How does climate change affect Earth’s water?

As the global temperature increases, the water cycle is disrupted. This changes where, when and how much rain and snow falls. The rate of floods has drastically increased over the last 40 years.¹ And surging ocean water contaminates essential freshwater systems.

MCC in action

In Bolivia, an MCC partner is working with farmers to build systems that capture mountain spring water. This system of “water harvesting” has hugely improved yields from small-scale farms.

How does climate change reduce safe drinking water?

Our warming climate creates a friendlier environment for toxic algae growth. Toxic algae bloom faster and more aggressively in warmer and slower moving water. This means freshwater sources that were once safe are likelier to be toxic for weeks or months at a time.²

Is climate change making rainfall extremes worse?

Around ²/₃ of the planet’s land mass is expected to experience more extreme rainfall and flooding while dry regions will likely see droughts happen more frequently.⁴ For every 1°C our atmosphere warms, it can hold 7% more moisture—further increasing the volatility of all the weather we experience.⁵

¹ Hannah Ritchie and Max Roser (2014) - “Natural Disasters”.
² U.S. EPA
³ Hannah Ritchie and Max Roser (2021) - “Clean Water and Sanitation”.
⁴ Increasing precipitation variability on daily-to-multilyear time scales in a warmer world.
⁵ Phys.org.