

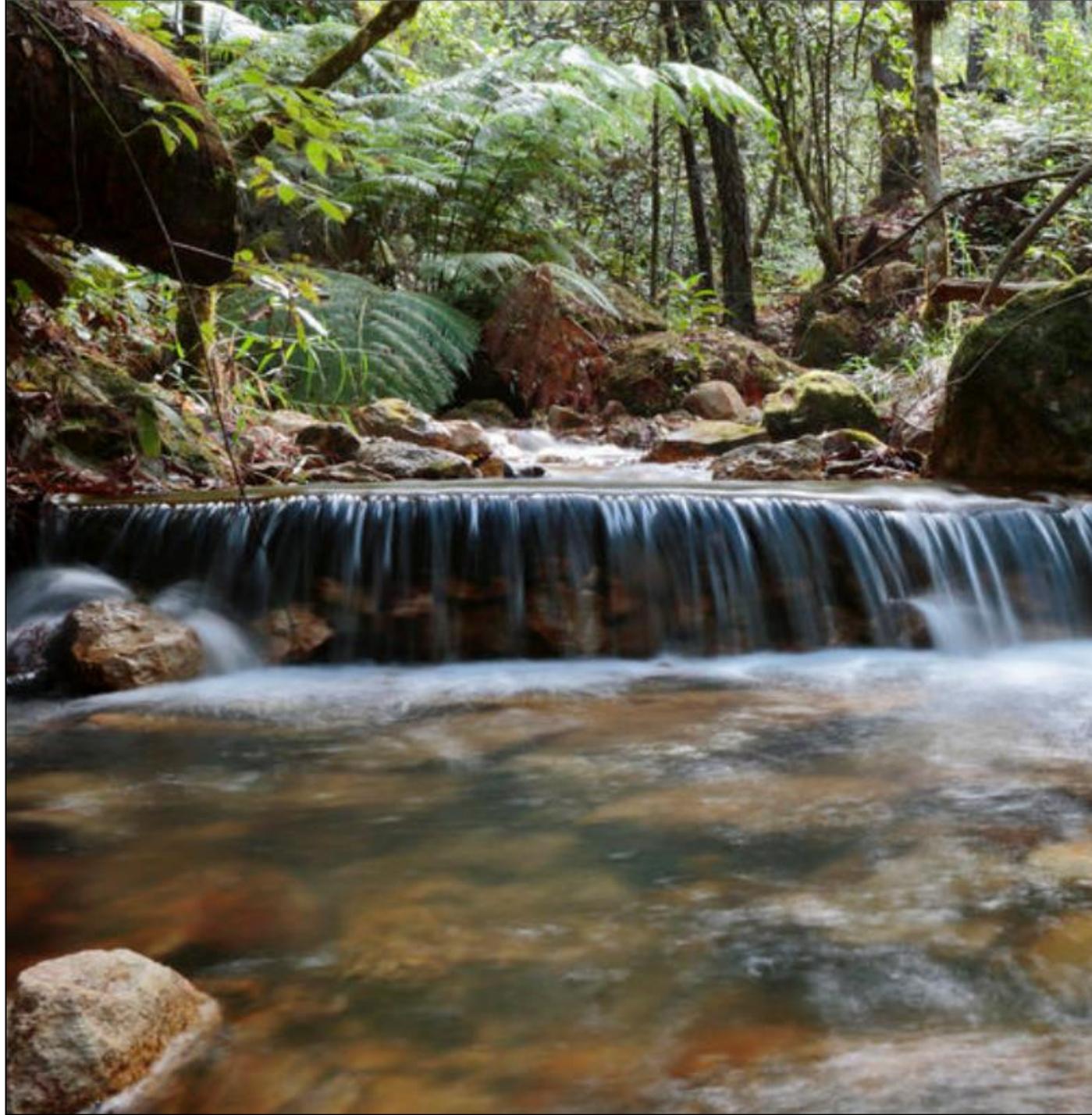


**COFFEELANDS**

[coffeelands.crs.org](http://coffeelands.crs.org)

# BlueHarvest

delivering social and environmental impact in the coffeelands  
through sustainable land and water management



A man in an orange shirt is filling a white bucket at a public water pump. The pump is a manual hand-operated device. The background shows a dense urban environment with many overhead power lines and buildings. A sign in Hindi is visible on a pillar next to the pump.

# Water Crises

Every year, from 2012 to 2017, the World Economic Forum has highlighted water threats among the top five threats impacting the world economy.

Source: WEF Global Risk Report 2017



## **Water insecurity is prevalent in the Coffeelands**

**Fetching water is the daily work of millions of women and girls in coffee communities, where most households still lack access to piped water supply**

# Water Crises Threaten Many Countries in the Coffeelands

The dry corridor of Central America suffered 5 straight years of agricultural drought from 2012 to 2016

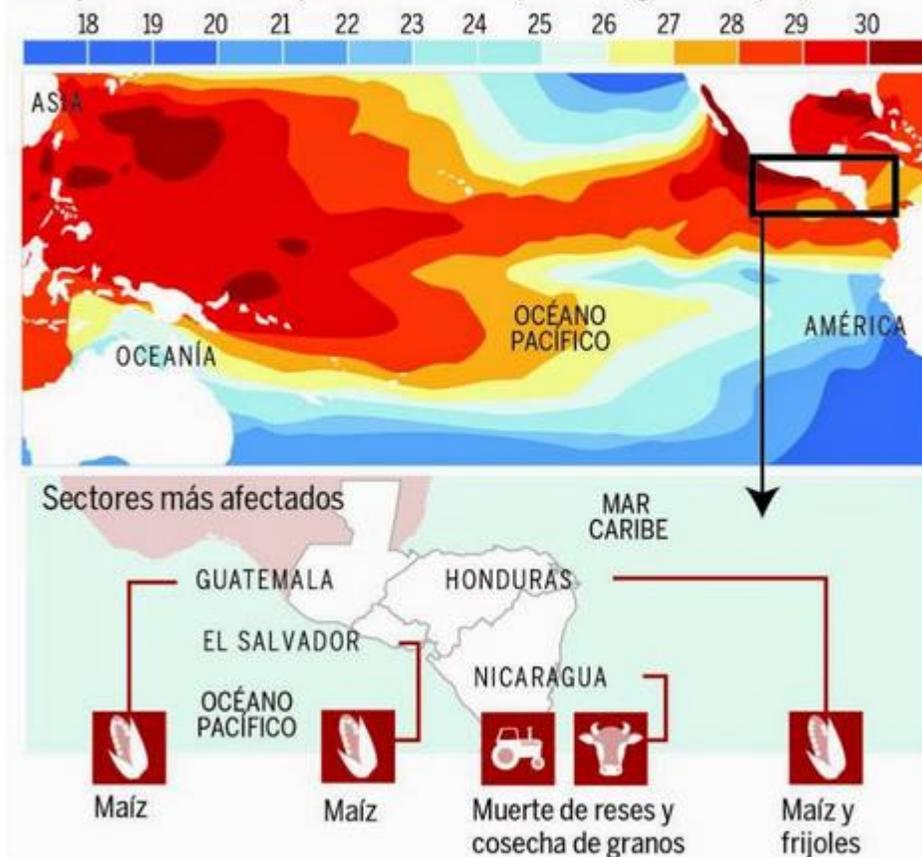
Water Security has become a major regional priority.



## El Niño golpea a Centroamérica

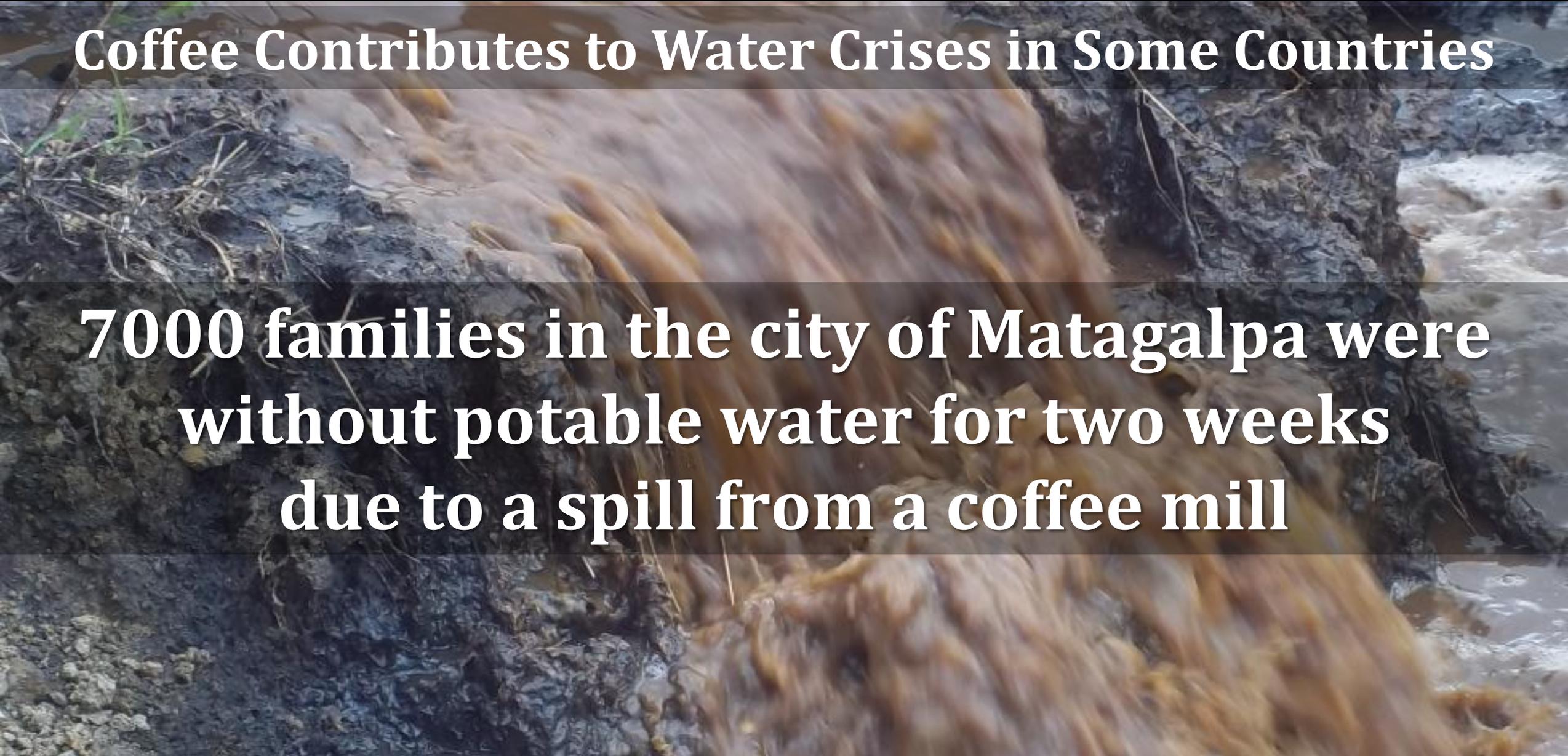
La sequía impacta en la ganadería y la producción agrícola

Temperatura de la superficie del mar (en °C, registro 23 jul.)



Fuentes: NOAA, SATCA

AFP



# Coffee Contributes to Water Crises in Some Countries

**7000 families in the city of Matagalpa were without potable water for two weeks due to a spill from a coffee mill**

**EL NUEVO DIARIO**

Nicaragua  
January 3, 2013



**The greatest threat to water insecurity in the Coffeelands is land degradation, caused primarily by unsustainable agriculture. Deforestation, extensive grazing, and slash-and-burn practices cause high rates of erosion and degradation of soils. Ultimately, land degradation reduces the ability of watersheds to absorb water and recharge springs and aquifers. This increases water stress for people who depend on these watersheds for their water supply.**

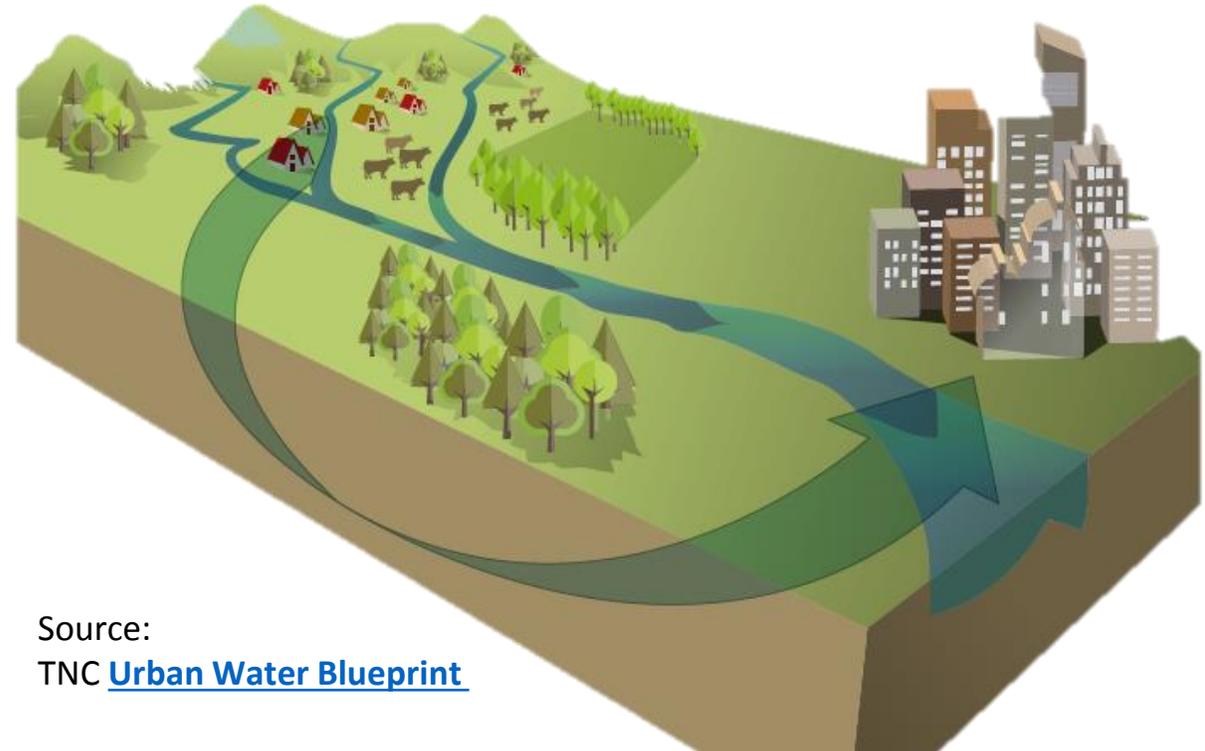
## SDG#6 Ensure Access to Water and Sanitation for All

The goal of universal access to water requires protecting and restoring water sources. Four of the six targets of SDG #6 focus on sustainable water resources management. Below are the list of these targets.

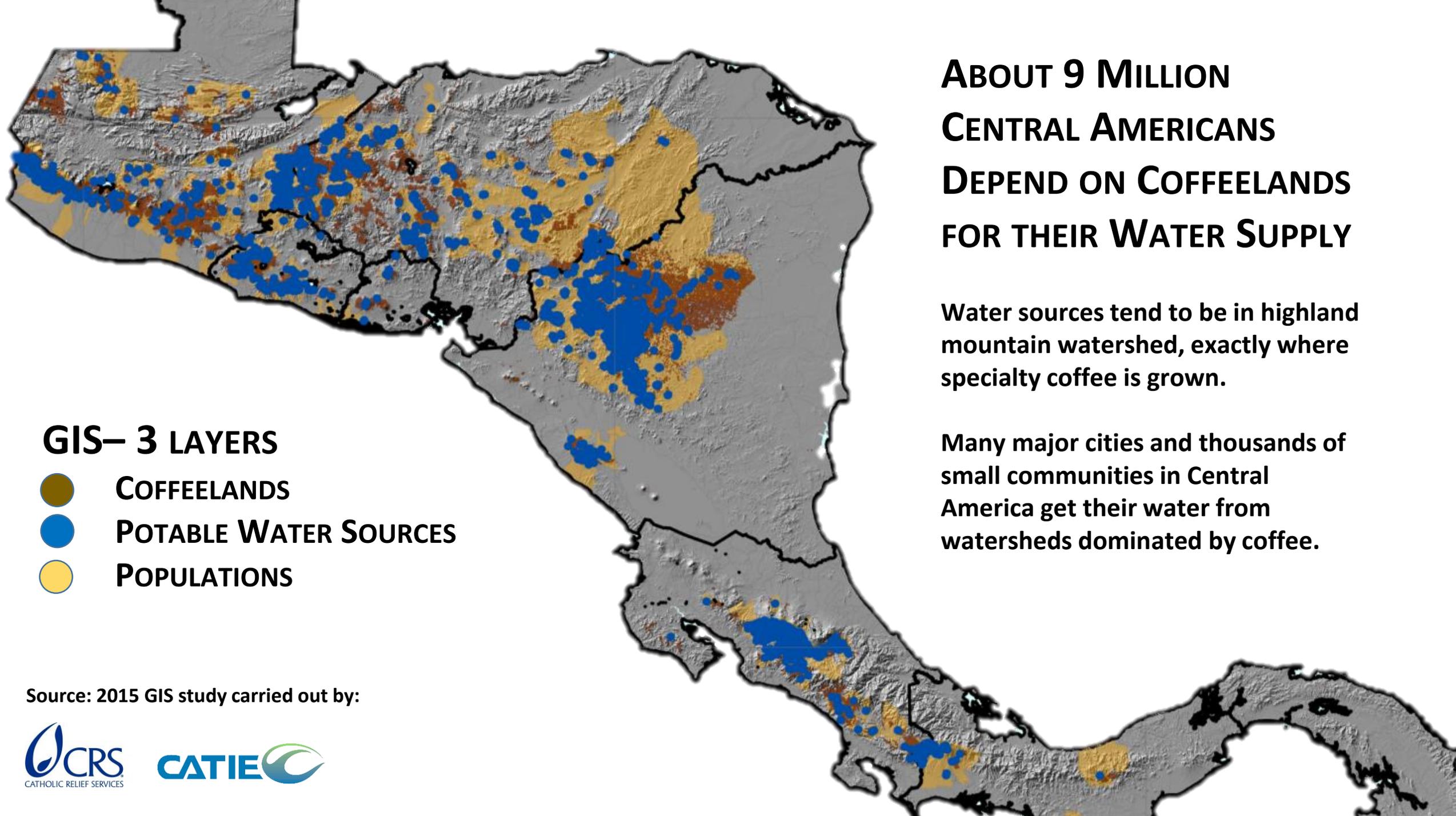
- 1 Universal access to safe water for all
- 2 Access to sanitation and hygiene for all
- 3 **Water quality and pollution prevention**
- 4 **Increase water-use efficiency and ensure sustainable withdrawals and supply of freshwater**
- 5 **Integrated water resources management**
- 6 **Protected and restored water-related ecosystems**

**“The greatest potential to secure water for cities lies in improving the management of agricultural lands...”**

**In 2014, The Nature Conservancy carried out a survey of water sources in 500 cities around the world. They concluded that the most cost effective way to protect water sources is to promote sustainable agriculture in source watersheds.**



Source:  
TNC [Urban Water Blueprint](#)



# ABOUT 9 MILLION CENTRAL AMERICANS DEPEND ON COFFEELANDS FOR THEIR WATER SUPPLY

Water sources tend to be in highland mountain watershed, exactly where specialty coffee is grown.

Many major cities and thousands of small communities in Central America get their water from watersheds dominated by coffee.

- GIS— 3 LAYERS**
- COFFEELANDS
  - POTABLE WATER SOURCES
  - POPULATIONS

Source: 2015 GIS study carried out by:



**Sustainable coffee agroforestry systems can be the best agricultural alternative for healthy, functional watersheds, second only to natural forests. This understanding forms the premise of the Blue Harvest program:**

**Good coffee management = Good watershed management**



# Blue Harvest

CRS' Blue Harvest program works with farmers and other stakeholders in the Coffeelands to promote “water-smart” production and milling practices.

## Blue Harvest Goals:

1. Resilient, rainfed agriculture production for smallholders
2. Secure water supply for downstream communities

To achieve these goals, the program works on three levels:

- **Landscape Scale:** Identifying water sources and farms in watersheds
- **Farm Scale:** Improving farm practices and wet mills to benefit water resources and productivity
- **Community:** Empowering local actors to manage water supplies sustainably

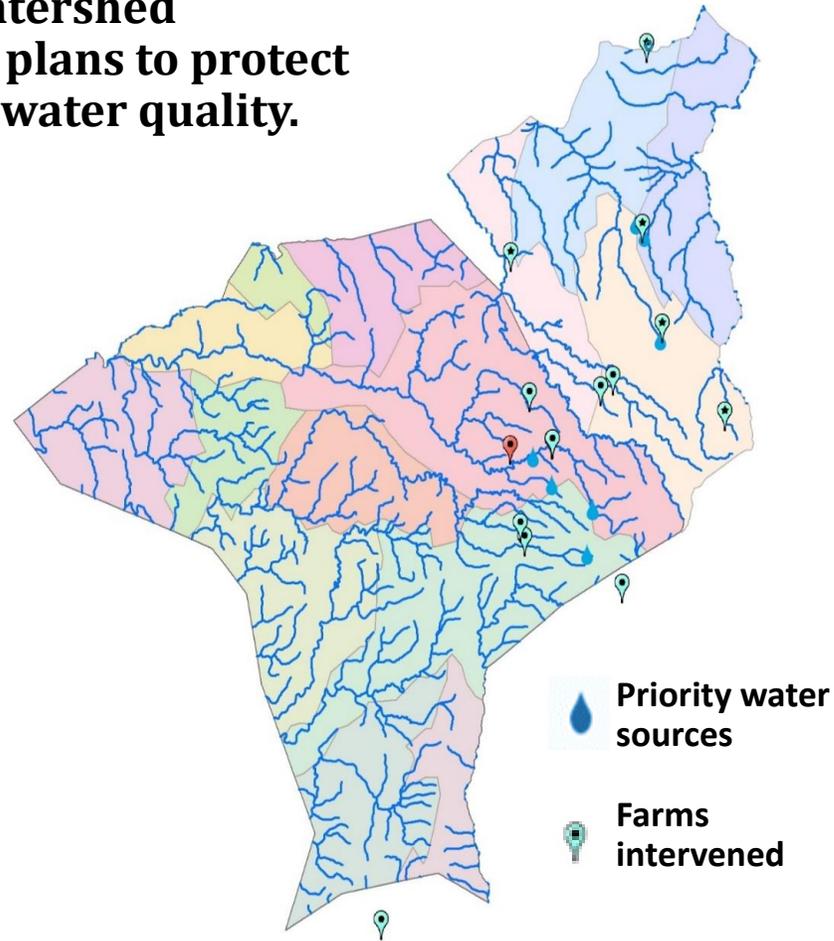


# LANDSCAPE SCALE

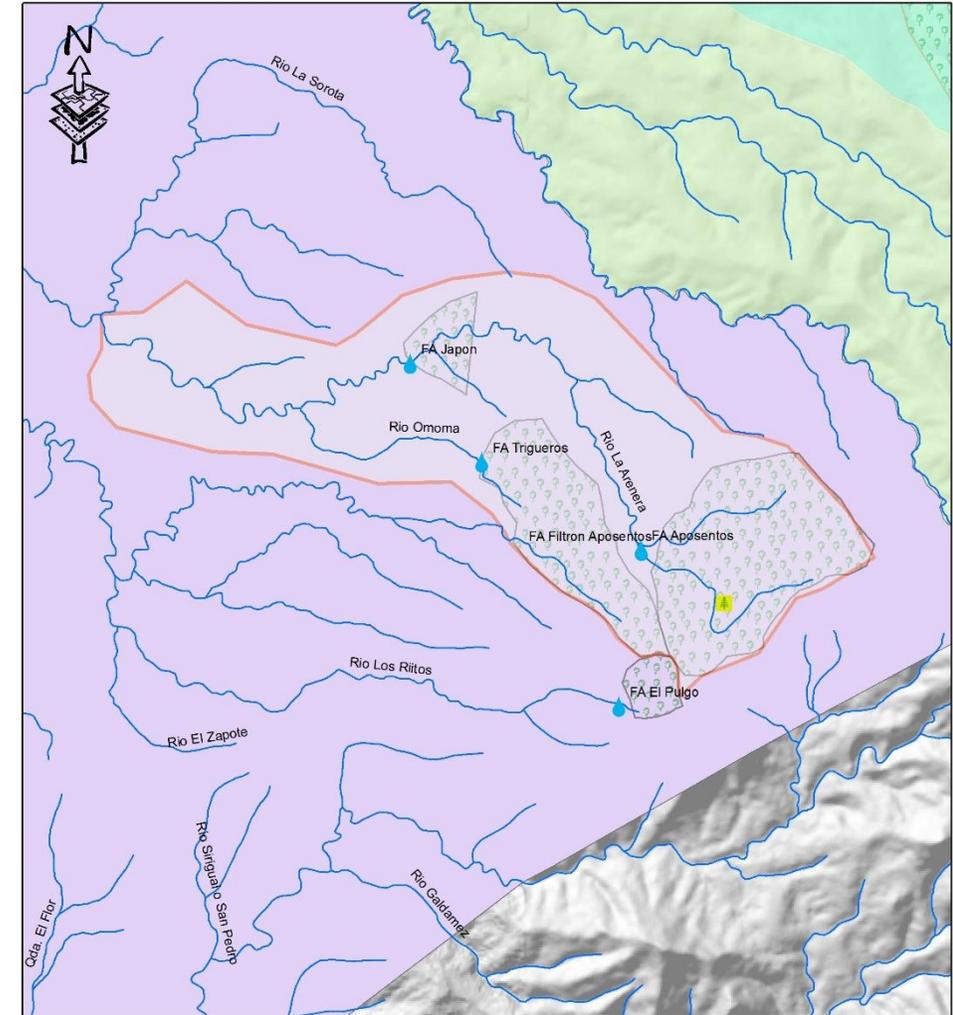
Blue Harvest teams work with local stakeholders to identify priority water sources within watersheds.

The objective is to develop watershed management and restoration plans to protect and improve water flows and water quality.

Watershed management plans help identify specific areas for interventions, including farms.



Ubicacion de fincas intervenidas con Cosecha Azul



## SIMBOLOGÍA

- fincas intervenidas 2015
- Rios en la zona de intervencion
- Fuentes de agua priorizadas

0 625 1,250 Metros  
Projection: Mercator Auxiliary Sphere  
Datum: WGS 1984  
1:30,000



# FARM SCALE

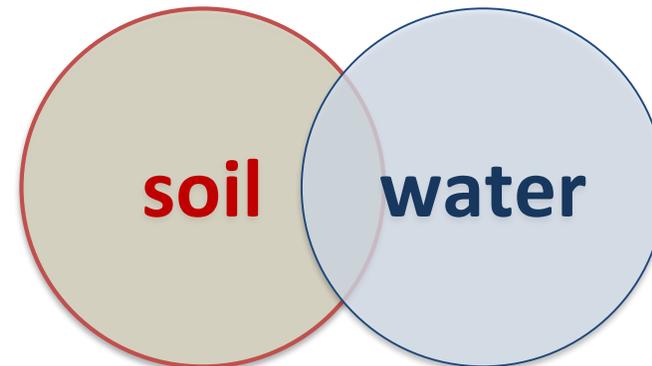
Blue Harvest works with farmers to improve farm management practices in ways that increase farm productivity and improve water benefits for people living downstream.

Throughout the Coffeelands, soils tend to be highly degraded, acidic, and low in organic matter. This makes coffee farms highly vulnerable to droughts and disease.

Work on farms, therefore, focuses on restoring soils, managing soil fertility, and increasing soil organic matter.

**“Water-smart Agriculture”**

**“Manage soil to manage water”**





# FARM SCALE

## “Water-smart Coffee Milling”

Blue Harvest works with farmers and cooperatives to improve water-use efficiency and wastewater treatment in small to large coffee mills.

The first step is to reduce the amount of water used in milling processes. Then, apply wastewater treatment techniques to prevent contamination of waterways.

# COMMUNITY SCALE

**Blue Harvest works with local NGO partners, local governments, and other key stakeholders to plan and manage watersheds sustainably.**



CRS frequently shares its work and research related to Blue Harvest on its Coffeelands blog.

[www.coffeelands.crs.org](http://www.coffeelands.crs.org)

These two short videos describe Blue Harvest's work on the ground:

- [BlueHarvest](#)
- [Perquin Agroforestry 2015](#)

Results from Blue Harvest work:

- [Summary from Blue Harvest Intervention Zones 2016](#)
- [Significant Change Stories](#)

## We Are Facing Climate Change Head On

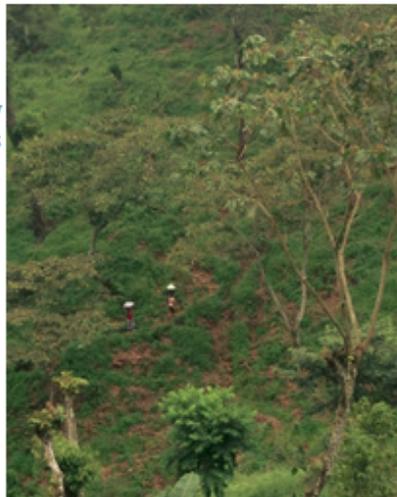
🕒 2016-06-27 👤 Maren Barbee 💬 No Comments

Cheers to the coffee world out there. From the consumers to the farmers who grow it, to market participants and NGOs who work to support it... To all of us who live and breathe coffee.

I found myself in a meeting a couple weeks ago that took me back to Re:Co Symposium and SCAA Atlanta in April- my first (yes, I was a fellow- thanks S&D;) At SCAA I was quickly reminded how complex coffee is - (Kraig sent me [this article from eater.com](#) the other day, shares the anxiety that can quickly overcome you as you begin to think about the complexity of coffee) from all the flavors, brewing methods, to issues the farmers face and - of course - CLIMATE CHANGE.

I went to all the climate change talks possible, and one thing stood out—WATER! From drought to temperature changes to lack of groundwater for irrigation. A woman came up to me after one talk to show me photos of her farms in Honduras and how dry they are. The future of growing coffee is changing. As Mark Lundy from CIAT (highly recommend watching Making Progress on Climate Change- when Re:Co posts it, kept saying over and over, "This is the scenario if we do nothing." This meeting I went to the other day was an example people doing SOMETHING.

The meeting took place in the Balsamo Mountain Range, just southwest of San Salvador. A mountain range that follows the Salvadoran coast east to west. The highest altitude is approximately 1,500 meters and the

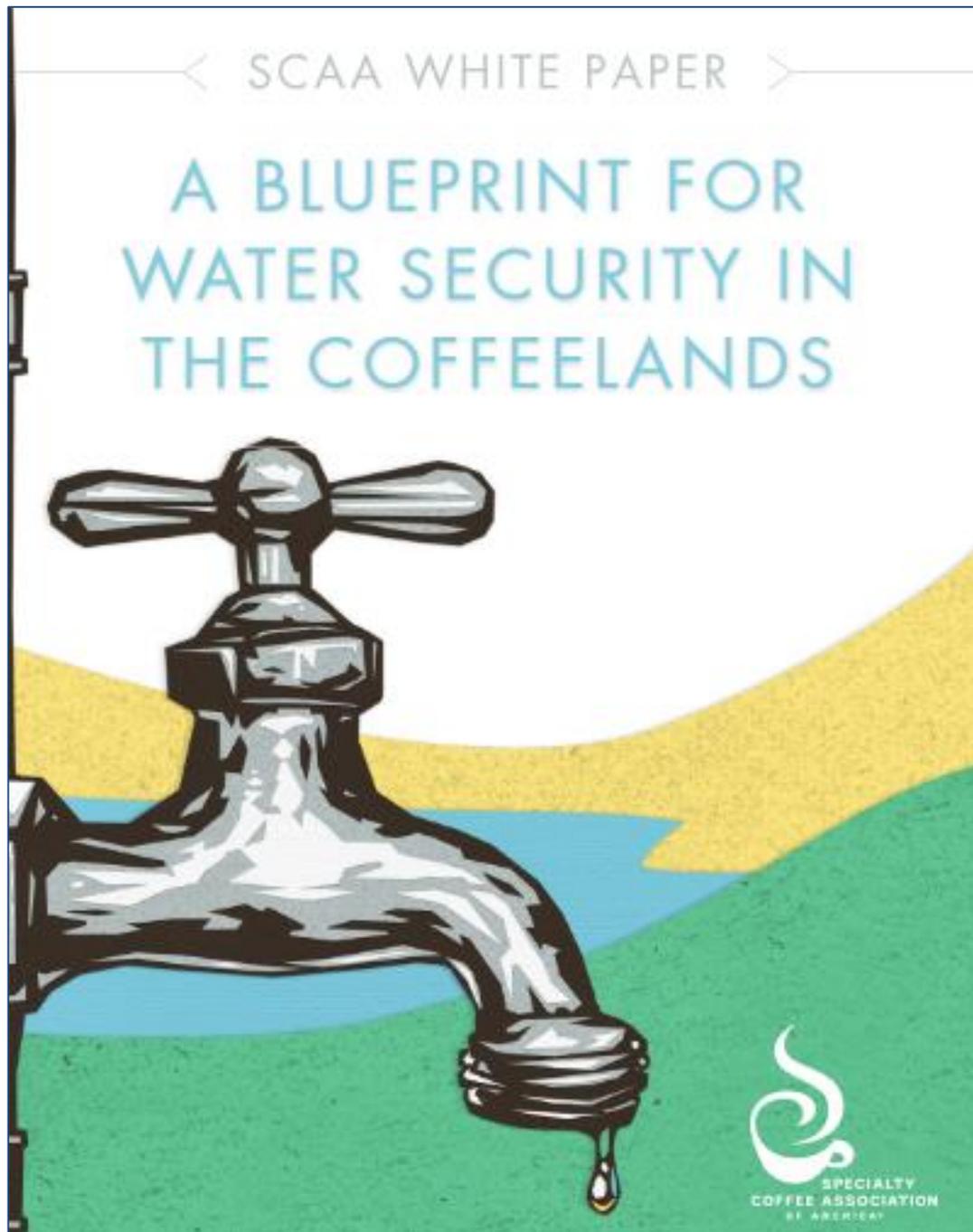


## COFFEELANDS TOPICS

- Climate Change
- Coffee Research
- Events
- Farmer Organizations
- Farmworkers
- Gender
- Markets
- Miscellanea
- Policy
- Resilience
- Water And Natural Resources**

## Coffeelands Projects





**CRS was a primary contributor to the SCAA's "Blueprint for Water Security in the Coffeelands", published in 2016**

**The purpose of the "Blueprint" is "to support action by coffee stakeholders committed to increasing water security at origin"**

## **SIX KEY RECOMMENDATIONS**

- 1: Know the Source**
- 2: Promote Water-Smart Farming Practices**
- 3: Promote Water-Smart Milling Practices and Technologies**
- 4: Create Incentives for Water Smart Practices**
- 5: Build Consumer Awareness About Water through Coffee**
- 6: At the Industry Level: Strategic Collaboration**