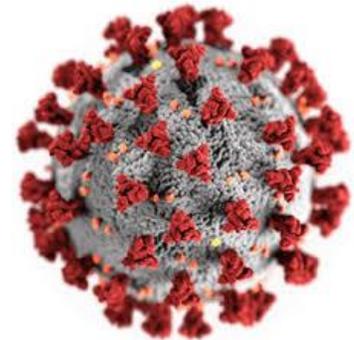


Water and the COVID-19 Pandemic: A Business Framework for Water and COVID-19 Rebuilding and Resilience: Phases 2 and 3

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The business community can play a key role in combatting the spread of COVID-19, as well as rebuilding the economy and reducing the risk of future shocks. This Issue Brief, developed by the Pacific Institute in its role as Co-Secretariat of the UN Global Compact’s CEO Water Mandate, expands on the Issue Brief outlining Phase 1 of this framework to further articulate this role. Specifically, this Issue Brief:



- Articulates the connections between water, COVID-19, and the business community;
- Offers a practical framework on actions companies can take to facilitate a “blue” economic recovery in the wake of the COVID-19 pandemic, with an eye toward long-term resilience; and
- Connects businesses to capacity-building resources and practical examples of water-related actions companies are taking in response to COVID-19.

This Issue Brief completes the Business Framework for Water and COVID-19; Phase 1 of the framework is available online, with other Issue Briefs on COVID-19 and water developed by the Pacific Institute, at <https://pacinst.org>.

An expanded, web-based version of this framework can be found at: <https://ceowatermandate.org/covid>.

PHASE 2: BUILDING BACK BETTER – A “BLUE” ECONOMIC RECOVERY

Once the virus is mostly contained and businesses begin operations with some semblance of normalcy, there will still be much work to be done. Even once the direct health risks of COVID-19 have largely subsided, its effects on our global economies will linger, likely for years to come.

Much has been made of a “green” recovery to COVID-19: one that simultaneously stimulates and strengthens the economy and also advances critical climate goals that ultimately make our economies more sustainable and equitable. The yearly value of the world’s ecosystem services is estimated at some \$125 trillion (Costanza et al. 2014), but over 60 percent of these are being degraded or used unsustainably (Holzman 2012). The World Economic Forum (WEF) estimates that more than half of the global GDP, \$44 trillion, is at risk due to nature loss (WEF 2020a). By protecting the environment, we protect our economy.

But this “green” recovery to COVID-19 must also be “blue”: a robust economic recovery goes hand in hand with water stewardship, defined as “use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial” by the Alliance for Water Stewardship (AWS 2017). Investing in drinking water, sanitation, and hygiene (WASH) both saves lives (Otto et al. 2020) and brings economic benefits: for every US \$1 invested in water and sanitation, US \$4.30 is generated in economic returns through increased productivity (World Health Organization 2012). Public water infrastructure likewise offers a high return on investment, with the potential economic benefit of supplying needed water infrastructure in the United States alone estimated at \$220 billion US dollars in total annual economic activity and 1.3 million new jobs (Value of Water Campaign 2017). Finally, water-efficient business practices often save money which can then be re-invested in people and growing the business. Investing in significant water management technologies, such as circular water systems or state-of-the-art wastewater treatment processes, can also create jobs for those who install them. These water stewardship approaches often address climate change as well by reducing emissions, sequestering carbon, or helping businesses and communities adapt to the effects of climate change (Mehta 2009, Diring et al. 2020).

When we invest in water, we invest in people, the planet, and the economy.

1. Implement cost-saving practices and job-producing technologies that advance water stewardship at company facilities

Job creation is crucial to economic rebound in the wake of COVID-19. The International Labour Organization (ILO) estimates that the equivalent of 400 million full-time jobs had been lost worldwide as of the second quarter of 2020 (ILO 2020). Companies have the opportunity to contribute to the global recovery by investing in cost-saving and job-creating practices that protect companies’ interests for the long term through water stewardship. Cost-saving practices will allow companies to invest in job creation.

The pandemic has demonstrated the high cost of disruption to business and global public health, with 2020 global economic losses due to coronavirus reaching \$21.8 trillion US dollars according to one estimate (Australian National University 2020). Environmental crises stand to cause similar losses in the near future:

the ILO estimates that 1.2 billion jobs directly rely on environmental management, particularly jobs in farming, fishing, and forestry, with more jobs indirectly at risk (ILO 2018). As climate change leads to increased flooding, drought, storms, heat waves, and refugee crises, these events will increasingly affect public health, employment, and commodity pricing.

Cost-saving water stewardship practices — particularly water use efficiency practices like leak detection and irrigation technology — allow businesses to cut costs, freeing resources for job creation. The Waste and Resources Action Programme (WRAP) estimates that many companies can decrease water use by 20 to 50 percent through efficiency technology (WRAP 2005). Companies implementing water stewardship practices can see a complete return on investment within the first year, largely through cost savings due to water use efficiency.

In turn, jobs are created both by research and innovation in stewardship practices and by implementation of existing technologies (Ardakanian et al. 2011). Money saved through efficiency can be reinvested in water stewardship practices with a longer payback period and multiple benefits, such as nature-based solutions (Shiao et al. 2020), investments in basin health, and community engagement.

Continued commitment to ensuring adequate WASH access in the workplace and in communities will further fuel economic returns. Promoting hygiene and improving WASH access, as discussed in Phase 1 of this guide, will both improve workplace productivity and protect workers' health and business' bottom line through reduced absenteeism (Schulte et al. 2020, WaterAid 2018).

Finally, some businesses are developing products that address water issues while also driving profit and creating jobs. Examples of businesses seizing water-related opportunities vary by industry – Bayer Crop Sciences is developing drought-resistant plant strains, while BASF estimates potential sales of US\$1billion from water recycling, reuse, and treatment technologies, according to the CDP Global Water Report 2014. The sanitation economy offers further business opportunities that bring both social and economic benefit (Toilet Board Coalition 2017).

Practical actions for businesses include:

- Build the business case for water stewardship through resources such as the CEO Water Mandate's Water Stewardship 101 curriculum and through assessment tools such as Ecolab's Water Risk Monetizer, WRI's Aqueduct Water Risk Atlas, and WWF's Water Risk Filter.
- Assess potential cost savings from efficiency and implement efficiency practices where they make economic sense.
- Invest returns from efficiency investments in job-creating water stewardship practices with longer-term payback periods and multiple benefits.

As an example of cost savings due to efficiency improvements, UK beverage company Diageo plc reduced the volume of its water withdrawals by nearly one million cubic meters in 2014 and estimates the associated cost savings at US\$3.2 million total (CDP 2014). The introduction of a new soldering practice at Cisco significantly reduced water use and wastewater, saving the US electronics manufacturer more than US\$1 million per year (CDP 2014). Upon completion of a water efficiency project, US pharmaceutical company Merck will save 2.1 million cubic meters of water and in doing so save US\$500,000 annually (CDP 2014).

Nature-based solutions can also save costs (Conti 2018). As one example, the Dow Chemical Company saved an estimated US\$282 million by installing a wetland instead of a conventional treatment plant while still addressing a regulatory compliance issue (DiMuro et al. 2014).

2. Invest in cost-saving and job-producing supplier training and technologies

The supply chain can account for the lion's share of a company's water footprint, particularly for businesses that depend on agriculture, such as food, beverage, and apparel companies. Many companies begin by taking action on water in their own operations where they have the most influence (Kammeyer 2018) yet supply chain partnerships provide another important opportunity to advance water stewardship while contributing to economic rebuilding. The COVID-19 pandemic brought global disruptions to the supply chain due to lockdowns, travel restrictions, and labor shortages caused by illness (Hedwall 2020, OECD 2020). Yet beyond pandemic risks, supply chains face risk due to water and climate issues.

Supply chains often offer the strongest investment opportunities for water use efficiency, particularly for large brands that have already improved efficiency at their own operations. Companies' suppliers may also benefit from investment in other stewardship practices, such as water reuse, circular water management, and other technologies. Reinvesting cost savings from efficiency in the supply chain through training and technological implementation does more than ensure supplies remain stable: this investment creates jobs in communities around the globe.

As the global economy moves to build strong supply chains in the wake of COVID-19, water stewardship practices and technologies stand to improve both resilience and economic rebound.

Practical actions for businesses include:

- Prioritize supply chain investment by considering where water stress is already most pronounced, which suppliers bring the company the most economic value, and which suppliers have the highest need due to COVID-19 or other public health considerations.
- Work with suppliers to build a common understanding of water challenges and share technical knowledge and resources.
- Adopt scorecards or standards for worker and environmental protection across the supply chain, following in the footsteps of water stewardship leaders such as Nike, LM Ericsson, and Givaudan.

- Encourage and facilitate WASH access for suppliers' workers, as discussed in Phase 1. These investments bring business benefits beyond immediate containment of the pandemic, such as by reducing employee absenteeism and staff turnover (WASH4Work 2017).

As one example of this investment in water stewardship across the supply chain, the AgWater Challenge represents a group of nine businesses working in partnership with WWF and Ceres that are committed to improving supply chain performance on water. As an AgWater Challenge member, the Kellogg Company set ambitious commitments that include bringing climate, social, and financial resilience programs to one million farmers and workers. Kellogg reached over 300,000 farmers as of 2018 through climate and water sustainability programs, research, and technical assistance, and has demonstrated quantitative improvement across more than 198,000 hectares. Kellogg and other AgWater Challenge members report on their success in the 2020 Ceres/WWF AgWater Challenge Progress Report (Ceres 2020).

3. Advocate for “blue” government stimulus policies

Addressing the public health crisis is the first priority in our response to COVID-19. However, governments are already beginning to consider how to rebuild a robust global economy. In this context, businesses have the opportunity to advocate for concrete policy changes that protect both economic rebuilding and public health, such as public water infrastructure investment, industrial water use standards, and WASH access. Economic relief to industries and the economy more broadly can help create a “blue” economic recovery which acts on the imperative of the water crisis and the economic opportunities offered by water stewardship.

Existing calls to action such as the European Parliament’s Green Recovery Alliance, the International Energy Agency’s Sustainable Recovery Plan, the C40 Mayors’ Agenda for a Green and Just Recovery, and the World Economic Forum’s Great Reset advocate for a “green” recovery that addresses climate change impacts. These blueprints for a green recovery largely center on reducing emissions and reforming the energy and transportation sectors.

While these measures are crucial, we must also incorporate water stewardship and WASH access into our economic recovery. Businesses can advocate for “blue” government stimulus policies that go beyond mitigation measures to support adaptation through investment in public water infrastructure (Value of Water Campaign 2017), broader WASH access (especially in underserved communities), and better industrial water use standards. By demonstrating the business community’s need for smart water policy, businesses can broaden the recovery conversation to include water issues.

Practical actions for businesses include:

- Use private investment to spearhead calls for public investment. Consider both financial and in-kind commitments.

- Leverage the Ambition Loop framing to champion water-positive policies: strong action from business can support and inspire government action, and vice versa (Ambition Loop 2018).
- Encourage governments to learn from the 2008 recession, when stimulus packages failed the green standard by spurring increased fossil fuel use, as reported by the Guardian (Harvey 2020).
- Frame this period of economic recovery as an opportunity to accelerate crucial actions on the UN Sustainable Development Goals, particularly SDG 6.

As an example, in May 2020, more than 150 businesses representing more than \$2.4 trillion of market capitalization affirmed their science-based commitments to a zero-carbon economy and called for governments to “prioritize a faster and fairer transition from a grey to a green economy.” Businesses have the power to shift public dialogue and prioritize environmental responsibility, an ambition that must be extended to include water issues (Science Based Targets 2020).

PHASE 3: CATALYZING A WATER RESILIENT SOCIETY

The climate crisis is in many ways a water crisis. Many of the worst, most visible impacts of climate change will be felt through our relationship with water. For the last several years, the concept of water resilience has become a call to action to design and implement our water systems such that we not only anticipate, prepare for, and respond to even the most damaging impacts of climate change, but mitigate climate impacts in the process.

COVID-19 has shown the fragility of our water systems, not only to climate change, but to many other crises. The climate crisis is far from the only major destabilizing force we must withstand in the years and decades to come. We must also make our water systems resilient to other possible major societal disruptions, including global pandemics, natural disasters such as earthquakes and tornadoes, terrorist attacks, and severe recessions.

Building a water resilient society means preparing the human and technological elements of our water systems not only for the many impacts and disruptions we can already foresee, but also all those we cannot. Businesses can advance water resilience by developing long-term corporate resilience strategies that span direct operations, catchments, supply chains, and local communities (Hamilton et al. 2020); investing in supplier water stewardship practices; advocating for effective, high-integrity public water governance; and joining on-the-ground collective action efforts in the world’s most at-risk river basins.

1. Develop and implement a long-term corporate water sustainability strategy

Water stewardship is a powerful way to cut costs and protect business interests for the long term. But improving basin resilience and maximizing a company’s benefit from water stewardship requires integrating water stewardship into the business strategy. Rather than pursuing water stewardship as a philanthropic activity external to a company’s core interests, businesses should consider water stewardship integral to

managing business risk. Addressing water risk where it is most pressing strengthens the long-term viability of a business' operations and generates buy-in from local stakeholders by demonstrating the importance of water stewardship.

Water supply instability, flooding, storms, and other climate-related water issues already affect lives and livelihoods—the 2020 floods in central and southwestern China are only one example (Myers 2020). But these risks will only intensify as the planet's climate continues to change. The number of people at risk from floods is projected to hit 1.6 billion in 2050, with \$45 trillion worth of assets at risk (Leflaive 2012). On the other extreme, global water demand is predicted to increase 55 percent by 2050 (Connor 2015), and an estimated 3.9 billion people will live in river basins under severe water stress (Leflaive 2012).

Given that the global response to climate change is a work in progress and many climate outcomes are possible, effective risk management requires assessing potential future water risks based on different climate scenarios. Resilience leaders consider climate impacts beyond their operational boundaries, working with supply chains, local communities, governments, and business partners to ensure long-term water access for all. These leading companies have overcome the barriers to action on water-related climate risk, taking action now to protect their business interests for the long term.

Practical actions for businesses include:

- Assess future water risks under different climate scenarios, paying particular attention to risks related to geography and to the supply chain.
- Create a targeted plan to build resilience where it is most essential to the business to improve basin health and community livelihoods.
- Include WASH access in a company resilience plan, given the compelling links between WASH and community resilience to climate change (Casey 2016).
- Publicly share a business risk assessment and demonstrate how the company is addressing those risks.
- Include water and climate risks in annual financial reporting to demonstrate accountability and indicate that the company is addressing its most pressing risks.

As an example of a corporate water stewardship plan in action, beer company Heineken reduced its water use by one third between 2009 and 2019. The company chose to build on this accomplishment by incorporating water stewardship into its core business through its 2030 goal, Every Drop, adopted in 2019. Beyond continuing to reduce water use, the strategy includes an ambitious replenishment goal: to rebalance all water used in water-stressed watersheds. The goal supports all breweries in water-stressed areas to assess their local context. Through these actions, Heineken advances the health of communities and the environment

while also taking action to ensure the longevity of its business, for which water is an essential input — as the Every Drop site notes, beer is 95 percent water (Heineken n.d.).

2. Advocate for and facilitate effective, high-integrity public water governance

Although some water risk depends on a company’s individual actions, much of the water risk faced by a company operating in a given basin depends on the context of the watershed as a whole. Every basin’s water challenges are affected by all actors in the basin, manifesting in different water risks for different stakeholders. And as climate change intensifies water crises around the world, businesses and communities must act to mitigate these physical climate risks (Hamilton et al. 2020). It is therefore in businesses’ best interest to engage with public agencies and other stakeholders in a clear, balanced, and transparent manner to ensure effective management of shared risk (Morrison et al. 2015).

Well-designed and consistently implemented regulatory frameworks are often the best — and only — way to address shared water challenges caused by catchment conditions. Effective governance can even lower the cost of doing business by successfully managing water issues. And by improving WASH access, water policy is crucial to protecting people and businesses from future pandemics.

Businesses advocate for responsible water use at every level of governance, from municipalities and catchment-scale water agencies to national political bodies and global initiatives. To facilitate effective, high-integrity public water governance, successful businesses adhere to guiding principles, including transparency and a respect for the distinction between public and private roles (Morrison et al. 2010). Responsible corporate engagement supports the government’s mandate and responsibility to develop and implement water policy. Businesses should think beyond lobbying to undertake other forms of engagement such as involvement in policy implementation, local water management, and partnership with other non-public-sector entities that are affected by water policy.

Practical actions for business include:

- Act proactively, rather than responsively, to champion policy that addresses water issues before disaster strikes.
- Join the Water Integrity Network (WIN) to promote high anti-corruption standards.
- Foster transparent, two-way communication with governments, communities, and other stakeholders to prevent policy and regulatory capture.
- Target engagement to the appropriate scale of government. See Table 1: Engagement across different scales of water policy in the *Guide to Responsible Business Engagement with Water Policy* (Morrison et al. 2010).

One example of business participation in governance centers on Lake Naivasha in Kenya, which is essential for fishing, farming, power generation, drinking water, and industry. Businesses addressed water

management by helping implement Kenya’s national water policy, which requires decentralized governance by user groups. The Lake Naivasha Growers’ Group (LNGG) funded a Water Allocation Plan to help create local Water Resource Users’ Associations (WRUAs), which promote water conservation and environmental management. The Lake Naivasha WRUA worked with the government, CARE International, and WWF to undertake a Sub-Catchment Management Plan to improve water management, reducing shared risk around the lake (Morrison et al. 2010).

3. Join on-the-ground collective action efforts through the Water Resilience Coalition

The Water Resilience Coalition is an industry-driven, CEO-led coalition of the UN Global Compact’s CEO Water Mandate that aims to elevate global water stress to the top of the corporate water agenda and preserve the world’s freshwater resources through collective action in water-stressed basins and ambitious, quantifiable commitments. To date, 18 companies have joined.

In addition to the human right to water and sanitation, the Coalition is motivated by the business community’s need to protect water resources. Water stress results in increased costs, production interruptions, market instability and workforce hardship, among other profound challenges. In fact, the World Bank projects that by 2050, some regions could see their GDP growth rates decline by as much as six percent due to water-related losses.

Coalition members agree to deliver measurable net positive water impact in water-stressed basins, institute powerful water resilience practices across the value chain, and raise the profile of water through global leadership. The Coalition stands out for the scope of its ambition and its emphasis on quantifying impact.

Practical actions for businesses include:

- Pose questions about the Coalition at ceowatermandate.org/resilience/contact-us.
- Use the Water Action Hub to identify potential collective action efforts of interest.
- Sign the Coalition pledge.
- Join concrete actions with fellow Coalition members.

The Water Resilience Coalition was launched in March 2020 by CEOs from seven major global companies – AB InBev; Diageo; The Dow Chemical Company; Ecolab; Gap, Inc.; Microsoft; and PVH Corp. – together with the UN Global Compact’s CEO Water Mandate and other NGO partners. The founders spearheaded the Coalition to unite CEOs of the world’s most influential companies around building a water resilient future.

CONCLUSIONS

Once businesses have taken action to contain the immediate spread of the pandemic, as detailed in Phase 1 of this framework, it is in their best interest to support economic recovery and secure water resilience over the

long term. This recovery and resilience is essential not only to protect public health and economic prosperity but also to ensure that companies can mitigate the risks arising from this pandemic and future shocks.

While the effects of the COVID-19 pandemic on society and the business community are unprecedented, several principles can be applied to promote a just and resilient recovery. Phase 2 of this framework outlines how businesses can use cost-saving technology to reinvest in job creation, facilitate recovery across the supply chain, and advocate for water-smart government response. Phase 3 of this framework describes a long-term path to achieve water resilience through robust corporate water stewardship strategies, effective and transparent public water governance, and collective action – including with the CEO Water Mandate’s Water Resilience Coalition.

With economic rebuilding underway, businesses have a powerful opportunity to promote a resilient society that will meet communities’ and companies’ needs over the long term.

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