

## Implications for the U.S.

Guatemala has the largest economy in Central America, with a GDP of US\$63.8 billion as of 2015. It also produces a significant quantity of agricultural commodities (sugar, bananas, palm oil, coffee, vegetables, etc.) that are imported by the United States or purchased and processed by U.S. companies.

Violence and insecurity are driving migration northward through Mexico and ultimately to the U.S. southern border. Between 2013 and 2014, the number of unaccompanied minors apprehended at the U.S.-Mexico border doubled to 52,000. The U.S. government responded by appropriating \$750 million to "improve security, promote peace, and tackle gang violence" in the Northern Triangle.

Insufficient access to water contributes to conflict across the region. Water-deprived groups migrate to water-rich areas, creating territorial conflicts. This type of conflict could lead to internal struggles for water-rich territories but could also spill over into Honduras and El Salvador. Such conflicts could then result in an added layer of insecurity and violence, which might trigger even more migration beyond the region toward Mexico and the United States. These problems are already causing conflict, and may weaken the legitimacy of governmental institutions.

## Recommendations

WATER, SECURITY AND U.S. FOREIGN POLICY

> Foreword by General James Jones Edited by David Reed

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A water-secure future for Guatemala will require robust water data, adequate infrastructure, water management institutions, financing for water management, and political will to confront powerful interest groups. Above all, the country needs an allencompassing legal framework for water governance. The United States is in a unique position to support water security efforts through CARSI in support of the Alliance for Prosperity, and should undertake the following:

1. Develop an integrated strategy incorporating Mexico and the Northern Triangle, to address the fact that both waterways and organized crime networks spill across borders in the region.

2. Maintain a dual approach to address both existing security concerns (enforcement against illegal migration and organized crime) and the root causes of the region's crisis (poverty, food insecurity, and environmental vulnerability).

3. Leverage the strategic importance of the Alliance for Prosperity and CARSI to address security concerns by supporting institutional reform and economic development.

This summary is drawn from Water, Security and U.S. Foreign Policy, Chapter 6, by Eduardo Stein, former vice president, Guatemala, and Lilian Marquez, WWF-Guatemala. Summary prepared by Chelsea N. Spangler, WWF-US.

PHOTOS | Front page: Child and empty broken bucket, Guatemala © iStockphoto/sbrogan Inside: Mayan woman carrying fruit, Lake Atitlan, Guatemala © iStockphoto/ globalfolkart; Citizens protesting government corruption and demanding the resignation of President Otto Perez Molina, Antigua, Guatemala © iStockphoto.com/ loca4motion; Illegal commerce across a shallow river on the Mexican-Guatemalan border © iStockphoto/ mofles; Soldiers on patrol, Flores, Guatemala © Matyas Rehak/shutterstock.com Back page: Highland farmland and volcanic landscape, Guatemala © iStockphoto/ CampPhoto

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Water, Security and U.S. Foreign Policy offers policy-makers a framework for identifying how water-related social and economic disruptions in partner countries can escalate into risks to U.S. security interests. Its 17 case studies explore how ecological change can translate into regional instability, migration, social and ethnic conflicts, the rise of insurgencies, and an expanding narcotics trade, with direct consequences for U.S. overseas interests. The book proposes U.S. responses that can help partner countries forestall social dislocation, rekindle economic growth, and strengthen government legitimacy in order to reinforce U.S. security.

Visit worldwildlife.org/initiatives/water-and-security to learn more about WWF's Water and Security initiative.

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A CHAPTER SUMMARY FROM THE BOOK WATER, SECURITY AND U.S. FOREIGN POLICY



WHO STOLE THE WATER: WATER, SECURITY AND U.S. FOREIGN POLICY IN



Water is a relatively ungoverned resource in Guatemala. No centralized governing body or legislation exists to manage water, and many rural communities believe the government is turning a blind eye while their freshwater resources are stolen and poisoned by special interests. Commercial plantations, mining operations, and hydropower projects generally have priority access to freshwater resources, jeopardizing rural livelihoods. Rural populations already enduring systematic exclusion are left even more vulnerable and poor, and some are responding by organizing, protesting, or migrating. Water management is the key to addressing many problems in Guatemala and in Central America. Eduardo Stein, the country's former vice president, has said, "Water security can be a privileged means for promoting democratic governance, strengthening food security and environmental resilience, and reducing agricultural and energy risks. Moreover, water governance and management must be considered fundamental elements of a security strategy."



## **Ecological Challenges**

Guatemala controls only 15.8% of Central America's freshwater resources, and flows are erratic due to El Niño oscillations, which are growing more severe with climate change.

The whole Central American region already faces dramatic ecological challenges as a result of climate change. Guatemala is experiencing a severe, multiyear drought, and is undergoing more frequent hurricanes, flash floods, and mudslides. The World Bank ranks Guatemala as having the fifth-highest economic risk resulting from climate change-related hazards.

Ongoing drought, decreasing precipitation, and rising temperatures pose extensive risk to the country's agriculture and overall food security. Subsistence farmers are hit hardest as precipitation patterns change; as their





own crops fail, food becomes more expensive. Oxfam predicts that overall food prices in Guatemala will double by 2030. Higher temperatures are also contributing to the spread of coffee rust, causing widespread damage to one of Guatemala's top export crops.

## **Societal Challenges**

Water quality in Guatemala is generally poor, and water allocation privileges special interests at the expense of vulnerable populations. This trend reflects the country's broad problems of poverty and inequality. Poverty levels are high and increasing, with indigenous people disproportionately affected. This is partly due to issues of land tenure: Most rural people are landless, while half of the country's agricultural land is held by a mere 1.86% of its farms. Giant plantations keep growing, leaving less and less land available to smallholders.

A two-year drought between 2015 and 2016 in Guatemala affected 75% of maize crops, completely depleting the food stores of 1.5 million subsistence farmers. Forty-seven percent of Guatemalan children suffer from chronic malnutrition.

Food insecurity and economic insecurity are spurring migration from rural to

urban areas with scarce opportunities for stable employment, while violent gangs and drug cartels fill the gaps left by inadequate governance. Vulnerable populations often find themselves geographically caught between the territories of conflicting gangs.

The region has long been plagued by violent crime, and crime rates have been increasing at an alarming pace since 2000. UNICEF estimates that Guatemala and El Salvador have the world's highest rate of homicide of children under 20 years old. Existing problems are compounded by weak and corrupt governance. The 2016 World Internal Security and Police Index ranked Guatemala 107 out of 127 countries for the efficacy of its security institutions. Corruption is rampant at all levels of government, to the extent that in 2015 the country's president and vice president were forced to resign in the face of embezzlement and money laundering charges.

Water governance is no exception. Guatemala has no comprehensive water policy or centralized water agency.

Among rural populations, there is a general sentiment that their water is being stolen and poisoned while the government turns a blind eye. It is common practice for plantations to divert entire rivers to irrigate their crops, depriving downstream communities of freshwater sources. It is equally common for other industries to dump pollutants into rivers, while the government and underserved rural communities use waterways as dumpsites for garbage. Where water infrastructure and treatment systems exist, they are generally insufficient. Existing water management mandates are seldom enforced: For example, in 2010 only 10% of municipalities chlorinated water as required.

In 2016, Guatemalans protested, demanding that the government make it a crime to divert rivers. The Ministry of Environment discovered more than 50 dams diverting river flows, but congress voted against criminalizing the practice.

