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EXPLORING THE BUSINESS CASE

CLIMATE & HEALTH TOOLKIT FOR HEALTHCARE BUSINESSES

CLIMATE AND HEALTH COALITION

Mobilizing the private sector to transform our health and climate systems

Core Partners

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CONTENT

ABOUT THE TOOLKIT

This toolkit offers practical guidance on incorporating integrated climate and health considerations into corporate strategies.

For now, the intended audience primarily includes healthcare businesses - encompassing senior leadership and executives, and business teams such as sustainability, procurement, policy and external affairs, R&D and communications..

This toolkit builds on the guidance featured in the previous Climate & Health Coalition reports, and aims to equip healthcare businesses to address the urgent climate-health crisis by providing case studies and examples, implementation guidance and tools, a guide to getting started, workshop facilitation packs, and a visionary leadership action module.

LET'S GET STARTED!

If you'd like to go straight to the organisational starting point to explore where your business is in its climate and health journey, or delve into the action modules to explore what actions you could take and how others have approached these challenges, please click here to return to the main site.

Otherwise, please read on to better understand the climate and health intersection and the business case for taking integrated action on these two deeply connected issues.

THE IMPORTANCE OF THE CLIMATE AND HEALTH INTERSECTION

HOW ARE CLIMATE AND HEALTH CONNECTED?

Climate change poses a real and urgent threat to our society and economy, with potentially devastating acute and chronic impacts on human health, with the World Health Organisation (WHO) calling climate change the "single biggest health threat facing humanity, threatening the essential ingredients of good health."

Severe floods, heat stress or drought can have immediate and severe impacts on health. Gradual rises in temperature can have longer term impacts, exacerbating both non-communicable and infectious diseases. Climate change also impacts mental health, whether as a result of the trauma of living through severe weather disasters, or more widely, suffering so-called 'eco-anxiety'.

Many of the drivers of climate change are also health issues in their own right. Air pollution from fossil-fuel power plants, transport and industry kills and debilitates millions each year, while forest destruction damages water supplies and increases the risk of infectious diseases.

'At its simplest, the air we breathe, the water we drink, the food we eat, all comes from our environment. Our sophisticated technologies and complex built environments can work to obscure this essential fact but ultimately, air, food, water, and even diseases that come from the environment all very much affect our health. From that basic standpoint, our health is integrally related to the health of the environment.'

Dr. Kelsey Ripp, internist and pediatrician, and University of Washington Global and Rural Health Fellow at the University of Global Health Equity (UGHE) in Rwanda, a Partners in Health (2022), 'How climate change impacts vulnerable communities'.

WHY THE URGENCY?

Recent climate events have served as stark reminders of the pressing need for action. From unprecedented heatwaves scorching Europe to wildfires devastating crops, severe air pollution increasingly worsening and causing respiratory diseases, catastrophic floods in the Great African Lakes region, and disruptive storms like Winter Storm Mara impacting Texas, Tennessee, and Arkansas in the US, the urgency for change is undeniable. These climatic events have not only resulted in acute and longer term health impacts and humanitarian tragedies but have also inflicted substantial economic losses.

And its due to get worse. The WHO estimates that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths every year from malnutrition, malaria, diarrhoea and heat stress alone. Every fraction of a degree the planet's temperature increases, the more devastating the impact on our health.

The message that you cannot have healthy people on an unhealthy planet could not be clearer.

Without healthy planetary systems, such as ample fresh water, clean air, and reliable weather, we cannot have healthy humans. A planet that is no longer safe for living on today poses an existential risk to every individual and every business. This has been recognised by the global community: and in 2023, for the first time, there will be a dedicated health day at COP28.

ADDRESSING THESE INTERCONNECTED SYSTEMS THROUGH AN INTEGRATED APPROACH HOLDS THE POTENTIAL TO MITIGATE HEALTH RISKS STEMMING FROM CLIMATE CHANGE.

AN INTEGRATED APPROACH CAN ALSO SERVE AS A CATALYST FORVALUE CREATION, INNOVATION, CLIMATE JUSTICE, HEALTH EQUITY, AND, CRUCIALLY, RESILIENCE BUILDING AND ADAPTATION.

WHY EQUITY IS A KEY COMPONENT OF THIS INTERSECTION

The social determinants of health are deeply connected to the environment in which people live and work.

The most severe harms from climate change and environmental degredation fall disproportionately upon underserved communities who are least able to prepare for and recover from climate shocks such as heat waves, flooding, poor air quality, and other impacts. This is true for low-income states and also vulnerable populations within higher income countries. For instance, in regions characterized by vulnerability, the mortality rate from extreme weather events over the past decade was 15 times greater than in less vulnerable areas. Along with the direct health impacts of climate shocks, such as ill health and mortality from heat or flood related diseases, climate change also contributes to indirect health impacts such as lower productivity, social migration, political instability, and conflict. Vulnerable communities, such as women, indigenous communities, racial minorities, and people with disabilities, will be disproportionately affected by these direct and indirect social and health impacts.

The climate and health intersection offers an opportunity to tell the human story of climate change, and has the potential to be a key narrative to bring to life the connections between social and economic impacts of climate change, and social and health inequity.

THIS IS A CRITICAL MOMENT TO DEFINE BOLD AND EQUITABLE CLIMATE SOLUTIONS THAT ADDRESS THE LEGACY OF ENVIRONMENTAL AND CLIMATE INJUSTICE IN WAYS THAT WORK FOR EVERYONE AND CONTRIBUTE TO IMPROVING THE GLOBAL PUBLIC HEALTH AGENDA.

WHY NATURE IS A KEY COMPONENT OF THIS INTERSECTION

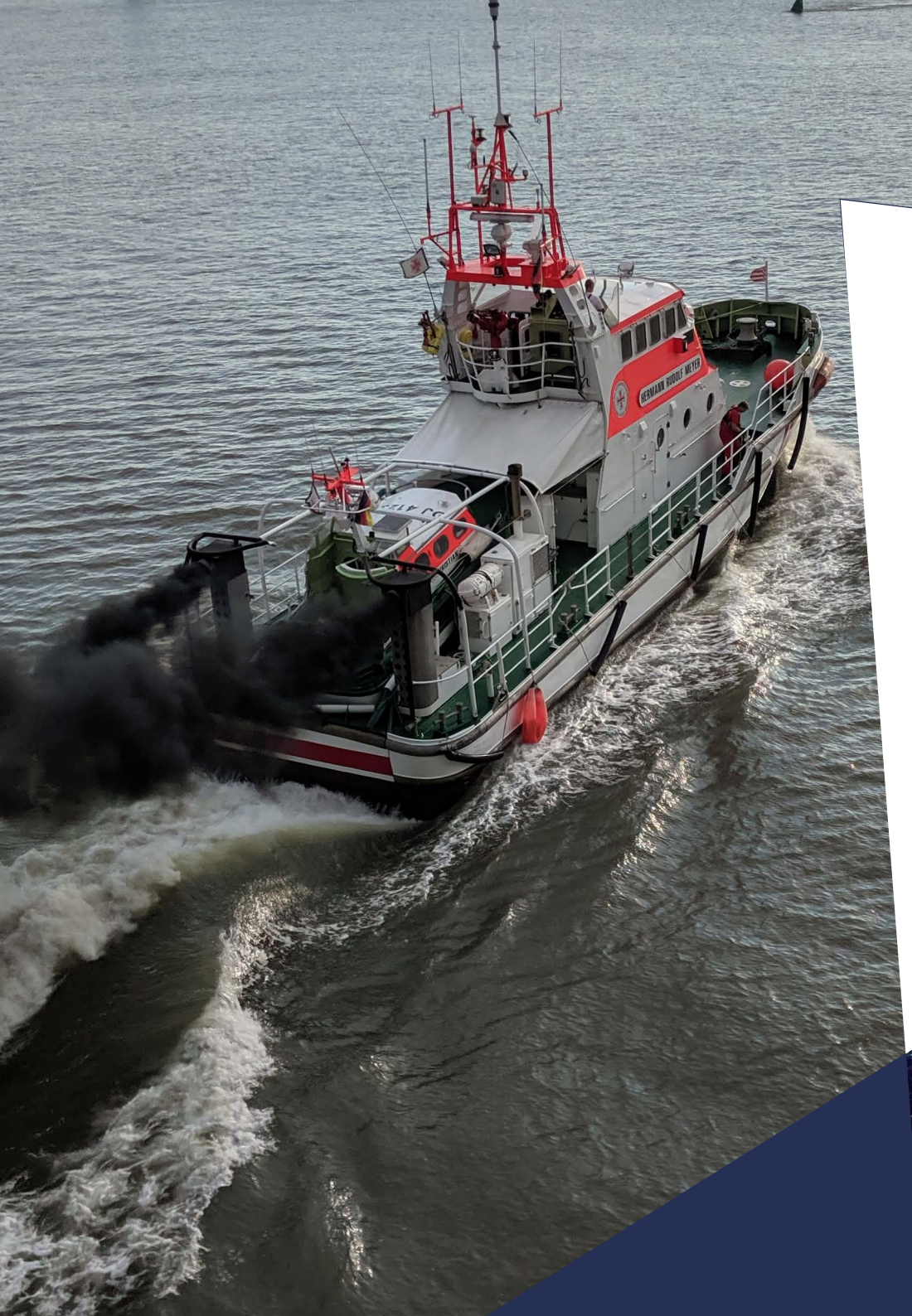
Nature degradation and biodiversity loss exert a tangible influence on human health due to their pivotal role in the ecosystems that enable the health of the planet and people.

For instance, biodiversity and soil health are critical for food security and nutrition, access to green spaces is directly linked to human physical and mental health, and biodiversity loss is driving the emergence of novel zoonotic diseases.

Where health and nature needs are played out in a local context, local solutions will often be most effective, with local livelihoods and other social impacts being taken into consideration, leading to longer term success of nature projects.

Deep collaboration with Indigenous peoples and local communities has also been identified as a key driver of ecosystem regeneration and resilience in a recent toolkit by GSK and Pollination, "Understanding and enabling health outcomes from nature based solutions".

TAKING PROACTIVE STEPS TO ADDRESS CLIMATE CHANGE, NATURE PRESERVATION AND HEALTH, POSITIONS BUSINESSES AT THE FOREFRONT OF A CRUCIAL INTERSECTION.



BUSINESS CASE FOR INTEGRATED CLIMATE AND HEALTH ACTION

THE ROLE OF THE PRIVATE SECTOR IN ADDRESSING THESE INTERCONNECTED CHALLENGES

Business is critical in determining whether we can create a world in which more than nine billion people live well, within planetary boundaries. Both through its own actions, and its influence on supply chains, consumers and policymakers, business has the resources, leverage and creativity to drive real change – at scale and speed.

The opportunity for all actors, especially the private sector, to address climate, nature and health in an integrated way is immense. And there are huge risks of inaction too. Climate impacts are already having a significant impact on productivity and value chain resilience, and forecasts predict that negative health impacts (and their economic consequences) are only likely to grow as climate and nature breakdown. As a knock-on effect, we could lose the ability to fund a health service just at the time it faces overwhelming demands.

WHY INTEGRATE CLIMATE, HEALTH AND COMMERCIAL STRATEGIES?

EXAMPLES: OPPORTUNITIES AND IMPACTS

- **Productivity - lost labour hours:** In recent assessments, a staggering 295 billion potential work hours were lost due to extreme heat exposure (Wellcome Trust, 2022).
- **Productivity:** A study from BSR demonstrates that an increase in extreme heat or heavy rainfall increased absenteeism and illness, whilst decreasing productivity, illustrating how a collective effort to mitigate climate change drives employee productivity globally (BSR, 2022).
- **Productivity:** A 2022 employee engagement survey of 7,134 employees across private sector companies in 15 industries indicated that 70% of employees claim that acting on climate change at work was important to their personal sense of motivation and wellbeing (Kite Insights, 2022).
- **Resilience - supply chain disruptions:** Environmental disasters have led to the internal displacement of no less than 32.6 million people internally displaced in 2022 due to environmental disasters—a nearly 40% surge compared to the preceding year (IDMC, 2023).
- **Resilience - operational efficiencies:** Global infrastructure demand is $4.3 trillion yearly. If 10% were green or smart, we could save $248 billion annually and slash carbon emissions. Over 60% of global emissions stem from built infrastructure (Deloitte, 2022).

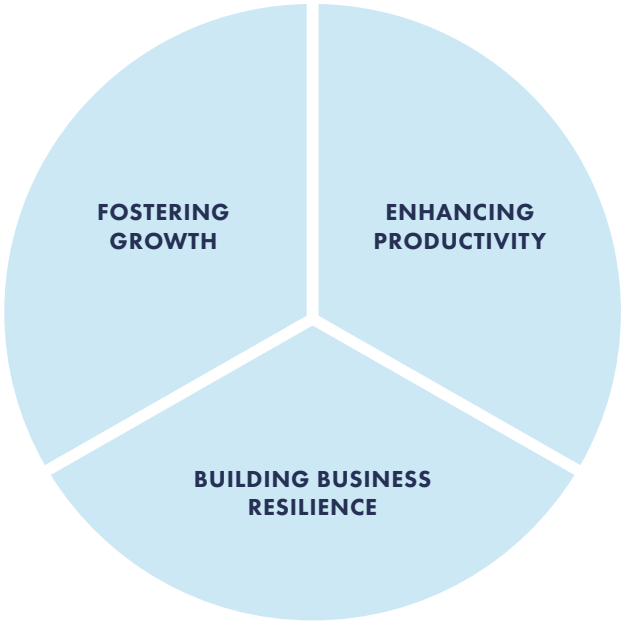


Diagram: Business Value Lever Framework

Both public and private companies struggle to integrate sustainability (including climate) into their structures, strategies, and processes. Interconnections between a company's environmental, social and financial actions are often not recognised in strategies and as a result when they are operationalised there is a separation of sustainability into distinct silos with separate teams, metrics, and goals.

What are the opportunities in bringing together teams and expertise from specific areas such as carbon, water and community engagement to work towards interconnected goals? And what are the risks of continuing to address these issues separately, in isolation?

As the business value lever framework above demonstrates, an integrated climate and health strategy closely aligned with corporate objectives yields numerous advantages. **Taking an integrated approach is one way for businesses to drive multiple benefits simultaneously and, particularly when closely aligned with business strategy, reduce risk and create opportunities for value creation.** When making investment decisions related to climate and health (or any other strategic goals) there are significant benefits in considering both the value to gain, as well as the value at risk from taking integrated action.

1. BOLSTERING BUSINESS RESILIENCE

a. **INTEGRATING CLIMATE AND HEALTH INTO SUPPLY CHAIN STRATEGIES ENHANCES RESILIENCE:** Healthcare companies in particular must be resilient and climate-ready to stay operational, ensuring a steady supply of medication and health solutions for patients. By focusing on key sourcing regions and empowering local workers, companies can reduce vulnerability to supply chain risks that accompany extreme weather events and other climate-related health crises (i.e. Covid-19), such as labour shortage, transport disruption, and supply chain visibility. This approach helps build a more robust and adaptive supply chain, and enables collaboration with others working in the region to reduce emissions and improve health impacts.

b. **EVOLVING REGULATORY FRAMEWORKS:** Regulations are starting to show increased convergence between social and environmental factors, especially as health impacts are more acutely felt. Companies can seize this opportunity to get ahead of potential regulatory changes to mitigate health impacts.

c. **MORE SYSTEMIC, LONG-LASTING SOLUTIONS:** By breaking down strategy silos and taking into consideration the health consequences of environmental interventions and vice versa, businesses can strengthen the viability and longevity of solutions and avoid unintended consequences. Without considering these overlapping impacts there is a high risk of perpetuating social and health inequalities, exacerbating environmental harm and ultimately delivering initiatives that fail to succeed in the longer term.

CASE STUDY: DIAGEO'S INTEGRATED APPROACH TO WATER SCARCITY

Diageo is taking an integrated approach to both risk assessment and strategy in response to water scarcity. Increasing water availability is already affecting their ability to continue production in water-stressed areas. Their response includes both a typical approach to improving water use efficiency and social programmes to improve water security and community resilience in Diageo's 'priority water basins' in their key sourcing regions. Examples include working with government, NGOs and local stakeholders to restore a wetland treating wastewater in Mexico, improving irrigation networks with farmers in Turkey, desilting dams to increase water infiltration in India, and providing access to water for many smallholder farming communities in Tanzania, Ghana, Brazil, Mexico, Uganda, Kenya and India.

Diageo, Annual Report 2023

2. ENHANCING PRODUCTIVITY

a. **ENHANCED OPERATIONAL EFFICIENCIES – DELIVERING ON MULTIPLE BENEFITS:** Integrating health and environmental strategies offers a streamlined approach to making investments, achieving multiple outcomes for each dollar spent. For example, climate mitigation efforts can address climate and health risks, while green building practices, like green roofs, not only enhances environmental sustainability by regulating temperature and improving air quality but also boosts business efficiency, employee wellbeing, and community health. Integrated strategies can also help break down silos opening up opportunities for better efficiency, better supplier relationships and product quality.

b. **EVOLVING REGULATORY FRAMEWORKS:** Taking action on climate, health and equity is a key factor in attracting and retaining staff, ensuring employees see the company as genuinely committed to making a positive impact beyond what is required through legislative compliance. Integrated strategy supports the ability to deliver on purpose; studies have shown a clear and coherent purpose motivates employees. A governance structure that helps employees connect climate, nature, health, and equity in their work creates the enabling conditions for employees to innovate and drive connections in their job functions.

CASE STUDY: PATAGONIA'S HOLISTIC APPROACH TO SUSTAINABILITY AND PURPOSE

Patagonia's sustainability history includes note-worthy campaigns such as "Don't buy this jacket" and DIY-repair, to being an early and consistent pioneer of recycled fibres and ensuring Fairtrade certified supplier manufacturing facilities. This integrated approach to issues relating to the company is founded on a company culture and philosophy that, in addition to driving action the company is widely recognised for, also influences employees in their day-to-day lives.

Commercial Impact: In 2019, Patagonia announced they had a 4% turnover rate for employees, the average rate for retail was 13%, with employee satisfaction at 91% against a US company average of 57%. A Trust Index Survey found "Environment", "People" and "Mission" as the three most common words that are used to describe why Patagonia is a great place to work.

3. FOSTERING GROWTH

a. **NURTURING INNOVATION:**
Integrating climate and health approaches can open up new ideas and avenues for innovation that drive value creation.

Approaching innovation with an integrated mindset allows for diverse perspectives to address challenges, unveiling disruptive innovations to mitigate or adapt to the health impacts of climate change, that may remain unseen through a siloed approach. Companies that collaborate and capitalise on the strengths, experience, and expertise of other industries can enhance resilience through co-creating solutions.

CASE STUDY: GOOGLE USES DATA TO AID CLIMATE ACTION

Google looks for ways to share information with scientists and policymakers that can help them address the climate and health issue globally, while also helping individuals act locally.

As part of this action, Google supports over 42,000 cities, providing data to aid in crafting climate action plans - bringing together their comprehensive global mapping data with standard greenhouse gas (GHG) emission factors. Tools like Air Quality Insights and the Tree Canopy Lab also empower cities to enhance their planning, offering valuable insights for shade provision and preparedness against extreme heat events.

Google are also piloting ways to provide data and insights to local governments to better understand their communities' needs during extreme heat events, for instance use of libraries etc.

KEY SECTORS THAT INFLUENCE HEALTH AND CLIMATE

All sectors will be impacted by the twin crises of climate and health. However, the Coalition has identified a number of high interest sectors:

- Certain sectors are particularly uniquely positioned positioned to drive value creation through their products and services, including health, information and technology, food, and built environment sectors.

- The technology sector, in particular, stands as a source of disruptive innovation and valuable partnerships for industries seeking to develop new models and solutions addressing the increasing threats posed by climate on public health. Notably, technologies like big data and artificial intelligence can play a significant role in narrowing the knowledge gap, aiding businesses in better anticipation and preparation for the future.

WHERE CAN BUSINESSES ACT: SPHERES OF INFLUENCE

The practical guidance in this toolkit is designed to enable private sector organisations to develop or strengthen net zero and adaptation strategies in ways that activate co-benefits for climate and health and integrate equality and nature where possible, adding up to more than the sum of their parts.

Every business has a range of spheres of influence where it can focus action. Often the easiest place to start is with direct operations, products and services (including consumer use and behaviour), and employee policies and program. Then there are value chains, over which all companies have influence, from suppliers to consumers.

SPHERES OF INFLUENCE IN AN INTERCONNECTED WORLD

Every business has a range of spheres of influence. Often the easiest place to start is with direct operations, products and services (including consumer use and behaviour), and employee policies and program. Then there are value chains, over which all companies have influence, from suppliers to consumers.

Diagram 3: Business spheres of influence

Meanwhile, consumers, employees, investors and other stakeholders increasingly expect businesses to utilise the influence they have over the wider landscape they operate in, to shape the rules and policies that govern or guide their particular sectors. This type of influence is often exerted through advocacy, collaboration or partnerships around key systemic issues, such as Growing Our Future, a Forum for the Future-led collaboration, which seeks to transform the agriculture system in the US through scaling up regenerative agriculture.

Ideally, businesses should be designing strategies that deliver for both climate and health across all spheres of influence. This expanded view of the remit of business is important to ensuring health equity and climate justice across the supply chain as well as unlocking further action to improve human and planet health.

WHAT'S NEXT

Our next phase of this work is to trial the toolkit more extensively and we're actively seeking potential collaborators, if you're interested in learning more, please get in touch. We also invite any feedback you might have to further enhance and refine the toolkit in preparation for its next iteration.

In 2024, we're also developing additional action modules related to value chains and corporate affairs, and exploring the expansion of the toolkit into other sectors, starting with food.

HOW TO GET IN TOUCH

To learn more and explore how your organisation can drive co-benefits for climate and health, or to share feedback on the toolkit, please contact Ksenia Benifand **k.benifand@forumforthefuture.org.**

You can also learn more about the Coalition and access our 2021 and 2022 guidance reports at **www.forumforthefuture.org/climate-and-health-coalition**

APPENDIX

1. WHAT IS A SYSTEMS CHANGE APPROACH AND WHY IS IT NEEDED?

SYSTEMS CHANGE

Achieving transformative change on climate and health at the scale and pace needed means taking a whole systems approach. This in turn means that understanding how systems change, and how to harness this dynamic for the best, is crucial to making real progress. A system could be a socio-economic one, such as energy or health, an ecosystem such as the ocean, or an organisation.

System change comes about when relationships between different aspects of a system alter, such that the system as a whole moves towards new outcomes. Diagram 1 illustrates systems change, using the Multi-Level Perspective model. This model describes a system as being made up of three levels: landscape, regime and niche.

Systems begin to change when pressures from the landscape (for example macro trends such as climate change or shifts in societal expectations), along with the development of strong alternative solutions in the niche, such as disruptive technologies or different ways of organising, combine to disrupt business as usual. If supported by people willing to do things differently, these isolated instances of pioneering practices can tip into mainstream practice, which eventually creates a sustainable "new normal".

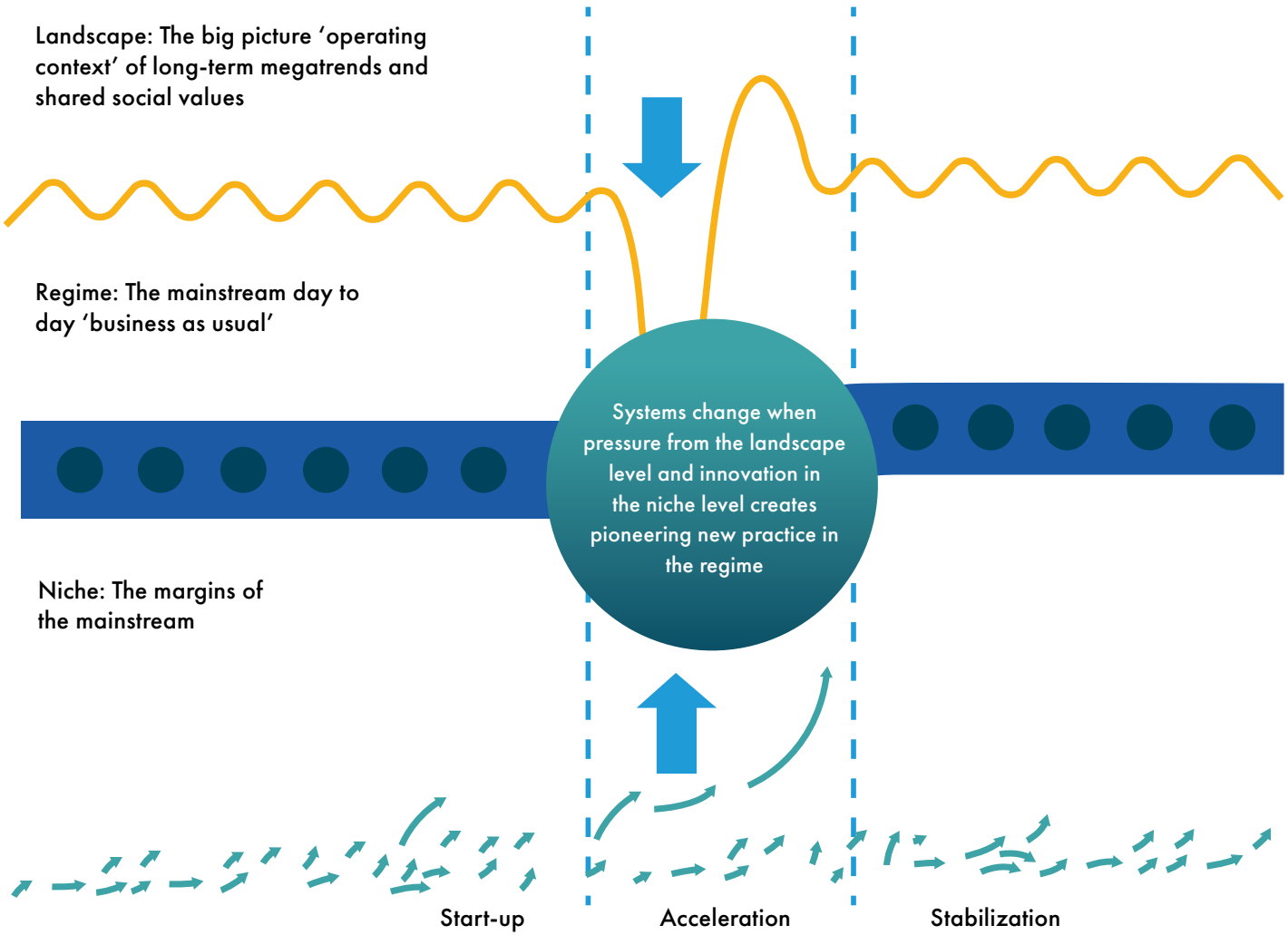


Diagram 1: How systems change – The Multi-Level Perspective

The practical guidance in this toolkit builds on the Multi-Level Perspective change model, which enables us to understand the different levers for change that can be pulled in order to change systems (Diagram 2).

Each lever is generally (but not always) specific to a particular phase of system change. Usually, all levers need to be pulled to create change, although not necessarily in a particular order, and not necessarily simultaneously.

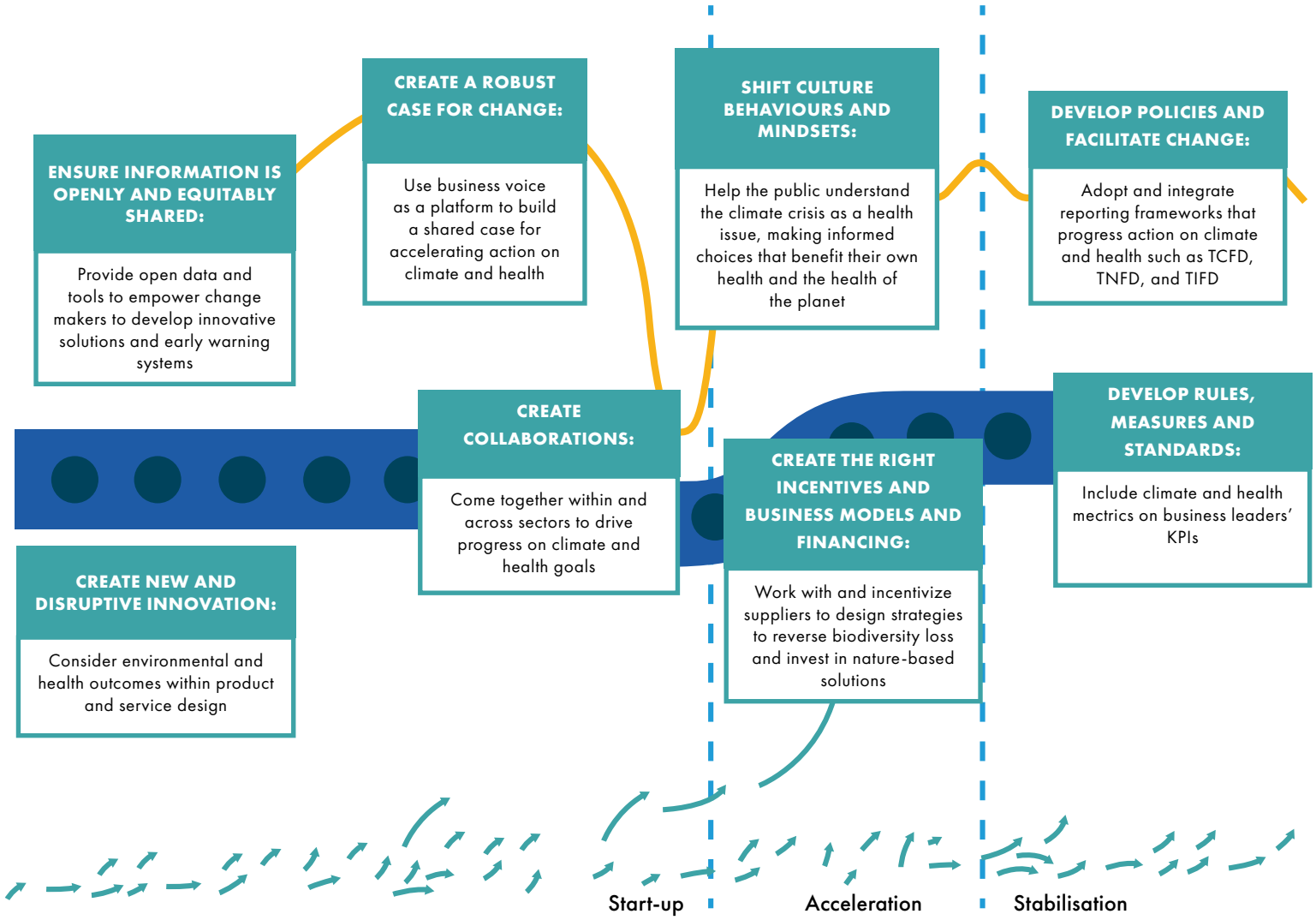


Diagram 2: The eight levers to shift a system, with examples of potential actions to shift the climate and health systems

WHY A SYSTEMS CHANGE APPROACH IS NEEDED

A systems-based approach helps to shifts our perspective from individual components of a system to the entire structure and the relationships within it, enabling a deeper understanding of the root causes of challenges.

Adopting a systemic approach also helps to develop targeted interventions that deliver simultaneous advantages for the business, health and the environment. It can increase efficiencies in delivering against multiple goals and enables a maximization of synergies from the outset of a project.

2. KEY STATISTICS ON CLIMATE AND HEALTH IMPACT AND OPPORTUNITIES

HOW TO USE THESE STATISTICS

Below are statistics that we have collated across geographies, demonstrating the impact, risk and opportunities that exist around the intersection of climate, health, nature and equity. We invite you to pick the ones which are most relevant to your context when shaping internal or external conversations around this topic or the case for action.

MORTALITY RISKS

- Between 2030 and 2050, climate change is expected to cause approximately 250 000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress (WHO, 2021).
- A study that analysed data on disasters revealed that between 1970-2019, 50% of all recorded disasters, 45% of related deaths and 74% of related economic losses were due to weather, climate and water hazards (WMO Atlas of mortality and economic losses from weather, climate and water extremes (1970-2019), 2021). The disasters that were attributed to weather, climate and water hazards were responsible for 2.06 million deaths and US $3.64 trillion losses.

FUNDING AND ECONOMIC IMPACTS

- Between 1980 and 2022, weather- and climate-related extremes caused economic losses of assets estimated at EUR 650 billion in the EU Member States, of which EUR 59.4 billion in 2021 and EUR 52.3 billion in 2022. Analyzing trends in economic losses is difficult, partly because of high variability from year to year. Some statistical analysis has revealed, however, that economic losses increase over time. As severe weather and climate-related extreme events are expected to intensify further, it seems unlikely that the associated economic losses will reduce by 2030 (EAA, October 2023).

- Economic losses from extreme weather events increased by 23% between 2010–14 and 2018–22, amounting to US$264 billion in 2022 alone. Heat exposure-related loss in labour capacity resulted in average potential income losses equivalent to $863 billion in 2022. Agricultural workers were most affected (2023 Report of the Lancet Countdown).

- In 2022, heat exposure resulted in a loss of 490 billion potential labour hours, 42% more than the annual average in 1991–2000. On average, each worker in the world lost 143 potential hours of labour capacity. Over 1.3 billion workers, 39% of the global workforce, experienced losses greater than that, and 80% of these were from low or medium HDI countries (2023 Report of the Lancet Countdown).

- Only 18% (US$205 million) of the US$1.16 billion of Green Climate Fund (GCF) financing dedicated to adaptation projects in 2022, supported projects with potential health benefits (2023 Report of the Lancet Countdown).

EQUITY

- 80% of people displaced by climate change are estimated to be women, and women are 14 times more likely to die during environmental disasters due to their lack of access to warning systems, mobility, and carer roles (United Nations Development Programme. (2016). Gender, climate change adaptation and disaster risk reduction: training module 2).

- Individuals with disabilities are consistently marginalized in the context of the climate crisis. Alarmingly, out of the 192 state parties signatory to the Paris Agreement, only 35 currently make reference to persons with disabilities in their National Determined Contributions (NDC). There is an urgent need for more inclusive and equitable climate action (Status Report on Disability Inclusion in National Climate Commitments and Policies, June 2022).

- While making minimal contributions to global emissions, low-income countries and small island developing states (SIDS) face disproportionately severe health consequences. In regions characterized by vulnerability, the mortality rate from extreme weather events over the past decade was 15 times greater than in less vulnerable areas (WHO, 2023).

DISPLACEMENT

- In 2022 alone, 32.6 million people were internally displaced due to environmental disasters. A figure that rose by nearly 40% compared to the previous year (GRID 2023, iDMC and NRC, May 2023).

AIR POLLUTION

- According to a new study by the Energy Policy Institute at the University of Chicago (EPIC), air pollution is "the greatest external threat to human life expectancy on the planet," and "permanently reducing global PM2.5 air pollution to meet the World Health Organization (WHO) guideline would add 2.3 years onto average human life expectancy." The danger of air pollution is comparable to the danger of smoking, and is more dangerous than alcohol or unsafe water, according to the study. Certain regions, particularly Asia and Africa, are facing a disproportionate level of risk compared to other places in the world (Air Quality Life Index, 2023).

- More than 8 million people died in 2018 from fossil fuel pollution, according to research from Harvard University, in collaboration with the University of Birmingham, the University of Leicester and University College London (Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem, Environmental Research, Volume 195, 2021). Researchers estimated that exposure to particulate matter from fossil fuel emissions accounted for 18 percent of total global deaths in 2018 — a little less than 1 out of 5. The study estimates a global total of 10.2 million premature deaths annually attributable to the fossil-fuel component of PM2.5. The greatest mortality impact is estimated over regions with substantial fossil fuel related PM2.5, notably China (3.9 million), India (2.5 million) and parts of eastern US, Europe and Southeast Asia (Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem, Environmental Research, Volume 195, 2021).

- Air pollution is linked to almost a million stillbirths in one year. A study that covered the 137 countries in Asia, Africa and Latin America, where 98% of stillbirths occur, found that on average 45% of the stillbirths in 2015 could be linked to exposure of pollution particles smaller than 2.5 microns (PM2.5). Reducing air pollution to the WHO target could prevent 710,000 stillbirths a year (Nature Communications, November 2022).

- Children are especially likely to get sick from air pollution because their brains, lungs and other organs are still developing (Childhood Air Pollution Exposure Key Messages, Unicef, June 2022). In a recent study where researchers scanned the brains of nearly 9,500 US children over a two-year period, they found that even small amounts of exposure to air pollution changed the way their brains developed, particularly in the region that controls emotions ("Effects of ambient fine particulates, nitrogen dioxide, and ozone on maturation of functional brain networks across early adolescence." Environment International, July 2023).

HEAT

- If global mean temperature continues to rise to just under 2˚C, annual heat-related deaths are projected to increase by 370% by mid-century, assuming no substantial progress on adaptation. Under such a scenario, heat-related labour loss is projected to increase by 50%, and heatwaves alone could lead to 524.9 million additional people experiencing moderate to severe food insecurity by 2041–60, aggravating the global risk of malnutrition (2023 Report of the Lancet Countdown).

- 61,672 heat-related deaths between 30 May and 4 September 2022 in Europe (Nature Medicine, July 2023)

FLOODING

- Record-breaking rain in July and August 2022 led to extensive flooding in Pakistan. There were at least 1,700 deaths, and 33 million people were affected, while almost 8 million people were displaced. Total damage and economic losses were assessed at US$30 billion (State of the Global Climate 2022, WMO, 2023).

- In 2022 alone, floodings of the Niger Delta area killed more than 600 people, displaced around 1.4 million and damaged or destroyed 440,000 hectares of farmland, leaving health officials warning it could worsen ongoing cholera outbreaks, and that even natural gas exports were at risk (Angela Ukomadu, Reuters, October 2022).

DROUGHT

- The higher frequency of heatwave days and drought months in 2021, compared with 1981-2010, was associated with 127 million more people experiencing moderate or severe food insecurity (2023 Report of the Lancet Countdown).

- In East Africa, rainfall has been below average in five consecutive wet seasons, the longest such sequence in 40 years. As of August 2022, an estimated 37 million people faced acute food insecurity across the region, under the effects of the drought and other shocks (State of the Global Climate 2022, WMO, 2023).

- In 2022 alone, the drought crisis in Somalia caused 43,000 excess deaths, with half of these deaths occurring in children younger than 5 years. This figure is higher than that in the first year of the 2017–2018 drought crisis, where the death toll was estimated at 31,400 deaths over the first 12 months of this crisis period. Up to 34,000 further deaths were forecasted for the first six months of this year ("From insight to action: Examining mortality in Somalia", WHO and UNICEF, 2023).

DISEASE

- Increasing temperatures are expanding the areas where diseases such as malaria and dengue thrive. More flooding and drought increase disease risk. Hygiene requires access to clean water. Further urbanization and migration related to climate change will also complicate prevention and control (Climate change and communicable diseases, the BMJ, November 2020).

- The 2022 report of the Lancet Countdown revealed that coastal waters are becoming more suitable for the transmission of Vibrio pathogens; that the number of months suitable for malaria transmission increased by 31.3% in the highland areas of the Americas and 13.8% in the highland areas of Africa from 1951–60 to 2012–21, and the likelihood of dengue transmission rose by 12% in the same period (indicator 1.3.1, (2022 Report of the Lancet Countdown).

3. ABOUT THE CLIMATE AND HEALTH COALITION

The Climate and Health Coalition aims to mobilise and equip the private sector to accelerate the integrated transformation of our health and climate systems, towards outcomes that deliver benefits for both people and planet. We recognise the climate crisis is also a health crisis, and by taking an integrated approach, we are convinced we can make greater progress on each than if we address them separately.

The Coalition was founded in 2022 by Forum for the Future and leading healthcare companies Bupa, Haleon, Reckitt and Walgreens Boots Alliance and was joined in 2023 by core partners Bayer AG and Bristol Myers Squibb, alongside an extensive Associate Partner network.

The Coalition is focused on:

- Developing and testing practical **guidance for private sector** action to deliver integrated climate and health strategies;
- Creating **recommendations for government, investors and philanthropy** to support private sector action;
- Fostering **alignment and connection** between existing private sector initiatives;
- Identifying gaps in **research** and understanding, and
- **Demonstrating and evidencing** the links between climate change and health; and
- Raising **awareness and understanding** of this at key forums such as climate week and cop28.

The coalition was formed following the publication of its initial report Driving Co-Benefits for Climate and Health in 2021, highlighting the mounting threat to human health from the climate crises and the opportunities to alleviate both by treating them together. At COP 27 in 2022 we updated the guidance – sharing promising examples of integrated action on climate and health, and detailed actions businesses could take to seize the initiative and drive change. We also illustrated opportunities to integrate equity of health outcomes and centre biodiversity and nature in climate and health strategies. The guidance focused on four sectors with particular leverage on health and climate: food, technology, the built environment, and healthcare.