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FUELING GROWTH

YOU CAN'T ALWAYS BUY WHAT YOU NEED

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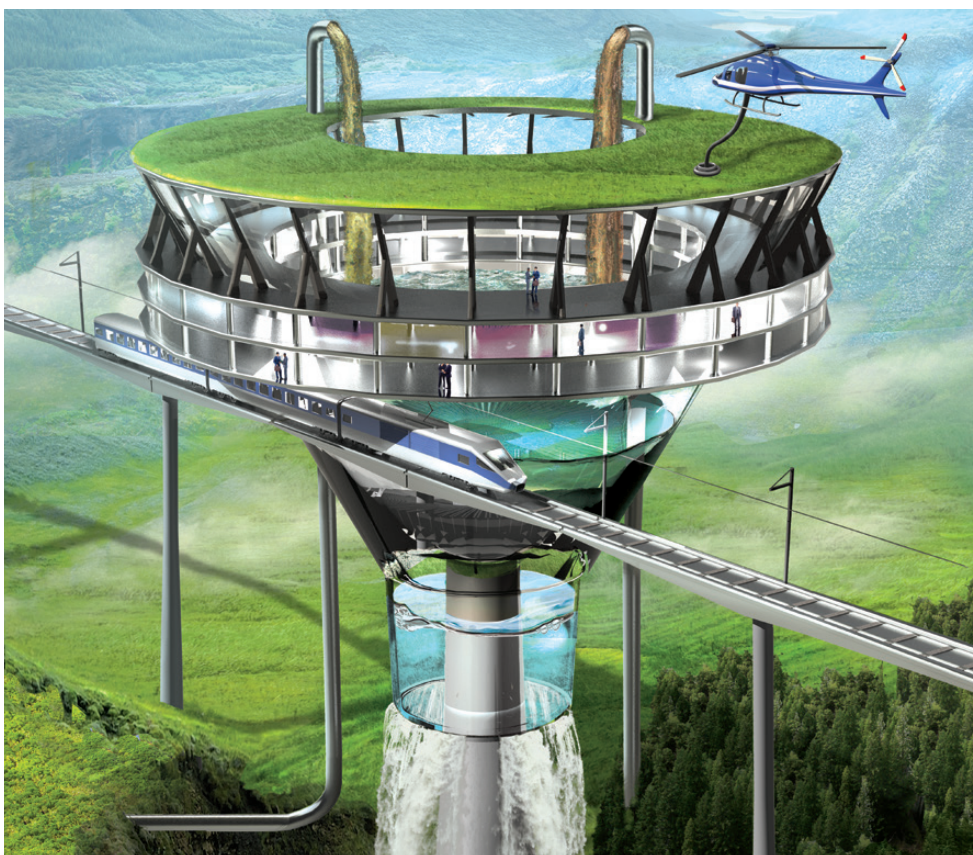
BY WILL SARNI > ILLUSTRATIONS BY IGOR MORSKI

NO WATER, NO BEER.

Whether you are a global beverage company expanding in new markets in Africa or a manufacturer operating in the United States (in particular, in areas affected by the current drought in the American southwest), if you do not have access to water—or other critical resources—you will struggle to meet your business growth targets.

A major beer company, for example, experienced water shortages at two of its facilities in Ghana over the past five years that affected its ability to produce and ship products. According to the company, the estimated impact to the business in lost sales due to these production stoppages was in excess of £2 million.¹

It couldn't buy the water it needed.



WATER STEWARDSHIP VS. WATER MANAGEMENT

“Water stewardship” has become a common term to denote an economically, environmentally, and socially responsible water strategy. The phrase refers to the adoption of values and practices that aim to safeguard long-term availability of clean water for all stakeholders in a watershed, prompted by recognition of water as an externality with a potentially material business risk.

The value of water stewardship in managing water risks and how to structure a water stewardship strategy have been presented in the literature.² In terms of the maturity model presented in this article, water stewardship corresponds to stages 3 and 4, with stage 4 being a “license-to-grow” strategy.

Water stewardship can be contrasted with the narrower concept of water management, which deals specifically with addressing water scarcity’s immediate direct business costs through more efficient water use. Unlike water management, water stewardship goes beyond the unit cost of water to consider how competition for water might affect business continuity, brand value, and social license to operate. Water stewardship also emphasizes effective resource sharing alongside efficient resource use. While water management aims primarily to manage risk to a company’s direct operations, water stewardship also seeks to engage stakeholders across the value chain (supply chain and in the product use phase) in managing their collective risk, as well as to address the concerns of stakeholders within the watershed.

This challenge is not unique to beverage companies. For any company that needs water for manufacturing, in its supply chain, or even for product use, lack of access to water (for the company or its customers) heightens the risk of business disruption and may jeopardize its growth strategy.

This points to a key question: How do companies with ambitious global growth strategies secure the water they need to fuel business growth in a world where simply paying more for water will not work?

The answer resides in why and how companies align their water stewardship strategies to support their business growth strategies. This alignment is built upon two key actions. First, companies that synchronize water stewardship strategy with growth strategy can benefit from considering and quantifying water's *full business value*, moving beyond the price of water to take into account water's various impacts on operations, value chain, brand, and growth prospects. Second, companies that depend on water would also benefit from proactively leading *collective action* initiatives with stakeholders across their value chain within the watersheds in which they operate. Actions in these two areas go well beyond most companies' current thinking on water management, which focuses primarily on water efficiency and reuse and recycling within their operations.

SCARCITY: BOTH A CONSTRAINT AND AN OPPORTUNITY

Competition for water is growing more intense, as the steadily increasing world population and the industrialization of emerging markets put the world's finite water supply under greater strain. This increased competition for water, coupled with droughts and the impacts of climate change, effectively drives increased water scarcity, as there is less water per person—and per organization—available to meet growing needs.

A large body of literature has explored the idea that scarcity acts as a constraint to business. In particular, considerable attention in publishing and practice has been paid to generating growth alternatives under conditions of scarcity and making choices from a set of such alternatives. For example, strategic raw material sourcing often factors into this decision-making process.³ Under conditions where demand for certain factors of supply cannot be fulfilled, growth prospects may be severely curtailed. That is, if a company can't always buy what it needs, its growth trajectory will slow, stall, or fail.

In a world where all resources were abundant, all potentially valuable growth alternatives could be pursued. But scarcity imposes constraints on the growth choices available to leaders, as they may lack confidence in the availability of needed resources in sufficient quantity or quality. Without such confidence, even the most promising growth agenda cannot be executed.

However, from a strategy perspective, there can also be a positive side to scarcity. The same attribute that can limit a resource's ability to fuel growth can also grant competitive advantage to companies that gain a measure of control over access to such resources. Controlling access to relatively scarce resources—those that are also valuable and difficult to imitate or replace—can help confer such advantage.⁴

A key challenge for companies where water is an essential resource requirement is that their ability to directly “control” access to water as a resource is very limited. This is because water is fundamentally a *shared* resource to which ownership cannot easily be assigned. Public policy, regulations, and stakeholder influence (for example, the presence or absence of “social license-to-operate”) all impact a company's ability to access water and, as a result, limit its ability to “control” access to water.

A recent paper by WWF articulates the unique qualities of water as a shared resource: “Water is a highly complex public resource with multiple socially defined functions and values. Its effective management requires the continual reconciliation of trade-offs between private interests and collective well-being, not to mention fulfillment of a fundamental human right.”⁵ In reconciling these trade-offs between multiple interests, corporations often find that they must negotiate solutions that allow for and consider water's disparate functions for various stakeholders.⁶

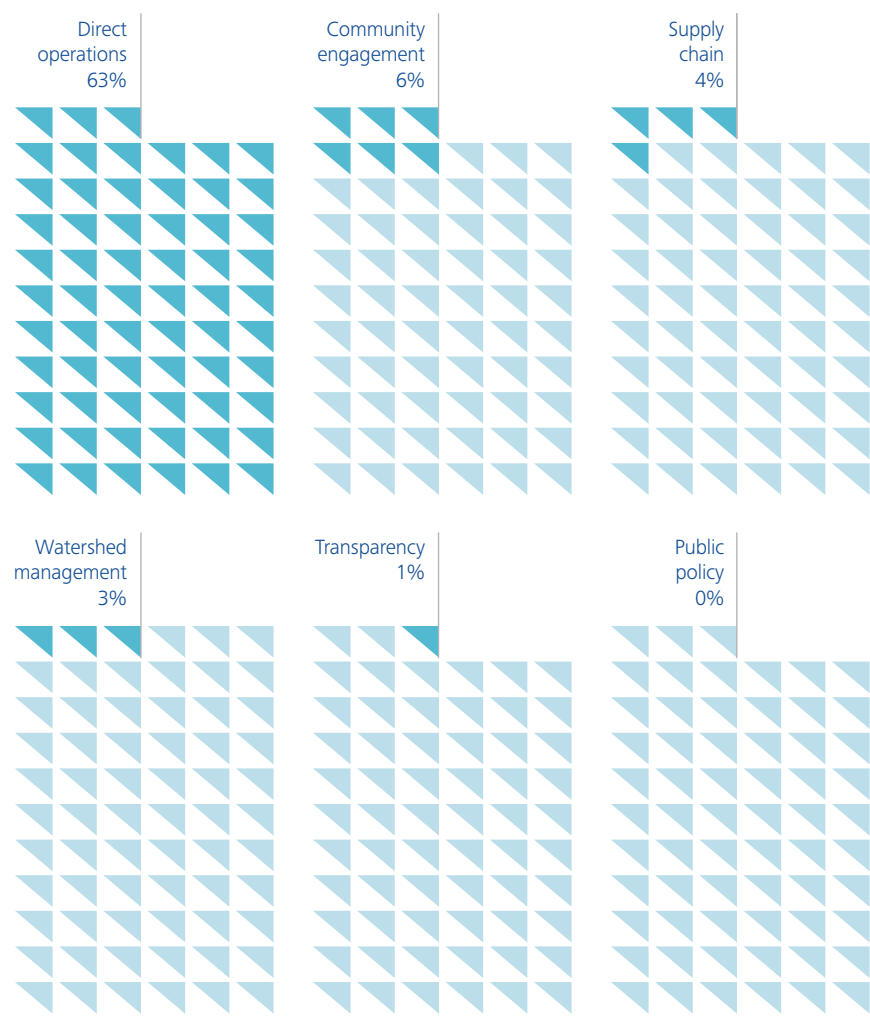
CURRENT THINKING AND ACTIONS: STUCK IN WATER MANAGEMENT

Recent reports from two organizations provide insight into how companies view and manage water-related risks and, in general, how far they need to go to achieve alignment between their water stewardship strategies and business growth strategies.

The CDP Water Program (www.cdp.net) provides a wide view of how companies across a range of industry sectors perceive water risks and opportunities. The most recent report, from 2013, is based upon the water disclosures of 184 Global 500 corporations. Based upon the results of the 2013 water disclosure survey, the report indicates that “over 90 percent of these companies now have water management plans in place, and responding companies report more than 1,300 actions, targets, and goals to reduce their impact on water resources, and thus their exposure to water risks.”⁷

Seventy percent of the responding companies have identified water as a “substantive business risk.” For some respondents, anticipated financial impacts are as high as \$1 billion, and 64 percent of the reported risks are expected to materialize now or within the next five years. In other words, water risk is current

Figure 1. Proportion of respondents setting concrete targets or goals by type (percent of respondents), 2013



Source: Carbon Disclosure Project, “Moving beyond business as usual: A need for a step change in water risk management,” CDP Global Water Report 2013. Reprinted with permission.

Graphic: Deloitte University Press | DUPress.com

and near term.

However, according to CDP, despite the vast majority of companies reporting that water represents a substantive business risk, most companies are primarily focused on managing water within their own operations. They are not engaging with their entire value chain and other key stakeholders.

Commenting on the results of the 2013 water disclosure survey, CDP noted that “water stewardship activities are notably lacking, potentially exposing their company and investors to risks that could be mitigated” (figure 1). The reason for this concern is that, in most cases, the largest portion of a company’s water footprint—and, hence, its water-related risk—is in its supply chain or in how consumers and

customers use the company's products. As a result, a company cannot effectively manage water risk or appropriately account for water access in its growth strategy if it is only focused on its own operations.

CDP added that “the majority of respondents (63 percent) to the 2013 questionnaire set concrete targets and goals for their direct operations and, in general, many of these are focused on reducing water use or increasing water recycling/re-use. Companies that continue with such a narrow focus could be missing potential opportunities and overlooking serious risks.”⁸

A recent report by VOX Global and the Pacific Institute also provides information on how companies view water risk, how they are managing these risks, and their current thinking about the potential impacts on business growth. Consistent with the 2013 CDP Global 500 report, the VOX Global/Pacific Institute report states that “water challenges are not just a future concern, but a current problem that already affects many businesses.”⁹ According to this report, 79 percent of responding companies claim that they currently face water challenges, while 84 percent believe they will face water challenges in the next five years. Survey respondents also made the connection between these challenges and their bottom line: Nearly 60 percent of responding companies indicated that water is poised to negatively affect business growth and profitability within five years, while more than 80 percent say it will affect their decision on where to locate facilities over that time period.

However, there is an apparent disconnect between the widespread recognition of current and increasing water risk and the respondents' anticipated actions to address the issue. Many respondents do not plan to increase the breadth and scale of their water risk management practices. According to the report, “nearly 70 percent of responding companies said their current level of investment in water management is sufficient.” This attitude is inconsistent with the respondents' belief that water challenges “will significantly worsen in the next five years.”¹⁰ The report points to “a failure to adequately evaluate the true cost of water” as one potential reason for this disconnect, and further states: “Though survey respondents noted the importance of integrating water into their business strategy, it may be premature to assume that all have done so.”

The reports from CDP and VOX/Pacific Institute suggest that:

- The companies responding to their surveys acknowledge that water is a current and projected business risk that is projected to worsen.
- Most companies are primarily focused on water management—that is, on water efficiency and reuse/recycling *within their direct operations* as opposed to their value chain.

- Most believe they have a “sufficient” level of investment in “water management.”
- Companies do not appear to have adequately evaluated the business value of water *or potential business value at risk from water risks*.
- There is apparently little to no connection between water risk, stewardship strategies, and business growth strategies.

ALIGNING WATER STRATEGY WITH GROWTH STRATEGY: WHAT IS MISSING IN THE CORPORATE AGENDA?

Drawing on the observations in the CDP and the VOX/Pacific Institute reports, we have identified two major actions required to align water strategy with business growth strategy: expanding collective action and quantifying the business value of water.

Expanding collective action

One way to overcome the “tragedy of the commons” is through collective action by informed stakeholders whose aim is to sustainably manage a common resource, even if, in some cases, they sacrifice short-term interests to obtain a long-term benefit. To take the broadest view, the “collective” needed to sustainably manage water encompasses everyone; after all, we all need it to live and to support the health of our ecosystems. More narrowly, the importance of stakeholder action and opinion is amplified in regions where water is scarce. Local populations in such areas are acutely sensitive to the uses—or misuses—to which the area’s water supply is put. Moreover, the actions of others within the watersheds in which a company operates can have a direct impact on the business’s access to water. Add to this the intense scrutiny that water is beginning to receive from investors, regulatory agencies, governments, nongovernmental organizations, and other parties—scrutiny that is now enabled and accelerated through social media networks—and the need for collective action becomes evident. Only by engaging with other stakeholders on water-related issues, and working with them to safeguard water’s long-term availability, can a company that depends on water protect its long-term growth prospects.

Understanding water’s value, not just its price

As long as water is essentially free, few business stakeholders will likely see a reason to invest in protecting this resource. When water costs money, on the other hand, businesses begin to pay more attention both to its price and to strategies for keeping it low. In fact, one reason that more businesses are starting to factor water into their business strategies is that physical water scarcity is driving changes in

water pricing and in regulations around the allocation of water. Examples include the overall upward trend in water prices, which have increased by 6 to 7 percent in the United States over the past year;¹¹ the implementation of tiered pricing (that is, usage-based pricing) in places such as Denver, Colorado;¹² and the enactment of allocation frameworks in certain areas of California that, in the event of extreme scarcity, give priority to certain sectors in the allocation of available water.¹³

Factoring water costs into growth projections, however, is only a first step. This is because, in many or even most instances, the actual business value of water exceeds its market cost. Whereas the cost of water includes only the direct and indirect costs of provisioning water, the value of water is derived from its uses and affected by factors such as quality and the reliability of supply. Water's full value to a company can be calculated as its full economic cost plus the financial impact of actual and potential fluctuations in water quantity and quality, regulatory risks, and reputational risks (see sidebar, "Valuing water").

A recent report by the World Business Council for Sustainable Development provides examples of how several companies are beginning to consider the value of water, and discusses the main concepts and techniques associated with water valuation.¹⁴

Companies could benefit from calculating, to the extent possible, the current and potential business value at risk from water risks. This calculation should quantify the impact of physical, regulatory, and reputational risks related to water across the value chain. The calculation of revenue at risk from current and potential business disruption ("no water, no beer") provides a clearer view of the value of water than current or projected water costs. It is important to develop a quantitative understanding of the value of water within the context of what is required to sustain operations as well as future growth. The impact of water risks on business continuity across the value chain provides more insight on the value of water to a business operation than the current or projected cost of water. By understanding the value of water in this way, leaders can address long-term water-related risks and make informed decisions about the investments necessary to support future business growth.

A MATURITY MODEL FOR WATER STEWARDSHIP

What do businesses for which water is critical to growth *actually* do when faced with water scarcity? Based on research including the CDP water disclosure reports of 2011, 2012, and 2013 and the VOX/Pacific Institute report referenced above, coupled with our experience with multinational companies across a range of industry sectors (such as consumer products, oil and gas, and



VALUING WATER

There are several key principles in understanding the economic value of water and the costs associated with provisioning water. A few definitions are provided below.¹⁵

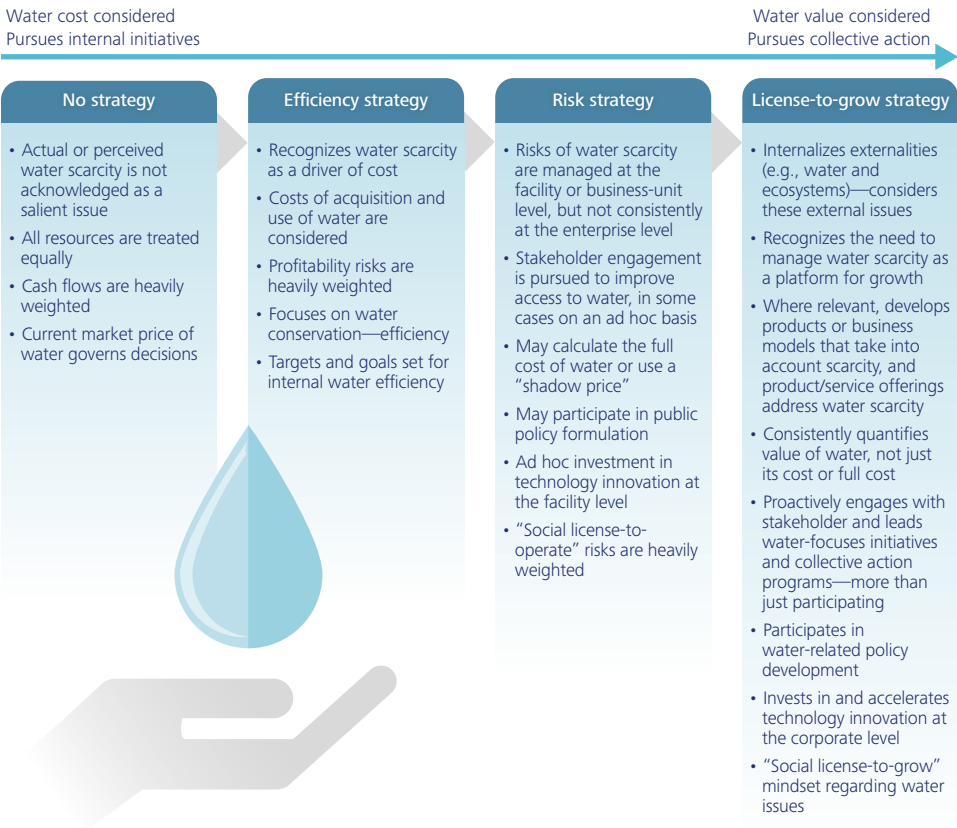
- **Full supply cost:** The full supply cost of water includes the cost of supplying water to a user without considering the cost of the externalities (“side effects”) resulting from the use of that water or the opportunity costs of foregoing alternative uses of that water. Full supply costs consist of operation and maintenance costs plus capital costs.
- **Full economic cost:** Full economic cost includes the sum of the full supply cost and the opportunity costs associated with the alternative use of the same water resource and the economic externalities imposed upon others due to the consumption of water by a specific user.
- **Intrinsic value:** Intrinsic value includes “the stewardship, bequest, and pure existence value” of water.¹⁶

manufacturing), we have identified four stages of maturity in how companies link business growth to water availability, as shown in figure 2.

The maturity model can be summarized as follows:

- **Stage 1 (no strategy):** No stakeholder engagement; limited water efficiency investments; no alignment of water strategy with business growth strategy
- **Stage 2 (efficiency strategy):** Focused on water efficiency (water price drives actions); no stakeholder engagement; no quantification of the value of water
- **Stage 3 (risk strategy):** Risk focus; targets set for water efficiency/reuse; pursues stakeholder engagement focused on managing social license-to-operate; limited understanding of the value of water as a driver for

Figure 2. Water strategy maturity model



Graphic: Deloitte University Press | DUPress.com

investment decisions to support growth; limited alignment of water strategy with business growth strategy

- **Stage 4 (license-to-grow strategy):** Growth focus; mature efficiency/reuse initiatives; leads stakeholder engagement initiatives focused on securing long-term access to water; quantifies the value of water (and business value at risk) to drive CAPEX/OPEX investments; water strategy well aligned with business growth strategy

Companies at the “no strategy” level essentially behave as if water scarcity did not exist—scarcity is not recognized as a salient issue. They do not seek to manage either their access to water or their own use of it, and they are neutral to or accepting of the need to pay for the water they need to operate. Price volatility and compliance with resource-related regulations (if any) are viewed as a normal cost of doing business rather than as a potentially value-creating or potentially high-risk activity. Water is treated as simply a raw material whose market cost is factored into growth choices such as geographic expansion or product-line extensions. It is

viewed as a commodity and an externality—the economic term for a “side effect” of a business’s operation.

As might be surmised, this approach is sustainable only for resources whose current and future abundance are beyond question.

Stage 2, the “efficiency strategy” stage, represents most companies’ first step toward viewing water as a platform for growth. The defining attribute of stage 2 is a focus on increasing water efficiency within the four walls of one’s own business—in effect, managing one’s *own* operations to reduce the business’s dependency on water. The main activities we have observed among companies in stage 2 firms are concerned with improvements in efficiency, cost savings, reuse, and recycling. To some degree, these companies recognize that the market price of water is an imperfect reflection of its value. They monitor cost fluctuations as localized supply ebbs and flows, and they make trade-offs between paying more for water and seeking to minimize its use.

As discussed previously, evidence suggests that many, if not most, companies presently operate at stage 2 with respect to water.

In stage 3, the “risk strategy” stage, companies begin to seek to engage with stakeholders across their value chain—that is, outside their own organizations—with a focus on mitigating water scarcity risks and reducing the potential for water scarcity to impose constraints on their business. For stage 3 firms, how and when to use productive scarce resources such as water is an explicit part of management mindsets and priorities; leaders actively accommodate water scarcity in their business’s current and future activities. These companies recognize not only local but systemic water scarcity; they act as if future availability is uncertain and their “social license-to-operate” may be jeopardized. Their work with other stakeholders is consistent with both sustainability and business strategy. However, efforts are often coordinated at the business-unit or regional level without an enterprise-wide strategy in place, and stakeholder engagement is pursued mainly with the goal of improving immediate access to water.

In stage 4, the “license-to-grow” stage, companies also seek to engage with external stakeholders—but with a focus not just on mitigating water scarcity risks but also on paving the way for future long-term growth. The distinguishing attributes of companies at this stage are the quantification of the value of water to their current and projected business across their value chain, and their leadership of collective action programs to safeguard long-term water availability.

Stage 4 companies embed the tactics used in stages 2 and 3 into their operations, but they go beyond these responses to proactively address scarcity in their own and their stakeholders’ future activities (across their value chain). In practical terms, these companies have both adjusted their business model and expanded firm

boundaries to engage relevant players across their value chain on water availability and quality issues. They also embrace innovative collective action as a strategy to address the management of scarce resources. Most importantly, they recognize that the way they manage critical scarce resources will be either an area of significant vulnerability or a means to achieve a competitive advantage, and therefore they make resource strategy an integral part of their business growth strategy.

A “LICENSE-TO-GROW” MODEL

Considering water as a scarce resource necessary for growth brings into sharp focus the particular issues organizations must face when operational or economic logic is insufficient to support business growth. According to resource-based theory, firms can either retain their current business model or alter it to accommodate more or less reliance on scarce resources. Where water scarcity is concerned, we have observed that firms generally follow the trajectory described by the maturity model. They change their business models to go from addressing the issue at an “own company” level, to addressing it at a stakeholder level with a focus on risk, to addressing it at a stakeholder level with a focus on growth.

The motives of companies that have chosen to make significant business model changes and that look beyond their own boundaries to manage critical scarce resources draw from precepts of both business and sustainability strategy. While sustainability experts would call these firms good stewards of a scarce resource, business strategy experts would call these firms strategic managers of scarce productive resources.

As water scarcity (driven by increased competition for finite resources and extreme drought) mounts in areas such as Texas and California in the United States, regions such as Africa, and countries such as China, companies are faced with multiple constraints and intensifying risks that impact their business continuity and growth strategies. “Shared value” initiatives and other mechanisms are emerging as firms in these areas work to align their strategic growth agenda with this reality and the agendas of other stakeholders that have a vested interest in access to water.

In general, companies in the food and beverage industries have been leaders in expanding their activities beyond their own four walls to both reduce the constraints imposed by water scarcity (a risk focus) and enable future growth fueled in part by water (a license-to-grow focus). Among the collaborative actions they pursue are efforts with suppliers, distributors, and other stakeholders to reduce water stress within specific watersheds.

MillerCoors, for instance, has an enterprise-level water strategy that is focused on collective action within its supply chain. MillerCoors sets stringent water efficiency targets and seeks to engage with other water users in watersheds where drought and competing demands for water could limit brewery operations.

According to Kim Marotta, MillerCoors's director of sustainability, "The long-term drought in the United States was a catalyst for change."¹⁷ MillerCoors sets aggressive water efficiency goals and views the resulting cost savings as capital to reinvest in its business: Since 2008, its water and energy efficiency initiatives have yielded an estimated \$17 million in savings.

The company also engages directly with local farmers and ranchers to bring them leading practices in water management, including technologies to improve water efficiency and to enable "precision agriculture." Says Marotta: "We recognized that three of our breweries—in California, Texas, and Colorado—were in areas that were water stressed. And since more than 90 percent of the water we use comes from the agricultural supply chain, it makes sense to work together to make those watersheds sustainable for the long term." For instance, as part of its National Water Quality Initiative—funded largely by the US Department of Agriculture's Natural Resources Conservation Service—the company works with farmers and ranchers in Texas to plant native prairie grass in areas where runoff would otherwise deplete the soil of water. MillerCoors also maintains close relationships with its agricultural suppliers, collaborating with its barley suppliers in Idaho, Colorado, Wyoming, and Montana to develop and implement water-efficient farming practices that, says Marotta, improve yields as well as conserve water. All of these collective action activities are driven by the recognition that the company's growth strategy is tied to the availability of water to support its agricultural input.¹⁸

MANAGING WATER SCARCITY AND DRIVING GROWTH: WHAT ARE THE CRITICAL BUSINESS DECISIONS?

The maturity categories outlined above suggest that leaders make two important types of decisions, implicitly or explicitly, as they consider their growth strategies in light of water constraints. First, they decide whether the company's current business model can remain as it is or whether it needs modification. And second, they determine whether and how far their efforts to manage scarcity will extend beyond their company's boundaries—whether its approach to managing a critical scarce resource is focused on company-centric, internal management of the resource or also incorporates engagement with a range of stakeholders across the value chain.

To effectively manage a scarce resource such as water, management must evaluate a number of factors when planning a growth strategy. It is vital to understand the current and projected degree of scarcity of a company's critical business inputs. Under various competitive or sociopolitical scenarios (such as during the oil shocks of the 1970s), the availability of a given resource may fluctuate significantly. With respect to water, given the complexity of mapping stakeholder positions and

accurately assessing value, cost, and price, companies may find it useful to create measurement tools or to develop parameters or dashboards for monitoring water scarcity and evaluating its impacts on an ongoing basis. Several water scarcity tools (such as the WWF Water Risk Filter and the World Resources Institute Aqueduct) and collective action tools (such as the CEO Water Mandate Water Action Hub) are publicly available for corporate use. Companies can integrate these tools into business growth strategies instead of having them solely reside in their sustainability function.

It is also essential to examine who makes and influences key resource-related decisions. Note that sometimes different players within the same company have different levels of reliance on a scarce resource—and thus have objectives that may differ from each other’s as well as from the company’s as a whole. In such cases, it is important to define an enterprise-level strategy around the scarce resource to help align resource-related decisions across the entire organization.

Companies whose operations and growth depend on water should also be aware of where they fall along the stages of maturity described above: the extent to which water scarcity may drive changes to the company’s business model, and the extent to which the company engages beyond its core business operations to work with external stakeholders to manage critical water scarcity. Understanding where a company sits on the maturity model can help frame the steps needed to address water risk and to align its water strategy with its business growth strategy. For instance, a company that recognizes that it is operating at an efficiency strategy (stage 2) level, but whose future growth prospects depend heavily on access to water, can plan to move to a risk strategy (stage 3) level through relatively modest investments in stakeholder engagement, perhaps piloted in one or several business units. Or it could seek to leapfrog to the license-to-grow level (stage 4) through more dramatic changes, such as by leading collaborations at the corporate level with other water users in watersheds coupled with a quantification of the value of water to support its business growth strategy.

Most importantly, these companies should consider moving to a strategy that includes proactive collective action with stakeholders to secure resources for all, making decisions based on the resource’s value rather than its market price. This license-to-grow strategy (stage 4) goes beyond a “social license-to-operate” risk mitigation mindset.

For companies looking to leverage their water strategy to drive business growth, we recommend asking the following questions as they relate to the value chain:

- What or who do water prices depend upon?
- How likely are prices to fluctuate and why?

- What are the water scarcity risks common to all users?
- What water scarcity-related risks are particular to one’s own company?
- How severe are these risks to the way the company does business today?
- How severe are these risks to prospects for future growth?
- What is the value of water to the company’s business and growth strategy?
- Where will engagement with stakeholders increase the overall value of this resource to the firm (including increases in value driven by risk and cost reductions)?

You can’t always *buy* what you need, but with an understanding of the business value of water and an enterprise-wide strategy to engage with stakeholders, you may be able to secure a long-term supply of the water you need to support business growth. [DR](#)

*Will Sarni is a director and practice leader, Enterprise Water Strategy, with Deloitte Consulting LLP. The author would like to thank **Trish Gorman**, who contributed to the discussion regarding business growth, and **Junko Kaji**, editor, Deloitte Services LP, who contributed to the overall article.*

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