest in it. This includes investing in building practitioner understanding of resilience and capacity to deliver on that understanding, and investing in rigorous and context-specific research to provide the evidence base for good resilience policy and practice. At the community level, it means introducing and supporting deeply embedded and locally owned initiatives that build the base of relationships and skills communities need to thrive in a complex risk landscape. Taken together these efforts, from the local to the global scale, can help communities around the world to thrive in our multi-hazard world.





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