

review

The Flood Resilience Alliance (2013-2017)

Floods affect more people globally than any other type of natural hazard and they cause some of the largest economic, social and humanitarian losses. In 2013, Zurich Insurance, the International Federation of Red Cross and Red Crescent Societies (IFRC), Practical Action, Wharton Risk Management, and the International Institute for Applied Systems Analysis (IIASA) formed the Flood Resilience Alliance (FRA), a five-year partnership that set out to develop a model that would deliver effective community flood resilience programmes at scale and contribute to shaping the flood resilience agenda of policy-makers and donors.

The country level objectives were to:

- Improve the understanding of flood risk.
- Enhance community flood resilience.
- Influence the approach to disaster risk reduction of policy makers and donors.

During the last five years, FRA country programmes in Mexico and Indonesia combined local community knowledge with humanitarian and private sector expertise to enhance flood resilience in flood-prone communities. The programmes focused on facilitating connections between people, communities, and the systems that support them. Country teams worked in partnership with a range of actors, and local champions, to create opportunities for positive change. Strong partnerships between National Societies, IFRC, and Zurich ensured successful collaboration and the positive outcomes for communities that are described here. In Nepal, the three year programme prioritized actions that empowered target communities to plan and implement flood risk reduction measures.

Usumacinta River, Mexico



Michael Szecsy/
Zurich Insurance

Country programmes

Indonesia

The FRA Indonesia programme covered 21 communities in three river basins – Bengawan Solo, Ciliwung, and Citarum. The aim was to assist communities to cope with floods by adopting the holistic and integrated Flood Resilience Framework. The Framework assesses a resilience system that draws on five forms of ‘capital’ (human, social, financial, natural, and physical). In each community, tailored flood resilience activities were implemented alongside other initiatives to strengthen the community’s capacities and reduce its vulnerability to floods.



The **Indonesian Red Cross** worked in 21 communities along 3 main river systems in Java across 4 provinces:

- DKI Jakarta
- West Java
- Central Java
- East Java

Mexico

FRA Mexico in the state of Tabasco brought the Mexican Red Cross (MRC) together with IFRC and Zurich Mexico to implement a community-based flood resilience programme in 21 communities on the Usumacinta River, where repeated seasonal floods affect the lives and livelihoods of thousands of families. Recognizing that flood resilience is a process, a way of thinking and acting, not a condition, the team combined local community knowledge with humanitarian and private sector expertise and worked with local champions and a range of actors to create conditions for positive change.



The **Mexican Red Cross** worked in 21 communities in the state of Tabasco

Nepal

The Nepal programme helped local communities manage floods and landslides. The establishment of early warning systems (EWS), community response teams, and updated disaster risk management (DRM) plans based on simulation drills, helped communities to plan and implement risk reduction measures.



The **Nepalese Red Cross** worked in 25 communities across 5 districts in Eastern Nepal:

- Saptari
- Sunsari
- Udayapur
- Khotang
- Bhojpur

	Mexico	Indonesia	Nepal	Total
 Communities served by the Flood Resilience Alliance	21	21	25	67
 Beneficiaries (direct)	10,044	128,528	42,700	181,228

Understanding flood risks

Understanding the risks and vulnerabilities of communities is a key step in preparedness and resilience building. It requires assessing the needs, risks, vulnerabilities and capacities of all members of the community, as well as the dynamic and complex context in which a community exists. Working in a risk-informed way also means consulting the communities' formal and informal knowledge systems to obtain risk and hazard information, and incorporating this information in planning processes. In areas of flood risk, for example, it is important to examine global and national weather data, but also local practices and indigenous knowledge. Combining holistically all this information about the situation of a community makes it possible to identify actions and solutions that are appropriate to the context and address the risks that are present.*

* IFRC (2014), IFRC Framework for Community Resilience, IFRC, Switzerland.

The country-level teams in Mexico, Nepal, and Indonesia

67

Coordinated **67 community risk maps** that identified high, medium and low flood hazard areas, discussed them with local stakeholders, and showed communities how to use them in future decision-making.

42

Conducted **42 community baseline and 38 endline holistic community assessments with our FRA Measurement Framework** to measure changes during the span of the FRA programme.

71

Organized **71 vulnerability and capacity assessments (VCAs)**. VCAs help communities to understand their vulnerability to floods, how to reduce the risk of flooding, and how to prepare for and respond to floods that occur.

Community risk mapping exercise, Mexico



Enhancing community flood resilience

1. Community Capacity Building

“In a real disaster, the first to be able to respond and save the community is the community itself.”

Mr Sarwa Pramana, Chief Executive, BPBD Central Java Province, Indonesia.

The teams at country level recognized that, when actions empower a community, they reduce vulnerability and build resilience. The teams in Mexico, Nepal, and Indonesia helped communities to generate the knowledge, skills, and attitudes required to prepare for and cope with flood events. Over the course of five years, FRA country programmes coordinated a wide range of community-based education initiatives. The teams:

- Developed community-based emergency and evacuation plans for 67 communities, including **emergency family plans for more than 15,300 families**.
- Delivered community-wide flood preparedness and prevention modules. These school-based courses on disaster and health adopted innovative approaches, such as puppet theatres, to raise flood awareness. **596 community education trainings were held in 42 communities**.

Over 40 million people now have access to flood early warning services (EWS).

2. Community response teams

Residents were trained in first aid and emergency response. The first responders are part of the local community response team that reacts immediately whenever there is an emergency, whether it is a major flood or a cardiac arrest. The teams are now the first link in the emergency response chain and make a vital contribution in rural communities, where help often takes time to arrive.

- 268 local people were trained in advanced first aid and approximately 23,000 in community first aid.

“I took the course to protect my family, for my daughters and grandchildren. As a grandmother or mother I am leading them. Through this, my daughters came to this programme. Here in the community nobody ever came to give us this kind of training. I learned how to help people in an accident. I came to think that I would no longer learn new things because of my age, but now I am able to help other people.”

Ms Juana Cruz, Tabasco, Mexico.

70 brigades provide first responder care to **67 communities** in Indonesia, Mexico and Nepal.

3. Micro-projects

FRA teams implemented numerous technically sound, community-driven micro-projects to reduce disaster risks. They consulted closely with communities when projects were selected and designed, to ensure that projects were appropriate and focused on locally-identified needs and priorities.

- Waste management centres were built to recycle rubbish. Information campaigns persuaded the public to reduce waste and prevent garbage from entering rivers and drains and increasing the risk of floods.
- A variety of physical infrastructure projects improved roads, bridges and culverts as well as absorption holes and infiltration wells.
- 12,000 trees were planted in three major reforestation campaigns.
- Four multi-purpose evacuation and community centres were built to provide shelter during floods.
- 275 hydroponics projects provide food for 20 communities during and after floods and potentially offer income generating opportunities for community members.

Families in ten communities constructed **1,250 simple-to-build flood shelters for animals**, called **tapescos**.

Advocacy and influence

Participation in public events. In the last five years, the FRA took part in over 30 major conferences and forums, including the Regional Latin American Housing Forum, the Regional Latin American and Asia-Pacific Consultation for the World Humanitarian Summit, and national Disaster Risk Reduction (DRR) days in Indonesia and Mexico. In Indonesia, the programme conducted a hearing and consultation process with the national parliament (specifically the House of Representatives) on DRR and community flood resilience mainstreaming as well as a special legislative session on DRR integration into Disaster Management Law 24-2007. At these meetings, Alliance representatives emphasized the importance of quantitative and qualitative scientific evidence on the context of risk, vulnerability and mitigation, and sought support for continuing the Alliance's work. The Alliance showcased its activities and appealed to peers and other actors to apply the lessons that FRA has learned in other contexts and to other hazards.

FRA events. The Alliance organized annual Flood Alliance events. These had two main objectives: (1) to highlight the Alliance's work in Mexico and Indonesia, and (2) to share the programme's model of collaboration, so that it could be applied elsewhere to the same or different hazards. These events underlined the benefits and impacts of collaboration between the private and humanitarian sectors; demonstrated the sustained impact of community partnerships and interventions that meet communities' needs; and shared learning on the Alliance's community diagnostics, micro-projects, response teams, and advocacy efforts. Over the five years, approximately 850 key national stakeholders attended the Alliance's events, which attracted more than 3,200 media mentions.

Vulnerability and Capacity Assessment, Indonesia

Community first aid training, Mexico



Conclusions

Strengthening community resilience to floods reduces their impact and related response and recovery costs. Flood resilience programming that adopts a holistic approach, that is driven by communities, and based on risk-informed decisions, is more likely to reduce underlying risks and vulnerabilities and ultimately strengthen resilience.

- Flood preparedness measures need to be community-driven and risk-informed, which means they must understand the risks that communities face and the underlying vulnerabilities and capacities of the community.
- Strengthening community flood resilience requires a process that is multi-sectoral and involves numerous actors. It cannot be achieved by governments, organizations or individuals acting alone.

- Flood risk reduction must be an integral part of policy-making and planning, and requires partnerships with governments, academics, the private sector and civil society, alongside communities.
- Community flood resilience solutions need to be community-driven, holistic, appropriate to the context, technically sound, and effective.

By making the most of the Flood Resilience Partnership, by empowering others to lead, by working with and not through the communities we serve, by promoting innovation on all fronts, we are poised to support communities prepare for, reduce the impact of, cope with and recover from the effects of floods without compromising their long term prospects.



Early Warning System message, Koshi River, Nepal

Moving forward

Over the course of the next five years, the Flood Resilience Alliance will leverage key experiences and lessons learnt from phase one to continue to influence community flood resilience approaches. Ultimately, we believe that communities and businesses can flourish despite climate change and the increasing frequency and severity of floods. To achieve this outcome, it will be necessary to reduce loss of life and material

losses, reduce disruptions that have large or long-term effects (such as the interruption of schooling), and enhance livelihood opportunities, for example by changing farming methods and empowering communities to find alternative incomes during flood seasons. Efforts will also need to be made to increase protection. Actions here should include better evacuation, better natural flood defences, and use of smarter insurance solutions.



For further information, please contact:

International Federation of Red Cross and Red Crescent Societies
Francisco Ianni
Senior Officer, Floods Resilience
Email: francisco.ianni@ifrc.org

Follow us:

