



Ceres

Feeding Ourselves Thirsty
Tracking Food Company Progress
Toward a Water-Smart Future
Executive Summary

feedingourselfsthirsty.org

October 2021

Water risks and the food sector

With the global population growing and the climate warming and water still being treated as a limitless resource, the availability and quality of global freshwater resources are rapidly declining. Some of the biggest challenges in the U.S. are in the Colorado River Basin, California, and other parts of the Southwest. Just a few months ago, federal officials ordered first-ever water cutbacks on the Colorado River, whose flows have declined by [nearly 20%](#) on average compared to the 1900s. These kinds of constraints are likely to worsen globally if we don't keep global warming below 1.5 degrees Celsius (2.7 degrees Fahrenheit) in the years ahead. That would mean even less clean water for basic human needs and food and energy production.

These dire threats are especially important for food and agribusiness industries that use more than 70% of freshwater globally to grow crops, feed livestock, and process ingredients to feed 7.9 billion people. The food sector relies on continued availability of water for growing and producing trillions of dollars of food products every year.

Compounding the challenge is that clean, fresh water is growing more scarce even as demand is skyrocketing. The United Nations projects that global demand for water will increase by 20 to 30% by 2050 in order to meet the food needs of a projected population of 9.8 billion.

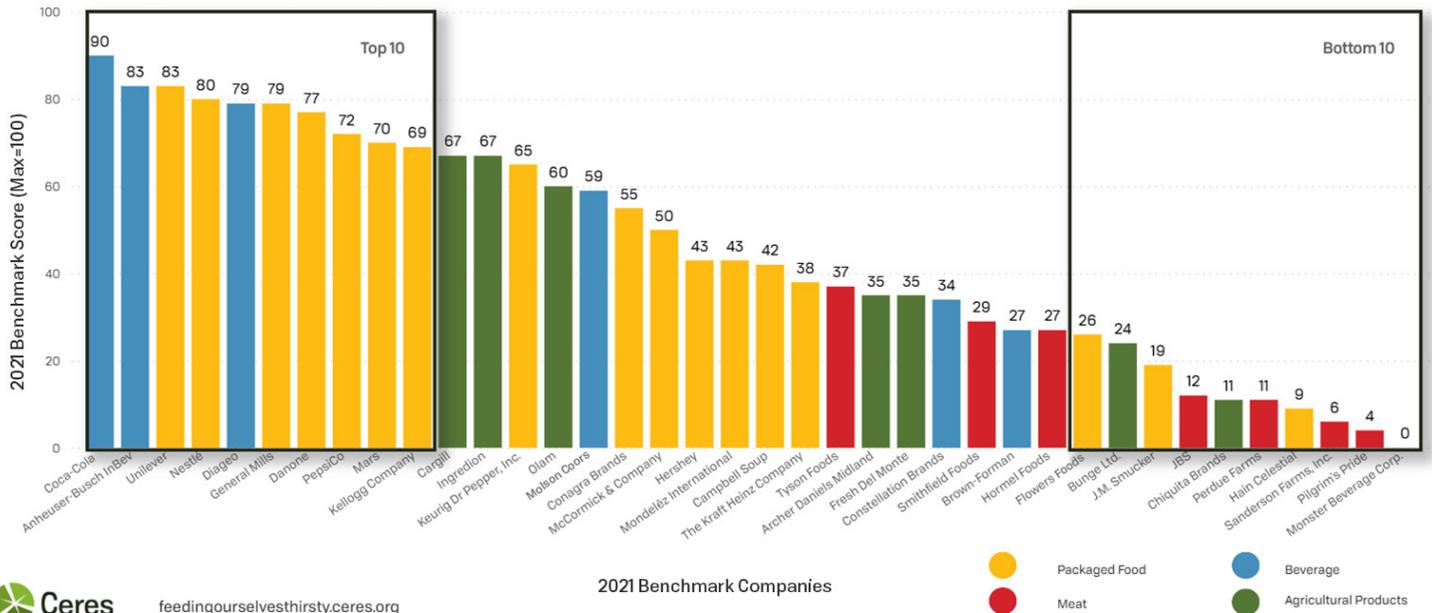
How food sector companies use limited water resources and manage escalating water risks is profoundly important, both for our societal future and the long-term financial viability of the companies themselves. Against this backdrop, Ceres is publishing its fourth edition of **Feeding Ourselves Thirsty**, a report that analyzes how the largest food sector companies are managing water risks in their direct operations and vast global supply chains. We believe this analysis can provide the information needed to help food companies manage their water risks more effectively, which is critically important to their bottom lines.



2021 KEY FINDINGS

Over the past few years, food companies have shown that they are taking global water risks more seriously. Since Ceres introduced Feeding Ourselves Thirsty in 2015, company performance in the benchmark has shown steady improvement, signalling a deeper understanding and increased management of water risks. As of 2021, **71% of companies consider water risks as part of their major business planning activities and investment decisions**, up from 58% in 2019. Now, **more than half of companies (53%) tie executive compensation to water and sustainability performance** (up from 33% in 2019), and **87% of companies are providing educational support to farmers** to encourage adoption of practices that reduce impacts and dependence on water (an increase from 70% in 2019).

Top and bottom performers by Industry



In spite of this progress, many companies simply aren't moving quickly enough to ensure sustainable water supplies. The average company score is less than half of all available points, with an overall food sector average of 45 points and the meat sector still lags considerably behind the pack, scoring an average 18 points. Overall, companies do not have sufficient water risk management practices in place across categories of water management, including governance, risk assessment, targets and implementation. This is exacerbating their exposure to threats across their supply chains. The financial fallout of these reputational, regulatory, and physical risks has become increasingly evident.

As **Feeding Ourselves Thirsty** continues to show, food companies need to do more. They must move more quickly and more boldly to meet the challenges posed by the global water crisis, protect their bottom lines, and return value to investors.

2021 BENCHMARKING RESULTS

In the 2021 analysis, Ceres looks at how food sector companies are responding to water risks and how their performance has changed in key areas since our first round of benchmarking in 2015. In this 2021 analysis, Ceres evaluated 38 food companies in four industries with the highest exposure to water risks: **Agricultural Products, Beverages, Meat, and Packaged Foods**. This group includes some of the largest U.S.-based and publicly traded companies, as well as a small number of large private and non-U.S. companies. Companies were assessed, based on public disclosures by the companies up to June 15, 2021, on a 0-100 points basis across four categories of water management: **Governance (22 points), Risk Assessment (28 points), Targets (36 points), and Implementation (14 points)**.

Feeding Ourselves Thirsty 2021 Company Ranks & Scores

■ Beverage
 ■ Packaged Food
 ■ Agricultural Products
 ■ Meat

RANK	COMPANY	SCORE	RANK CHANGE 2019-21
1	The Coca-Cola Company	90	↑
2	Anheuser-Busch InBev	83	↑
3	Unilever	83	↓
4	Nestlé	80	↓
5	Diageo	79	↑
6	General Mills	79	↑
7	Danone	77	↑
8	PepsiCo	72	↓
9	Mars	70	↑
10	Kellogg Company	69	→
11	Cargill	67	↑
12	Ingredion	67	↑
13	Keurig Dr Pepper, Inc.	65	↑
14	Olam	60	↑
15	Molson Coors Beverage Company	59	↓
16	Conagra Brands	55	↑
17	McCormick & Company	50	↑
18	Hershey	43	↑
19	Mondelēz International	43	↑

RANK	COMPANY	SCORE	RANK CHANGE 2019-21
20	Campbell Soup	42	↓
21	The Kraft Heinz Company	38	↓
22	Tyson Foods	37	↑
23	Archer Daniels Midland	35	↓
24	Fresh Del Monte	35	↑
25	Constellation Brands	34	↑
26	Smithfield Foods	29	↓
27	Brown-Forman	27	↑
28	Hormel Foods	27	↓
29	Flowers Foods	26	↓
30	Bunge Ltd.	24	↓
31	J.M. Smucker	19	↓
32	JBS	12	↓
33	Chiquita Brands	11	↑
34	Perdue Farms	11	↓
35	Hain Celestial	9	↓
36	Sanderson Farms, Inc.	6	↑
37	Pilgrim's Pride	4	↑
38	Monster Beverage Corp.	0	↓

Performance Improvements Made

- The number of companies that have explicit oversight of sustainability-related issues jumped 44% from 2017, for a total of 79% of companies.
- The majority of companies (53%) now link executive compensation to water performance goals, a 60% increase from 2019.
- 42% of companies—a 50% increase from 2019—have watershed protection plans for their agricultural supply chain, which include plans to support projects that improve conditions for the watershed in collaboration with key local stakeholders.
- 55% of companies provide financial incentives to farmers to encourage adoption of practices to reduce water use and impacts, a 60% increase from 2019.

Performance Improvements Needed

- Only a small number of companies - 17 - disclosed a supplier policy that includes specific expectations regarding water use and quality, while even fewer - eight - demonstrated policies that define protocols for non-compliance.
- Less than half of the companies - 18 - performed robust water risk assessments (inclusive of water quality) that focus on their agricultural supply chains.
- Only a handful of companies - nine - have implemented water use reduction targets for key growing regions in their supply chains.
- A mere 12 companies focused their direct or indirect support on farmers growing key ingredients in high-stress water basins.



Changes to Methodology

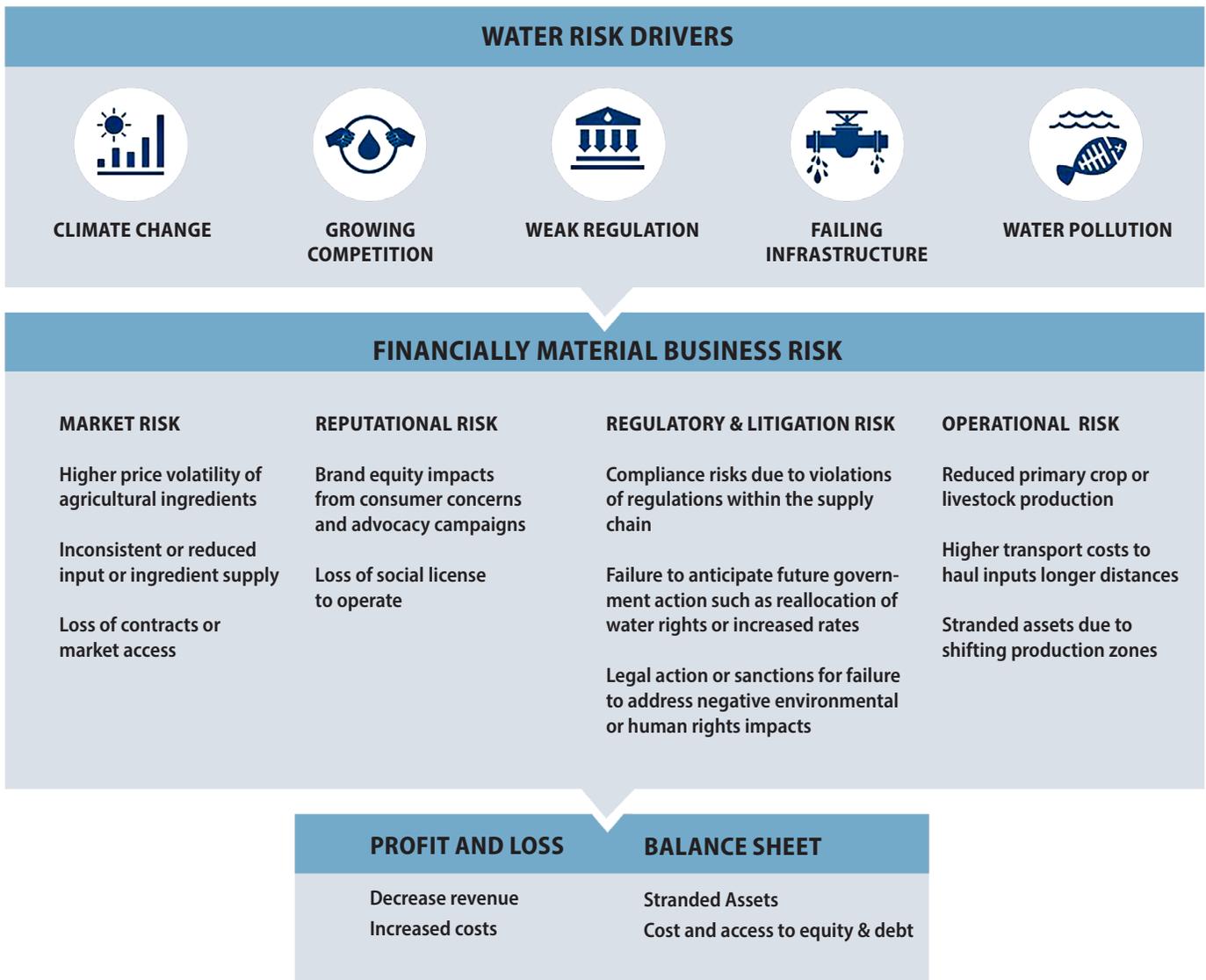
This year's report methodology has been modified and streamlined, leading to changes in scoring. The changes were made to ensure that the scores reflect the most relevant aspects of companies' water risk management and align with global standards that investors rely on, such as [SASB](#) and [CDP](#).

Of particular note, we increased the scoring weight and enhanced the indicators applied to agricultural supply chains, which contain the bulk of the food sector's exposure to water risks. This resulted in prioritizing and adding indicators around time-bound quantifiable goals for reduced water use in supply chains and linking business activities to address threats in high risk watersheds. Because of these adjustments, we de-prioritized several indicators related to direct operations and manufacturing supply chains.

WATER RISKS AND ITS IMPACTS: SELECT CASE STUDIES

The business imperative to effectively manage water supplies for the food sector is clear. Because the industry consumes 70% of the world’s freshwater to grow and manufacture its products, and impacts freshwater quality and supplies, the physical, reputational, and regulatory risks these giant companies face are unquestionable. Clean and abundant freshwater is a critical asset to food companies and to the farmers who grow raw ingredients. This crucial resource is being depleted and polluted at an alarming rate and the physical effects of climate change only exacerbate this trend. The following chart illustrates some examples of how these risks have materialized over recent years:

WATER ISSUES IMPACTING THE FOOD SECTOR



CASE STUDIES

Constellation

Constellation Brands Inc., maker of Corona and Modelo beers, began construction of a \$1.5 billion brewery in Mexicali nearly five years ago in an area of the desert that relies on the already-stressed Colorado River. Local concerns over access to water sparked organized opposition to the construction of the brewery and led to a local public referendum denying the company a water permit. **Constellation** will be unable to use or repurpose this site for future use and began [dismantling its operations](#) earlier this year. As a result, the company expects a long-lived asset impairment of up to \$680 million in the first quarter of fiscal year 2022. Constellation Brands continues to experience [public backlash](#) and social license to operate risks from its plans to use local water to make beer for export in a region regularly experiencing severe water scarcity.



Colorado River/Meat Production

After two decades of historic extended drought, the Colorado River hit a tipping point in August. With the largest reservoirs at their lowest levels in history, the [federal government declared a water shortage](#) in the basin for the first time. Cattle farmers are already feeling the effects of this dwindling water supply and restrictions. Irrigating crops to grow feed for animals is the single biggest use of water in the U.S.—and in the Colorado River Basin, cattle feed irrigation accounts for [over half of all water use](#). In response to mandatory water reductions, farmers are fallowing fields, reducing their herd size, and switching to less water intensive crops. The Colorado River Basin conditions are only expected to get worse, not simply because of pressures from the rising food production and growing cities, but from extreme weather. The river's flow has [declined 20%](#) over the last century and researchers are predicting another 20% drop over the next three decades.



Olam

Drought has been a recurring theme in Olam's supply chain, particularly in its coffee and edible nuts businesses. Droughts in key growing regions worldwide, including Argentina, Australia, and California, have caused harvest losses and higher prices for coffee, almonds, and other nut crops, leading to several [million dollars in losses](#) for Olam in recent years.

For instance, in August, Olam's CEO talked about the company's [coffee supply chain based in Brazil](#) as one of the many operations impacted by devastating production losses from the [country's worst drought](#) in nearly a century. Poor production is projected for at least this next crop year. Notably Olam continues to invest in the country, with a [soluble coffee manufacturing facility](#) set for completion in 2022. Olam [reported](#) a significant drop in coffee production from its Zambian facilities in 2019 because farmers didn't have enough water to sufficiently irrigate crops. Zambia is an extremely-high stress country with cyclical droughts, nearly guaranteeing a repeat of this type of productivity loss.

Recommendations for investors

Investors can use the findings from this benchmark to understand the water management practices of their portfolio companies. For institutional investors, and universal asset owners especially, water risks in the food sector are both material and systemic in nature. For investors who take an active ownership approach on ESG and water issues, these findings can support stewardship efforts to change corporate practices and policies, improve investment returns, and create long-term investment value.

Engage with Ceres' Valuing Water Initiative and other collaborative investor efforts on water risk.

Investors can join [Ceres' Valuing Water Finance](#) Initiative to drive corporate action on water-related financial risks and raise awareness within the capital markets of the widespread negative impacts of corporate practices on water supplies. Ceres' Investor Network and its associated member working group, the Investor Water Hub, supports investors' corporate engagement on water risk, providing resources to help investors evaluate and manage water risks in their practices and decision-making. The Investor Water Hub forum offers peer-to-peer sharing of water risk integration and engagement practices, and develops methods to assess water risks and opportunities across asset classes.

Engage directly with company management.

Individual investors can use this analysis to engage directly with those companies in their portfolios that are lagging in their water risk management and pinpoint specific areas of water management that need focus. Since water management efforts related to the agricultural supply chain contain the bulk of the food sector's exposure to water risks, investors taking an active ownership approach on water should consider engaging company management on these risks specifically. As a last resort, some investors may consider reducing their exposure to companies that fail to adequately manage material water risks.

Ensure proxy voting includes water risks.

Asset managers should review their institution's guidelines and policies to ensure support for relevant shareholder resolutions on water risk. Asset owners should engage fund managers to ensure such guidelines are in place and used. Ceres' [Investor Water Toolkit](#)—the first-ever comprehensive resource to evaluate and act on water risks in investment portfolios—provides investors with additional guidance on shareholder resolutions and proxy voting.

Solicit improved disclosure of water risks.

Investors should call upon food sector companies to improve and standardize their water risk disclosures. Investors can join relevant investor working groups and dialogues, and support market-level reporting frameworks such as CDP's Water Questionnaire, GRI, and SASB, among others.

About Ceres

Ceres is a nonprofit organization working with the most influential capital market leaders to solve the world's greatest sustainability challenges. Through our powerful networks and global collaborations of investors, companies and nonprofits, we drive action and inspire equitable market-based and policy solutions throughout the economy to build a just and sustainable future. For more information, visit ceres.org and follow [@CeresNews](https://twitter.com/CeresNews).