



ACCOUNTING FOR  
SUSTAINABILITY

## MAPPING OUR WATER FOOTPRINT

**Practical example: GSK**





# WHAT

GSK is a global biopharma company. We're committed to a net zero, nature positive, healthier planet, and have set ambitious climate and nature goals for 2030 and 2045.

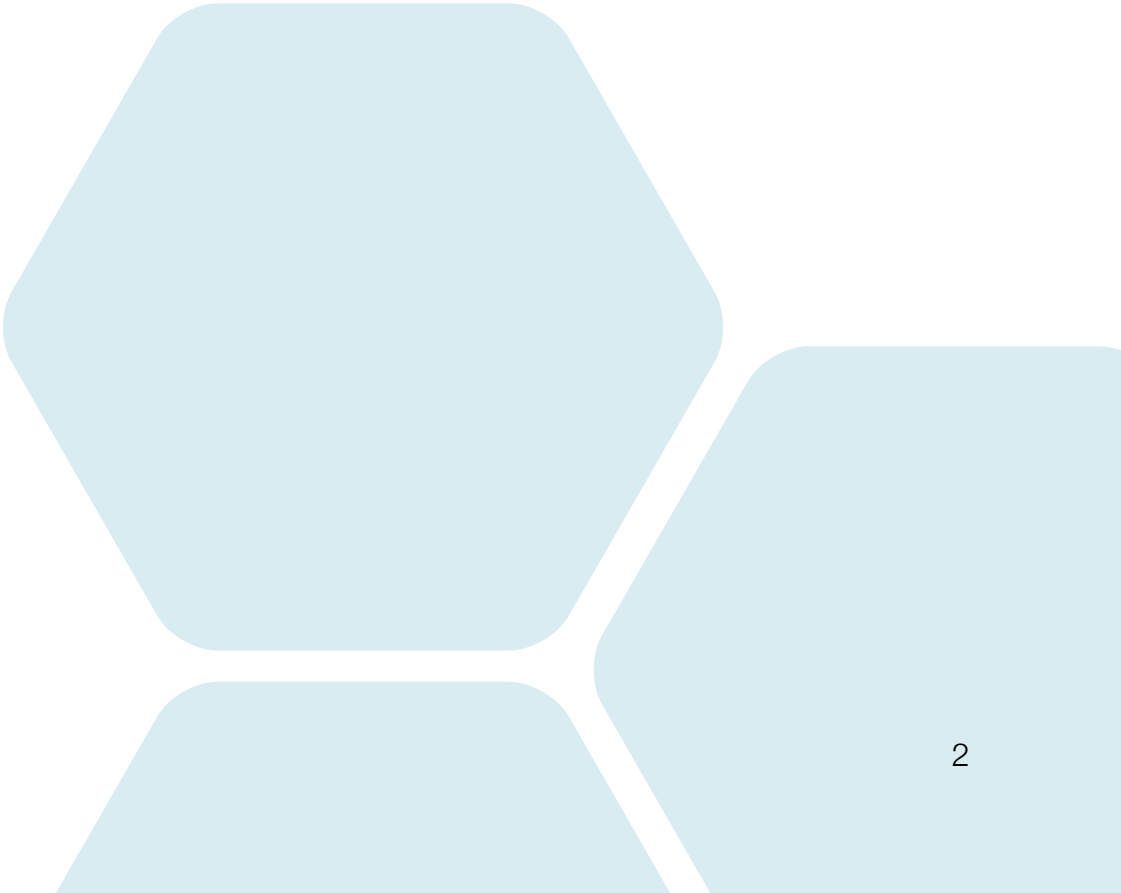
Our nature-related targets are aligned to the 'realms' of nature as defined by the Taskforce on Nature-related Financial Disclosures (TNFD) and the Science Based Targets Network (SBTN): freshwater, land, oceans and atmosphere. Freshwater is a key focus for us, as it is essential to our value chain. Our targets include:

- **Water stewardship** – 100% of sites to achieve the GSK standard for good water stewardship by 2025 and reduce overall water use by 20% by 2030
- **Water usage** – water neutral in operations and key suppliers in water-stressed regions by 2030
- **Water quality** – achieve zero-impact active pharmaceutical ingredient (API) levels for all sites and key suppliers by 2030<sup>1</sup>

1. Below the predicted no-effect level.

Practical example: GSK

We assess our water usage through water footprinting, which gives us our total estimated water footprint in cubic metres. For full visibility, we map the water usage of our value chain, including how and where that water is used. The footprint also shows the proportion of water used in areas of high water stress, based on quantity and quality of water, sanitation and hygiene factors.



Our water footprint mapping, as of 2020, showed that 95% of our water was used in our supply chain (mostly related to electricity production), 4.5% in our own operations and 0.5% related to the use of our products. Our total estimated water footprint was 218 million m<sup>3</sup>.

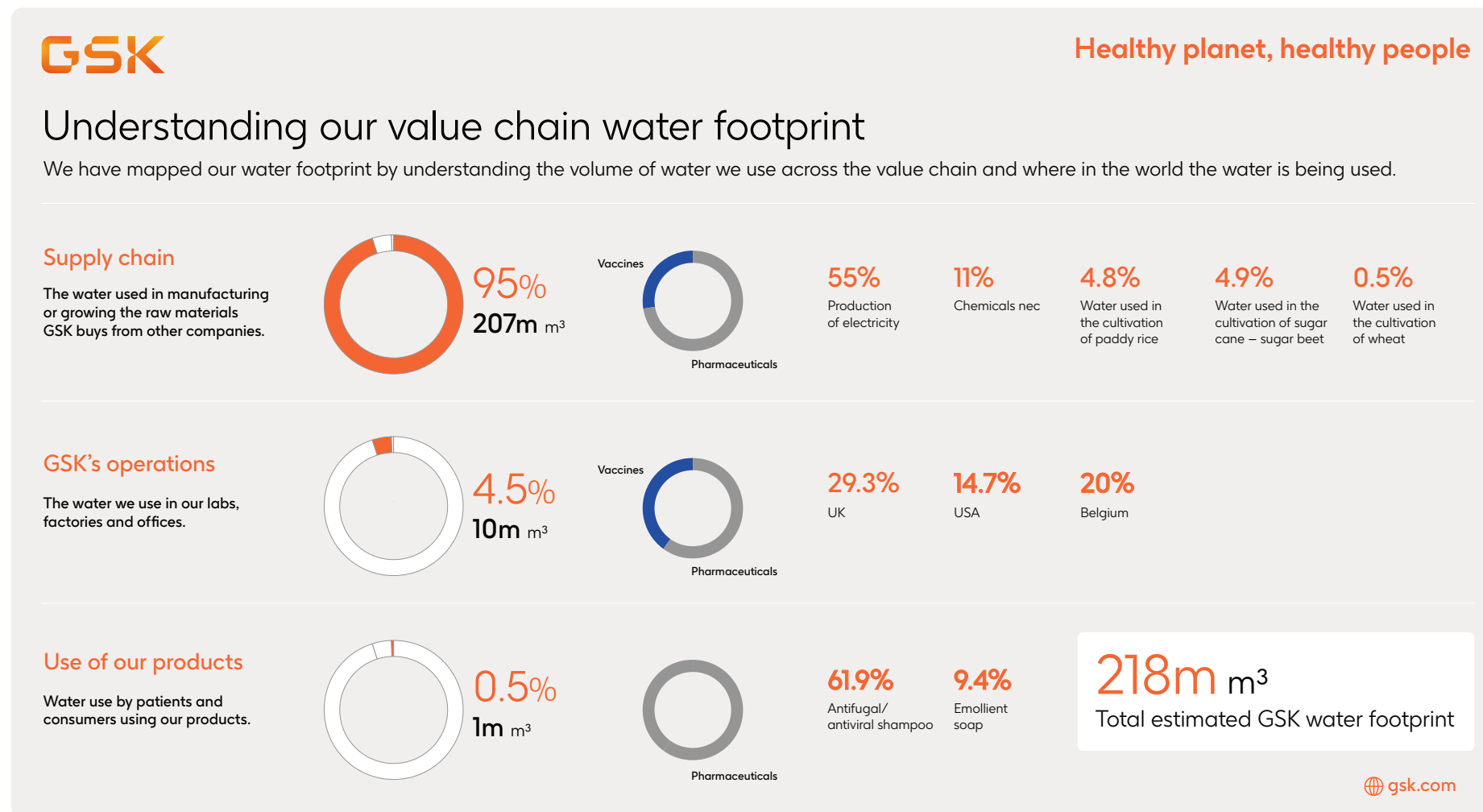


Figure 1: The water footprint for our value chain as at 2020 (source: [GSK](#)).

# WHY

As a biopharma company, we know that access to safely managed drinking water, sanitation and hygiene services has a direct impact on human health. We also recognize that water is a shared resource that is essential for a functioning society and ecosystem. Rising global demand for water, climate change and pollution is increasing pressure on water quality and availability globally. This negatively affects human health, particularly in water-stressed areas of the world.

Water is essential for producing our vaccines and medicines. Understanding our impacts and dependency on water enables us to manage our risks more effectively, prioritize where to act and show our overall progress. Assessing our nature-related risks and opportunities is fundamental to ensuring business resilience, and we were early adopters of TNFD. We have committed to disclose against the [TNFD guidance for the biotechnology and pharmaceuticals sector](#) based on the 2025 financial year.

Using water footprinting, we have reduced overall water use in our operations by 24% – and by 11% for sites in high water-stressed regions – between 2023 and the 2020 baseline shown in Figure 1. On water stewardship, 100% of our sites are now good water stewards, in line with the definition from the [Alliance for Water Stewardship](#).

2. AMR stands for 'antimicrobial resistance'.

Practical example: GSK

## Active pharmaceutical ingredient emissions

As well as reducing water usage, we aim to improve water quality. We have set a target for zero-impact active pharmaceutical ingredient (API) levels for all sites and key suppliers by 2030.

We are committed to ensuring that discharges from the manufacture of active pharmaceutical ingredients (APIs), including antibiotics, do not adversely affect people or the environment. This applies to our own sites and those of our key suppliers. In 2023, 87% of all sites and key suppliers were compliant with [AMR Industry Alliance](#) and API wastewater discharge limits.<sup>2</sup> At the same time, 100% of our sites were compliant with AMR and API discharge levels, and 95% of our key suppliers that manufacture antibiotics complied with AMR Alliance industry standards on safe discharges.

We are a partner in the [Prioritisation and Risk Evaluation of Medicines in the Environment](#) (PREMIER) project with the [Innovative Medicines Initiative](#), a collaboration across industry, academia and regulators. This partnership involves working with stakeholders to develop tools, models and data to characterize environmental risk for APIs, making environmental data on APIs more accessible and exploring the feasibility of greener drug design.



## HOW

Mapping the water footprint for our value chain was complex and involved engaging with local and global stakeholders (both internal and external, including suppliers). Our sustainability team led the project with support from external consultants and internal stakeholders from finance, manufacturing, procurement and engineering at sites across GSK.

### **Data collection and modelling**

First, we determined which data points we wanted to collate, based on risk and geographic location, and where we would need to apply modelling. We separated the water footprint into three elements of the value chain:

1. The supply chain
2. Operations
3. Use of our products

For the supply chain element of our water footprint, we used data on the locations of outsourced manufacturing sites and then modelled the water usage for those sites.

Although we had data on our water footprint for our own operations, collecting other data – such as the commodities that have a water impact – presented a challenge. Data points were stored on different systems within the organization, so we reached out to different teams to get that data, including the procurement and commercial team. Finance supported this process, including helping to ensure the robustness of the data.

Data from life cycle assessments of our products helped us to understand water usage for our products – for example, the amount of water used by our patients when consuming the final product.

### **Risk assessment**


Once we had completed collating and modelling the data, we needed to establish the level of risk. The volume of water from high water-stressed areas was included in our water footprint. We gathered this information from two data sets that use geospatial data to help understand the local risks: the World Resources Institute's [Aqueduct Water Risk Atlas](#) and WWF's [Water Risk Filter](#).

We commissioned a report on our risks and used this information in our Task Force on Climate-related Financial Disclosures (TCFD) report, to highlight suppliers that are located in areas identified as water stressed. Including this information enables us to communicate the financial risk more clearly, especially where we may be dependent on those sites.

Water use also links to our wider impacts on nature and biodiversity. In 2022, we used the TNFD LEAP (Locate, Evaluate, Assess and Prepare) methodology to conduct a materiality assessment that enabled us to deepen our understanding of our physical and transition risks and opportunities across each component of nature. We will continue to follow the TNFD guidance to assess our nature-related risks and opportunities.

### **Prioritization**

After completing the mapping and risk assessment, we used that information to reduce our water usage, prioritizing the key sites we had identified. We began with our own operations. Based on the local risk profile



identified through mapping, we worked with the sites to take context-based local action, drawing on the sites' knowledge of the area. This helped them to mitigate risks and avoid manufacturing delays and interruptions.

Giving flexibility to sites about how they approach water risk works better than taking a top-down approach, because the nature of water challenges varies greatly by location. For example, having detailed data by location allowed us to identify three water basins in water-stressed areas of Algeria, India and Pakistan where we have manufacturing sites and where we aim to be water neutral. We have built and installed plants for rainwater harvesting at our manufacturing facility in Nashik, India.

The process of preparing TCFD disclosures has helped us to develop a watchlist of additional sites potentially under long-term threat. We will monitor changes to the risk levels, updating site water risk assessments as appropriate.

### **TCFD and TNFD reporting**

The increasing level of water stress is a physical risk that was considered in the

climate-related financial disclosures section of our annual report, as it reduces the availability of water for our operations. Our finance and sustainability teams worked together to determine business-as-usual and low-carbon scenarios, as well as risk management strategies, potential profit impact/time frame predictions, and metrics and targets to measure our progress. Our [climate-related financial disclosures](#) (see pages 62–70) are consistent with the recommendations of the TCFD.

We have also begun to follow the TNFD recommendations to understand our wider nature-related risks and opportunities better, including water. We have committed to publishing our first full disclosure against the TNFD framework in 2026, based on 2025 data.

### **Collaboration**

As water is a shared resource, we identified the need to collaborate with others and joined the UN [Water Resilience Coalition](#) (WRC). We are a founding member of the WRC's flagship water, sanitation and hygiene initiative, the [UN CEO Water Mandate](#), and the [Alliance for Water Stewardship](#). We are

also a founding member – in partnership with the WRC and others – of the [Women + Water Collaborative](#) in India. We work closely with WRC and other partners to assess and tackle shared water challenges.

We are also collaborating with local partners – including the Watershed Organisation Trust (WOTR) in Nashik, India – on water replenishment, restoration and regeneration projects, focusing on sites and suppliers in water-stressed areas. This is part of our work towards our water neutrality target.

Joint action helps us to have a far greater impact than we could achieve alone. It has also shown us that other corporations and sectors face similar risks and challenges. We will continue to expand our partnerships and consider who we could work with to address these shared challenges.

For more information about our collaborations, see our [A4S case study on natural capital partnerships](#).



## NEXT STEPS

Water is a key part of our climate and nature risks. We continue to learn more about our impacts and dependencies, and the resulting risks and opportunities, as we develop our disclosures in line with the recommendations of TCFD and TNFD.

Our work on water footprinting highlighted that our supply chain is a critical place for action: it makes up 95% of our water footprint. So we know that we need to engage with our suppliers to reduce our value chain water footprint, particularly with those based in high water-stressed areas. We are now developing a programme to partner with our suppliers, to understand their water impact better and identify ways of working together to achieve our water goals.

Now that we have achieved our 2030 overall water use reduction target, we aim to evolve our targets as needed, depending on scientific guidance and the state of nature in specific locations. We are part of the SBTN pilot to learn about the freshwater guidance and validate further freshwater targets.

Practical example: GSK



# TOP TIPS

## PLAN INTERNAL DATA COLLATION

Gathering data from across a large business can be complex and time-consuming. Identify the relevant data and where it exists on internal systems. This will help you to plan and collate data more efficiently. Finance has a key role to play here.

## BE SELECTIVE ABOUT EXTERNAL DATA SETS

There are many publicly available data sets. The ideal is to use only one data set, but this is often not possible because each data set has its own limitations. Find a solution that helps you to understand your current risk and future risk under different scenarios.

## GET EXTERNAL SUPPORT

We found it useful to work with external consultants when mapping our water footprint. Getting external expertise and perspectives can strengthen the mapping process.

## LEARN FROM OTHERS

Participating in the UN CEO Water Mandate, the Water Resilience Coalition and the Alliance for Water Stewardship provided us with access to valuable networks, knowledge and collaboration opportunities.



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