



*Effects of the Teapa River overflow on the main access road to the community Mariano Pedrero Tercera Sección  
Credit: Gustavo Sánchez, Operational Manager, Mexican Red Cross*

## Who are we?

**The Zurich Flood Resilience Alliance is a multi-sectoral partnership focusing on finding practical ways to help communities in developed and developing countries strengthen their resilience to flood risk.**

### **Our definition of resilience:**

The ability of a system, community, or society to pursue its social, ecological, and economic development and growth objectives, while managing its disaster risk over time in a mutually reinforcing way.

**Vision:** Floods have no negative impact on people's and businesses' ability to thrive.

**Goal:** To increase social, political, and financial investment in community-based flood resilience-building through public, private, and third sector partnerships.





*Flooding from continuous rain in the community Manuel Buelta y Rayón, municipality of Teapa*  
**Credit:** Gustavo Sánchez, Operational Manager, Mexican Red Cross

## Impact of flooding in Mexico

Mexico is susceptible to different types of natural hazards, such as droughts in the northern desert zone, frosts in the north-west and north-east, heavy rains in the south, and tropical cyclones in its more than 11,000 kilometres of coastline exposed to the Atlantic and Pacific oceans. This natural climatic variety means the country faces phenomena of different intensities, and its vulnerability is evident. In particular, floods in Mexico have been significant, mainly due to the economic losses in many affected communities where vulnerability is gradually increasing and there is little opportunity for a total recovery. The presence of tropical cyclones has been related to the floods, which have been responsible for more than 50 per cent of the material damage, loss of human lives, and other impacts upon affected people.

The National Center for Disaster Prevention (2017) estimates that in the last 17 years the socio-economic impacts of hydrometeorological phenomena correspond to approximately 90 per cent of the total cost of disasters in the country; in particular, in the state of Tabasco, the cost of the floods in 2007 amounted to US\$2,918.6 m. Recent events, especially the rains of 2010 in the municipality of Teapa,

have seen the highest precipitation recorded in 40 years in the region, and it is expected that these figures may increase as a result of climate change. In 2017, severe floods were recorded as a result of the overflow of the Puyacatengo River. In addition, hurricanes in the area are considered to be of high intensity because the geographical position of the area, between the Gulf of Mexico and the Pacific Ocean, forms an unavoidable passage for hurricanes to pass through.

## ZFRA in Mexico



The Mexican Red Cross (MRC) is a private humanitarian assistance

institution. It is dedicated to preventing and alleviating human suffering and to improving the living conditions of people and communities, fostering a culture of self-protection through voluntary action. Within its operational areas the MRC is concerned with reducing disaster risk – and the formation of alliances and strategic partnerships is fundamental to effectively supporting the vulnerable population. The MRC's National Resilience Strategy represents an operational benchmark and an institutional initiative to strengthen the capacities of the population and communities to foresee, reduce, and face the impact of hazards, as well as to recover from adversity. The strategy comprises three strategic axes: health, social inclusion, and relief.



*Spatial map elaborated together with the community Mariano Pedrero Tercera, corresponding to the Analysis of Vulnerabilities and Capacities*  
**Credit:** Paulo Cerino, Operational Manager, Mexican Red Cross



## ZFRA objectives in Mexico:

- Increase community flood resilience through building local capacity.
- Enhance the effectiveness of mitigation activities to increase communities' resilience to floods; develop, test, and implement new, innovative, and scalable solutions through technological innovation.
- Measure resilience through the FRMC and other programmes of the institution as well as those of organizations from the public or private sector. Elaborate other assessments and analysis to understand the local context and complement the information from the FRMC, thus helping communities and local practitioners make risk-informed decisions and achieve better measurements.
- Develop and promote knowledge and expertise around flood resilience.
- Influence policymakers and donors to engage in joint advocacy to promote investment in building resilience at national, regional, and global levels.

## The communities we are working with

Many resilience-building actions can be taken at community level, as communities often know best how and where they need to build resilience. Working with communities, we can demonstrate tangible impacts on people's lives and learn from best practices that can help to shape policy at a higher level.

The Mexican Red Cross is currently working with a total of 2,472 inhabitants in four communities in the municipality of Teapa in the state of Tabasco, Mexico. The characteristics of these communities' social deprivation at the municipal level indicate that 27.1 per cent of the population are lagging in education, 26.5 per cent are deprived of quality of life, 40.6 per cent are deprived of basic services in housing, and 10.5 per cent are severely food insecure.

The selected communities are located in the basin R. Grijalva-Villahermosa (RH30D) in the sub-basin of the Sierra Region. The main current of water that runs throughout the length of the communities' territory is the river Puyacatengo, which has a basin area of 162 km<sup>2</sup> with an average discharge of 667 m<sup>3</sup>/s.



*Erosion in a meander of the Teapa River in the community José María Morelos y Pavón (Santa Rita) Credit: Paulo Cerino, Operational Manager, Mexican Red Cross*

## Duration of the Mexico ZFRA programme: October 2018–June 2023

State of Tabasco, Municipality of Teapa and communities



*Credit: Gabriel Reyes Gil, Program Advisor, Mexican Red Cross*



*Baseline surveys (FRMC) and censuses in the community Mariano Pedrero Tercera Sección Credit: Gustavo Sánchez, Operational Manager, Mexican Red Cross*

## The Flood Resilience Measurement for Communities



Baseline surveys (FRMC) and censuses in the community Vicente Guerrero 'Las Nieves'  
Credit: Paulo Cerino, Operational Manager, Mexican Red Cross

The Flood Resilience Measurement for Communities (FRMC) framework comprises two parts: The Alliance's framework for measuring community flood resilience and an associated tool for implementing the framework in practice.

### Uses of the FRMC:

- As the first measurement of resilience to be applied on a large scale; fully integrated into community programming
- To help analyse problems before seeking solutions
- To support impact measurement
- To generate data for empirical evidence on flood resilience

## The Flood Resilience Portals

The Alliance's Flood Resilience Portals are online spaces for sharing practical knowledge about why and how to build community flood resilience. They bring together the knowledge generated and exchanged through the Zurich Flood Resilience Alliance and beyond.

 [www.floodresilience.net](http://www.floodresilience.net)

 [@floodalliance](https://twitter.com/floodalliance)



## Contact

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