

Our plan for
contributing
to a nature
positive world

We're committed to a
net zero, nature positive,
healthier planet, with
ambitious goals set
for 2030 and 2045

Why we are taking action on nature

Action on nature matters for health, climate and business success

The science is clear that nature loss is happening at a faster rate than at any time in human history.¹

Human health relies on the fundamentals of nature: clean air and fresh water. Nature loss has a range of negative impacts on health, for example, reduced air quality increases the incidence and severity of respiratory diseases and habitat degradation and deforestation are increasing the risk of new human pathogens and pandemics. To protect human health and get ahead of disease, we need to protect nature².

We know that the twin crises of nature loss and climate change are linked and that action on nature is a critical part of achieving a net zero future³. So, our nature plan is interdependent with and supports our commitment and pathway for a net zero impact on climate.

Protecting nature makes our business more resilient and helps to ensure the ongoing supply of raw materials needed for manufacturing our medicines and vaccines. And innovation can be inspired by nature, as scientists can find new solutions by observing processes in the natural world.

Collaboration is essential to us developing and delivering on this plan. We welcome input and partnership from NGOs, other companies, our suppliers, and the communities we work in, as we continue to take action towards our goal for a net-zero, nature positive, healthier planet.



1 [Global Assessment Report on Biodiversity and Ecosystem Services](#)
2 [Biodiversity and Health](#)
3 [IPCC Biodiversity and Climate Change Workshop Report](#)

Evolving our approach

Adapting to standards and guidance

While climate issues are better understood with widely accepted approaches for action, those for nature are forming and evolving quickly.

When we set our nature targets in 2020, these were based on an initial assessment to understand our impacts and dependencies on nature. Since then, we have taken actions and reported our progress against these targets in our annual [ESG performance report](#).

At the same time, we have deepened our understanding of our full value chain nature impacts and dependencies and continued to align with evolving practices and guidance. For example, in 2022 we followed the TNFD LEAP (Locate, Evaluate, Assess and Prepare) methodology to better understand our nature-related risks and opportunities.

We are a part of the first group of companies to be working with the Science Based Target Network (SBTN) to set validated science-based targets for nature, starting with targets for freshwater and land, followed by targets for oceans and biodiversity⁴. These targets will focus on locations across our value chain where nature is particularly under pressure. We expect to have science-based targets for nature in 2024.

Our delivery plan will continue to evolve as we go through SBTN target validation, as external guidance continues to evolve, and our data is developed, primarily through greater supply chain traceability.



4 [SBTN's first corporate science-based targets for nature](#)

Our approach to contributing to a nature positive world

Setting Science Based Targets for Nature is an important step in prioritising action that aims to reduce our impact on nature. Our ambition is to go beyond the SBTN standard and contribute to a nature positive world.

Our plan to contribute to a nature positive world is in line with the goal of the post 2020 Global Biodiversity Framework to halt and reverse biodiversity loss by 2030.

Our approach is through four focus areas which are aligned to the 'realms' of nature as defined by TNFD and SBTN⁵. These are the major components of the natural world – freshwater, land, oceans and atmosphere – including the biodiversity of living species across these realms.

The overuse of natural resources and the generation of waste and pollution are key drivers of nature loss across all realms, so we have also set underlying targets on waste and materials.

We are taking action across the four realms of nature in the following three ways, guided by the SBTN action framework (AR3T)⁶:

1. Avoiding and reducing our impacts on nature across our full value chain

Our first priority in contributing to a nature positive world and preserving biodiversity is to address our impacts on nature, either by preventing or eliminating them entirely or by minimising them as far as reasonably possible.

2. Investing in the protection and restoration of nature

Investing in nature protection and restoration is a key part of our ambition and commitment to achieve a net zero, nature positive, healthier planet.

3. Helping to drive collective action for nature.

Action on nature cannot wait, so we aim to encourage others in the healthcare sector and beyond to get started on adopting new frameworks for nature and taking collaborative action to address nature loss.

We aim to contribute to a nature positive world in line with the goal of the Global Biodiversity Framework to halt and reverse biodiversity loss by 2030

We approach nature through four focus areas:



We deliver our contribution in three ways:

- 1. **Avoiding and reducing our impacts on nature across our full value chain**
- 2. **Protecting and restoring nature**
- 3. **Accelerating collective action on nature**

⁵ [TNFD's definitions of nature](#)

⁶ [SBTN's AR3T Framework](#)

Our nature targets

We set targets in 2020 with a focus on the realms of nature, as well as supportive targets on waste and materials.

We report progress against our nature plan and targets annually in our [ESG Performance Report](#). We are a member of the Taskforce on Nature-Related Financial Disclosures (TNFD) and make disclosures guided by their framework in our [Annual Report](#).

Some of our nature targets are linked with the remuneration for our senior leaders.

We are currently working as part of the SBTN pilot to set additional, locally specific targets.

Focus area	Targets
Freshwater	<ul style="list-style-type: none"> • 100% of our sites to achieve good water stewardship by 2025 and reduce overall water use by 20% by 2030 • Water neutral in operations and with key suppliers in water-stressed regions by 2030 • Zero impact active pharmaceutical ingredient levels⁷ for all our sites and key suppliers by 2030*
Land	<ul style="list-style-type: none"> • Positive impact on biodiversity at all sites⁸ by 2030 • 100% of agricultural and forestry derived materials sustainably sourced and deforestation free by 2030⁹*
Oceans	<ul style="list-style-type: none"> • 100% of marine-derived materials sustainably sourced by 2030
Atmosphere	<ul style="list-style-type: none"> • 100% renewable electricity by 2025 (Scope 2)* • 80% reduction in carbon emissions across our full value chain by 2030* • Net zero carbon emissions across our full value chain by 2045*
Waste and materials	<ul style="list-style-type: none"> • Zero operational waste¹⁰, including eliminating single use plastics¹¹ by 2030* • 10% waste reduction from supply chain by 2030 • 25% environmental impact reduction for our products and packaging by 2030

* Linked with the remuneration of our senior leaders

⁷ Below the predicted no-effect level

⁸ GSK sites

⁹ Target updated in December 2021 to reflect priority materials

¹⁰ Including a 20% reduction in routine hazardous and non-hazardous waste

¹¹ Where regulatory obligations allow, and excluding plastics which are critical to product discovery and development and health & safety

Action on nature: Freshwater

Freshwater is vital to human health, as well as the health of wildlife and plants. Freshwater environments include rivers, lakes, wetlands and streams.

Rising global demand for water, climate change and pollution are increasing pressure on water quality and availability globally. This is having a negative impact on human health, for example, lack of access to safe water sources is a leading risk factor for the spread of infectious diseases.

Impacts and dependencies

Water is essential for the production of our vaccines and medicines. We have mapped our [water footprint](#) and calculated the volume of water we use in our value chain and in our own operations and have improved our understanding as to where in the world we have the biggest impact on water.

Our primary operational impact on water availability is through our own manufacturing sites that are located in areas of water stress. Using water risk data from the World Resources Institute and the World Wildlife Fund, we have identified five sites located in water-stressed areas across Algeria, India and Pakistan, which face increasing water availability and quality risks.

Releases of Active Pharmaceutical Ingredients are a priority focus for us regarding water quality (see more in our [public policy](#)). Pharmaceutical residues may sometimes pass into the

environment as part of the normal biological process following patient use. To a lesser extent, pharmaceuticals can also enter the environment from unused medical products or factory discharges.

There are concerns that long-term exposure to pharmaceuticals in the environment can pose a risk to environmental species, including aquatic life. The presence of antibiotics in the environment, and its potential impact on driving antibiotic resistance as well as reducing microbial biodiversity, is a growing concern for many stakeholders and an active area of research.

While clinical and agricultural practices are generally recognised as the dominant sources of antibiotics entering the environment, unregulated manufacturing practices may also contribute to anti-microbial resistance. Read more about our position on antimicrobial resistance in our [public policy](#).

Approach and targets

Our approach to freshwater covers availability, access and quality, with a focus on areas that are water-stressed.

We continue to work towards our existing water targets (set out below) and, as part of the SBTN pilot, we are currently working to implement their guidance and validate our freshwater targets:

100% of our sites to achieve good water stewardship by 2025 and reduce overall water use by 20% by 2030

Water neutral in operations and with key suppliers in water-stressed regions by 2030

Zero impact active pharmaceutical ingredient levels¹² for all sites and key suppliers by 2030*

Action we are taking

Today, all GSK sites complete a GSK water stewardship assessment, aligned to the Alliance for Water Stewardship (AWS) standard, and implement action plans to comply with our standard. For our sites located in water-stressed areas, we aim to secure certification under the AWS standard.

Across all of our sites, we maintain high quality water infrastructure to ensure there is no leakage, and we reduce our overall water use through water-efficiency projects, including behaviour change programmes and introducing water-efficient cleaning procedures.

Our sites located in water-stressed areas are prioritised for catchment-level projects of water replenishment, restoration, and regeneration activities that aim to deliver measurable environmental and social outcomes.

For example, we have partnered with a local NGO in Nashik, India on a water replenishment project designed to improve ecosystem conditions, enhance the climate resilience of local agriculture, and empower local villages to manage water resources to improve their health and livelihoods.

We are committed to ensuring discharges from the manufacturing of Active Pharmaceutical Ingredients (APIs), including antibiotics, do not adversely affect people or the environment. We carry out environmental testing on our pharmaceuticals and use the data in risk assessments to evaluate potential for harm to human health and the environment. We continue to work with industry groups and regulators to further develop the science and methodologies to further evaluate our products and management practices.

* linked with the remuneration of our senior leaders
12 Below the predicted no-effect level

Action on nature: Land

Land degradation is a negative change in the quality of land and soil, normally driven by poor land management or land conversion, for example, the expansion of agriculture, urbanisation and deforestation.

Land degradation can have a range of negative health impacts. For example, a link has been shown between deforestation and increased risk of zoonosis – infectious diseases being transmitted from animals to humans – as habitat destruction leads to increased contact between humans and wild species¹³.

Impacts and dependencies

Our primary dependency on land is due to the natural materials we source, some of which derive from agricultural commodities, a key driver of deforestation and land use change, globally. The supply chains for some of these commodities are often long and complex and may be many tiers removed from our direct engagement.

Our operational land holdings are relatively small, although two of our R&D sites, one in Belgium and one in Spain, are located in Key Biodiversity Areas.

Approach and targets

Our current approach to land management includes working towards sustainable and deforestation-free sourcing, as well as improving biodiversity at our own sites.

We continue to deliver on our existing land targets (set out below). Additionally, we are piloting the SBTN guidance for setting land targets, and we will seek to verify these targets.

Positive impact on biodiversity at all sites¹⁴ by 2030

100% of agricultural and forestry derived materials sustainably sourced and deforestation free by 2030^{15*}

Action we are taking

While we work on avoiding or reducing impact by assessing opportunities to improve efficiency, material changes or switching to alternatives, we have set ambitious standards for suppliers who provide us with materials that are highly dependent on nature, such as sugar, paper, palm oil, lactose, gelatine and soy.

These standards, developed in collaboration with third-party experts, aim to support these suppliers to assess, improve, and verify their approach to addressing a range of nature impacts – and associated climate and social impacts – including land-use, water stewardship and biodiversity.

As a first stage, we are addressing the 12 most critical materials, including paper and palm oil. We have roadmaps in place with an aim to achieve 100% sustainable sourced paper and palm oil by 2025.

We have engaged with associated suppliers to map the full supply chains involved, understand existing sustainability standards, identify gaps and establish action plans.

We are committed to having positive impact on biodiversity at all our operational sites. We used the Integrated Biodiversity Assessment Tool (IBAT) and have worked with ecological experts to complete mapping and baseline biodiversity assessments for 80% of our sites.

We are now implementing biodiversity action plans across our estate with an aim to improve habitats, protect species and improve soil and water quality.

¹³ WHO Biodiversity and Infectious Diseases Q&A

¹⁴ GSK-owned sites

¹⁵ Target updated in December 2021 to reflect priority materials

* linked with the remuneration of our senior leaders

Action on nature: Oceans

Oceans cover over 70% of our planet. They support global food security, and livelihoods, produce half the oxygen we breathe and regulate the climate.

Degradation of the world's oceans caused by factors such as climate change, marine pollution and over-fishing, poses risks to human health and business resilience.

Impacts and dependencies

Our impacts and dependencies on oceans come primarily from marine-derived materials that are a critical part of manufacturing vaccines and medicines.

This includes, for example, horseshoe crab blood which is an important substance that is required by some regulators to be used in pharmaceutical and biomedical quality control processes to ensure the quality and safety of medicines, vaccines, and devices.

Approach and targets

Our approach to oceans is focused on reducing or avoiding the use of marine-derived materials from at risk species, as well as working to ensure the materials we do source are as sustainably sourced as possible.

We continue to deliver on our existing ocean target (set out below), and will apply the relevant science-based methodology on oceans when it becomes available.

100% of marine-derived materials to be sustainably sourced by 2030

Action we are taking

To reduce our impact on oceans, we are implementing our Marine Sustainable Sourcing Standard which outlines the specific requirements that our suppliers of marine-derived materials must adhere to.

As part of our approach to product stewardship, we are working to reduce the volume of marine-derived materials, for example, through process efficiencies. In the longer-term, we are seeking to transition to alternatives to marine-derived materials, wherever possible from both a technical and regulatory perspective.

We are also working to protect and restore marine ecosystems through our investment in community-led projects with an aim to restore over 2500 hectares of mangroves in Java, Indonesia. Mangroves play a crucial role in atmospheric and climate regulation, provide habitats to marine life, provide a natural barrier against coastal floods, as well as trapping sediment and pollutants to improve water quality.

Action on nature: Atmosphere

The mixture of gases that surrounds the Earth help to make life possible by providing us with air to breathe and regulating the planet's temperatures. Emissions of carbon and other gases are causing climate change and air pollution.

Air quality is closely linked to climate change as many of the drivers of air pollution (i.e. combustion of fossil fuels) are also sources of greenhouse gas emissions. Air pollution is a significant environmental risk to human health, particularly for patients with respiratory conditions like asthma and COPD. Action to reduce air pollution is a win-win for both climate and health.

Impacts and dependencies

As a leader in medicines and vaccines for respiratory health, we want to play our part in improving air quality.

We have done an initial assessment to establish an air pollution footprint in our operations and our supply chain. This showed that, directly, we are having a relatively low impact on air quality, and that the largest proportion of our emissions sit in our supply chain.

Approach and targets

Our approach to air pollution includes reducing pollutants linked to burning of fossil fuels that will be addressed via our SBTi-aligned climate strategy and targets (set out below), as well as looking more broadly at our air pollution footprint.

100% renewable electricity by 2025 (Scope 2)*

80% reduction in carbon emissions across our full value chain by 2030*

Net zero carbon emissions across our full value chain by 2045*

Action we are taking

The outcome of the initial air quality assessment highlighted opportunities for reductions in emissions linked to on-site electricity generation and use of solid fuels, car use and move to electric fleet, as well as indicating opportunities in our value chain for the sourcing of plastic and glass products.

We are creating reduction plans around these key areas that are aligned to our pathway to zero and which aim to have a positive impact on air quality.

We are conducting an additional air quality assessment, working with Stockholm Environment Institute (SEI) and the University of York, broadening the suite of air pollutants to be taken into consideration to understand their impact across our value chain and their connection to human health.

To help accelerate collective action on air pollution, we are members of the Alliance for Clean Air through the Clean Air Fund (CAF) and the World Economic Forum, which aims to drive corporate action on clean air to accelerate climate action and create healthy communities around the world.

The collective measurement of direct and value chain emissions across the Clean Air Fund membership aims to build a picture of the activities that give rise to poor air quality globally and intends to enable policy makers and industries to make informed decisions, considering the broader global impacts on health from poor air quality.

More about our action on climate to deliver the targets can be found in our [pathway to net zero](#).

* linked with the remuneration of our senior leaders

Action on nature: Waste and materials

The overuse of natural resources and the generation of waste and pollution are key drivers of nature loss. That's why we have set underlying targets on waste and materials.

Our approach and targets

Our approach to product stewardship means that we consider and aim to address impacts on nature and climate at every stage of the product life cycle, from discovery, design, sourcing and manufacturing through to product use and disposal. We have set a target to help accelerate the adoption of this approach:

25% environmental impact reduction for our products and packaging by 2030

We have also set targets to reduce operational and supply chain waste.

Zero operational waste¹⁶, including eliminating single use plastics¹⁷ by 2030

10% waste reduction from supply chain by 2030

Action we are taking

Embedding our approach to product stewardship to reduce our impact on nature means working to minimise the water and material used, and the waste and pollution generated, from delivering our medicines and vaccines across the full product life-cycle. We have already achieved zero operational waste to landfill and we continue to build on our long-standing operational waste management programme to identify opportunities to achieve more beneficial use from waste.

For our supply chain, we're working on a waste footprint assessment to help with supplier engagement on waste reduction, and on product design so we can build in circularity and reduce waste by design.



¹⁶ Including a 20% reduction in routine hazardous and non-hazardous waste

¹⁷ Where regulatory obligations allow, and excluding plastics which are critical to product discovery and development and health and safety

Action on nature: Protecting and restoring nature

Investing in nature protection and restoration is a key part of our ambition and commitment to achieve a net zero, nature positive, healthier planet.

We aim to do this by making specific investments in nature across our value chain, linked with the focus areas for nature – freshwater, land, oceans and atmosphere as detailed above.

At the same time, we are prioritising nature investments for the carbon credits we are committed to securing as part of our pathway to net zero emissions. Whilst we are focused on emissions reductions to meet our carbon targets, we plan to secure carbon credits for the 20% emissions that we estimate to have as residual in 2030, and for a maximum of 10% residual emissions by 2045.

Our approach to securing carbon credits, and to investing in nature, is to partner with expert developers and NGOs to invest in early-stage nature projects for the long term. This helps to ensure that the design is inclusive of benefits to water, land, biodiversity, atmosphere as well as to include health considerations in the project design and implementation, depending on the needs of the community.

GSK is part of the Lowering Emissions by Accelerating Forest Finance (LEAF) Coalition, a public-private initiative that aims to halt and reverse deforestation and protect biodiversity by supporting tropical and subtropical jurisdictions through the acquisition of high quality carbon credits. The LEAF Coalition has mobilised \$1bn in financing, kicking off the largest-ever public-private effort to protect tropical forests.



Action on nature: Accelerating collective action

Action on nature cannot wait, so we aim to encourage others in the healthcare sector and beyond to get started on adopting new frameworks for nature, taking collaborative action to tackle nature loss.

While carbon emissions are a global phenomenon, nature degradation is more localised. Work to create healthy and sustainable ecosystems often requires partnership with experts,

NGOs and local communities who are best placed to drive change at local level, in a particular landscape, water basin, seascape or ecosystem. Through the process of setting our Science Based Targets for Land and Water, we will be conducting wider stakeholder engagements locally, to drive and support local actions for nature in relation to some of our sites and in some of our key sourcing regions.

We are supporting our suppliers to step up their ambition and actions on nature, for example, by working with them to implement our sustainability standards for natural materials.

We are also encouraging our suppliers to improve traceability of our supply chains and collect data to allow us to assess our impacts and dependencies with greater accuracy.

In addition, we want to help accelerate broader corporate action on nature. In the lead up to COP15 we joined Business for Nature and other leading companies in successfully calling on world leaders to require organisations to assess and disclose nature-related dependencies by 2030.

Measuring impact is fundamental to unlock corporate investments in nature, which is why we supported The Wallacea Trust to develop a consistent, scientifically robust and open-source methodology for quantifying the biodiversity impact of nature protection and restoration.

We also want to help ensure that human health is a key outcome of the world's drive to protect and restore nature, through the development of an open-source toolkit in partnership with Pollination and with input from key nature and health experts from organisations such as the Circular Bioeconomy Alliance, the Nature Climate Solutions Alliance and the London School of Hygiene and Tropical Medicine.

The toolkit aims to support companies, investors and developers to incorporate health considerations in the design of nature-based projects.

Finally, we are sharing the learnings from our work on nature, for example, by [publishing](#) our experiences of undertaking a full value chain materiality assessment, in the hope that by learning together we can make quicker collective progress.





Ahead Together

More information

[Our position on Access and Benefit Sharing](#)

[Our position on Pharmaceuticals in the Environment](#)

[Our position on Antimicrobial Resistance](#)

[Our pathway to net zero impact on climate](#)

[Annual Report and ESG Performance Report](#)

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