

Mexico

Guarding against extreme meteorological events in Monterrey

With flood and drought cycles intensifying, a Water Fund is driving new solutions for one of Latin America's industrial capitals.

The context

Home to over 4 million people, the city of Monterrey derives more than 60 percent of its drinking water from upstream sources. The city is settled on both sides of the Santa Catarina river. Loss of vegetation cover, erosion, forest fires, invasive species and land-use change have all contributed to the degradation of water sources. The region is also prone to intense weather events; in 2010, Hurricane Alex devastated the area - costing the state of Nuevo León US\$1.35 billion - and was followed by severe droughts in 2011. With continuing deforestation and rapid urban expansion, the risk of future flooding is predicted to intensify, with a very real risk of floods exceeding the capacity of the dam that protects the city from high flows.

The action

After three years of preparatory work, structural design, feasibility studies, scientific analyses and fundraising (mainly through the Latin American Water Funds Partnership), the Fondo de Agua Metropolitano de Monterrey: (FAMM) was launched in 2013 and became Mexico's first legally established Water Fund. Over the next 20 years, the Water Fund will

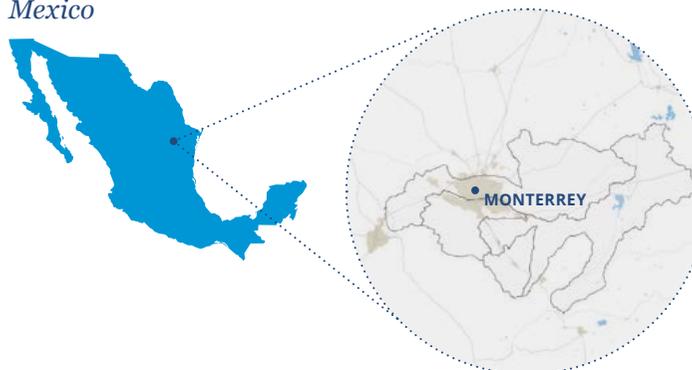
focus its work on a strategically targeted area covering over 151,000 hectares. Four key objectives drive the Water Fund's work: reduce flooding, improve infiltration, raise awareness among the population, and promote an increase in the percentage of federal resources that support the watershed.

The future

FAMM already has US\$8 million pledged from the private sector and is currently supported by 60 diverse partners. The fund's work is predicted to have a significant positive impact on runoff from flooding in the areas of highest sensitivity. For example, in a priority area benefits could represent a runoff reduction of 262 cubic meters per hectare per year, versus 622 cubic meters per hectare per year if the same landscape was left to current rates of degradation. Although source water protection activities cannot prevent catastrophic flooding or mitigate all impacts from extreme droughts, they have significant potential to reduce the severity of flooding and sustain critical base flows during droughts.



Mexico



Monterrey is one of the top 25 Latin American cities for water risk. Almost all of Monterrey's water originates in the San Juan watershed, which means there is a lack of alternative sources to use in dry years.

Read the full story at: global.nature.org/content/beyond-the-source

WATER FUNDS TOOLBOX

Lead the way to a secure water future with the Water Funds Toolbox

What are Water Funds?

A Water Fund is a framework that enables cities, communities and companies to invest in the management of the landscapes where their water is sourced; so that upstream forests and wetlands are protected to continue naturally cleaning and filtering water. Upstream communities can benefit from enhanced livelihoods and improvements to health and wellbeing whilst downstream communities experience improved water quality and, in many cases, fewer disruptions and shortages.

What is the Water Funds Toolbox?

The Water Funds Toolbox is a step-by-step online guide for developing a Water Fund. It features videos, testimonials, templates, tools, case studies and much more. The heart of the toolbox is the Water Fund Project Cycle, which outlines the five phases that take a Water Fund from feasibility through to maturity.



Ready to make a difference?

Develop your knowledge

Through the Water Funds Toolbox you can access the state of the art curriculum for developing Water Funds. Authored by Water Funds practitioners for practitioners.

Curriculum includes:

- Water Funds 101
- Stakeholder Analysis
- Action Planning
- Courses specific to governance, science, finance, implementation and communications

[nature.org/WaterFundsTraining](https://www.nature.org/WaterFundsTraining)

Build your network

Join the global community of Water Funds practitioners working to apply and refine the Water Fund model around the world.

Network activities:

- Webinars
- Discussion boards
- News
- Member profiles
- Recognition programs
- Network-wide competitions
- Peer learning & review

[nature.org/WaterFundsNetwork](https://www.nature.org/WaterFundsNetwork)

Water Fund Project Cycle

1

Feasibility

Defining the problem, attracting partners and hiring the WF Director

2

Design

Developing a strategic plan with solutions and establishing the WF governance

3

Creation

Formalizing the WF structure and official launching

4

Operation

Developing and implementing annual work plans

5

Maturity

Securing the WF's long-term viability and creating large-scale impacts