Healthy planet, healthy people

Putting health at the centre of action on climate and nature

September 2021

Six ways the private sector can play its part

For people to stay healthy, we need to keep our planet healthy. Indeed, increasing scientific evidence shows that the twin challenges of nature loss and climate change are harming human health in a variety of ways.

For example, human health is under threat from air pollution, diseases that pass from animals to humans and threats to water security. Climate and nature changes are testing the resiliency of our healthcare systems. These are global issues with the potential to undermine decades of progress.

COVID-19 shone a spotlight on the fragile relationship between the health of our planet and its people, so we can and must do more. To get ahead of disease and deliver real human health impact we need to look broadly and deeply at the interconnections of climate, nature and health.

At GSK, we have committed to net zero impact on climate and net positive impact on nature by 2030. Over the next decade, we will reduce our environmental footprint and, when unavoidable, balance the remaining impact through programmes which capture carbon and restore nature.

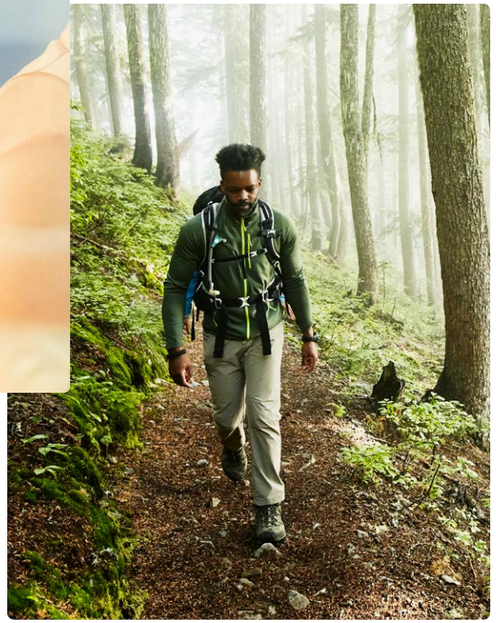
This is the right thing to do for the planet, and our business: increasing business resilience, spurring innovation, responding to the shifting perspectives of our customers, adapting ahead of expected regulation change, and delivering long-term growth and value creation.

But we can go further. We believe that it's time for the private sector to come together and play its part in tackling these joint challenges. Companies can be part of the problem, emitting greenhouse gases and damaging nature, or they can be part of the solution.

Here, we outline some of the steps we are taking and how our partners are helping to lead the change.

We want to ensure that the solutions for climate change and nature loss are also drivers of human health. We are determined to show what's possible through what we do and how we partner, and by using our voice to put health firmly at the centre of action on climate and nature.

Emma Walmsley
GSK CEO



"To get ahead of disease and deliver real human health impact we need to look broadly and deeply at the interconnections of climate, nature and health."

An ambitious plan to reduce GSK's impact

Playing a positive role starts with minimising the impact of our business.

GSK has an ambitious plan to reduce our own impacts on climate change and nature loss, fast. We know we can accelerate our own reduction – and simultaneously promote protection and restoration – by working collaboratively and innovatively right across our business, supply chain and the healthcare sector at large.

- Our carbon targets set us on course for net zero impact on climate by 2030 – aligned to a 1.5°C pathway and accredited by the Science Based Targets Initiative (SBTi).
- Major new solar and wind energy investments in the UK and US set us on track to get to 100% renewable electricity by 2025.
- We're playing a leading role in the Race to Zero Breakthrough for our sector - through which a critical mass of pharmaceutical and med tech companies are setting robust and ambitious net zero commitments.
- Our goal is to have a positive impact on nature by 2030, and we are helping develop Science Based Targets for Nature to create the pathway to get there.
- We're developing a groundbreaking method of "greening" the chemicals that make up our medicines, using enzymes to make our production up to 1000 times more efficient.
- We want to stamp out waste and have a positive impact on nature by 2030. We're making 1 billion toothpaste tubes recyclable and working collaboratively with our competitors on how to change behaviour to get them recycled.
- We will invest in nature-based carbon removal projects linked to biodiversity improvements, which serve to remove carbon, promote biodiversity and improve public health outcomes.

UN CLIMATE CHANGE CONFERENCE UK 2021 IN PARTNERSHIP WITH ITALY
CLIMATE GROUP EV100
RE100 CLIMATE GROUP | CDP
imi innovative medicines initiative
RACE TO ZERO
SCIENCE BASED TARGETS DRIVING AMBITIOUS CORPORATE CLIMATE ACTION
THE CLIMATE PLEDGE
The LEAF Coalition Lowering Emissions by Accelerating Forest finance

Healthy planet, healthy people

"Ahead of COP26, I am calling on Governments, companies, and individuals to reduce their impact on the planet, and protect our natural habitats, for the sake of our health and for the health of future generations. Our message is simple. The next decade is decisive, follow the science, take action and embrace your responsibility to keep the goal of 1.5°C alive."

Rt Hon Alok Sharma MP
President for COP26

Six areas of action to impact climate, nature and health

We want health to be at the centre of action on climate change and nature loss.

Fundamentally, the world is facing a set of important challenges – from air pollution to forest loss to declining wellbeing. And these challenges are interrelated. For instance, the economy creates carbon emissions, this creates air pollution, air pollution then negatively impacts human health.

It is a complex picture. So, we have looked closely at a series of interlinked challenges and identified opportunities to make an impact that really matters. The answers aren't easy, nor are the actions that businesses, including GSK, need to take, but there is no time to waste.

We have identified six key areas of action where business can start making a big difference right away, helping to mitigate climate change and nature loss and, crucially, protecting human health.

The six areas of action are:
- Air pollution
- Water security
- Forest protection
- Healthcare resilience
- Disease burden
- Wellbeing

At GSK there are ways we can help, both through reducing our own impact and by acting on the consequences with medicines and vaccines that alleviate the burden of changing disease.

In each area, we are working alongside leading organisations that are setting out to make a positive impact.

"Global heating is directly impacting on all our health today. It strains those at the forefront of healthcare – impacting systems already under immense pressure. From floods and fires to new science, it's time we recognise climate change, biodiversity loss, and global health are interconnected. Only by doing so can we mitigate the full impact these crises bring."

Sir Jeremy Farrar OBE
Director of the Wellcome Trust

"GSK founded The Clean Breathing Institute in 2018 to research the links between air pollution and respiratory health, raise awareness, advocate for change, and equip Health Care Practitioners and people suffering from worsening respiratory health with practical advice on how to mitigate the impact on their daily health.

We are encouraging businesses to improve air pollution and the associated health impacts by understanding the links, mitigating against the root causes of air pollution across their operations, and helping people adapt through products and services."

Dr Robert A Friedline
PhD, Vice President R&D Lead, Respiratory, GSK Consumer Healthcare Research and Development and CEO, Clean Breathing Institute

Air pollution

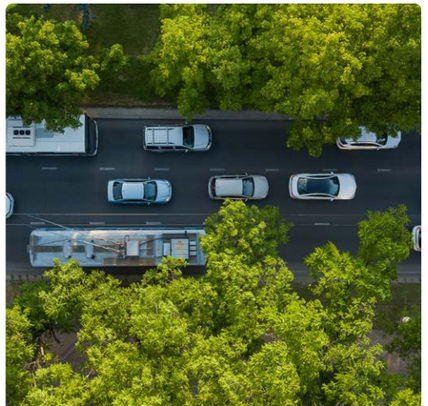
Air pollution is the most important environmental health risk worldwide

Millions of people die prematurely every year from diseases caused by air pollution. Solutions exist that can quickly impact human health, climate and nature, but they require funding and will to deploy at scale.

Air pollution impacts the health of humans and our planet, everywhere[1]. In 2018, it killed an estimated 8.7 million people.

The impacts are felt through asthma, lung cancer and coronary heart disease among other health issues.

Solutions already exist: global efforts to scale renewable energy and electric vehicles, and to protect nature and biodiversity, will both minimize the release of air polluting fossil fuel emissions and filter out harmful gases[2]. But funding and will is required to accelerate climate and nature solutions, reduce air pollution and ultimately protect human health.



It's estimated

8.7m

people died from air pollution in 2018

CASE STUDY

Innovation to reduce carbon impact of inhalers

GSK has been a leader in the treatment of respiratory disease for over 50 years. One of our very first inhalers is still used today to relieve the symptoms of millions of respiratory patients around the world – and may grow more important as climate changes and air quality is impacted.

However, the current propellant used in this inhaler is a potent greenhouse gas meaning patient use contributes approximately 45% of the carbon footprint in our pharmaceutical and vaccine business. We are determined to reduce the climate impact of this important medicine.

That means moving fast and in partnership to change the propellant, innovate new delivery mechanisms and evaluate through clinical trials. We aim to reduce the environmental impact by at least 90%. We hope others across healthcare will join us to minimize the impact of inhaler propellants.

Dr. Annette Doherty
Senior Vice President of Product Development and Supply, GSK

1 https://www.frontiersin.org/articles/10.3389/fpubh.2020.00014/full
2 https://apps.who.int/iris/bitstream/handle/10665/341376/9789289055581-eng.pdf

"Human systems depend on a well-functioning, sustainable water cycle. And water is the main way through which we will feel the effects of climate change: more severe floods, drastic droughts, and more water-stressed areas than ever.

Investing in nature-based solutions, focusing on climate-resilient water access, sanitation and hygiene, concentrating efforts on net-positive water impact – all offer opportunities to confront climate challenges.

But we need all hands on deck. I commend governments, businesses and people who are taking action in these areas, and call on every sector of society to join."

Jason Morrison
President, Pacific Institute & CEO Water Mandate

Water security

Climate change and nature loss threaten water security and therefore health

Decisive action is required locally, nationally and globally to ensure access to clean water and to safeguard the human health that relies on it.

Today, two billion people live in areas where water supply is inadequate.[3]. Without action, this could grow to more than half the world's population by 2050[4]. This has a direct impact on human health: every minute, a newborn dies from infection caused by lack of access to safe water[5].

Climate change and nature loss are exacerbating the water crisis by destroying wetlands, increasing water pollution, intensifying floods, and prolonging droughts[6].

Business leadership today means setting ambitious and quantifiable goals to make a net positive impact on water, and working across the public and private sector to improve water availability, quality, and accessibility.

2bn
people live in areas where water is supply is inadequate[3]

CASE STUDY

Towards water neutrality in Cape Town

Our manufacturing site in Cape Town is in a water-stressed basin. That is why it's so important to manage and minimise the water we use here. And, so far, we're proud to have reduced our impact by 53% since 2010.

The next-level ambition for us is water neutrality. In partnership with the Water Resilience Coalition, we're looking at further reducing our water footprint, product manufacturing, investing in nature-based solutions, and embarking on community projects to address shared local water challenges. We're starting to take our learning to other sites in water-stressed areas.

We've found that collaboration is key to expanding our effort, and is critical to scale solutions fast to meet the challenge. This is just the beginning of many collaborative opportunities we will be exploring to accelerate a water resilient future.

Cindy Carter
Cape Town Site Director, GSK

3 https://www.youtube.com/watch?v=rQbMXg0yZZk
4 https://www.youtube.com/watch?v=0TMoGbIjVKc
5 https://www.unicef.org/wash/water-scarcity
6 https://waterfootprint.org/en/about-us/news/news/water-stress-affect-52-worlds-population-2050/

Forest protection

Immediate action is required to protect life-sustaining forests

Forests are the lungs of our planet. They're fundamental to fighting climate change and biodiversity loss. They are also vital in safeguarding human health through cleaning water and air, and their destruction increases the risk of disease pandemics[7]. But time is running out to protect our forests from irreversible loss.

Ten million hectares of forest are cut down globally every year[8] – an area roughly the size of Portugal every decade.

Deforestation increases the risk of pandemics such as COVID-19[9] as the species that do survive these changes are often more likely to host potentially dangerous pathogens that can make the jump to humans.

It also increases the spread of other life-threatening diseases including malaria and dengue fever[10], increases the impacts of pollution and weather extremes[11], destroys nature that supports wellbeing[12], and plants and animals are lost that may hold the key to treating illness.

Deforestation also contributes 15% of global emissions[13], accelerating climate change. Companies can help end forest loss by 2030 by working to actively protect and restore forests for the benefit of climate, nature and health.

"Despite recent efforts to reduce demand for deforestation-linked commodities, deforestation increased by 12% between 2019 and 2020. We are not on track and time is running out to combat climate change and nature loss.

The connection between health, climate change and instability in the economic system is stark.

There is no business if there is no environment. Companies need to drive systemic change, engage in public-private partnerships, and prioritise immediate action – to reduce emissions, enhance biodiversity, and safeguard health."

Eron Bloomgarden
Executive Director, Emergent Climate & spokesperson for the LEAF Coalitio

CASE STUDY

Mobilising finance to help halt and reverse deforestation

GSK is part of the LEAF Coalition, alongside governments and other businesses: an ambitious new public-private initiative designed to halt and reverse tropical deforestation by 2030 and accelerate climate action.

The initiative aims to mobilise at least $1 billion for countries committed to protecting their tropical forests, and the group is working towards announcing a first round of investment before the end of 2021.

We believe the LEAF Coalition offers an effective and credible mechanism to have real and systemic impact on climate, nature and health.

Adele Cheli
Partnerships and Strategy Director, Environmental Sustainability, GSK

10m
hectares of forest are cut down globally every year

7 https://www.nature.com/articles/d41586-020-02341-1
8 http://www.fao.org/3/ca8642en/online/ca8642en.html#chapter-executive_summary
9 https://www.nature.com/articles/d41586-020-02341-1
10 https://e360.yale.edu/features/how_forest_loss_is_leading_to_a_rise_in_human_disease_malaria_zika_climate_change
11 https://www.hrw.org/report/2020/08/26/air-unbearable/health-impacts-deforestation-related-fires-brazilian-amazon
12 https://www.weforum.org/agenda/2021/03/deforestation-biodiversity-protect-international-day/
13 https://www.carbonfootprint.com/deforestation.html#:~:text=Around%2013%20Million%20hectares%20of,Greenhouse%20Gas%20(GHG)%20emissions.

"Today's children will now inherit a planet with more severe and frequent extreme climate-related emergencies than ever before and it is one of the biggest threats to children's survival. Our programmes already help to protect children from the many impacts of the climate crisis – including poverty, malnutrition, illness, lack of education, and exploitation and abuse.

Climate change is compounding public health issues and calling for new approaches to support transformative, sustainable and resilient health systems. We must act now to protect children."

Gwen Hines
CEO, Save the Children UK

Healthcare resilience

Healthcare system resilience is under pressure from the climate and nature challenge

Global healthcare systems are set to face unprecedented climate- and nature-related pressures. That puts their capacity to prepare for and respond to crisis under pressure. Given acute global disparities in the ability to overcome these challenges, fast action is needed to build more resilience in healthcare systems and to develop partnerships to deliver healthcare where it is needed most.

Heatwaves, flooding, drought, storms – and the diseases they bring – will all impact a global healthcare system which, according to Dr. Kristie Ebi, Professor at the University of Washington[14], is already not investing enough in resilience and adaptation and yet, the global healthcare system also contributes to the problem, releasing 5% of global annual CO2 emissions[15].

Whilst some governments are beginning to recognise this challenge[16,17], many simply do not have the capacity to build greener, resilient healthcare systems. Alongside reducing emissions, it is therefore also vital to build the capacity of these systems to overcome the coming extreme weather and climate challenges.

5%

Global healthcare systems contribute 5% of global annual CO_2 emissions

CASE STUDY

Collaboration with Save the Children to strengthen immunisation

Nearly 90% of the global burden of disease associated with climate change is borne by children under the age of five. So healthcare access for children is a critical part of mitigating the impact of climate change.

GSK and Save the Children have been working in the Somali Regional State of Ethiopia since 2016 to strengthen immunisation programmes and reduce child mortality from Vaccine Preventable Deaths.

Although immunisation coverage in Ethiopia has improved from 17% in 2000 to 39% in 2016, coverage remains low and inequalities significant.

Our work aims to address a critical lack of capacity and resources within the region, generate demand for and improve access to immunisation services, improve community awareness, encourage government/ health service provider accountability and ensure equitable and quality immunisation, particularly for girls and women.

Elizabeth Bayliss
Partnership Manager, Save the Children

14 https://www.overtureglobal.io/story/talking-ted-kristie-l.-ebi-on-the-health-risks-of
15 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)32596-6/fulltext
16 https://www.worldbank.org/en/news/feature/2021/04/13/frontline-preparing-healthcare-systems-for-shocks
17 https://www.epa.gov/arc-x/public-health-adaptation-strategies-climate-change#aboutcdc

"As humanity continues to have a major impact on the natural world, we are going to experience a greater and more widespread burden of disease. One clear example is the changing distribution of disease vectors like mosquitos – as the world gets warmer and wetter as a result of major ongoing environmental changes, 90% of the world's population will be placed at risk of infectious diseases such as malaria and dengue.

Humans are also living, working and travelling in previously untouched parts of the world and interacting with nature in entirely new ways – these interactions bring with them real risks for future pandemics."

Alan Dangour
Director of the Centre on Climate Change and Planetary Health, London School of Hygiene and Tropical Medicine

Disease burden

Climate change and nature loss will change the diseases we experience

Action should be taken now to prepare both for the rise of new diseases, and the spread of existing diseases to new parts of the world. Doing so can prevent further human suffering and economic disruption and damage as a result.

Evidence suggests humanity's overexploitation of nature has been a key factor in the spread of diseases including COVID-19, Ebola, AIDS, SARS and swine flu, by bringing wildlife, livestock and humans into closer contact with each other[18].

Climate change is already increasing the transmission and spread of vector-diseases, including malaria and Dengue fever[19], and water-borne diseases, including cholera[20].

COVID-19 is unlikely to be the last virus that causes intense human suffering because of environmental destruction[21].

Global efforts are needed now to stop activities that drive biodiversity loss, to reduce the exploitation of high biodiversity regions, to converse protected areas, and to mitigate climate impact.

18 https://apps.who.int/iris/bitstream/handle/10665/341376/9789289055581-eng.pdf
19 https://www.cdc.gov/climateandhealth/effects/vectors.htm
20 https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0224813
21 https://apps.who.int/iris/bitstream/handle/10665/341376/9789289055581-eng.pdf

90%
of the population will be placed at risk of mosquito carrying diseases

CASE STUDY

R&D for diseases most affected by climate change

Climate change is already changing patterns of infectious disease, including the geographical range of malaria and other mosquito borne diseases such as dengue, and the risk of disease that can be transmitted through water, such as cholera and typhoid. No region will go untouched by climate change, but its impact is likely to be most detrimental in the developing world, where healthcare systems are already stretched.

GSK have a long heritage of tackling diseases that disproportionally affect the developing world.

We are committed to improving global health through R&D for infectious diseases at our Tres Cantos Open Lab in Spain and the Vaccines Institute for Global Health in Italy, as well as making existing vaccines and medicines available which can make a difference today. Ongoing biomedical R&D is vital.

New medicines are needed for the treatment and prevention of diseases most affected by climate change, to alleviate the impact of current threats and be better prepared against future pandemic risks.

Thomas Breuer
Chief Global Health Officer, GSK

"There is a rapidly growing body of scientific research on the mental and physical benefits of exposure to nature: being surrounded by a diverse, beautiful, natural landscape reduces anxiety, tackles depression, combats stress and builds self-esteem.

But natural resources are being degraded and destroyed at an unprecedented rate. Companies are crucial in reversing this environmental devastation and protecting the wellbeing of people around the world. They can help by putting challenging and long-term environmental policy at the heart of their business."

Richard Deverell
Director, Kew Botanical Gardens

Wellbeing

Time in nature benefits our mental and physical wellbeing

Making nature easily accessible where we live, work, and play improves mental and physical wellbeing. Now's the time to put nature protection and restoration efforts at the forefront of employee and community wellbeing efforts.

Evidence is growing on the link between access to nature and human health: the greater the number of trees in an area, the closer individuals live to green spaces[22], and the higher the species diversity in an area[23], the better the mental health of those that live there. Time in nature also leads to a decrease in heart rate and blood pressure[24].

Since COVID-19, companies are increasingly looking to support the wellbeing of their employees and the communities in which they operate. Protecting and restoring nature must be at the forefront of these efforts.

89%

of adults agreed or strongly agreed that green and natural spaces should be good places for mental health and wellbeing[25]

22 https://pubmed.ncbi.nlm.nih.gov/26185745/
23 https://www.idiv.de/en/news/news_single_view/1923.html
24 https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/urbannatureforhumanhealthandwellbeing_508_01_30_18.pdf
25 https://naturalengland.blog.gov.uk/2020/06/12/people-and-nature-survey-how-are-we-connecting-with-nature-during-the-coronavirus-pandemic/#:~:text=The%20large%20majority%20of%20adults%20(89%25)%20agreed%20or%20strongly,in%20nature%20makes%20me%20happy%27

CASE STUDY

Biodiversity to support local health and wellbeing

As a company, we know that the places where we work are a representation of who we are and the values that matter to us. How we run them is a lever to impact nature and the health and wellbeing of our people and local communities.

So we're looking hard at the biodiversity around our sites, as part of a collaboration with UNEP. That's started with three bio-assessments to understand where we are today and how to improve. In Stevenage in the UK, the findings have led to a full landscape redevelopment to ensure we can have a positive impact on the local environment.

We're aligning this approach with the emerging Science Based Targets for Nature initiative- and our clear goal is to have net positive impact on biodiversity at our sites.

Marguerite Murray
Sustainability Manager, GSK

Call to action

We want to ensure that the solutions for climate change and nature loss are also drivers of human health.

Air pollution, forest protection, water security, healthcare resilience, disease burden, wellbeing. These are six critical areas where climate, nature and health challenges intersect, and where all businesses can help to drive change.

As a healthcare company, we are determined to raise awareness of these intersecting challenges. And we're working hard and fast on them ourselves, setting ambitious goals with tight timelines. We are moving from a mindset of doing 'less harm' to 'more good', but we know we can't make the progress we want by doing this alone.

Calls for action at the intersection of these three challenges are getting louder – from medics to academics, civil society and leading businesses.

Many are devoting effort and imagination to developing ambitious solutions and the landscape is starting to converge around a clear definition of what good can look like. Science Based Targets have become the gold standard of climate ambition and we are collaborating to shape a similar approach for nature with the Science Based Targets Network. Taskforce on Climate-related Financial Disclosures (TCFD) has become a norm for reporting on climate risk in many markets. We want Taskforce on Nature-related Financial Disclosures (TNFD) to do the same for nature risk.

The routes to action for businesses are getting clearer. The reality is that almost all companies have an impact – for better or worse – on these critical areas where climate, nature and health meet.

Many other businesses are seeing the opportunity to help. Many more need to. Because ultimately, we want to ensure that the solutions for climate change and nature loss are also drivers of human health.

Claire Lund
Global Vice President, Sustainability, GSK

Four ways business can step up:

1. Build

Develop a greater institutional capacity to assess impacts on the natural environment. Incorporate this insight into strategic plans.

2. Act

Identify win-win-wins by prioritising health benefits through action on climate and nature.

3. Partner

Think creatively and collaborate across the private sector and beyond to test, learn and scale new solutions.

4. Join

Partner with leading organisations and agenda setters codifying the disclosure (TCFD and TNFD) and targets needed (SBTi).

"Our health, well-being and livelihoods rely on a thriving natural world and stable climate. Business for Nature works with leading companies who recognise this relationship and are making ambitious commitments, taking decisive action and advocating for more ambitious nature policies. Two crucial negotiations lie ahead – one on nature (COP15) and one on climate (COP26). Businesses need to step up, speak up and scale up their actions to shape the climate and nature policy agendas, and help build a healthy, nature-positive, net-zero and equitable world."

Eva Zabey
Executive Director, Business for Nature