

# Valuing Water Finance Initiative Benchmark

## Building a Robust Water Stewardship Strategy through Collective Action: Regional Examples

### Introduction

Leading efforts around water stewardship have begun to move beyond a company's immediate boundaries to include a focus on the overall health of the surrounding watershed. The landscapes and activities throughout a watershed dictate whether or not the water resources will be sufficient to sustain human populations, agriculture, industries, and ecosystems. As a result, collective action strategies have recently gained momentum, bringing together a diverse array of stakeholders including businesses, communities, governments, and NGOs to tackle the urgent challenges within a specific basin and to ensure the availability of viable water resources for all users.

Collaborative management of water resources can yield significant financial advantages for participating organizations. [A recent company-level cost-benefit analysis framework published by Ceres](#), using publicly available data for a large multinational apparel company, demonstrates that under a cost sharing scenario (i.e., with governments, companies, or external stakeholders in the watersheds), there is a noticeably higher positive return on investment for both the business and society across most of the value chain. This underscores the importance of forming partnerships and engaging in collective efforts at the watershed level, highlighting the value derived from such endeavors.

In the benchmark analysis, collective action efforts were identified that advance multiple Corporate Expectations. The [key findings](#) from the benchmark analyses across the 72 companies on the Valuing Water Finance Initiative [focus list](#) shed light on the role of the private sector in promoting water stewardship through collective action. It is important to emphasize that while this type of coordinated water management is [occurring globally](#); the following section offers specific insights into select collective action initiatives currently underway within the [United States](#), Brazil, India, and Mexico.

## United States Examples

### Colorado River Basin

The Colorado River basin, which flows through seven U.S. states, two Mexican states, and 29 federally recognized tribal reservations, provides water to almost 40 million people, while supporting \$1.4 trillion in annual economic activity, and 16 million jobs across the Western U.S. Given this, the Colorado River is foundational to healthy communities and a stable economy across the West. However, management of the river has been contentious, considering the historic overallocation of water resources that has [caused the river flows to diminish](#). Recent analysis from the World Resources Institute (WRI) has found that all seven states relying on the Colorado River face high or extremely high water stress. The [May 2022 midnight deal](#) among water users of the Colorado River sheds light on the high stakes for U.S. states and the federal government, Tribal rights, international relations, and the private sector. The Colorado River is one of the most complex, high-risk water systems in the world and, as supply dwindles, many businesses operating in the basin are aware of the fragile balance of water supply and demand.



For instance, many tech companies, particularly those operating water-intensive data centers or microchip manufacturing facilities in the Colorado River basin, face substantial risks due to water scarcity. Similarly, food and beverage companies with production facilities or those sourcing ingredients from the region, also face potential disruptions due to reduced water flows in the basin. In response to these challenges, collaborations involving government agencies, corporations, and nonprofit organizations are spearheading the implementation of new, innovative water management projects.

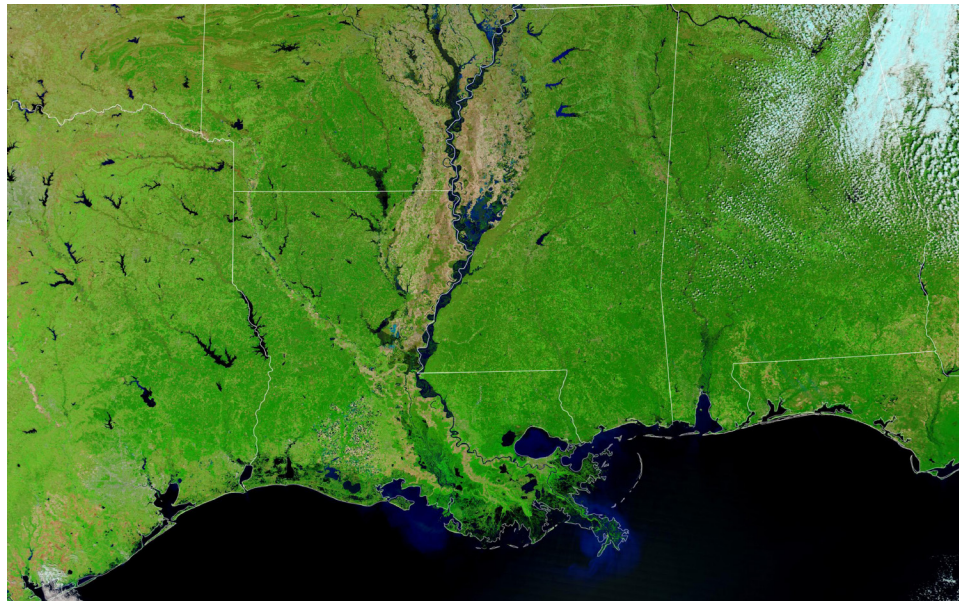
- ▶ As one example, **Google** and **Keurig** joined forces with a coalition of businesses, nonprofits, government agencies, and Native American tribes. Together, they devised water conservation initiatives in the basin through the Colorado River Indian Tribes (CRIT) system conservation project and the Arizona System Conservation Fund. The coalition collectively contributed \$38 million to a three-year water conservation program. The program's primary objective is to reduce water withdrawals and stabilize the rapidly declining water levels in Lake Mead and the Colorado River. Over a span of three years, the partnership is projected to contribute 49 billion gallons to Lake Mead, enhancing water security for the communities in this drought-prone region.

- ▶ Another example of a collective management response is **Anheuser-Busch** (a subsidiary of AB InBev), which is partnering with The Nature Conservancy (TNC), local NGOs, government entities, and utilities to collectively improve watershed flows in the Colorado River basin. The partnership is actively engaged in community driven projects to test new approaches to managing water that provide environmental benefits as well. Similarly, **PepsiCo**, also in conjunction with TNC, is focusing on enhancing irrigation efficiency that will replenish over 132 million gallons of water to the Colorado River.

## Mississippi River Basin

Covering about 40% of the continental U.S., the Mississippi River basin underpins 90% of the country's agricultural production and provides drinking water for nearly 20 million people, while sustaining a rich diversity of wildlife both on land and in the Gulf of Mexico. However, the discharge of nutrients from agriculture in the basin has led to an enormous dead zone in the Gulf of Mexico, causing annual damages of [up to \\$2.4 billion to fisheries and marine habitats](#). In addition to water quality risks, the Mississippi River basin is also exposed to severe flooding. In 2019, the Mississippi River recorded its longest and most severe flood, which inflicted [billions of dollars in damage](#) on farmers, agribusinesses, and meat companies. Millions of acres of corn, wheat, and soy could not be planted and \$1 billion of grain could not be shipped from major ports because of flooding. These dual challenges of pollution and flooding have spurred increased private sector involvement in water management within the Mississippi River basin.

- ▶ Food and beverage companies have taken significant steps to participate in collective action initiatives in the region. For example, **Coca-Cola** partnered with TNC to reduce run off and erosion in the Big Pine watershed in the Ohio River subbasin in Indiana. The project engages local agricultural producers to employ best management practices, including the planting of cover crops outside of the main growing seasons. Since its launch in 2016, support from Coca-Cola has resulted in the planting of 1,264 acres of cover crops. The positive impact on the watershed has been substantial, with an estimated decrease of 2,206 tons in sediment erosion and an annual reduction of 128 million gallons in runoff.



- ▶ As part of its goal to promoting regenerative agriculture across one million acres by 2030, **General Mills** is working with the Kansas Department of Health and Environment and the Ecosystem Services Market Consortium (ESMC) to pilot an ESMC program rewarding farmers for improving ecosystem services such as water quality, water use efficiency, and soil carbon. The collaboration works both to increase farmer profitability and ensure biodiversity while improving the water quality of the local Cheney Reservoir providing water to more than 400,000 people.
- ▶ **Cargill** is supporting the Water Sustainability in Arkansas Agricultural Irrigation project to conserve water in the Mississippi Alluvial Aquifer underlying the Arkansas Delta. To date, the program has successfully implemented irrigation conservation practices on 25,000 acres of cropland involving 50 farmers, including those from underrepresented groups such as women, Black, and Hispanic farmers. The project is expected to save several millions of gallons of water annually in row crop fields in the region through these efforts.

## North Pacific Basin (Sacramento–San Joaquin River Basin)

Much of California lies in the North Pacific basin and the state faces dual challenges of water scarcity and water pollution. As California experiences extreme fluctuations between severe drought and intense precipitation events, the management of water supplies for the state’s ecosystems, communities, farms, and businesses is complex. Water quality and scarcity risks are a significant burden, especially for California’s agriculture economy. Moreover, an estimated 1 million Californians [lack reliable access to safe drinking water](#), mostly in impoverished rural communities of the San Joaquin Valley.



- ▶ For food and beverage companies, collective action for water management in California is largely concentrated in the Central Valley, a vital sourcing region. **Constellation Brands, Danone, General Mills, Google, Keurig, Microsoft, Nestlé, Olam, PepsiCo, and Coca-Cola** are all members of the California Water Action Collaborative (CWAC), a group of 30 leading companies and nonprofits committed to understanding California’s unique water challenges, identifying geographies and issues of shared interest, and collaborating to make measurable positive impacts on water security in the state. For example, **General Mills** is co-leading a regenerative agriculture project in the

water scarce San Joaquin Valley, with participation from CWAC members including **Olam**. As part of the project, partners will measure the positive hydrological impacts achieved through optimizing water and fertilizer inputs. General Mills has already implemented 30 farm projects in California to understand the water, biodiversity, and profitability outcomes from adopting on-farm regenerative agricultural practices.

- ▶ In collaboration with Ducks Unlimited, **PepsiCo** is leveraging collective action to help meet its net positive water goal of returning more than 100% of the water it uses to the local watershed. The partnership has worked together to strengthen 669 acres of wetlands and floodplain, allowing for intermittent flooding that is vital to the watershed's recharge capabilities and the local ecology. Similarly, **Constellation Brands** is supporting TNC's Global Resilient Watersheds program, which uses innovative dynamic water management strategies, including nature-based solutions, to improve management of watersheds crucial to the company's winery operations and the surrounding communities in California.

## St. Lawrence Basin (Great Lakes)

The Great Lakes region of the U.S., which lies within the St. Lawrence basin, is the source of one-fifth of the world's fresh surface water and supports a [\\$7 billion fishing industry, a \\$16 billion tourism industry, as well as \\$14.5 billion in agricultural sales](#). In addition, the region provides habitat to a wide range of flora and fauna, making it one of the most critical biodiversity hotspots in the world. Yet, the Great Lakes region is experiencing extreme weather patterns and seasonal fluctuations, with years marked by heavy rainfall and flooding juxtaposed by periods of intense drought. This whiplash dynamic is disruptive for industries in the region, particularly agriculture, which is prone to flooding and erosion, and requires predictable rainfall for irrigation planning. The Great Lakes region also faces [serious water pollution challenges](#), which compromise the lakes' fishing industry and community water supplies.



To address these challenges, many companies in the region are making significant investments in regenerative agricultural practices, such as no tillage practices and reduced fertilizer and pesticide use, to promote increased soil water retention, flood protection, and improved water quality.

- ▶ **Kellogg's** partnered with the U.S. Department of Agriculture and TNC to educate farmers across 67,000 acres of land in the Saginaw Bay watershed in Michigan about conservation

and regenerative soil health practices. The company estimates that the initiative has prevented 3,900 tons of soil runoff and more than 7,822 pounds of nitrogen load from entering Saginaw Bay, an important drinking water source for over 1 million people and habitat for over 90 fish species and animals.

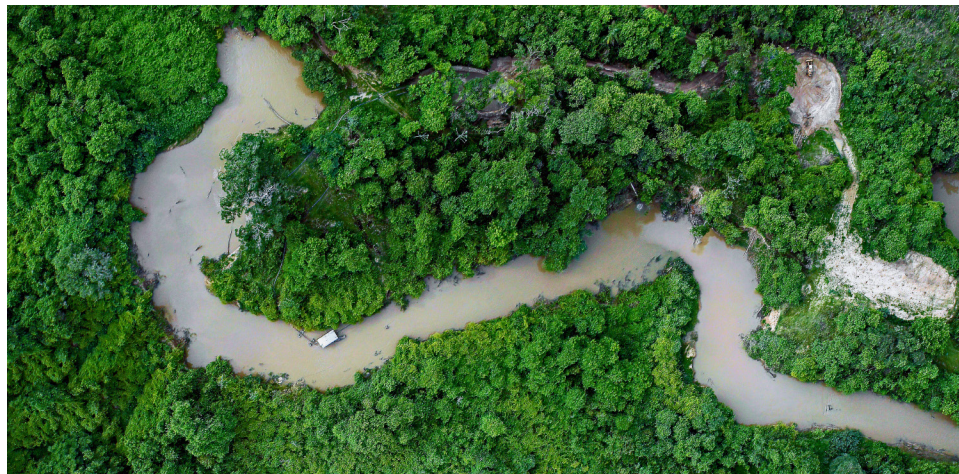
- ▶ **Mondelēz** requires its growers to implement sustainable farming practices which protect water quality and the environment through efficient fertilizer use. To minimize its water pollution impact, the company partnered with Michigan State University and local agricultural cooperative suppliers to adopt advanced agronomy practices that allow farmers to optimize fertilizer application and reduce run off, while increasing yield.

## International Examples

### Brazil

The Cerrado, an extensive tropical and subtropical region, covers approximately 20% of Brazil's territory and stands as one of the most biodiverse, ecologically significant regions globally. However, the region is also subject to extensive agriculture, mining, and other industrial activities dependent on the land and water resources of the region. Unfortunately, these very activities are [driving severe and damaging impacts](#), including water pollution and conversion of natural grasslands into other land uses.

- ▶ As one collective action example, **Archer Daniels Midland** partnered with Parque Vida e Cerrado in the western part of the state of Bahia in the Cerrado. The project focuses on several key objectives, including the restoration of degraded areas along springs and streams, the creation of biodiversity corridors within soy farms, and the protection of community water resources. To accomplish these goals, the collaboration employs workers to collect local seeds for native plant propagation, educates farmers on sustainable agricultural practices, and provides technical assistance to farmers engaged in restoration. In the future, the project plans to conduct biodiversity assessments and create educational programs at local schools.



- ▶ **Nestlé** is also engaged in a collective action initiative through a collaboration with the International Union for Conservation of Nature and the Brazilian non-governmental organization IPE (Instituto de Pesquisas Ecológicas) within the framework of the Cerrado Waters Consortium. To protect the waters of the Cerrado, the Consortium engages public and private entities, restores and protects native landscapes, trains farmers throughout the region on sustainable agricultural practices, and monitors water quality and quantity in the Cerrado's waterways.

## India

India is home to a vast network of 22 surface water basins and 42 major aquifers that are the foundation of vibrant economies, communities, and ecosystems. Agriculture accounts for nearly 90% of all the country's freshwater withdrawals from surface and groundwater resources. In addition to food production, the rivers provide essential water supply for urban municipal water services, hydropower generation, transportation, and shipping throughout the region. Without proactive water management efforts, the region is projected to see increased [water scarcity crises in major cities, a potential 6% decline in GDP, and exacerbated food insecurity](#).



- ▶ Examples of collective action in this region include **Olam**, which as a founding member of the Sustainable Rice Platform, is dedicated to mitigating the impact of basmati rice production on the water ecosystem in Haryana. Through improved agricultural methods like alternative wetting and drying, 217 participating farms have managed to reduce water withdrawal by 72 gallons per pound of rice produced. The company estimates that this initiative has conserved over 79 million gallons of water in basmati rice purchased by Olam.
- ▶ Additionally, **Gap** partnered with USAID to develop the Women+ Water Alliance, a public-private partnership, in collaboration with CARE, Water.org, WaterAid, and the Institute for Sustainable Communities, with the primary focus on addressing women's access to water and sanitation (WASH) issues in high stress watersheds of the Ganges, Godavari, and Narmada River Basins in Madhya Pradesh and Maharashtra. Since 2017, the program has provided training on WASH practices to more than 162,000 women in cotton-growing communities. This initiative aligns with **Gap's** 2023 goal of providing improved access

to water and sanitation to over two million people, including at least 1 million women, in communities surrounding apparel production in India.

## Mexico

River basins across Mexico face growing challenges driven by erratic water supply, expanding cities, and an economy linked to dwindling water resources. Residents of major cities, including Mexico City, Monterrey, and Guadalajara, have seen their taps run dry. In fact, [only 58% of the country's population has daily access to running water](#). Water pollution is also extensive with [only 52% of municipal waters and 32% of non-municipal water receiving any treatment](#).



- ▶ In acknowledgment of these challenges, **AB InBev** is collaborating with GIZ to protect and restore groundwater in the states of Zacatecas and Hidalgo. The program uses nature-based solutions, such as contour strips, dams, and barriers, to help increase infiltration and replenish the diminishing aquifers. Agricultural methods, such as cover crops and minimum tillage, are also employed to retain soil moisture. So far, the program has led to an increase in infiltration of roughly 467 million gallons across both sites.
- ▶ As another example, **Heineken** is partnering with Restauremos el Colorado in Northwestern Mexico to restore critical riverbank and wetland habitats in the region. The company donated 131 acres of irrigation rights to the water trust to restore native forests and wetlands and support local communities in this arid region. This helped the Restauremos el Colorado reach almost 2.9 billion gallons of water rights in the basin.
- ▶ **Diageo, Mars, and Pernod Ricard** joined a collaborative project led by the Beverage Industry Environmental Roundtable (BIER) called “Charco Bendito” in the Lerma-Santiago basin. By 2028, the project aims to increase infiltration in the basin by over a billion gallons and ensure access to clean water for over 1,000 individuals in the local community. This is accomplished through the elimination of unsustainable water use practices, reforestation and restoration actions, development of environmental education program for local communities, rehabilitation of water infrastructure, and the implementation of soil conservation measures. At the end of 2022, the program had already reached a volumetric water benefit of over 37 million gallons, returned nearly 110 million gallons of water through infiltration, and provided access to clean water for 320 people.