

# Environment



Access to a clean, healthy and sustainable environment has been declared a universal human right. To enable a healthier world, we must take steps to reduce the impact we have on the environment as we convert and use natural resources in the manufacture and distribution of our quality medicines and APIs.

## Strategic objectives



## Stakeholders



## Capitals



## Our impact

- Ensured a sustainable supply of energy and water, critical to our ability to operate
- Implemented various initiatives to reduce our consumption of natural resources and carbon emissions
- Responsible management and disposal of hazardous and non-hazardous waste and effluent
- Committed to transparency through CDP and TCFD-aligned disclosures

**28%** reduction on Scope 1 and Scope 2 emissions over the past five years

**37%** reduction in water withdrawn over the past five years

**86%** waste recycled and only **2%** to landfill

**CDP-CC** and **CDP-WS** performance rated as “B Management Level” and “B- Management Level”, respectively

## Our material sustainability topics

- Climate change and GHG
- Energy efficiency
- Resource use and waste
- Water and effluent



Additional information available online

- Aspen Sustainability and ESG Data Supplement
- Aspen Code of Conduct

## Our contribution to SDGs

We contribute to the following SDGs and targets through our actions aligned to our material sustainability topics:



### Ensure availability and sustainable management of water and sanitation for all

- 6.3** By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- 6.4** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity



### Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.3** By 2030, double the global rate of improvement in energy efficiency



### Ensure sustainable consumption and production patterns

- 12.2** Achieve the sustainable management and efficient use of natural resources
- 12.4** By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their lifecycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment



### Take urgent action to combat climate change and its impacts

- 13.2** Integrate climate change measures into national policies, strategies and planning

## Our commitment

We are committed to practising responsible environmental stewardship seeking to minimise any negative impact our operations have on the environment in compliance with applicable laws, regulations and other environmental management requirements.





# Environment continued

## Approach to environmental stewardship

We are committed to practising responsible environmental stewardship, seeking to minimise any negative impact our operations may have on the environment and to comply with applicable laws, regulations and other environmental management requirements. We promote the efficient use of resources such as energy, water, packaging and production materials, with due regard to the scarcity of natural resources and the environmental impact resulting from the utilisation and application of such resources in conducting our business activities. We are a participant of the UN Global Compact and fully support global initiatives aimed at protecting the environment and conserving natural resources.

As corporate members of the National Business Initiative in South Africa as well as the World Wide Fund for Nature Inc., we intend to leverage these partnerships to engage in collaborative thought leadership, collective action and knowledge sharing on climate and other related topics.

Our Board monitors the status of environmental risks through the review of material environmental management performance indicators at scheduled intervals. In addition, any significant environmental risks are escalated through the Group risk management process. The Social & Ethics Committee assists the Board in monitoring compliance with the relevant environmental legislation and monitoring the adequacy of environmental management systems. Under the direction of a Group Chief Corporate Services Officer, the Group Risk & Sustainability function develops and promotes our environmental management principles and standards, with the Group SHE Operations function monitoring the alignment of business units' environmental management systems with the Group's standards. In addition to this, the Executive Sustainability Forum oversees the development of the Group's sustainability strategy and ensures integration and alignment of the sustainability objectives with business priorities. This forum (chaired by the Group Chief Operations Officer) comprises members of the Group Executive and other senior managers, and has executive oversight of the Group sustainability performance.

The implementation of our Group Environmental Policy (incorporating the Group's environmental management principles) and compliance with all applicable legislation are the responsibility of designated business unit executives.

Our environmental management systems are aligned with global standards. Environmental certification covers 83% of our manufacturing sites with all of our fully commercialised primary finished dose form manufacturing sites and all, but one, of our API manufacturing sites currently complying with ISO 14001:2015. The Sioux City and Ghana sites have been excluded from certification due to the limited scale of their operations.

During the year, a number of environmental training interventions were conducted across the manufacturing sites to ensure the consistent application of environmental principles, standard operating procedures and compliance with legislative requirements, and to create awareness of new developments. Awareness campaigns are rolled out across the Group in celebration of World Water Day and World Environment Day. A platform for the sharing of best practice on manufacturing-related environmental topics – the manufacturing sustainability CoE – enables knowledge sharing on various environmental themes.

The Aspen Code of Conduct for Suppliers and Service Providers requires our vendors to conduct their business in an environmentally conscious manner and to ensure compliance with the applicable environmental legislation.

## Material environmental issues

There are no material environmental issues to report.

An external environmental legal assurance process was conducted in 2023 and no exceptional legal environmental findings were noted. No fines were paid in respect of environmental non-compliances this year.

## Climate change and GHG emissions

### Managing emissions

We recognise the potential environmental, social, political and economic implications of climate change as a significant issue. Our environmental management principles promote the climate resilience and containment and reduction of our carbon footprint both within our operations and in the broader supply chain in a technically and economically feasible manner.

We continue to take steps to further develop and enhance our climate strategy. Our strategy includes the development and implementation of company-wide Paris-aligned climate reduction targets and roadmaps with abatement scenarios and opportunities. This work is being done through cross-functional teams and will also include the development of a position paper and strategies to achieve these targets.

Physical changes to the climate clearly represent business risks and opportunities. Many of our operations have already experienced direct and indirect impacts linked to increased temperatures, water stress and extreme weather events. Given the uncertainties linked to climate change, the transition to a low-carbon economy, and the recognition of prolonged physical vulnerabilities, we conducted climate change scenario analysis during this financial year. While a scenario analysis does not predict the future, it allows us to better understand the impact of climate change and how it could affect our company. Refer to [the Sustainability and ESG Data Supplement](#) for more information on this work.

We also recognise that our value chain emissions are a significant contributor to our overall carbon footprint. While still in the early stages, we have initiated internal and partnership programmes to understand these emissions more fully and aim to collaborate with our supply chain partners to find carbon reduction opportunities ( [page 92](#) for more information on our Responsible Supply Chain programme).

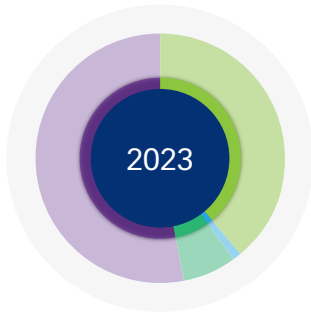
Scope 2 emissions, comprising purchased steam and purchased electricity, represent our largest source of emissions. The main sources of our Scope 1 emissions are from fugitive refrigerants and the consumption of fuel and natural gas used primarily in our stationary combustion equipment, such as boilers and standby generators, and the operation of Aspen-owned vehicles.

# Environment continued

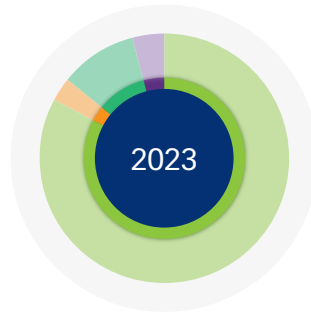
## Climate change and GHG emissions continued

### Managing emissions continued

Scope 1 emissions (37 424 tCO<sub>2</sub>e) (%)



Scope 2 emissions (111 877 tCO<sub>2</sub>e) (%)



A notable reduction in emissions for Scope 1 (7%) and a marginal increase for Scope 2 (1%) was achieved for the year. Reductions in Scope 1 emissions are mainly attributed to a decrease in natural gas consumption recorded for the De Geer and Moleneind sites. The increase in Scope 2 emissions was driven mainly by the recommencement of production activities at Alphamed.

Over the past five years, a decrease of 28% (57 693 tCO<sub>2</sub>e) in combined Scope 1 and Scope 2 emissions for the Group has been realised. The operations in South Africa contribute 70% to our carbon footprint, followed by the Oss site (11%). Although the divestment of the Nutritionals business at the end of 2019 and Mexico Vallejo at the end of 2021 resulted in a significant reduction in emissions for the Group, the use of renewable energy combined with lower energy consumption from the closure of several plants at Oss, including a solvent recovery unit, contributed largely to the reduction in Scope 1 and Scope 2 emissions. Despite the increase in energy required for expansion at the Gqeberha facility over the past few years, several installations relating to solar energy, LED lighting, hot water heat pumps, chiller plants, as well as modifications to heating, ventilation and air conditioning and air change rates, were successfully implemented or optimised.

We continue to participate in the CDP-CC and achieved a rating of “B Management Level” in 2022, which recognises structured management of climate issues and the associated impacts. We are striving to improve our rating even further through the setting of company-wide carbon emission reduction targets and conducting climate change risk assessments which include a climate scenario analysis.

In accordance with GMP regulations, we have technically advanced air handling systems and exhaust filtration systems at all relevant facilities to maintain the correct environmental conditions and minimise the risk of the release of harmful substances into the atmosphere. Through the implementation of periodic stack emission tests, we have established that the systems implemented have minimised harmful air emissions to immaterial levels.

### TCFD

We acknowledge the increasing expectations for greater transparency in reporting around the impacts, risks and opportunities of climate change. We are progressively reviewing and aligning our management and reporting approach with the recommendations of the Financial Stability Board’s TCFD. The majority of requirements are addressed in our annual CDP-CC submission, available [online](#). A table summarising our current reporting in terms of the TCFD’s recommendations is included in our Sustainability and ESG Data Supplement [online](#).

### Energy

Electricity is a critical resource utilised in our manufacturing processes and is becoming an increasingly expensive commodity. In South Africa, there continues to be a risk of supply interruptions at times of excessive load on the national electricity grid and load shedding is still implemented intermittently by Eskom, the public power utility. While our Gqeberha and East London sites were not subject to load shedding, solar PV panels have been installed to reduce the sites grid reliance and overall energy requirements at times of load shedding. The Gqeberha site (South Africa) will also be embarking on a waste to energy project under a power purchase agreement. Under this initiative, plastic waste will be converted to synthetic gas through a pyrolysis process. Not only will this result in a reduction in our carbon emissions, but it will also further reduce our reliance on the unstable national grid and lower our overall energy costs.

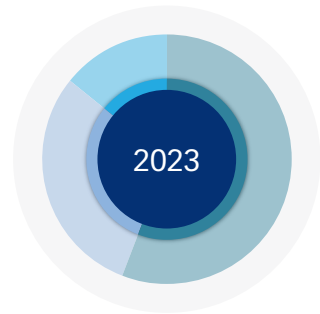
The Group’s annual electricity usage for 2023 has increased marginally by 2% (11 387 GJ) in comparison to the prior year. This increase is mainly attributed to the recommencement of production activities at the Alphamed site. At the end of 2023, renewable electrical energy accounted for 11% of total electricity usage for the Group.

# Environment continued

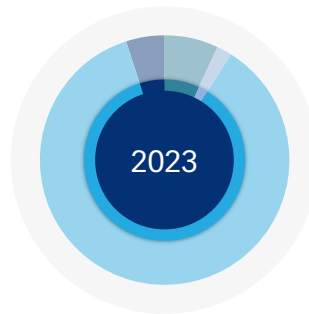
## Climate change and GHG emissions continued

### Energy continued

**Energy usage by source type**  
(1 108 629 GJ) (%)



**Waste generated by disposal method**  
(70 991 tonnes) (%)



Additional energy sources utilised by Aspen are fuel, liquid petroleum gas, purchased steam and natural gas.

### Waste

As part of the pharmaceutical and chemical industries, a fair portion (23%) of our waste is classified as hazardous. Specific systems and processes are in place to manage both our hazardous and non-hazardous waste in compliance with the waste management legislation applicable in each territory. We use specialised licensed waste management service providers to manage the transportation, treatment and disposal of waste in accordance with contracted terms and relevant legislation.

The volume of waste generated by the Group decreased by 4% in 2023. Large volumes of construction waste removed from the Alphamed site in FY2022 following the fire and rebuild of the site resulted in an increase in overall waste produced and a decrease in the percentage waste recycled in that year. Waste recycled is 86% (2022: 80%), while only 2% (2022: 5%) of total waste generated is landfilled.

### Spills and soil contamination/ground pollution

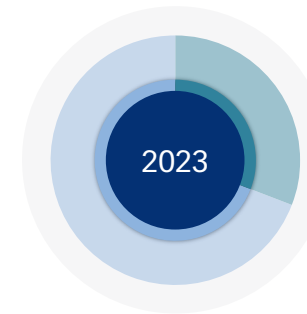
With our continued focus placed on implementing necessary corrective and preventive actions to curb incidents of spillages, we managed to curb the total number of significant spills to a reasonably acceptable level. A total of two significant spillages were recorded in 2023, of which one was classified as a spill with high impact potential. A volume of 17,5 m<sup>3</sup> diesel was released into the storm water drain contaminating the surrounding area and lake at our Gqeberha site. The root cause of the spill was determined as shutdown procedures that were not adequately followed. An external spill management company was sourced to assist with the immediate containment of the spill and related cleaning activities, enabling us to minimise the environmental damage.

## Water and effluent

### Water

We use water extensively in our manufacturing processes in the cleaning of our equipment and facilities, for employee hygiene, in steam generation and to maintain the required manufacturing environmental conditions. Municipal water is the primary source of water across the Group, although groundwater is also used at the manufacturing sites in Notre Dame de Bondeville, Oss, Dar es Salaam, Nairobi and in Gqeberha. Water scarcity and water supply are global risks that are increasing in impact and probability. In addition to climate change-related risks, sustainable water supply is further exacerbated by increased urbanisation and the ageing municipal infrastructure in certain areas.

**Water withdrawal (1 061 megalitres) (%)**



As a scarce resource, we recognise that initiatives aimed at conserving and harvesting water will contribute to more sustainable water availability. We are committed to ensuring responsible water management at all our manufacturing facilities as per our Group Environmental policy. We conduct an annual review of our water risk and water stress assessments for all manufacturing sites using a web-based tool in order to better understand our exposure to these risks and inform our future sustainable water management and water stewardship initiatives.

For the assessment and quantification of water stress, we use the World Resource Institute's Aqueduct Water Risk Atlas, which indicates water risk trends of what can be reasonably expected based on historical data. The assessment tool allows us to understand current water risks and anticipate future risk based on the measured ratio of total water withdrawals to available renewable surface and groundwater supplies in the respective water basins. Our sites in Cape Town and Hyderabad are situated in extremely high water-stressed areas. The Aqueduct Water Risk Atlas does not currently classify Gqeberha as a high water-stress location. However, considering surface water availability in the region, we have included this site in the top water risk category. The water withdrawn from these sites (23% of the total number of manufacturing sites in the Group) represents 30% of total water withdrawn for the Group.

# Environment continued

## Water and effluent continued

Our manufacturing sites in East London, Dar es Salaam, Accra, Sioux City, Vitoria and Notre Dame de Bondeville are considered to be situated in low water-stressed locations. Future projections show that our manufacturing sites in Gqeberha, East London, Cape Town, Hyderabad as well as Dandenong will be extremely water stressed in the next five to 10 years.

		Extremely high water stressed	High to medium-high water stressed	Medium-low to low water stressed	Total
Water withdrawn	Mℓ	315	443	303	1 061
Water discharged	Mℓ	234	398	218	850
Water consumed	Mℓ	81	45	85	211
Water withdrawn	%	30	42	28	100
Water discharged	%	27	47	26	100
Water consumed	%	39	21	40	100

Water withdrawn has increased by 2% (22 megalitres) for the year. Poor quality municipal water combined with an increased use in ground water in Gqeberha was identified as the main driver in the increase in water withdrawn.

Over the past five years, water withdrawal has reduced significantly by 37% (632 megalitres) within the Group. The Oss and Gqeberha sites contribute to more than 50% of the volume of water consumed by our manufacturing operations. Although the divestment of the Nutritionals business at the end of 2019 and Mexico Vallejo at the end of 2021 resulted in a notable water reduction for the Group, the Oss site played the most significant role in realising the positive downward trend, with a water reduction of 507 megalitres from 2018 to 2023. This was attributed largely to the decommissioning of a water purification plant in De Geer, cooling towers and a chemical plant at Moleneind, the disposal of the operation at Corellistraat, and the use of efficient closed water-based cooling systems all based in the Netherlands.

The Group participates in a number of industry platforms in order to keep abreast of initiatives and technological developments focused on the efficient use of scarce natural resources. The Gqeberha site's support of the Business Chamber's Adopt A Leak initiative was recently recognised for its significant impact in mitigating the risks around the water crisis in the Nelson Mandela Bay. The South African Operations team has been instrumental in leading and driving this initiative which has saved the Metro over 1,5 million litres of water a day. The team has taken their commitment a step further by adopting nine schools in Nelson Mandela Bay, with the aim of making a sustainable difference in our local community.

In the development of our sustainability strategy, we recognise that water stewardship is a key element in managing our business resilience and in terms of preparing to meet growing demands for increased disclosure from investors, regulators and customers. As such, we have embarked on the development of a water management and stewardship strategy.

We participated in the annual Carbon Disclosure Project for Water Security in 2022 and received a performance score of "B- Management Level". Our B rating is within the "Management" band, which recognises companies that are assessed as taking actions associated with good water management.

### Effluent

The quality of effluent discharge is monitored and controlled across all sites, in accordance with local municipal by-laws. Water treatment plants are in operation where required to ensure legal compliance. In the event that there is a deviation from the required standards, a thorough root cause analysis is conducted and corrective action plans are implemented.

### Biodiversity

A biodiversity assessment has been initiated for the Group. The assessment will include a maturity assessment where benchmarking against peers as well as voluntary and regulatory frameworks will be conducted. A screening analysis will then be conducted to identify priority locations with high-risk exposure to inform future actions. Ultimately, an action plan with recommendations to reduce risk and realise opportunities to progress will be presented to management for approval and implementation.