PILLARS 2 & 3
SUSTAINABLE OPERATIONS & VALUE CHAINS

8 FRESHWATER

STANDARD

8
FRESHWATER

Aerial view of a center pivot irrigation system.
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Commitment

Achieve the lowest possible water footprint in the company's operations and value chain, with a focus on areas where water risk is high, to ensure a sustainable water supply for human use and natural ecosystems.

Aligning a company's practices with the SDGs entails preventing freshwater pollution and minimizing freshwater footprints[a] in their operations, value chain, and the broader ecosystem.

Even though there is sufficient freshwater globally, it is neither evenly nor equitably distributed and many regions are increasingly facing chronic water shortages, or water scarcity.[1] Globally, physical water scarcity affects 1.2 billion people and economic water shortage (lack of infrastructure) affects 1.6 billion.[2] According to the UN Global Compact, 3.6 billion people worldwide live in water-stressed areas.[3] Based on projected demand without intervention, the world will face a 40% shortfall in freshwater supply within 10 years.[4]

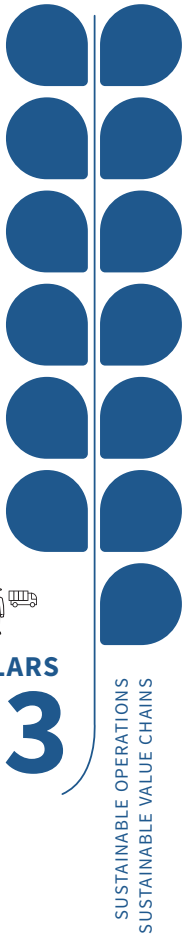
a. A water footprint is a measure of an individual, process, product, company, or nation's "appropriation of fresh water in volumes of water consumed and/or polluted." For the purposes of this standard, an "excessive water footprint" is defined as an inefficient utilization of freshwater in the company's operations and value chain and/or pollution of freshwater beyond scientifically agreed-upon water quality standards. (Source: The Water Footprint Network, "What Is a Water Footprint?," The Water Footprint Network, n.d., https://waterfootprint.org/en/water-footprint/what-is-water-footprint/.)

Agriculture accounts for 70% of water withdrawal worldwide and up to 95% in some regions of the world.[5] Additionally, agriculture and food production are major sources of wastewater, 80% of which is discharged into the environment without any prior treatment.[6] Food companies do not only contribute to water pollution and scarcity but are also directly affected by these impacts as global food systems are directly reliant on consistent water access. Recent estimates indicate that US$301 billion in business value is at risk due to water scarcity, water pollution, and resulting climate change, a number five times higher than the cost of addressing water risks.[7] As climate change progresses, increasingly frequent and more intense droughts are anticipated[8] compounding existing risks. Hence, prioritizing water-use efficiency and wastewater quality are not only crucial steps for the food sector to align with the SDGs but also to remain resilient and profitable.

Beyond being water-intensive (i.e., depleting groundwater tables), agriculture and food manufacturing are primary sources of water pollution and contamination through means such as runoff of agrochemicals, sediment, and livestock waste; leaching of agrochemicals into soil or waterways; heavy effluents from concentrated aquaculture operations;[9] and improper disposal of chemical by-products in manufacturing facilities.[10] Water quality standards are intended to create base limits for discharges of hazardous substances, including those that "are toxic at low concentrations, carcinogenic, mutagenic, teratogenic and/or can be bioaccumulated, especially when they are persistent," but agriculture and food production often exceed these limits.[11]

On top of ecosystem damage, freshwater pollution also affects global access to clean drinking water supply, a fundamental human right.[12] Currently, unsustainable and inequitable water usage is directly addressed through SDG 6, which expands the Millennium Development Goal's sole focus on drinking water and sanitation to include cross-boundary water, wastewater, and ecosystem management.[13] However, due to the ubiquitous need for a safe and abundant water supply and the environmental roles clean water plays, multiple SDGs, including those addressing sustainable agriculture, ecosystem preservation, and sound management of natural resources, hinge upon minimizing water consumption and pollution.

SDG-ALIGNMENT: THIS STANDARD CONTRIBUTES TO ACHIEVING THE FOLLOWING SDGS:



SDG 2 – Zero hunger

Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters, and that progressively improve land and soil quality.

SDG 15 – Life on land

Target 15.1: By 2020, ensure the conservation, restoration, and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands, in line with obligations under international agreements.

SDG 6 – Clean water and sanitation

Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.

Target 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

Target 6.5: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

Target 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes.

Target 6.a: By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling, and reuse technologies.

SDG 12 – Responsible consumption and production

Target 12.2: By 2030, achieve the sustainable management and efficient use of natural resources.

Target 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water, and soil in order to minimize their adverse impacts on human health and the environment.

Target 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

Target 12.7: Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

STEPS TO MEET THE COMMITMENT

1. ADOPT A POLICY AND EMBED IT INTO GOVERNANCE AND MANAGEMENT SYSTEMS

1.1. ADOPT A POLICY

The board or the most senior level of SDG-aligned companies adopt a public commitment to minimize their water footprint prioritizing areas where water risk[b] is high, and establish and uphold strict water pollution standards in line with the internationally-recognized human rights to water, a healthy environment, and life in their operations and with business relationships. The policy:

- Aligns with and references the standards listed in Box 24.[14]
- Aligns with and references scientifically agreed-upon standards for acceptable water quality and efficient usage based on research from the EU Water Framework Directive[15] and the specific constraints set by the WHO Guidelines for Drinking Water Quality.[16]
- States that where the national law or practices of the territory where the company and its business relationships operate conflict with international water use and quality standards, the company defers to the higher standard and commits to the lowest possible target.[17]

BOX 24: INTERNATIONAL STANDARDS ON THE HUMAN RIGHT TO WATER

- General Comment No. 15.[18]
- UNECE Protocol on Water and Health.[19]

1.2. EMBED THE POLICY INTO GOVERNANCE & MANAGEMENT SYSTEMS

To embed the policy, SDG-aligned companies:

- Communicate expectations for implementing the policy commitment internally and externally to the workforce, shareholders, subsidiaries' governing bodies, and business relationships, including through contractual terms.
- Integrate the policy commitment into the procurement policy, responsible sourcing policy, contract terms with suppliers, clients, other business relationships in the value chain, and partnerships within and beyond the food sector.[20]
- Reflect a commitment to a sustainable freshwater footprint in by-laws and other governance documents (i.e., Code of Conduct, Code of Ethics), and management procedures.[21]
- Ensure that business practices and the incentives they create, do not contradict the policy in form or substance.

2. ASSESS ACTUAL & POTENTIAL IMPACTS

SDG-aligned companies identify and assess actual or potential instances of freshwater pollution or contributions to an excessive water footprint. To systematically assess actual or potential instances on an ongoing basis within the company's operations and value chain, SDG-aligned companies:

- **Evaluate both water use[c] and water consumption[d] in internal operations and across value chains**. Companies accomplish this, in part, by collecting data on the following categories of water use and consumption, both for internal processes and for their value chains:
  - **Blue water:** The volume of freshwater taken from surface waters or groundwater used to produce a good or service.[22]

b. The World Resources Institute determines water risks based on 13 indicators classified into three categories: 1) Physical risks of quantity, including: Water Stress, Water Depletion, Interannual Variability, Seasonal Variability, Groundwater Table Decline, Riverine flood risk, Coastal flood risk and Drought Risk; 2) Physical risks of quality, including: Untreated Connected Wastewater and Coastal Eutrophication Potential; 3) Regulatory and reputational risk, including: Unimproved/No Drinking Water, Unimproved/No Sanitation and Peak RepRisk Country ESG Risk Index. (Source: WRI, "Identify and Evaluate Water Risks around the World," Aqueduct, n.d., https://www.wri.org/aqueduct.)

c. "Water use describes the total amount of water withdrawn from its source to be used. Measures of water use help evaluate the level of demand from industrial, agricultural, and domestic users. For example, a manufacturing plant might require 10,000 gallons of freshwater per day for cooling, running, or cleaning its equipment. Even if the plant returns 95 percent of that water to the watershed, the plant needs all 10,000 gallons to operate." (Source: Paul Reig, "What's the Difference Between Water Use and Water Consumption?," World Resources Institute, 2013, https://www.wri.org/insights/whats-difference-between-water-use-and-water-consumption.)

d. "Water consumption is the portion of water use that is not returned to the original water source after being withdrawn. Consumption occurs when water is lost into the atmosphere through evaporation or is incorporated into a product or plant such that it is no longer available for reuse. Water consumption is particularly relevant when analyzing water scarcity and the impact of human activities on water availability. For example, irrigated agriculture accounts for 70 percent of water use worldwide and almost 50 percent of that is lost, either through evaporation or transpiration through plant leaves." (Source: Paul Reig.)

  - **Green water:** The precipitation on land that is stored in the soil or temporarily on the top of the soil or vegetation. Green water does not recharge groundwater and it either transpires through plants or evaporates. In practical terms, it is the volume of rainwater consumed during the production process (particularly relevant for agricultural and forestry products).[23]
  - **Grey water:** The volume of freshwater "required to dilute pollutants to such an extent that the quality of the water remains above agreed water quality standards."[24]
- **Determine water footprints using collected water use and consumption data** (see above) and accurate and granular methods as detailed in the Water Footprint Assessment Manual.[25] Water footprints are calculated for all processes in the value chain followed by aggregation of these steps into individual product water footprints. An overall company footprint is also calculated that includes both product water footprints and water consumption due to other company uses.[e]
  - SDG-aligned companies also specifically determine water use efficiency (WUE) ratios for all agricultural products used as ingredients in their products.[f]
- **Evaluate water pollution resultant from their operations and value chain**, particularly through industrial production and sourcing of ingredients, especially those from concentrated cropping, livestock, and aquaculture operations.[26] In particular, companies:
  - Identify real or potential instances of point source[g] and non-point source (mainly agricultural sources) pollution occurring along their value chain.
  - Assess water quality in bodies of water surrounding or directly involved in product production using the best available precision methods.[h]
  - Determine whether water qualities in relevant areas fall below scientifically agreed-upon limits[i] or whether waters are polluted resultant from company or value chain practices.
- **Identify high-risk water areas** by comparing assessed use and consumption patterns with water risks in the relevant areas.[j]
- **Regularly conduct supplier and other business relationship audits** to assess alignment with international water use and quality standards (including the human right to clean drinking water), as well as internal targets and commitments. Require suppliers to report on relevant indicators and subsequently integrate the value chain's water impacts into its aggregate company water footprint.
- **Engage with affected stakeholders, including Indigenous and local communities, and qualified and credible experts** as part of on-site impact assessments, particularly in areas at high-risk for water scarcity or water pollution.[k]
  - These experts and other stakeholders are consulted about the consequences of a company and its value chain's water use and pollution, particularly in high-risk water areas. As water is a shared natural resource, any impacted communities and ecosystems are considered, even if not in close geographical proximity to the sources of use or pollution.

e. For example, if a company has a suite of 50 products, the company determines water footprints for the production of each of those products as well as their overall footprint, which includes the sum of the individual products' footprints and other company activities that consume or pollute water (e.g., facility use, irrigation of headquarter landscaping, etc.).

f. Water use efficiency (WUE) "is defined as the amount of carbon assimilated as biomass or grain produced per unit of water used by the crop." (Source: Jerry L. Hatfield and Christian Dold, "Water-Use Efficiency: Advances and Challenges in a Changing Climate," *Frontiers in Plant Science* 10 (2019), https://doi.org/10.3389/fpls.2019.00103.)

g. The U.S. Environmental Protection Agency (EPA) defines point source pollution as "any single identifiable source of pollution from which pollutants are discharged, such as a pipe, ditch, ship or factory smokestack." (Source: NOAA, "Point Source: Pollution Tutorial," n.d., https://oceanservice.noaa.gov/education/tutorial_pollution/03pointsource.html.)

h. Full details on gold-standard methods for determining water quality can be found in: U. N. Environment, "Progress on Ambient Water Quality: Piloting the Monitoring Methodology and Initial Findings for SDG Indicator 6.3.2," UNEP - UN Environment Programme, October 11, 2019, http://www.unep.org/resources/report/progress-ambient-water-quality-piloting-monitoring-methodology-and-initial-2.

i. Standard limits for water quality can be found in: "Guidelines for Drinking-Water Quality, 4th Edition, Incorporating the 1st Addendum," accessed June 29, 2021, https://www.who.int/publications-detail-redirect/9789241549950; EPA, "National Recommended Water Quality Criteria - Human Health Criteria Table," n.d., https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table; EPA, "National Recommended Water Quality Criteria - Aquatic Life Criteria Table," n.d., https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table.

j. One tool for conducting this comparison is the World Resources Institute Aqueduct Risk Atlas which maps and analyses water risks (including specific risks to agriculture and food security) across locations, including national and sub-national locations: "Aqueduct Water Risk Atlas," World Resources Institute, October 6, 2013, https://www.wri.org/resources/maps/aqueduct-water-risk-atlas.

k. It should be noted that water pollution may have grievous impacts even on ecosystems geographically distal to the source of water pollution. For example, nutrient pollution from excessive agrochemical use and runoff can cause marine algal blooms and hypoxia of ocean waters hundreds of miles away. (Source: Mary Berg and Miranda Meehan, "Environmental Implications of Excess Fertilizer and Manure on Water Quality," NDSU, 2017, https://www.ag.ndsu.edu/publications/environment-natural-resources/environmental-implications-of-excess-fertilizer-and-manure-on-water-quality.)

3. INTEGRATE BY SETTING TARGETS & TAKING ACTION

SDG-aligned companies integrate the findings of their comprehensive assessments of water use and pollution and subsequent impacts outlined in **Step 2** into business decisions, processes, and functions by **setting targets** and then **taking action** to align with the standard within set target dates.

3.1. SET TARGETS

SDG-aligned companies set specific, time-bound intermediate and long-term targets to limit the excessive use or pollution of water that are ambitious enough to contribute significantly to the achievement of the SDGs, particularly SDG 6 and SDG 15, as it relates to aquatic ecosystems. The intermediate targets are relevant for companies to monitor continuous improvement, both internally and along the value chain, towards meeting the standard and realizing the lowest possible water footprint.

Where possible, indicators measure outcomes rather than outputs or activities and targets are relative, rather than absolute, expressing goals in terms of percent-based metrics to account for the direct relationship between production and water use and consumption. These targets are tailored to a company's business activities and relationships based on its assessment of actual and potential instances of water pollution or excessive water consumption. Examples of targets may include:

- By 2050, create a net positive water impact (i.e., contribute more to water stress basins than what is taken from them) in internal operations and along the value chain by 2050, with halfway progress (i.e., not peaking pollution and/or usage before) by 2025.
- By 2025, reduce water consumption based on baseline levels in operations and value chain by 20%.
- By 2025, achieve zero pollution according to scientifically agreed-upon safe standards and eliminate chemical discharge.

While some pollutants or organic substances require immediate and substantial emissions reduction,[l] others are safe at trace levels, depending on factors specific to the waterbody. As such, water quality objectives for a given water body take into consideration "site-specific physical, chemical, hydrological and biological conditions."[27] These site-specific factors may affect the exposure of aquatic organisms to some substances or the usability of water for human consumption, livestock watering, irrigation, and recreation.[28] Such conditions may be related to:

- Overall chemical composition: hardness, pH, dissolved oxygen.
- Physical characteristics: turbidity, temperature, mixing regime.
- Type of aquatic species and biological community structure.
- Natural concentrations of certain substances (e.g., metals or nutrients).[29]

When setting targets for a company and its value chain's water footprints, the company:

- Considers the scientific data related to water basins' maximum monthly withdrawals compared to their mean monthly river flows (from 25% for low flow months to 55% for high flow months on average[30]) to stay within planetary boundaries.
- Engages in environmental and human rights impact assessments and conducts audits and assessments of the value chain to obtain information relevant to indicators (See *5. Track progress* for examples of indicators to help track the effectiveness of efforts to meet the standard).
- If/when using certification schemes, the company regularly monitors the effectiveness of these schemes in providing real-time and accurate data and adjusts targets accordingly.

3.2. TAKE ACTION

Where an SDG-aligned company identifies actual and potential impacts of freshwater pollution or excessive water footprint in its operations or value chain, it takes appropriate action to cease, prevent, and mitigate impacts and uses leverage to prevent and mitigate harms in its broader ecosystems, ideally at their root causes.

Actions taken to minimize harm will depend largely on each company's specific commodities, regions, or suppliers. Depending on the specific risks and impacts identified, and starting with the most salient impacts and high-risk areas found in a company's assessment, measures to address actual or potential freshwater pollution or excessive water consumption include:

- **Addressing the ways in which their business model might be incentivizing the excessive use of water or incentivizing water pollution**, both point source, and non-point source. Examples of this include:
  - **Product portfolio/ingredient choice:** seeking alternatives to water-intensive ingredients that can be substituted without significantly compromising the taste, texture, or nutritional value of products (e.g., substituting almonds with sunflower seeds or cashews). Alternatively, reformulating products to reduce the inclusion of water-intensive ingredients (e.g., decreasing the portion of meat included in frozen entrées and including a plant-based, protein-rich side such as beans to keep protein content constant).

l. For example, the immediate and substantial reduction of emissions of three organic substances (carbon tetrachloride, DDT and pentachlorophenol) was stipulated by the EU Council Directive 86/280/EEC of 12 June 1986 on Limit Values and Quality Objectives for Discharges of Certain Dangerous Substances Included in List I of the Annex to Directive 76/464/EEC.

- **Engaging with business relationships who have caused or contributed to negative impacts on human health and the environment from the excessive use of or pollution of water in order to influence their practices**. Where a company has communicated expectations and provided adequate supports to aid a business relationship in aligning with the standard, but they are unwilling or fail to meet expectations within an appropriate time frame, as a last resort, the relationship may be terminated.
- **Providing expert consultation, extension services, financing programs, and other capacity-building offerings to business relationships** to aid them in aligning with the standard, meeting expectations, and minimizing their water footprints. In particular, SDG-aligned companies aid producers in improving agricultural and livestock production systems and practices, including:[31]
    - Irrigation practices, such as:
        - Adopting night irrigation and precision practices.
        - Replacing inefficient practices such as flood irrigation and traditional spray irrigation with drip irrigation or hanging pipe spray systems.
    - Water dodging techniques following the natural water cycle and/or water tolerance management through diversification or genetic material.[32]
    - Reducing tillage.
    - Leveling fields to prevent excessive run-off and improve uniform irrigation of crops.
    - Soil covers (i.e., mulches, sheeting, polymers).
    - Crop choices, including ensuring appropriateness for local climate (i.e., reducing the planting of water-intensive crops in low rainfall or water-stressed areas) and increasing drought-resistant varietals.[33]
    - Alternative cultivation systems (i.e., polycultures, perennial agriculture[m]).
    - Incorporation of crop residues[n] (e.g., straw) in livestock feed mixes.[34]
    - Any other innovation in water use/consumption and treatment that reduces the negative impacts on the environment while preserving an adequate productivity level.
- **Minimizing water use in processing and other facilities through operational improvements** such as:[35]
    - **Upgrading fixtures & equipment** to those that optimize water pressures and use such as nozzle restrictors, low-flow faucets, and other fixtures, rainwater harvesting systems, and water-saving appliances and heating/cooling systems (e.g., cooling towers that utilize recycled water[36]).
    - **Employee training**, especially in efficient cleaning practices, which accounts for the majority of water use in food processing plants. Where possible, commonly-used water-based cleaning practices are replaced with physical ones (e.g., utilizing vacuum or push systems instead of power-washing debris).
- **Adopting, or supporting business relationships and producers in adopting, technologies, management practices, and innovations** that eliminate or significantly reduce the negative impacts on the environment and surrounding communities from the pollution of water. Methods include those that:
    - Prevent, control, and reduce inputs of hazardous substances, chemical by-products, and other water pollutants from point sources into aquatic ecosystems.
    - Reduce inputs of phosphorus, nitrogen, other nutrients, antibiotics, and pesticides from non-point sources (e.g., agriculture) to water bodies.
- **Constructively participating in initiatives and research and development** to scale these technologies, management practices, and innovations, including:
    - **Establishing water management committees:** If not already mandated by regulation (i.e., the EU European framework directive on water[37]), SDG-aligned companies participate in or incentivize the creation of collective water management committees in the water basins where they have the most severe water impacts. These committees bring together the State, communities, and various water users to establish strategies for balanced and sustainable management of water resources and provide measures to improve the state of aquatic environments and prevent their deterioration at the basin or sub-basin level.[38]
    - **Enabling the adoption of new tools and technologies** along the value chain and spreading shared water use and reporting standards among all business relationships.
    - **Participating in multi-stakeholder initiatives and using leverage to improve certification schemes** to promote more responsible, equitable, transparent, and sustainable water use by actors across the food sector.

m. Perennial agriculture is a cropping system in which multiple perennial crops are grown; their deep root structures help soils retain water, prevent erosion, and are more resilient to periods of water scarcity (i.e., droughts). (Source: Timothy E. Crews, Wim Carton, and Lennart Olsson, "Is the Future of Agriculture Perennial? Imperatives and Opportunities to Reinvent Agriculture by Shifting from Annual Monocultures to Perennial Polycultures," *Global Sustainability* 1 (2018), https://doi.org/10.1017/sus.2018.11.)

n. As crop resides are by-products of agricultural production, they are assumed to have no inherent water cost and thus, can reduce the overall water footprint of animal-based protein ingredients. (Source: Jens Heinke et al., "Water Use in Global Livestock Production—Opportunities and Constraints for Increasing Water Productivity," *Water Resources Research* 56 (2020), https://doi.org/10.1029/2019WR026995.)

- **Supporting, and not impeding, government policies, regulation, legislation, and enforcement** that protects freshwater and local communities' access to fresh drinking water, including protection from corporate bottling of local water reserves,[39] as well as smart water management and equitable access policies.

4. ESTABLISH AND PARTICIPATE IN EFFECTIVE GRIEVANCE MECHANISMS & PROVIDE OR ENABLE REMEDY

4.1. ESTABLISH GRIEVANCE MECHANISMS

SDG-aligned companies establish and participate in effective grievance mechanisms that are accessible to stakeholders to report adverse impacts on human health, water access, and/or the environment from the excessive use of water or water pollution.

4.2. COOPERATE IN STATE-BASED GRIEVANCE MECHANISMS

SDG-aligned companies cooperate with and support legitimate judicial and non-judicial State-based mechanisms to report and adjudicate impacts on human health, water access, and/or the environment from the excessive use of water or water pollution. Where State-based mechanisms order sanctions or remedy, the companies comply and use leverage to ensure their business relationships comply.

4.3. PROVIDE OR ENABLE REMEDY

Where an SDG-aligned company identifies that it has caused or contributed to adverse impacts on human health or the environment from the excessive use of water or water pollution through its operations or business relationships, it acknowledges its part in the occurrence of the harm done and provides for or cooperates in their remediation through legitimate processes.

Where a company identifies that it is directly linked to water pollution and/or excessive water footprint-related impacts in its value chain, it enables remedy. Remedy for these impacts includes compensation for harm caused to individuals and communities, and actively carrying out, supporting, and financing natural ecosystem and/or local water supply restoration (e.g., pump and treat, containment strategies)[40] in collaboration with local governments and communities, including Indigenous and farmer communities. The company also immediately takes steps to cease practices at the root of pollution or excessive water use in its value chain and implement appropriate and safe alternatives.

5. TRACK PERFORMANCE

SDG-aligned companies track, on an ongoing basis and through qualitative and/or quantitative outcome-based performance indicators, the implementation of actions taken to meet the standard. In particular, the companies monitor whether actions are implemented within their target dates and conduct audits of their value chains to obtain information relevant to indicators.

TABLE 1: EXAMPLES OF THE COMPONENTS OF BUSINESS WATER FOOTPRINT[41]

OPERATIONAL WATER FOOTPRINT		SUPPLY CHAIN WATER FOOTPRINT	
Water footprint directly associated with the production of the business's product(s)	Overhead water footprint	Water footprint directly associated with the production of the business's product(s)	Overhead water footprint
• Water incorporated into the product. • Water consumed or polluted through a washing process. • Water thermally polluted through use for cooling.	• Water consumption or pollution related to water use in kitchens, toilets, cleaning, gardening, or washing working clothes.	• Water footprint of product ingredients bough by the company. • Water footprint of other items bought by the company for processing their product.	• Water footprint of infrastructure (construction materials and so on). • Water footprint of materials and energy for general use (office materials, cars and trucks, fuels, electricity and so on).

The following are some examples of performance indicators to track progress over time:

- Internal (operational) and value chain water footprints, as determined by the calculations provided below. (See *Table 1* for example components of a business water footprint).
- Percent decrease in water footprint or its constituents (i.e., percent decrease in blue water consumption).
- The degree of freshwater pollution resultant from a company's processes both internally and along the value chain, utilizing water quality standards as discussed above.
- Quantity and content of output of polluted water through source points and/or chemical composition of water bodies directly or indirectly (e.g., located nearby) associated with production (i.e., measures of turbidity or total suspended solids).
- The efficiency of water consumption along the value chain, particularly agricultural and commodity suppliers which are typically water-intensive and may be located in regions with high water risk.
- Percentage of producers who are engaged in at least one water conservation production practice (e.g., soil covers, diversified cropping systems)
- Percentage of producers who have optimized irrigation practices based on expert assessment.
- The number of grievances raised related to freshwater pollution or unsustainable water usage in the company's operations and value chain.
- Percentage of population with consistent access to clean drinking water (by international human rights standards) in major production regions.

5.1. CALCULATIONS FOR INTERNAL (OPERATIONAL) AND VALUE CHAIN WATER FOOTPRINTS:

Where an SDG-aligned company identifies that it has caused or contributed *(WF: Water Footprint, VC: Value Chain)*

$$InternalblueWF = \sum \frac{volumeoffreshwaterconsumed}{unitofproduct} + overheadblueWF$$

$$InternalgreenWF = \sum \frac{volumeofrainwaterconsumed}{unitofproduct} + overheadgreenWF$$

$$InternalgreenWF = \sum \frac{volumeofgreynwaterconsumed}{unitofproduct} + overheadgreenWF$$

$$VCblueWF = \sum \frac{VCvolumeoffreshwaterconsumed}{unitofproduct} + VCoverheadblueWF$$

$$VCgreenWF = \sum \frac{VCvolumeofrainwaterconsumed}{unitofproduct} + VCoverheadgreenWF$$

$$VCgreyWF = \sum \frac{VCvolumeofgreywaterconsumed}{unitofproduct} + VCoverheadgreyWF$$

6. DISCLOSE PERFORMANCE

To enable transparency and accountability, SDG-aligned companies communicate publicly on their performance against their freshwater commitment and targets, particularly when concerns are raised by or on behalf of affected stakeholders. Where relevant, SDG-aligned companies also share aggregate data and high-level findings directly with affected stakeholders and organizations, including human rights organizations and researchers.

Regular public disclosure is accurate, clear, accessible, and third-party verified information about the actual and potential impacts on freshwater in their operations and value chain, their efforts to address these to implement their policy commitment, and performance against targets. Disclosure includes sufficient information to evaluate the adequacy of the company's approach and activities. Formal disclosure includes information on the following:

- **Findings of the water assessment**, including specific values for water footprints and pollution levels resultant from company or value chain activities.[42]
- **Findings relating to internal business and value chain operations that are considered to have significant risk for water pollution and excessive water footprint**, specifying the geographic locations of these operations.[43]
- **Specific methods that are used to assess operations and business relationships** to identify and measure risks related to risk for water pollution and excessive water footprint.[44]
- **Measures taken during the reporting period to reduce consumption and eliminate pollution of water in their operations and value chains**. This includes information regarding agricultural practices, capacity building activities, chemical byproduct disposal and pollution prevention, water utilization efficiency, and access of neighboring populations to clean drinking water.
- **Any measures taken with peer companies, companies across industries, civil society, or governments** to address freshwater pollution and its root causes in the company's ecosystem.
- **Any instances of freshwater pollution or excessive water use identified in their business operations and value chains**, specifying how the instance was identified, what elements of the standard were violated, and steps taken to both remedy the instance and prevent further such instances from occurring, including changes to internal or value chain practices.
- **Progress on relevant indicators** and, where appropriate, explaining lessons learned from stagnation or decline, towards meeting the standard and achieving intermediate and long-term targets on preventing and eliminating excessive water footprint and freshwater pollution in its business operations and value chain.

ENDNOTES

1. UNDESA, "International Decade for Action 'Water for Life' 2005-2015. Focus Areas: Water Scarcity," 2014, https://www.un.org/waterforlifedecade/scarcity.shtml.
2. FAO, "Water at a Glance: The Relationship between Water, Agriculture, Food Security and Poverty," 2014, 15.
3. "Water Resilience Coalition," Water Resilience Coalition, accessed June 30, 2021, https://ceowatermandate.org/resilience/.
4. "Water and Sanitation – United Nations Sustainable Development," accessed June 30, 2021, https://www.un.org/sustainabledevelopment/water-and-sanitation/.
5. FAO, "Water at a Glance: The Relationship between Water, Agriculture, Food Security and Poverty."
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