PHAM2O24

PLANETARY HEALTH
Roadmap and Action Plan

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Set an intention. We invite you to consider yourself a co-partner in planetary healing. We all live together in an interconnected world and the actions of each of us inspire others. Therefore, together, we solemnly pledge to dedicate our lives to the service of humanity, and to the protection and restoration of the natural systems on which humans and all other species who share our home depend.

São Paulo Declaration
on Planetary Health 2021

PLANETARY HEALTH

Roadmap and
Action Plan

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Acronyms and Abbreviations

ASRI	Alam Sehat Lestari
CEO	Chief Executive Officer
CGBS	Common Goods Balance Sheet
COP	Conference of the Parties (to an international treaty or framework)
COVID-19	Coronavirus Disease of 2019
EMAS	European Union Eco-Management and Audit Scheme
EoM	Economics of Mutuality
ESG	Environment, Social and Governance (compliance)
EV	Electric Vehicle
GRI	Global Reporting Initiative
ISO	International Standards Organisation
MPU	*Mata Pelajaran Umum* (General Studies Subject)
NBS	Nature-based Solutions
NUM (Pakistan)	National University of Medicine
PHA	Planetary Health Alliance
PHAM 2024	Planetary Health Summit and 6th Annual Meeting
PHEF	Planetary Health Education Framework
PR	Public Relations
SDG	Sustainable Development Goals
SDH	Social Determinants of Health
ULEZ	Ultra Low Emissions Zone
UN	United Nations
UNCBD	UN Convention on Biological Diversity
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USLP	Unilever Sustainable Living Plan
WHO	World Health Organization
WTO	World Trade Organization

Contents

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We, the global Planetary Health
community, raise an alarm that
the ongoing degradation of our
planet's natural systems is a clear
and present danger to the health
of all people everywhere.
A just, global transition in how
we live is required to optimise
the health and wellbeing of people
and the living world in which we
are embedded.

São Paulo Declaration
2021

INTRODUCTION

The publication of "Safeguarding Human Health in the Anthropocene Epoch: Report of The Rockefeller Foundation–Lancet Commission on Planetary Health"[1] in 2015, laid groundwork for the field and movement of Planetary Health. It also led to the creation of the Planetary Health Alliance and ignited the interest of academic institutions around the world, generating a wealth of science-based research and evidence.

Recognising that the wellbeing of people and the planet are interconnected, "Planetary Health is a solutions-oriented, transdisciplinary field and social movement, focused on analysing and addressing the impacts of human disruptions to Earth's natural systems towards human health and all life on Earth." To ensure a healthy future for both human health and all life on Earth, Planetary Health emphasises the need for sustainable and equitable practices.

As a global movement, Planetary Health fosters harmony between human wellbeing and the health of the planet. It aims to address the challenges and threats to human health and all life on the planet that arises from environmental changes, ecosystem degradation, and climate change. By promoting approaches that acknowledge the intricate connections between human health, ecosystems, and the broader environment, and subsequently advocating for policies, practices, and behaviours that address those connections, we can create a sustainable, resilient and thriving future for both people and the biosphere.

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[1]   https://www.thelancet.com/commissions/planetary-health

> "
> It is important
> to acknowledge
> that we are living
> in a difficult and
> confusing time.

We recognise that human ingenuity has created a complex integrated system which has in turn resulted in considerable industrial, scientific, medical and social advances. However, these gains have come at a terrible cost to the health of the planet. The link between the decline in Planetary Health and the drivers of this emerging devastation have their roots in our economic systems – which seek and rely upon profit, growth, extraction, and exploitation. The climate crisis, biodiversity loss and environmental degradation are linked to our economic systems, as well as how economic productivity and growth is valued above responsible management of planetary resources by the current governance, education and communications systems. We argue that our current economic system is uneconomic; directly undermining Planetary Health now and for the future. The health of the planet and its inhabitants can only be improved through a seismic shift in how we govern and manage our economies. We seek to strike a balance between what we need and what the Earth can sustainably provide.
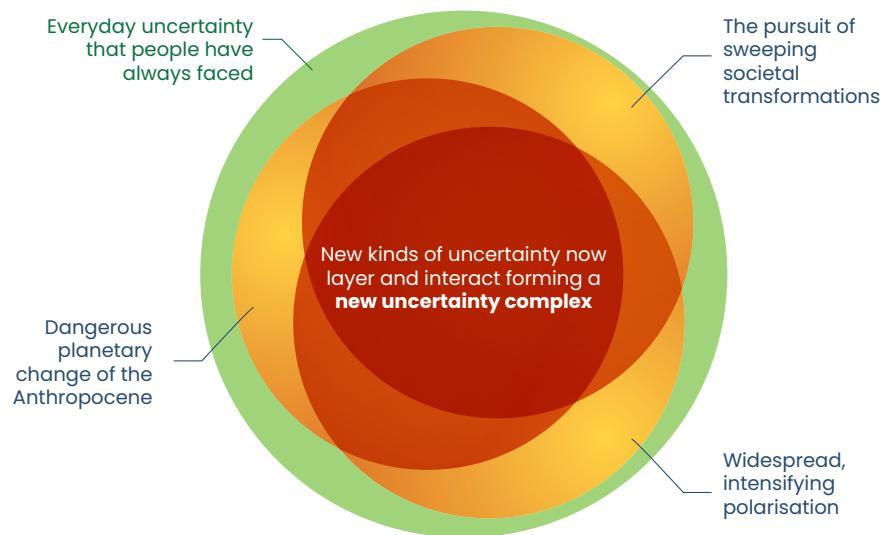
We acknowledge that the transition we call for is a scientific, ethical, and spiritual transformation. This paradigm shift is both a mind shift and a heart shift. Therefore, we need a set of guiding values and principles, as accentuated in the Planetary Health Pledge.[2]

Since Planetary Health provides a robust pathway to a better world, proponents need to use language that is understandable and engaging to people outside of the growing Planetary Health community. While we are making significant progress on increasing awareness, efforts must be redoubled to bridge the gaps between academic work, popular recognition and adoption of a Planetary Health approach among policymakers, politicians, and the general public. We need to go further, faster.

It is important to acknowledge that we are living in a difficult and confusing time. The United Nations Development Programme (UNDP), in its 2022 Human Development Report, identifies the "uncertainty complex" whereby three interacting uncertainties are colliding with our usual way of managing risks:

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[2] https://www.planetaryhealthalliance.org/declarations-and-pledges

Figure 1.   A new uncertainty complex is emerging

Citation: UNDP (United Nations Development Programme). 2022. Human Development Report 2021-22: Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World. New York.

The first "new" uncertainty is associated with the Anthropocene's dangerous planetary change and its interaction with human inequities. This element of the complex refers to the destabilising impact of human activities on the planet, including climate change, biodiversity loss, and environmental degradation. These pressures are leading to a range of negative outcomes, including rising sea levels, more frequent and severe environmental disasters, and consequent disruptions in health care, interruptions in essential supply chains such as food and fuel, as well as greater exposure to heat stress, impaired mental health, increased workplace stress and displacement of people.

Second, is the purposeful but still uncertain transition towards new ways of organising industrial and post-industrial societies. These transformations are similar in size and scale to the agricultural or industrial "revolution," but are now occurring at rapid speed. This element, of societal transformations, in part aims to address the destabilising pressures of the Anthropocene and includes efforts to reduce greenhouse gas emissions, promote renewable energy, and protect biodiversity while harnessing rapidly emerging technologies such as artificial intelligence. Yet, these transformations can also result in new uncertainties, such as job losses and social dislocation.

Third, is the intensification of political and social polarisation across and within countries. There are misconceptions about information largely facilitated by the use of new digital technologies; although it is important to note that these technologies are also a huge force for good, a way of mobilising and connecting people and ensuring that minority voices can also be heard. Polarisation is driven by a range of factors including rising inequities, political manoeuvring, and the rapid spread of misinformation via unreliable sources. It can lead to a range of negative outcomes including social unrest, political instability, distrust of science, and the erosion of democratic norms.

People need to know that their actions can drive positive change. Hence, a key priority for the Planetary Health movement is to recognise this complexity and develop strategies to engage people in ways that are both compelling and easily understandable, while providing a clear sense of agency.

With these points in mind, this Roadmap aims to:

- Explain what we mean by Planetary Health, why it is compelling and how it adds value to efforts in ensuring that Planet Earth and its inhabitants can thrive in harmony (Chapter 1).
- Outline a brief historical overview of the work by Planetary Health Alliance and the development of the 2021 São Paulo Declaration (Chapter 2).
- Illustrate why a Planetary Health Roadmap is useful at this point (Chapter 3).
- Examine three key areas for change and provide a series of key Roadmap actions that Planetary Health practitioners, including academics, researchers, policymakers, politicians, the business sector, educators, civil society organisations and, most importantly, all of us – the general public – can undertake (Chapter 4).
- Offer guidance on how to communicate Planetary Health across stakeholder groups (Chapter 5).
- Provide a clear Planetary Health Action Plan, rooted in an annual assessment of Planetary Health (Chapter 6).
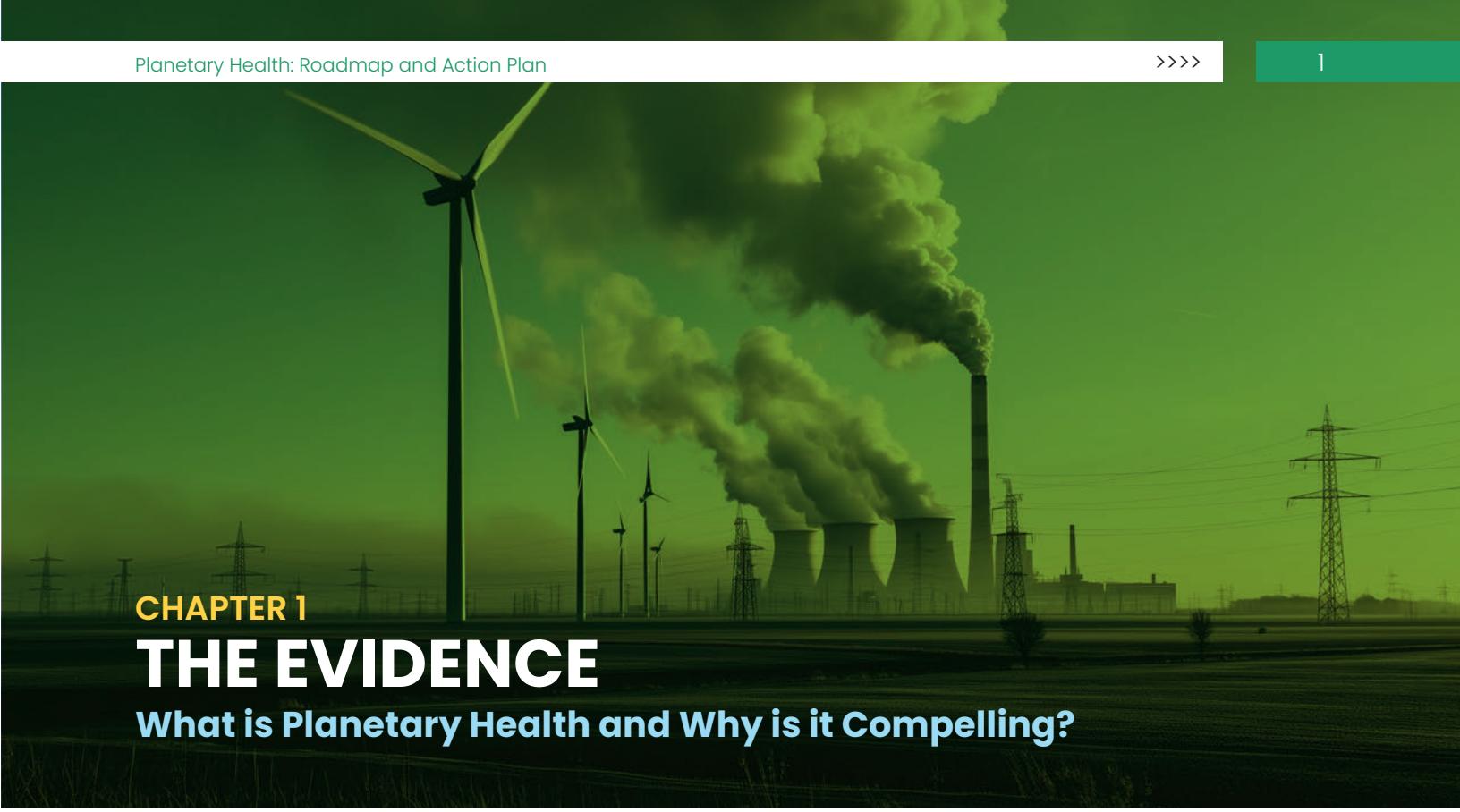
This practical document aims to support our work in partnership for a future supporting the health and wellbeing of all life on Earth. It is based on our decisions, actions, and policies on the best that Planetary Health science, research and evidence can offer. It encourages us to be both courageous and humble in our approach, and to realise that the importance of what we are trying to do must be communicated in ways which will foster a growing movement for the change that must come.

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Marie Studer
Executive Director
Planetary Health Alliance and
Johns Hopkins Institute for
Planetary Health

CHAPTER 1
THE EVIDENCE
What is Planetary Health and Why is it Compelling?

> *In the vast tapestry of our interconnected world, Planetary Health encompasses the wellbeing of our planet's ecosystems, the health of its inhabitants, and the delicate balance that sustains life. Planetary Health is a global movement, analytical framework and field of work focused on understanding, quantifying and addressing the growing human health impacts of anthropogenic global environmental change.*

Kuala Lumpur Call to Action
2024

What is Planetary Health?

Planetary Health means understanding and acting on connections: between our health, the health of the planet, and every living being on it. It demonstrates that we rely on the biosphere, our natural life-support system, for our wellbeing and consequently need to take care of the environment to thrive and stay healthy. Planetary Health is about finding ways to ensure we all live well without harming the planet. This is done by looking at everything through the same lens, including how society, the economy, and the environment affect each other.

Why is Planetary Health Compelling?

1. Planetary Health stands with Indigenous perspectives on health[3], as a **holistic, systemic approach**, recognising the interconnectedness of human health with the health of the planet. It goes beyond traditional health frameworks to address the intricate relationships between environmental sustainability, ecosystems, and human wellbeing, whilst acknowledging the agency of all people. This approach views our planet as one integrated 'system of systems' in which the health of each component affects the health of the whole.

2. The unique power of Planetary Health lies in its use of health as **a universal language**. Health is a familiar concept to us all, providing a relatable entry point to understand the broader implications of environmental changes. By framing planetary wellbeing through the lens of individual and community health, Planetary Health is instantly recognisable and personally relevant.

    Take a look at this video: Healthy Planet, Healthy People- Courtney Howard – Ted Talk Montreal Women.

3. **Human health is connected with personal wellbeing and emotions**. When conversations centre around health, they tap into the core of human concerns, igniting emotions that range from fear and vulnerability to hope, resilience and ability to thrive. Health is not merely a status or medical diagnosis; it encompasses the essence of our individual and common vitality and the ability to lead a fulfilling life. Leveraging discussions about health as a catalyst for action is potent, motivating individuals to prioritise their wellbeing and live healthily as well as to protect those around them. By telling real life stories, advocates can inspire meaningful change and foster a collective commitment to individual and community health worldwide.

4. Planetary Health offers a **positive, solutions-oriented outlook**. By focusing on collaborative solutions, innovation, and the potential to create healthier environments, communications on Planetary Health can inspire hope and motivate individuals and communities to contribute to a positive future. By emphasising success stories, ingenious solutions, and the fact that progress is being made, messages can generate change. This positive framing motivates action and helps counteract feelings of being overwhelmed by global environmental challenges.

> **Case Study**: The case study found at https://www.planetaryhealthalliance.org/case-study-medical-clinics-for-planetary-health features the work of U.S.-based NGO Health in Harmony and Indonesian partner organisation, Alam Sehat Lestari (ASRI). This case study details how a Planetary Health intervention that integrates medical care, conservation education, reforestation, and livelihoods training has had positive benefits on human health and the surrounding ecosystem. Other case studies are also available through the same link.

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[3] https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00354-5/fulltext

5. Planetary Health values **two-way communication**, emphasising listening and understanding. Instead of one-way communication "to" people, Planetary Health encourages dialogue that incorporates local knowledge, cultural contexts, and community voices. For example, Planetary Health representatives in Sub-Saharan Africa reported particular success with health education messaging that was personalised by utilising local languages on radio stations.

6. Planetary Health encourages a sense of **global citizenship**. It recognises that the health of individuals and communities is intricately linked to the health of natural systems and transcends geographical boundaries. By fostering a shared responsibility for the wellbeing of the entire planet, communications on Planetary Health promote a collective mindset and inspire collaborative efforts on a global scale.

7. **Systems thinking and complexity theory** can help us understand and address Planetary Health. In an interconnected world, these frameworks reveal the intricate relationships between environmental, social, economic, and political factors. By viewing Earth as a complex system, we recognise how changes in one area can impact the entire ecosystem. Complexity theory underscores the nonlinear nature of these systems, emphasising the potential for small changes to yield significant and unpredictable outcomes. Academics and scientists can use these theories to help humanity navigate our way through this challenging time.

8. The holistic nature of Planetary Health rests upon a **scientific foundation**, with a compelling focus on the evidence of planetary boundaries – scientifically defined domains crucial for environmental sustainability. These boundaries remind us of our planet's finite resources and the critical need to recalibrate our relationship with the environment. By understanding these boundaries, we can take steps to live a harmonious life with the planet. Our collective priority going forward must be ensuring crossover between science and action, supported through the arts and humanities.

> *The dangers we face are increasing in frequency, intensity and magnitude. Yet analysis of and responses to the component parts of our systemic planetary crisis are insufficiently linked. Further, our governance systems, fit for a 20th century post-world-war environment, are poorly adapted to face the existential challenges humankind has created in the 21st century.*

THE GREAT TRANSITION

The São Paulo Declaration explains that "we need a fundamental shift in how we live on Earth, what we are calling the Great Transition. Achieving a global, just transition will require rapid and deep structural changes across most dimensions of human activity.

This includes how we produce and consume food, energy, and manufactured goods; how we construct and live in our cities; and how we consider and measure growth, progress, and development, and govern ourselves. It will also require rethinking our values and relationship within Nature and to each other from human exceptionalism, domination, and scarcity to interdependence, equity, and regeneration.

The Great Transition offers the possibility of greater richness of experience, greater wellbeing, and an enhanced opportunity for all beings to thrive. It will take practitioners, scholars, and policymakers across every dimension of human activity working together. It will require listening to, integrating, and amplifying voices in every community from Indigenous Peoples, faith traditions, artists, entrepreneurs, to scientists. Every person, in every place, from every calling, has a role to play in safeguarding the health of the planet and people for future generations."

Achieving a Just, Global Transition through Planetary Health

Planetary Health is a powerful framework for accelerating a just, global transition to a sustainable and fair society. By using Planetary Health research, evidence and ideas in our decisions and policies, we can:

Support Sustainable Development: Through Planetary Health, we can have both a healthy economy and a liveable future. We can use clean energy, develop a circular economy, produce food in sustainable ways, reduce unnecessary consumption and promote conservation. This way, we can ensure prosperity and improve our lives while regenerating and creating a thriving environment.

Work Together: Tackling global problems such as climate change and its root causes which include fossil fuel extraction, consumption and emissions, requires collaboration. The Planetary Health movement encourages governments, organisations, and individuals to share knowledge, resources, and innovative ideas. By working together, we can reach extraordinary goals and create a sense of global togetherness.

Educate and Empower: Learning about Planetary Health helps us understand how our actions affect the planet. We can empower people to make good choices by teaching these ideas in schools and beyond, making resources accessible and equitable for all learners, and raising awareness. This way, we can foster a new generation of people who understand our relationship with, and dependency on, nature and embrace living sustainably.

Planetary Health is an important way of looking at the world. It shows how our health and the health of the planet are interconnected. When faced with an environmental or social challenge, we should feel empowered to find the root cause and work together openly to design solutions to solve the difficulty for the long term. By focusing on Planetary Health, we can make the just, global transition happen—a future where we all live sustainably and fairly. By taking care of the environment, we can create a better world for ourselves and allow future generations to thrive.
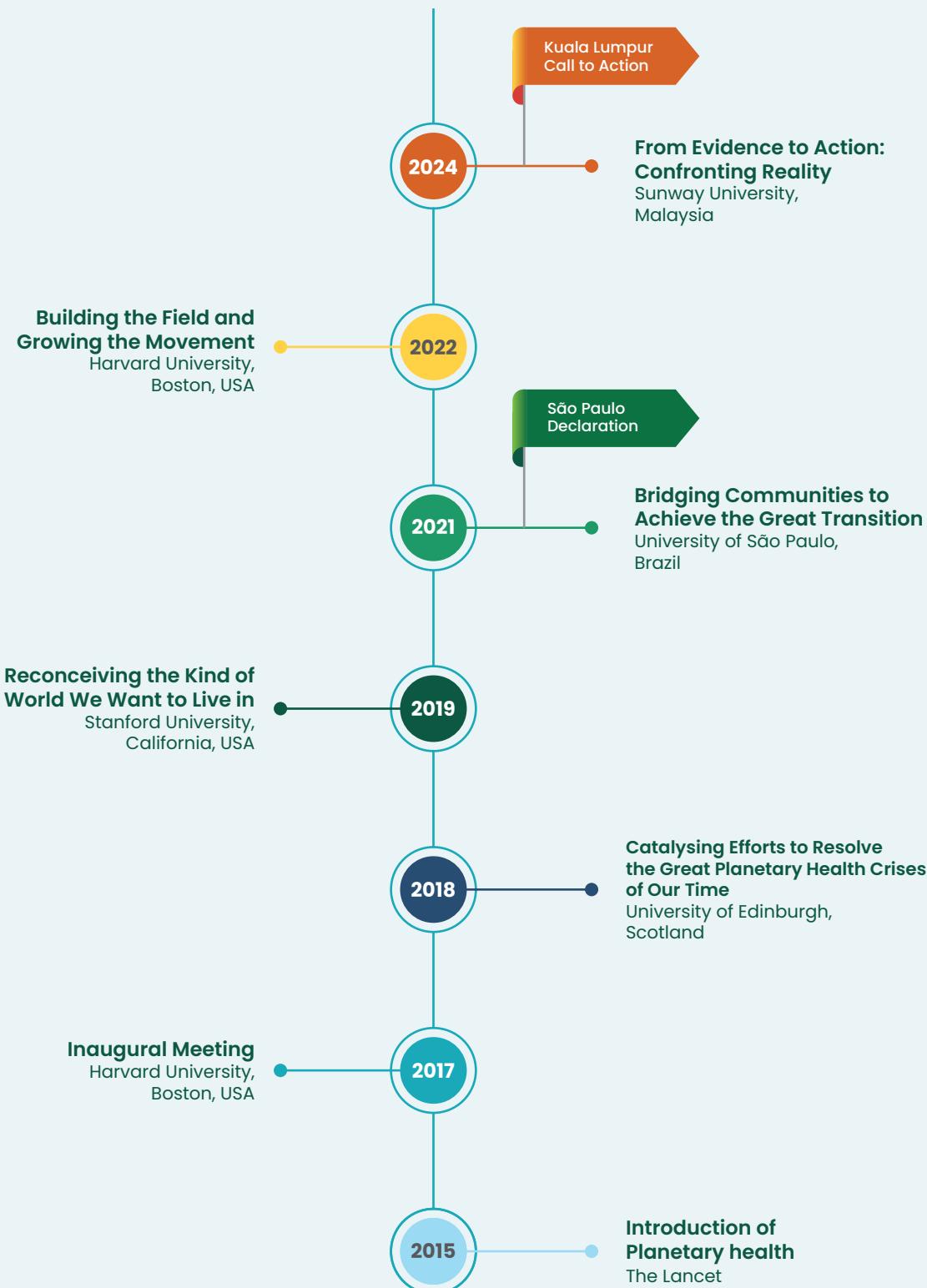
A Planetary Health approach requires global cooperation at an unprecedented scale, speed and level. Public interest is high; now is the time. We have an opportunity to bring stakeholders and communities together. The Planetary Health framework is uniquely suited to meet this challenge. Working across the three key change areas articulated here can unlock the potential that already exists to achieve a just, global transition.

> The challenges we face demand prompt, decisive action, and we stand united in our resolve to contribute to a resilient and sustainable future. These commitments signify our determination to actively implement measures that advance Planetary Health.
>
> **Kuala Lumpur Call to Action 2024**

Figure 2. A History of Planetary Health: From the Rockefeller Foundation–Lancet Commission 2015 to the Kuala Lumpur Declaration on Planetary Health 2024

Kuala Lumpur
Call to Action

2024
**From Evidence to Action:
Confronting Reality**
Sunway University,
Malaysia

**Building the Field and
Growing the Movement**
Harvard University,
Boston, USA
2022

São Paulo
Declaration

2021
**Bridging Communities to
Achieve the Great Transition**
University of São Paulo,
Brazil

**Reconceiving the Kind of
World We Want to Live in**
Stanford University,
California, USA
2019

2018
**Catalysing Efforts to Resolve
the Great Planetary Health Crises
of Our Time**
University of Edinburgh,
Scotland

Inaugural Meeting
Harvard University,
Boston, USA
2017

2015
**Introduction of
Planetary health**
The Lancet

CHAPTER 2
THE HISTORY
The Planetary Health Alliance and the 2021 São Paulo Declaration on Planetary Health

The concept of Planetary Health was launched in 2015 by the Rockefeller Foundation and The Lancet, through the Rockefeller Foundation–Lancet Commission on Planetary Health.[4] This marked the beginning of a global conversation about the interconnectedness between human health and the health of our planet. Subsequently in December of the same year, the Planetary Health Alliance (PHA) was founded. To read more about PHA, please see https://www.planetaryhealthalliance. org/.

This Roadmap can build on the following PHA achievements:

- **Formation of a Global Consortium**: The PHA has successfully brought together a consortium of more than 400 universities, government entities, research institutes, and other partners around the world. This global network continues to grow, and is committed to understanding and addressing the impacts of global environmental change on health.

- **Dissemination of New Research**: The PHA supports the dissemination of new research in the field of Planetary Health. This increases awareness and understanding of the links between accelerating global environmental change and human health.

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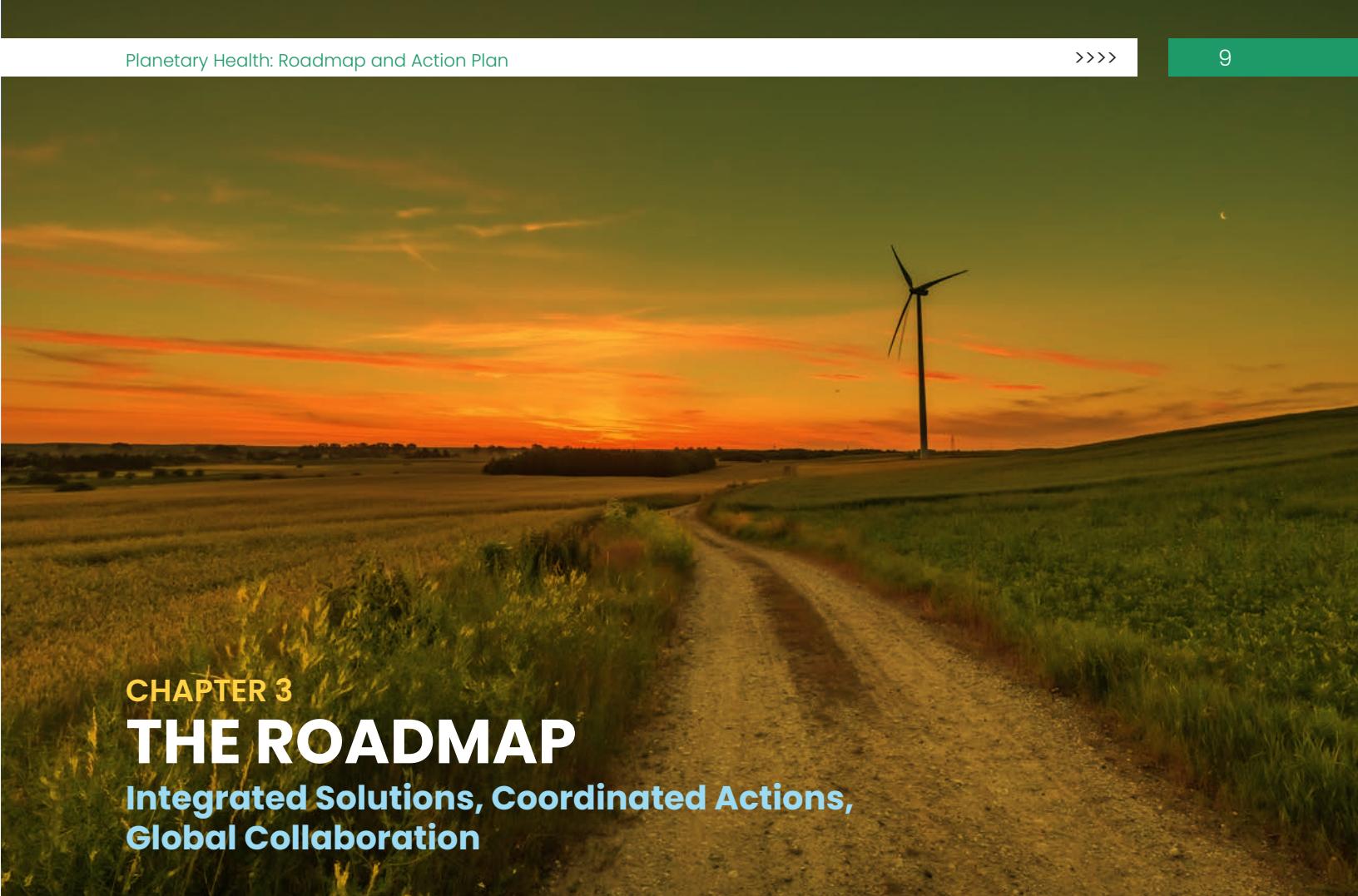
[4] https://www.thelancet.com/article/S0140-6736(15)60901-1/fulltext

- **Development and Curation of Educational Materials**: The PHA has been instrumental in the development and curation of foundational education materials in the field of Planetary Health, including the first Planetary Health textbook, which has been translated into three languages, and the Planetary Health Education Framework. These resources are crucial to educate the next generation of Planetary Health practitioners and advocates.

- **Hosting Annual Meetings**: The PHA co-hosts annual meetings that serve as a convening platform to showcase change-making science, stories, solutions, and communities. These meetings, held periodically at PHA headquarters or co-hosted by a partner institution – so as to ensure fresh energy is brought to the community and its work, play a vital role in building systemic solutions across economies, governance, and civil society.

- **Regional Hubs**: The PHA has established ten Regional Hubs which focus on the policy, funding, and organisational landscapes that make each region unique, providing opportunities for building transformational change. These hubs play a crucial role in promoting Planetary Health principles and practices at a regional level.

- **Next Generation Leaders**: This open-access network connects young people who would like to engage with the Planetary Health community. PHA staff and Next Gen Fellows work to support these diverse efforts by providing introductory resources, workshop materials, mentorship opportunities, and community-building platforms.

- **Promotion of the São Paulo Declaration on Planetary Health**[5]: The PHA played a significant role in promoting the São Paulo Declaration on Planetary Health.

This seminal Declaration is a global call to action co-created by the Planetary Health community. It outlines the urgent need for deep, structural changes in how we live, to protect human health and all life on Earth. The Declaration, endorsed by more than 300 signatories from over 48 countries and published in The Lancet, emphasises the need for a rapid shift in how we produce and consume food, energy, and manufactured goods, and insists on healing our relationship with nature and each other. It was drafted during the 2021 Planetary Health Annual Meeting in São Paulo, Brazil, concluding with a global consultation of nearly 350 participants from more than 70 countries.

The declaration has since inspired the development of this Roadmap and underpinned preparations for the 2024 Planetary Health Summit and Annual Meeting, with the theme – From Evidence to Action: Confronting Reality.

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[5] https://www.planetaryhealthalliance.org/São-paulo-declaration

CHAPTER 3
THE ROADMAP
Integrated Solutions, Coordinated Actions, Global Collaboration

In today's world, marked by escalating environmental challenges and their impact on human wellbeing, the development of a Roadmap is increasingly important to answer the question: "How do we 'do' Planetary Health?"

It is clear that change begins with the Planetary Health community: each of us must embody the ethics and values of Planetary Health.

As a global community, PHA provides a solid individual and collective foundation, and thus generates the power to sustain the Planetary Health Movement. The 2024 Planetary Health Summit and Annual Meeting represents an opportunity for us to renew our commitment and to work collectively to chart a closely coordinated and purposeful path forward.

Leveraging on the 2024 Planetary Health Summit and Annual Meeting, this document aims to bridge Planetary Health discourse between research and action via policy, political, and civil society spaces, and to begin the process of pulling together an impactful set of actions that address the interconnected issues of human and environmental health.

Integrated Solutions

The Roadmap is focused on three key change areas (Chapter 4). These change areas have emerged as those that are most likely to generate both bottom-up and top-down engagement, as well as cover political, policy, community, and personal levels. The Roadmap also provides broad guidance and tools to communicate Planetary Health (Chapter 5) to these communities and concludes with a concrete Action Plan (Chapter 6), designed to support global coordinated action going forward. The three key change areas are:

Change Area 1 - Reimagining governance institutions fit for the 21st century and beyond.

Change Area 2 - Engaging the education sector in revolutionising approaches to education.

Change Area 3 - Engaging businesses to commit to operating in alignment with Planetary Health principles.

The Roadmap attempts to identify ways to integrate approaches across these three areas, which must happen if we are to address the complex challenges caused by human civilisation's current actions. It stresses the importance of coordinated actions, and the need to streamline communications on Planetary Health to support and solidify these key change areas. The very act of developing the Roadmap has promoted transdisciplinary collaboration, bringing together experts from health, environment, policy, economics, and social sciences from across the world.

Coordinated Actions

This Roadmap puts forth a set of initial actions across the three change areas which provide the beginnings of a framework for coordinated initiatives at local, regional, and global levels. The Action Plan (Chapter 6) provides a logical pathway for the community to follow to achieve change. This approach, providing both broad guidance and subsequently a series of realistic and concrete actions will enable governments, organisations, and individuals to align their efforts towards shared goals and objectives. This coordinated approach, if adopted widely enough, will facilitate the implementation of effective policies, interventions, and investments, leading to tangible and measurable outcomes. To generate change we must commit ourselves to the power of collective, coordinated action.

Global Collaboration

Environmental challenges, such as climate change and biodiversity loss, are driven by our economic systems. These systems are designed to seek profit, growth, extraction and exploitation at any cost, and this transcends national boundaries. Developing a Planetary Health Roadmap and action plan aims to facilitate global collaboration and cooperation while also supporting local and scalable action. A Planetary Health approach encourages knowledge sharing, technology transfer, and the exchange of best practices among nations. This global collaboration will strengthen the effectiveness of interventions and promote solidarity and collective responsibility to address the urgent challenges that affect us all.

Conclusion

This Roadmap is a crucial stepping stone in developing a guiding collective of global actions towards a sustainable future. The Action Plan builds on this iteration to drive a more ambitious set of planning processes. Without this level of ambition, achieving Planetary Health in its broadest sense will remain elusive. Acting on this Planetary Health Roadmap and embracing the Action Plan will pave the way for a brighter and more resilient future for current and future generations.

But the real-time coordination required to implement this plan comes with a cost. The cost of addressing the crisis in Planetary Health today is only a fraction of what it will cost us and future generations if we do not act now. Further work will be required to identify how best to ensure that the ambitious programme of work included in this document is effectively coordinated at a global level and continues to evolve based on new knowledge, innovative practice, accelerated policy dialogue and changing geopolitical scenarios.

> But the real-time coordination required to implement this plan comes with a cost.

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Fundamental challenges that the Planetary Health community must address include addressing business practices, the environmentally damaging behaviours and habits they promote across human civilisation, and the governance and management of the economic systems upon which such practice is based.

CHAPTER 4
THE BIG THREE CHANGE AREAS
Governance, Education, Private Sector Engagement

Governance, education, and business practices are central to Planetary Health. They are intricately interconnected in their roles and contributions, and collectively they impact the lives of everyone on the planet. Fundamental challenges that the Planetary Health community must face include addressing business practices, the environmentally damaging behaviours and habits they promote across human civilisation, and the governance and management of the economic systems upon which such practice is based.

1. **Governance is the foundation for addressing Planetary Health challenges**
    Effective governance structures at various levels provide the framework for decision-making, policy development, and collaboration among stakeholders. Good governance ensures the integration of environmental, social, and economic considerations into policies and regulations, facilitating sustainable development and protecting Planetary Health. It establishes the rules, mechanisms, and institutions necessary to coordinate efforts, allocate resources, and enforce compliance. Effective governance creates the regulatory frameworks and incentives that encourage businesses and education sectors to adopt sustainable practices.

2. **Education plays a critical role in nurturing a Planetary Health mindset**
    By integrating Planetary Health concepts into educational curricula, students and life-long learners gain a comprehensive understanding of the interconnectedness between human wellbeing and the environment. Education equips individuals with up-to-date knowledge, skills, and critical thinking abilities needed to make informed decisions and promote sustainable actions. It fosters awareness, empowers future generations and people who are otherwise marginalised, and drives positive change by promoting environmentally responsible behaviours and practices.

> *Communication campaigns and media channels play a vital role in disseminating information, raising awareness, fostering collaboration among stakeholders, influencing both governance and business, mobilising support, and promoting sustainable practices that protect Planetary Health.*

3. **Business practices significantly impact Planetary Health and can drive positive change**
   Integrating Planetary Health principles into business strategies and operations minimises environmental footprints and promotes social equity. Sustainable business practices encompass responsible resource management, ethical sourcing, circular economy approaches, and social responsibility initiatives. By aligning their practices with Planetary Health objectives, businesses become catalysts for innovation, driving economic development within planetary boundaries and thus minimising negative environmental impacts. Sustainable, regenerative business practices are central to the achievement of Planetary Health goals and provide real-life examples that can be integrated into education and effectively communicated to the public.

The collaboration and synergy between governance, education, and business practices are crucial to comprehensively address Planetary Health challenges. Interactions between these pillars further strengthen their impact on Planetary Health. When these pillars are able to work in harmony and for the common good, they create a powerful force for change, driving the adoption of sustainable, future policies, empowering individuals with knowledge and skills, raising awareness, and transforming business practices to align with Planetary Health objectives. By recognising and strengthening these relationships, we can create a sustainable and resilient future that balances human wellbeing with the health of the planet.

Finally, communications and advocacy are essential for engaging and informing policymakers, politicians, civil society organisations and the public about Planetary Health issues. Effective communication strategies bridge the gap between scientific research and public understanding, raising awareness and fostering a sense of urgency. Through clear and compelling messaging, communication platforms facilitate knowledge sharing, encourage public engagement, and drive behavioural change. Communication campaigns and media channels play a vital role in disseminating information, raising awareness, fostering collaboration among stakeholders, influencing both governance and business, mobilising support, and promoting sustainable practices that protect Planetary Health.

4.1

CHANGE AREA 1
Reimagining Global Governance Institutions Fit for the 21st Century and Beyond

From the São Paulo Declaration:

For International Organisations: overcome silos for an inclusive form of multilateralism that centres healthy people and a healthy planet and recognises their interdependence. Cross-cutting, transdisciplinary cooperation is imperative to merge multiple agendas and strengthen the health-environment nexus. Work towards enhanced governance through equitable influence of low-, middle-, and high-income countries and the protection of human and environmental rights.

Background: Global Governance in the Anthropocene[6]

One of the key issues with the current calls for governance reform is that they are often made without defining governance and whether that governance is good or bad. What is Planetary Health governance? What does it look like? Who can enact it?

Uncertain times, growing desires for isolationism, and stalemates in problem solving, have led the United Nations and other relevant stakeholders to call for an overhaul of the multilateral system. The system in its current form has failed to effectively deal with these challenges. At the same time, the problems encompassing humanity and its environment continue to grow into more global, complex issues, including increasingly rapid global warming, pollution, and biodiversity loss (the UN Environment Programme refers to this as the Triple Planetary Crisis); the ongoing threat of pandemics and spreading of zoonotic diseases; and increasingly serious wars and global conflicts. There needs to be thorough and accelerated change to international governance institutions in order to better understand risks, work on crisis prevention, tackle the growing calamities society faces and to prevent recurrence. This change must include concrete steps that will grow and maintain a rights-based, evidence-informed, cohesive international order that governs within planetary boundaries via a precautionary approach.

Reimagining governance for Planetary Health means that we must consider how to reform the architecture of the global governance system so that institutions and their thematic priorities are more closely and effectively coordinated, in a way that overcomes the fragmentation which prevents effective and just action. The diversity, identity, objectives and interests of key actors with some theoretical or effective power at a global level should be considered as well.

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[6]   As defined by National Geographic: "The Anthropocene Epoch is an unofficial unit of geologic time, used to describe the most recent period in Earth's history when human activity started to have a significant impact on the planet's climate and ecosystems."

This section of the Roadmap offers insights on how all of society, from local community leaders to heads of state, can and should use the resources at their disposal for the betterment of planetary wellbeing, harnessing lessons in the Planetary Health education, communications, and business portions of this document. In beginning to educate and unite Planetary Health advocates on the next steps for global governance, this Roadmap aims to start a conversation on how to effectively influence and envision a new approach to multilateralism.

Defining Global Governance for Planetary Health

Everyone who wishes to contribute effective recommendations for global governance reform benefits from a basic understanding of multilateralism and international institutions. In developing a globally coordinated strategy for Planetary Health-informed governance, we must first define what this reimagining of governance would institutionally entail.

In looking at global health governance, Ilona Kickbusch[7] offers the following three definitions:

- Global health governance, which refers mainly to institutions and processes of governance which are related to an explicit health mandate, such as the WHO.
- Global governance for health, which refers mainly to institutions and processes of global governance which have a direct and indirect health impact, such as the World Trade Organization – many of these are related to the social determinants of health.[8]
- Governance for global health, which refers to institutions and mechanisms established at the national and regional level to contribute to global health governance and/ or to governance for global health – such as national global health strategies or regional strategies for global health.[9]

Understanding the difference between these definitions is essential, as they are directly tied to a reformed Planetary Health approach to governance. Using the framework Kickbusch suggests from the basic definition of the term "governance," international institutions and processes can be divided into:

- those which have a direct mandate for Planetary Health,
- those which have a direct and indirect impact on Planetary Health, and
- those established at the national and regional level to contribute to governance for Planetary Health.

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[7] https://en.wikipedia.org/wiki/Ilona_Kickbusch
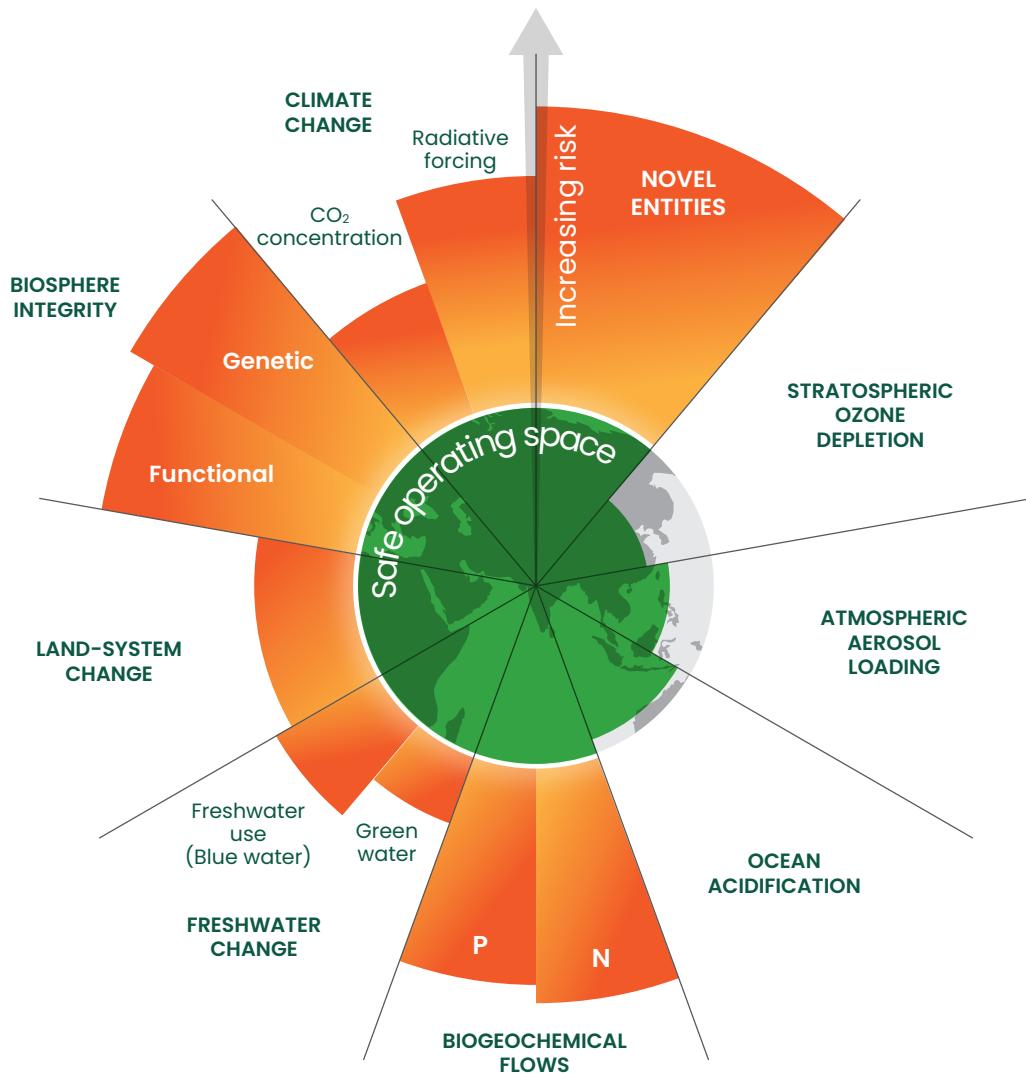
[8] The social determinants of health (SDH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems - WHO.

[9] Kickbusch and Szabo, "A New Governance Space for Health."

The working definition of health governance within planetary boundaries, which further strengthens the case for application of a Planetary Health lens to global governance, is as follows:

Health governance within planetary boundaries (see Figure 3) describes all institutionalised forms of social coordination that: 1) aim to develop and implement rules for ensuring health and wellbeing, and 2) aim to provide collective goods for the benefit of society without exceeding planetary boundaries.[10]

Figure 3.   Planetary Boundaries

Source: Azote for Stockholm Resilience Centre, based on analysis in Richardson et al 2023

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[10] Baltruks et al., "Health within planetary boundaries: Open questions for policymakers, scientists, and health actors."

There are certain institutions and processes which could be described as having a mandate which incorporates a Planetary Health perspective, through the focus of governing within planetary boundaries:

1. the World Health Organization, as an institution designed with the purpose of protecting and preserving human health, and subsequent instruments under the World Health Assembly, including the International Health Regulations and any agreed-upon pandemic accord;[11]

2. the United Nations Environment Programme, as a mechanism designed with the purpose of protecting and preserving the environment;[12]

3. the United Nations Framework Convention on Climate Change (and all instruments produced as a result of its mandate), as a framework designed with the purpose of protecting and preserving the planet from increasing levels of climate change and its impacts;[13]

4. the Food and Agriculture Organization of the United Nations, as an institution designed to ensure global food security, as well as to improve levels of nutrition, agricultural productivity and sustainability, and the quality of life of rural people;[14]

5. the World Organisation for Animal Health, as an institution designed to foster global commitment to improve animal health and welfare and veterinary public health worldwide;[15]

6. the Convention on Biological Diversity (and all instruments produced as a result of its mandate), as a framework designed with the purpose of protecting and preserving the planet from increasing levels of harm to its biodiversity;[16] and

7. the United Nations Development Programme, as an institution designed with the purpose of ending poverty and building democratic, inclusive governance through the rule of law.[17]

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[11] Constitution of the World Health Organization, Article I; International Health Regulations (2005), Article II

[12] United Nations General Assembly, Resolution XXVII on Institutional and financial arrangements for international environmental cooperation.

[13] United Nations Framework Convention on Climate Change, Article II.

[14] Constitution of the Food and Agriculture Organization of the United Nations, Article I.

[15] Organic Statutes of the Office International des Epizooties, Article IV.

[16] International Bank for Reconstruction and Development Articles of Agreement, Article I.

[17] United Nations Development Programme, Mission and Vision.

While this list is not exhaustive, these are the institutions and processes with explicit mandates to incorporate a Planetary Health perspective. Figure 4 identifies health linkages through just one of these bodies, the United Nations Framework Convention on Climate Change. However, looking at the intersections of all institutions mentioned above is essential in advancing global governance through a Planetary Health lens.

To strive for further interaction across platforms that govern planetary boundaries, these international bodies and instruments must aim for better harmony with bodies that have Planetary Health mandates, including, for example:

1. the United Nations Executive Office of the Secretary-General, which manages the United Nation's Chief Executive Board;[18]

2. the United Nations Permanent Forum on Indigenous Issues;[19]

3. the United Nations Convention on the Law of the Sea[20] and its subsequent Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction;[21]

4. the World Bank,[22] and

5. the World Trade Organization.[23]

Developing critical recommendations for global governance reform requires a general awareness of these bodies and documents, how they currently interact with each other, and potential ways they could further incorporate the objectives of Planetary Health. Global governance for Planetary Health should include human health governance, environmental governance, food systems governance, biodiversity governance, ocean governance, animal welfare governance, trade governance, economy governance, human rights governance, and everything which has a direct or indirect mandate to protect people and planet.

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[18] Charter on the United Nations, Article LVII.
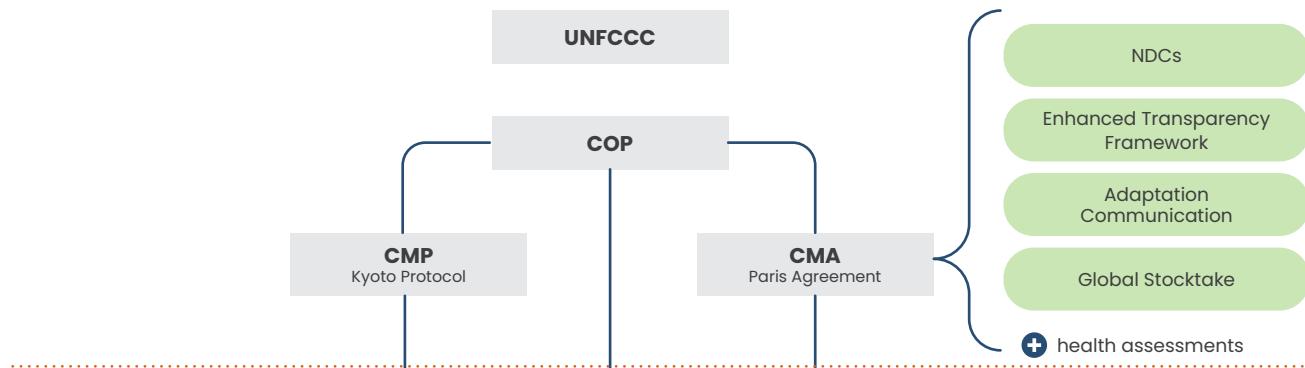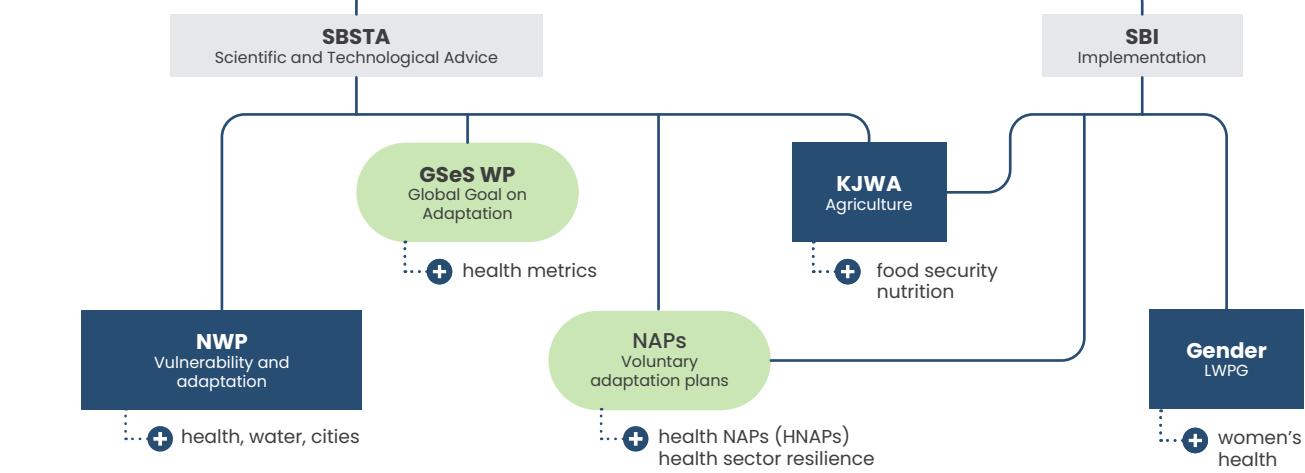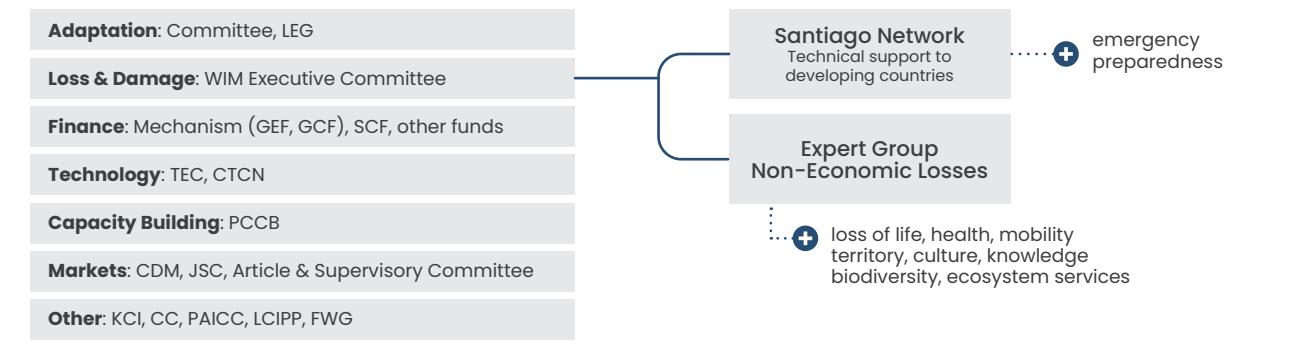
[19] United Nations Economic and Social Council, Resolution MM/XX on the Establishment of a United Nations Permanent Forum on Indigenous Issues.

[20] United Nations Convention on the Law of the Sea, Article I.

[21] Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, Article II.

[22] International Bank for Reconstruction and Development Articles of Agreement, Article I.

[23] Agreement Establishing the World Trade Organization, Articles II and III.

Figure 4.   UNFCCC through a Health Lens

Governing Bodies

UNFCCC

COP

CMP
Kyoto Protocol

CMA
Paris Agreement

NDCs

Enhanced Transparency Framework

Adaptation Communication

Global Stocktake

➕ health assessments

Subsidiary Bodies

SBSTA
Scientific and Technological Advice

SBI
Implementation

GSeS WP
Global Goal on Adaptation

KJWA
Agriculture

➕ health metrics

➕ food security nutrition

NWP
Vulnerability and adaptation

NAPs
Voluntary adaptation plans

Gender
LWPG

➕ health, water, cities

➕ health NAPs (HNAPs) health sector resilience

➕ women's health

Constituted Bodies

Adaptation: Committee, LEG

Loss & Damage: WIM Executive Committee

Finance: Mechanism (GEF, GCF), SCF, other funds

Technology: TEC, CTCN

Capacity Building: PCCB

Markets: CDM, JSC, Article & Supervisory Committee

Other: KCI, CC, PAICC, LCIPP, FWG

Santiago Network
Technical support to developing countries

➕ emergency preparedness

Expert Group
Non-Economic Losses

➕ loss of life, health, mobility territory, culture, knowledge biodiversity, ecosystem services

Legend

Structure of the UNFCCC

Agenda items under the Convention

Regular processes with periodic input to the Convention

➕ Health issues and where they could be discussed

Source: Originally published by Willetts, E., et al. in "Health in the global environmental agenda: A policy guide."

How Planetary Health Can Inform Global Governance

The Sustainable Development Goals (SDGs), which were designed as a framework to drive integrated approaches to sustainable development, were also intended to promote global governance informed by Planetary Health. As they have been a guiding framework since 2015, Planetary Health advocates that global governance must also ensure familiarity with each of the 17 Goals, how they function in relation to one another, and amongst UN Member States, and how the reporting mechanisms work. Figures 5 and 6 outline the SDGs and how they are intended to guide sustainable development for the biosphere, society, and the economy, all of which are lenses through which the concept of Planetary Health can further inform international institutions and processes.

The SDGs are due to be completed in 2030. Due to growing global challenges that require interdisciplinary approaches, governments and multilateral organisations have started to debate how successor arrangements to the SDGs might be developed in a way that better pursues governance for sustainable development.[24] As 2030 approaches and the sun begins to set on the SDGs, it is crucial to ensure international institutions and processes continue to move forward cohesively, instead of returning to the pre-SDG era of fragmented global sustainability governance.

> *As 2030 approaches and the sun begins to set on the SDGs, it is crucial to ensure international institutions and processes continue to move forward cohesively, instead of returning to the pre-SDG era of fragmented global sustainability governance.*

Global governance for Planetary Health requires a greater cross pollination between governing bodies to break down silos and avoid further fragmentation of the international order. Recognising and further identifying the root causes of global crises, including independent interests of nation states and competition between institutions, is needed to fix the delayed progress of the SDG framework and the failure to achieve their predecessors, the Millennium Development Goals. Despite good intentions, the Millennium Development Goals and the SDGs have systematically missed targets. This should not be ignored - it is important that the world does better in future.

The 2024 United Nations Summit of the Future's preparatory process posits that we already have the "what" in the form of many existing agreements and commitments, starting with the United Nations Charter and including the Universal Declaration of Human Rights, the 2030 Agenda (including the SDGs), the 2015 Paris Agreement, the 2015 Addis Ababa Action Agenda, and many others. The Summit of the Future will look at the "how" – how do we cooperate better to deliver on our common aspirations and goals? How do we better meet the needs of the present while also preparing for the challenges of the future? Ensuring that a Planetary Health perspective continues to be considered, especially in global discussions around economic policymaking, must be a common short, medium and long-term goal.

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[24] Arora-Jonsson, "The sustainable development goals: A universalist promise for the future."

Figure 5.   The Sustainable Development Goals

Figure 6.   The SDG "Wedding Cake"

Source: Originally published by the Stockholm Resilience Centre.

But we need to be realistic. Global governance is fragmented; the governance structures of its constituent parts are poorly harmonised and highly siloed. The Executive Boards of development banks and UN agencies, programmes and funds share no functional coordination mechanism. The development and humanitarian systems continue to debate the humanitarian, conflict, development continuum or nexus,[25] and the United Nations General Assembly often faces challenges in reaching consensus on issues of global significance that surround the UN system governance architecture.[26]

Although reforms have been regularly enacted since the inception of the United Nations, many of these institutions rose out of the ashes of the Second World War and were built to address and fit into a twentieth century global order; with different complexities and arguably less challenge than today's world. While the framework of the SDGs (Figure 7) aspired to promote a more dynamic, interconnected governance structure towards human wellbeing across multilateral institutions, the increase in number of international treaties and related agencies, programmes, funds and international and regional organisations has accelerated the phenomenon of fragmentation in the global governance arena. There is also a sense of frustration at the number of agencies, programmes and funds that require funding, hosting, and coordinating.

Emerging crises often overlap between fields, requiring an interdisciplinary approach to governance. Unresolved overlaps, fissures, an often-limited level of ambition and commensurate availability of resources among conventions and mandates means that fragmentation remains a key challenge. This leaves diplomatic capabilities overstretched and hinders the possibility of a sufficient, ambitious and coordinated international response that reaps effective and just actions for communities.
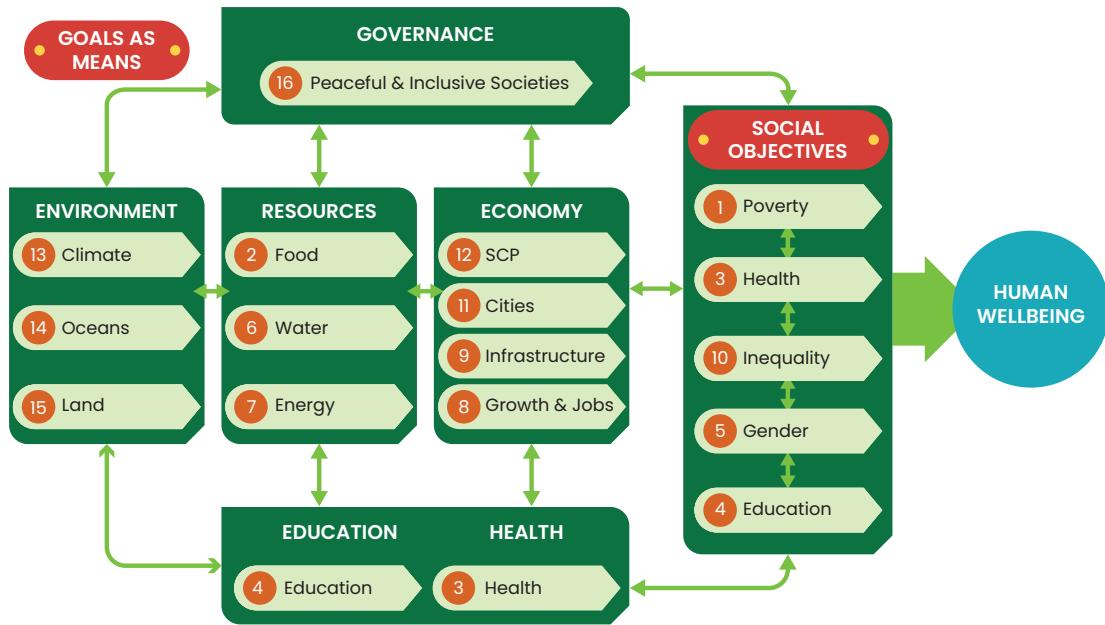
> *... even more worrying is the fact that some agencies, especially the ones relating to the economy, are making decisions that are promoting unsustainable development and harming human health and the environment.*

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[25] Dubois, "The Triple Nexus: Threat or Opportunity for the Humanitarian Principles."
[26] Goodwin, "Power Politics and the United Nations."

Figure 7.   The Sustainable Development Goals and Their Interlinkages Among Different Global Functions

Source: *Originally published by Elder, M., Bengtsson, M., and Akenji, L. in "An Optimistic Analysis of the Means of Implementation for Sustainable Development Goals: Thinking about Goals as Means." 2016.*

Regime interaction is the process by which leaders in global governance take stock of overlapping efforts on issues and frameworks targeting multi-sectoral, multi-dimensional crises, and collaboratively work to avoid fragmentation by ensuring cohesive and coherent governance across international processes and institutions.[27] A crucial component of Planetary Health, by definition, is broadening the understanding of "health" and using that expanded definition to leverage change for the sake of natural systems.[28] As such, Planetary Health proponents must promote interaction across thematic priorities and legal regimes with relevant international organisations and agreements so that they can function cohesively and provide the governance we need. The Planetary Health community must develop and put forward fresh arguments for why and how the broad range of relevant governance mandates should be better harmonised. This can be used as a basis to respond to the United Nations Secretary-General's observation that "multilateral governance, designed in simpler, slower times, is not adequate to today's complex, interconnected, rapidly changing world."[29] This work can and must contribute to the larger conversation on the future of global governance in a post-SDG world.

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[27] Young, "Regime Interaction in International Law: Facing Fragmentation."

[28] Whitmee et al., "Safeguarding Human Health in the Anthropocene Epoch."

[29] Stewart, "The International Order Isn't Ready for the Climate Crisis."

We need to recognise that the political bandwidth for reform is limited. Instead of building or reforming organisations and government structures by crafting new ones, we must learn how to use the available system to break down silos and fill in the cracks between these institutions, determining what is needed, considering the planetary boundaries we must work within. Planetary Health advocates must lay out clear and coherent proposals for governance which prioritises health and the environment, as well as track and flag areas of continued fragmentation in global governance, in the hope that the concept of Planetary Health can help leaders to intervene through regime interaction.

It can be argued that a key problem is that some governments are still not sufficiently prioritising health or the environment. They still hold the belief that the economy and national security continue to be areas of highest priorities. Thus, health and environment communities need to find more persuasive arguments for why governments should raise the priority levels of health and environment. For example, how can more effort on health and the environment create jobs or reduce security threats? If governments were more motivated on health and the environment, then existing governance frameworks would be more effective.

Acknowledging Geopolitical Uncertainties

Geopolitics is as integral to the international order now, as it was when these institutions were created. The influence of geopolitics must not be underestimated. Simply disregarding opposing interests is detrimental to the mission of Planetary Health. Understanding and accepting the reality of geopolitical dynamics must be a basis upon which progress towards strong global governance for Planetary Health is made. While advocacy for Planetary Health is critical, governance does not occur in the absolute or a vacuum, and thus we cannot advocate for Planetary Health–informed governance without acknowledging the influences and relationships of these surrounding interests and politics.

A new worldview of governance, seen through the lens of "planetary politics," requires a paradigm shift in our global governance architecture – to one which recognises the need to govern within and to respect and nurture planetary boundaries. Current geopolitically fuelled notions of global governance are driven by short term economic and social dynamics, with decision makers often unwilling to make dramatic changes due to the instability they fear may follow. This is a key issue with which the Planetary Health community must grapple, in no small part because of its negative ramifications for social equity. Ideally the Planetary Health community will become the coordination and advocacy locus for individuals and organisations across institutions and processes.

> *A new worldview of governance, seen through the lens of "planetary politics," requires a paradigm shift in our global governance architecture - to one which recognises the need to govern within and to respect and nurture planetary boundaries.*

In acknowledging the need for robust, but smart and sustainable development, which does not hinder social wellbeing and consequently alienate those in power from their constituents, Planetary Health advocates must identify issues and entry points where they can work in concert with governing bodies to bring about equally agile changes to policy and practice.[30] Given that favour is often shown to industry and those with lobbying power at these multilateral fora, an awareness of the current geopolitical landscape is critical in determining how to diplomatically navigate this terrain. Navigating planetary politics, and the potential political repercussions towards governance, is an essential prerequisite to empathise and collaborate with leaders to bring about constructive decision making.

A Rights-Based, Values-Based Approach

Planetary Health is grounded in values-based learning, including trust, responsibility, and community.[31] Good governance must enforce values and rely on networks. Governance for Planetary Health should be no different. Identifying common values is key for connecting with people across the globe, policymakers included, and thus it is important to develop a robust Planetary Health communications strategy.[32] As much of international diplomacy and governance exists in the halls of the United Nations, multilateral development banks and intergovernmental bodies and key elements of Planetary Health governance work at all levels, this work must include translating governance instruments, decisions and actions into local implementation and ensuring that the public understands why and how these decisions are made.

The term governance has been used in this document as something "other;" an external mechanism concerning institutions, processes, and mandates. However, we must also acknowledge that "governance" means the governance of ourselves, including sustainable consumption and lifestyles. Education on governance means that we can govern ourselves as individuals and can collaborate with each other, other beings, and non-living things across the world. That means we as sentient human beings are capable of compassion, we can act for everyone; we can care, we can be inclusive without discrimination, and we can be humble, realising that we must work collaboratively to answer our current challenges. But we must also be vocal when we need to be, prepared to stand up for what is right and just as we call for urgent action. When we act within these capabilities, we can support our societies and systems to deliver governance that can improve the wellbeing of all living and non-living things throughout the world.

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[30] For example: advancing public health initiatives, protecting ecosystems and biodiversity, implementing nature-based solutions, investing in renewable energy, sustainable agriculture practices, carbon pricing, green infrastructure, technological innovation, educational and community empowerment policies, fostering circular economy practices.

[31] Mahmood, "A National Planetary Health Strategy Could Help the 12th Malaysia Plan Make Lasting Systemic Change."

[32] See Communication and Advocacy Section of Roadmap.

We should also aim for this rights-based, values-based approach at the global level. Good governance, effectively crafted and exercised, has the potential to turn Planetary Health from an abstract goal to an everyday component of individual life: the responsibility of advocating for Planetary Health approaches to global governance rests on our shoulders, and we must work together to bring about productive change for both people and planet. In gauging and showing respect for the often-confusing range of factors that make up the current governance architecture, advocates for stronger Planetary Health-informed governance can apply evidence, research and stories to the creation of campaigns that speak to those in power and compel them to bring about the changes we all wish to see.

This persuasive force comes from the use of hard evidence and science to promote different ways of governing for Planetary Health. Stories and examples from real life that show the negative consequences of a lack of Planetary Health governance can be enormously compelling.[33] Bringing alternative governance strategies and their benefits or consequences to life, particularly through demonstrative projects, can also be powerful. As laid out in the next chapter of the Roadmap, we must move forward with a clear understanding of how to approach policymakers and government officials as people, who can be persuaded to believe and be motivated by these values. We must be prepared with a knowledge of political processes and a recognition of where critical change is possible. In this way we can influence leaders to sound their own calls for a Planetary Health approach to our multilateral order and governing institutions.

This Planetary Health community must work out how to articulate Planetary Health to these international institutions and processes, which must incorporate horizontal, vertical, top-down and bottom-up approaches. We must understand that the term "Planetary Health" does not have to be stated in global governance instruments to move the concept forward. Rather, Planetary Health prioritises ways of thinking and highlights opportunities to shift global governance drivers and processes. This diplomatic approach to Planetary Health must encourage transformative action, which emboldens leaders to pursue a form of global governance that calls for both technical solutions and sustainable behaviour; allowing for comprehensive societal change.[34]

Transformative change, which encourages a mentality of placing science, values, and the rights of people and planet at the forefront of decision making, can further define the best paths forward for stronger global governance, informed by the vision that Planetary Health attempts to convey.

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[33] Murphy-Hollies and Bortolotti, "Stories as Evidence."

[34] Wabnitz et al., "Planetary health—transformative education regarding the climate and sustainability crises for health professionals."

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There is a need for transboundary solutions that ensure health and wellbeing for all and future generations, by combating issues such as climate change, pollution, and biodiversity loss.

Governance for Planetary Health Can Unite the International Order

As the world starts the process of putting into place successor arrangements to the SDGs, the international governance machine is already starting to seek the next framework to catalyse social, political, cultural, economic, and environmental wellbeing. There is a need for transboundary solutions that ensure health and wellbeing for all and future generations, by combating issues such as climate change, pollution, and biodiversity loss.

To advocate for improved governance in the global arena, the following action plan is proposed to the Planetary Health community.[35]

1. Identify the locus for governance coordination within the Planetary Health Movement and ensure that the coordinating entity and the following process are adequately resourced.

2. Thereafter, or concurrently, research institutions around the planet should work together, and with multilateral system stakeholders to:

   a. Broadly prioritise where greater regulatory cohesion and coherence of global governance instruments, processes and methodologies is possible to contribute better to Planetary Health.

   b. Determine the institutions and processes that are relevant to these priorities.

   c. Gather the relevant information regarding the institutions and processes responsible for these priorities.

   d. Identify the transformative changes required.

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[35] Adapted from Yusoff, "Rethinking Governance for the Challenges of the 21st Century: Creating a Culture of Accountability and Good Governance for Sustainable Planetary Health."

e. Examine and gather evidence on how these transformative changes would impact current global processes and institutions (opportunities and risk analysis across perceptions, knowledge, interests and political influence).

f. Define messaging that acknowledges and understands the surrounding perceptual, knowledge and political environment and interests.

g. Share the transformative change with all global governance institutions impacted by the messaging, to prevent fragmentation across fora and bring these institutions together.

h. Ensure that the proposed transformative changes are given due consideration by stakeholders to the United Nations-led global process leading to the successor arrangements to the 2030 Agenda.

Planetary Health offers a way forward past 2030. Through this action plan, advocates for Planetary Health can best represent themselves on the global stage, rallying efforts to reimagine global governance more coherently and cohesively for the 21st Century and beyond. The 2024 Summit of the Future presents a key opportunity to galvanise momentum for a concrete governance strategy for Planetary Health for the short- medium- and long-term.[36]

Additional references and resources can be found in the online document repository [here](#).

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[36] Adapted from Yusoff, "Rethinking Governance for the Challenges of the 21st Century: Creating a Culture of Accountability and Good Governance for Sustainable Planetary Health."

4.2

CHANGE AREA 2
Engaging the Education Sector in Revolutionising Approaches to Education

From the São Paulo Declaration:

For Schools: Teach Planetary Health education from an early age. Advance universal education and embed Planetary Health throughout primary and secondary school levels, while ensuring women and girls have equity in access to such information. Utilise transdisciplinary and participatory approaches to design teachers' education and training materials, as well as school materials that are appropriate for specific age groups and contexts. Incorporate nature-based and experiential learning outside of the classroom. Educate and empower youth to become current and future leaders of Planetary Health action and foster their ability to influence the decision-making of their parents, communities, and beyond.

For Universities and Higher Education: Advocate for and prioritise the allocation of resources to enable and encourage transdisciplinary Planetary Health scholarship and education within and between institutions. Align faculty promotion and research incentives courageously to better ensure co-creation and translation of evidence into applicable policy and practice. Ensure that Planetary Health curricula are embedded in all programs and faculties in order to foster Planetary Health citizens, regardless of discipline. Promote access and equity across institutions so that all people can participate in research and education.

Education offers many benefits to individuals, organisations, and nations. No person can be excluded, and no field of study discounted or ignored. "Every person, in every place, from every calling has a role to play in safeguarding the health of the planet and people for future generations" (Planetary Health Alliance, 2021, São Paulo Declaration). This sub-chapter of the Roadmap therefore empowers each of us to become students and connect with learning to recognise that education has meaning for a sustainable future.

The Role of Education in Facilitating the Just, Global Transition

The Earth crisis, brought about by human activity, is the most significant threat of our time. Education plays a crucial role in providing knowledge, and practical skills, and fostering the behavioral changes necessary to address this crisis. Achieving the just, global transition in the way we live, build cities, grow food, and plan and raise families demands a transformative change in how we perceive our role and interconnection with Nature. These urgent changes are unattainable without knowledge and understanding of existing solutions and how to strategically apply them.

Educational spaces are uniquely positioned to contribute to, not only a healthier future, but also one in which we can all thrive. This pathway involves recognising Planetary Health as foundational knowledge not only for medical, nursing, and public health students but for students in economics, law, business, engineering, policymaking, advertising, art, theology, philosophy, architecture and more. Planetary Health needs to be incorporated into education for all.

The Planetary Health Education Framework (PHEF) and the São Paulo Declaration on Planetary Health are foundational documents in Planetary Health education. However, at present, there is no global strategy or 'Roadmap' to apply their content to all education spaces.

Beyond reimagining curricula, this sub-chapter of the Roadmap lays the case for a bold and innovative reimagination of the education space; the creation of a learning environment that fosters the development of Planetary Stewards committed to social and environmental justice, who guide their community's transformation from acting and changing out of fear, to acting and changing out of love.

We provide tools for revolutionising education to empower us to take responsibility for present and future generations, and actively contribute to societal transformation, while recognising the invaluable contributions made by traditional and contemporary Indigenous knowledge systems, especially those that have long understood the interconnectedness between humans and nature.

> *A bold and innovative reimagination of the education space; the creation of a learning environment that fosters the development of Planetary Stewards committed to social and environmental justice, who guide their community's transformation from acting and changing out of fear, to acting and changing out of love.*

What Relevant Work is Already Underway?

In advance of the 2024 Annual Meeting, the geographically diverse experts in the Education Working Group contributed a collection of likely non-exhaustive Planetary Health educational resources. This effort aims to capture a wide array of perspectives on what we consider relevant to Planetary Health education, while acknowledging that some relevant resources may have been missed. Each resource was meticulously reviewed, involving a deep dive into its context and unique contributions. Consequently, the resources have been categorised into five main areas: Policy and Advocacy; Educational Frameworks and Curricula; Degree and Certificate Programs; Case Studies and Practical Applications; and Guides and Methodologies.

Each category reflects a distinct facet of Planetary Health education, ranging from overarching policy and advocacy principles to hands-on applications and teaching resources. This categorisation not only showcases the diversity and depth of available resources but also emphasises the transdisciplinary nature of Planetary Health. While this summary offers an organised glimpse into the types of resources and their contributions to the field, the complete table is available in the online document repository here. The resources are not meant to be exhaustive, but rather intended to encourage educators that they do not have to start from nothing when teaching about Planetary Health.

Table 1.   Classification and Examples of Planetary Health Education Resources

Resource Category	Examples
Education Policy and Advocacy	• The Academic Health Institutions' Declaration on Planetary Health • Planetary Health Report Card
Educational Frameworks and Curricula	• Planetary Health Education Framework • Education for Sustainable Healthcare - A Curriculum for the UK • Planetary Health Education Framework and Nursing Essentials Crosswalk
Degree and Certificate Programs	• Planetary Health Postgraduate Study at the University of Edinburgh • Master's degree in Planetary Health (UOC-ISGlobal-UPF) Barcelona • MSc in Global Health: Human Health and the Environment at Royal Holloway University of London, UK
Case Studies and Practical Applications	• Planetary Health Case Studies: An Anthology of Solutions • Planetary Health Education Toolbox
Guides and Methodologies	• Cross-cutting principles for Planetary Health Education • Planetary Health Pedagogy: Preparing Health Promoters for 21st Century Environmental Challenges • Patient and Clinic through the Lens of Planetary Health: Learning Guide for Undergraduate Health Education

Making Education Fit for Purpose

There are numerous challenges or barriers to global Planetary Health education, including lack of universal access to education, inadequate preparation of teachers, absent or scarce Planetary Health curriculum, and non-supportive funding structures for research and faculty promotion. To reach our destination of a just, global transition in education around the globe, we must address the structures and theories of knowledge of the current system.

Without crucial introspection and analysis of the intersectional matrices of power dynamics at play within the knowledge production, dissemination, and education processes, higher education institutions and the structures they represent could continue to lack the capacity to steer our world towards transformative change—through a comprehensive shift in how human beings interact with each other and nature.

"The way forward requires paradigm shifts that include structural reforms in how knowledge is produced and disseminated, how education is democratised, and how education becomes both a process and outcome that progresses towards care-informed social and environmental justice."[37]

Disruption of education assumptions and structures is necessary on a global scale. The gains that flow from Planetary Health education will benefit the wellbeing of people at all levels of society, across cultures and at every age. Cities and nations will benefit from having educated citizens who can make the changes that are necessary for the just, global transition. The structural shifts across all human systems will create new fields and economic opportunities and require a new education paradigm. The recommended Roadmap actions for education will advance transdisciplinary research, uncovering new solutions for the health of humans and all life on the planet. They will decrease fragmentation, promote transdisciplinary Planetary Health curriculum design, update professional standards, and advance collaboration and networking among members and regions to increase capacities. There will be an improved valuing of Indigenous Knowledge Systems and wisdom traditions that have been missing or marginalised in previous curricula. All these changes stand to improve the learning experience for students and the sense of meaning for teachers and faculty. Global health and progress on the UN Sustainable Development Goals will improve as all people, regardless of gender, economic status, or other demographics have full access to primary and secondary public education.

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[37] Redvers et al., 2023

> "The state of the globe's converging crises clearly demands swift and just educational reform, within which Planetary Health education is poised to make an important contribution." (Redvers, Faerron Guzman, et al., 2023, p.e83)

What Needs to Change?

At the Policy Level

There are numerous structures that need to be modified or redesigned to advance global Planetary Health education.

Our Shared Destination	Transformative Changes	Related Actions
Transformative learning and structural change are in place.	Work with National Boards of Education to build the case for Planetary Health as core content for all students at all ages.	1. Engage global, regional and country educational standards and accreditation actors to integrate Planetary Health into all education programmes and curricula. 2. Work locally with School Boards or their equivalent to build the case for Planetary Health as core content for all students at all ages. 3. Integrate Planetary Health into all international and country government policies and strategies (Planetary Health in all Policies - PHIAP), thereby diffusing PH learning across all sectors (e.g., the Dutch global health strategy). 4. Use policy to advance digital Planetary Health (digital transformation). This should include addressing the digital divide for Planetary Health between under-connected and highly connected countries and socioeconomic groups within countries.
Universal Education is advanced.	Uplift global models of universal education, policy and the impact on those nations' prosperity, health, etc.	1. Policy should advance free primary and secondary schooling for all, equitably, especially in disadvantaged counties (SDG 4). Planetary Health education must be accessible throughout all stages of education. 2. Efforts should be aimed at bridging disparities and advocating for policies that support education in disadvantaged countries. 3. Governments should prioritise universal education as a key tool for promoting national prosperity.
Women and girls' equity in access to information is assured.	Showcase evidence on the impact of girl child education and women empowerment as a means of addressing climate change and other Planetary Health issues, and achieving socioeconomic development through demographic dividends, especially in developing countries.	1. Prioritise the education of girls as a strategic measure to mitigate climate change and assist communities in adapting to planetary crises. 2. Implement policies aimed at eliminating gender disparities in access to information, education, and communication. 3. Integrate Planetary Health education within reproductive, maternal, child, and adolescent health policy spaces. 4. Develop international legal instruments to promote policy coherence, thereby advancing equity in access to information for women and girls.

Our Shared Destination	Transformative Changes	Related Actions
Youth are empowered to become current and future leaders.	Create fellowship opportunities for civic engagement where interested youth can be paired with elected officials and their aides to learn how to effectively create change locally to globally.	1. Cultivate 'champions' in Planetary Health as a central aspect of the policy initiatives of youth-focused institutions at state, regional, and global levels. 2. Institutionalise meaningful youth engagement across various levels including policy formulation (e.g., youth envoys, Minister of Youth, WHO Youth Council), education systems (e.g., involvement of student bodies and organisations in establishing criteria), and among broader educational stakeholders.
Transdisciplinary Planetary Health scholarship is more widely available.	Promote policies that encourage scholars across disciplines to address Planetary Health issues.	1. Policymakers should establish funding streams through government bodies, emphasising equity, and integrating these efforts into overall strategies. 2. Develop and disseminate a document for grant bodies and other potential donors, outlining the benefits of supporting transdisciplinary scholarship, as a strategy to incentivise Planetary Health research.

Case Study: Young people should be at the heart of decisions that impact their lives and health. The WHO wants to support the engagement of young people and their participation in addressing key global health priorities and has therefore established the WHO Youth Council, which includes youth representatives of health and non-health organisations and movements. The Youth Council is a dynamic network that amplifies the voices and experiences of young people, and leverages their expertise, energy and ideas to promote public health. The Youth Council provides advice to the WHO Director-General and WHO Senior Leadership. It serves as a platform for designing and incubating new initiatives and for expanding existing youth engagement initiatives of WHO. Through the Youth Council, WHO seeks to deliver sustained and meaningful youth engagement.

At the Political Level

There are a number of transformative changes and related actions in education which should be sought in order to foster local and global communities in working towards wellbeing, justice, and a thriving environment for all.

Our Shared Destination	Transformative Changes	Related Actions
Political stakeholders are engaged and involved as decision-makers across the political spectrum in Planetary Health education conversations.	Recognise and value diversity in political perspectives/ values: integrate diverse political views/values and educational expectations.	1. Recognise that various stakeholders have differing visions for how education should be implemented. Achieving emotional and culturally sensitive buy-in is as crucial as adopting a facts/ evidence/ science-based approach. (See communications chapter for further guidance on engagement.)

Our Shared Destination	Transformative Changes	Related Actions
Political polarisation is overcome so as to reduce divisiveness in Planetary Health issues and the search for common ground within political priorities is enhanced.	Depoliticise Planetary Health education: foster a common ground in Planetary Health education, unite various political perspectives through contextually relevant content and methods.	1. Collaborate with local governments, highlighting the universal benefits of these educational initiatives. 2. Focus on universally valued concerns, such as the wellbeing of all individuals, and the health of children and mothers.
Decision-makers and the public alike are educated about Planetary Health issues.	Broaden educational scope: expand the concept of education beyond formal environments, using it as a tool for societal and political transformation.	1. Acknowledge the broad definition of education, which extends beyond formal learning, emphasising the integration of Planetary Health concepts across all educational stages, from basic education to teacher training. 2. Target engagement through media, communications, and active participation in public life.
Education is regarded as a transformative force in politics and society: a key instrument to achieve necessary advancements on nature and climate.	Emphasise universal human values[38]: focus on common human values[39], concerns, and needs in education, beyond political differences.	1. Employ strategic, logistical, and resource-focused approaches in planning and implementation. 2. Address learners' needs by ensuring educational content is relevant and impactful for them.

Case Study: The Dutch Global Health Strategy 2023-2030 mentions Planetary Health as one of the key challenges and opportunities for improving public health around the world. According to the strategy, Planetary Health is "the interdependence of human health and the health of the planet's ecosystems." The strategy outlines two focus areas related to Planetary Health:

(i) Making healthcare more sustainable and climate-resilient: The strategy aims to reduce the environmental impact of the health sector, promote circular economy principles, and support low- and middle-income countries in adapting to the effects of climate change on health.

(ii) International action on climate, water and food: The strategy advocates for a holistic approach to address the interlinkages between climate change, water scarcity, food insecurity, and health risks. The strategy supports initiatives such as the One Health approach, the Food Systems Summit, and the Climate Adaptation Summit 1.

The strategy also recognises the importance of cross-sectoral collaboration, innovation, and multilateralism for advancing Planetary Health. The strategy states that "the Netherlands will work with other countries and international organisations to ensure that Planetary Health is given due attention in global health governance and policy."

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[38] Universal human values are principles or beliefs that are considered to be inherent to all human beings, regardless of culture, religion, nationality, or background. These values are believed to transcend cultural boundaries and are considered fundamental to the wellbeing and dignity of all individuals. Universal human values are often rooted in concepts such as human rights, justice, equality, freedom, compassion, empathy, and human dignity. Unlike common human values, universal human values are believed to be applicable and relevant to all people, regardless of their cultural or societal context.

[39] Common human values are those that are commonly held within a particular community, culture, or society. These values may vary from one group to another based on factors such as religion, tradition, customs, and societal norms. While common human values may be widely accepted within a specific group, they might not necessarily be recognised or valued universally across all cultures or societies. Examples of common human values include respect for elders, honesty, loyalty to one's family or community, and politeness.

In the Professional Sphere

The education profession needs to be familiar with the concepts of Planetary Health. Among efforts that may be undertaken are ensuring that professional bodies and standards entities are made aware of Planetary Health and its transformational potential, curricula in seats of learning and schools around the world include elements of Planetary Health and that research and evidence generation are informed by Planetary Health.

Our Shared Destination	Transformative Changes	Related Actions
Planetary Health ideals are included in transdisciplinary professional standards and values.	Appeal to all professional bodies to update their standards.	1. Familiarise accreditation bodies, unions and professional standards authorities with Planetary Health (potentially including reference to/engagement with the International Standards Organisation (ISO)). 2. Advocate with them to mainstream Planetary Health into their standards. 3. Include Planetary Health indicators in their monitoring mechanisms.

Planetary Health curricula are embedded in all education programs.	Disseminate currently available and newly developed resources.	1. Advocate for comprehensive curricula to be aligned with the accreditation standards and regulations. The curricula should be tailored to individual professions within society, cover foundational topics of Planetary Health, and include practical training and skill development. Curricula should include:
		  a. Hands-on training and field experiences that enable professionals to implement sustainability practices, conduct environmental assessments, and develop solutions.
		  b. Skill-building that includes data analysis, risk assessment, communication, and Planetary Health project management.
		  c. Skills to develop climate and green solutions and work with multiple societal sectors such as communities, corporate bodies, governments, and academics.
		  d. Training on the intersection between public policy and Planetary Health for all professions.

Universal education is uniformly promoted.	Promote policies that support education for all.	1. Include Planetary Health in continuing education activities for professionals as they participate in continuing professional development and re-certification. 2. Inspire professionals to accept this critical aspect of their career development and emphasise sustainable practices, corporate responsibility, sustainable supply chain management, green innovations, nature-based solutions, etc.

Our Shared Destination	Transformative Changes	Related Actions
Faculty promotion and research incentives are aligned.	Encourage transformative learning and structural change, i.e., "the education process as a means to enable/ empower students to connect with what they learn, and eventually encourage the flourishing of Planetary Health values."	1. Provide funding and resources for developing infrastructure, training, and curriculum to support Planetary Health education, including laboratories, research facilities, access to relevant data and tools, and community engagement initiatives. 2. Teach legislation and policies as tools to advance holistic Planetary Health education among professionals. 3. Provide incentives such as funds allocation, grants, and tax credits for research, development, innovation, and implementation in Planetary Health-related actionable education.
Access and equity are assured across institutions so that all people can participate in research and education.	Promote collaboration and networking among members, regions, and sectors to increase capacities.	1. Share the best practices in Planetary Health education from international agreements and treaties, focusing on stability, resilience, and peace. Legislation supporting such agreements can enhance the global perspective in education and encourage collaboration among professionals worldwide.

In the Education Sector and the Community

Inclusion of community aspects to Planetary Health curriculum, whether taught in learning institutions or when involving different communities in different Planetary Health aspects and research, is important.

Our Shared Destination	Transformative Changes	Related Actions

Availability of Planetary Health case studies is increased exponentially.	Gather relevant educational case studies materials from different regions of the globe to represent universal learning, teaching and research materials in different communities.	1. Adopt an evidence-based approach to teaching concerns in the Planetary Health Education curriculum pertaining to various communities and cultures. This will cover:
		  a. Community and the environment including best practices and coping mechanisms.
		  b. Indigenous Traditional Knowledge.
		  c. Ethics, philosophy, and environment based on different communities and people groups.

Our Shared Destination	Transformative Changes	Related Actions
Community-based learning of Planetary Health/ Community in the Classroom is regarded as routine.	Design the Planetary Health curriculum to include interaction between learners and the community.	1. Learning institutions should embrace and adopt approaches that encourage learning as opposed to full-time theoretical learning about community concepts: a. National and international policies that embed community-based education into the education system. b. Curriculum reform to cover aspects of community-based learning. c. Establish effective evaluation methods using different (new/ appropriate/ modern) evaluation tools such as pre- and post-assessments, to improve, track progress, and celebrate the successes. d. Create opportunities for dialogue, collaboration, and collective decision-making processes. e. Empower individuals to take action and contribute to sustainable change in their community.
Community-based Planetary Health research is valued.	Prioritise community-based research towards best measures for transformative changes.	1. Promote research collaboration between Planetary Health groups and higher-learning institutions. 2. Direct funds and resource allocation towards community engagement and training programmes to track Planetary Health research and effectively engage postgraduate scholars.
Youth Engagement is mainstreamed in community-based Planetary Health initiatives.	Involve youths from different communities in a variety of activities in order to facilitate exchange of ideas and mutual learning about Planetary Health principles.	1. Empower/ support youth to carry out community-based research and engagement to find solutions: a. Youth training can be achieved through periodic workshops and conferences, to exchange and benchmark programmes across regions. b. Planetary Health-based research and postgraduate scholarships and exchange programs. c. Student involvement in educating and dissemination of community-based course findings.
Shared responsibility and accountability are promoted.	Planetary Health education should take an approach that involves institutional teachers and considers the diversity of relevant communities and other community-based professional bodies.	1. Learning institutions should find and engage relevant communities to understand and benefit from their values, culture, and general sociology. a. They can share insights into community needs that could be relevant for class learning. b. This helps create fair balance between both formal and informal community groups.

Our Shared Destination	Transformative Changes	Related Actions
Advocacy for policy change is normalised in education institutions.	Institutions play an active role in advocating and lobbying for Planetary Health-based policies that affect the communities they serve.	1. Update students about current legislature. 2. Increase the presence of institutional actors in political spheres. 3. Create opportunities for students to comment on policy, and meet with legislators and community leaders. 4. Join/support regional organisations in their Planetary Health efforts.

Case Study: The Community Service for Planetary Health course is one of the compulsory Mata Pelajaran Umum (MPU, English: General Studies Subject) offered in Sunway University. Its main goal is to introduce undergraduate students to the concept of Planetary Health and involve them in collaborative efforts with local communities and organisations to address related issues.

Launched as a pilot in 2022, this initiative matched undergraduate students from the School of Arts with various organisations in Petaling Jaya, Selangor, allowing them to collectively identify and address pressing concerns. Within this semester, students undertook diverse projects such as social media campaigns, waste management solutions, and initiatives promoting physical activity in specific locations.

The programme was expanded in 2023 to include students from the Sunway Business School. From 2024, the seven-week course has become mandatory and after a three-week online training, students apply knowledge of Planetary Health to action in a low-cost housing complex close to the university. Knowledge enhancement and leadership skills are the ultimate goal of the program so that upon graduation, students fully aware of the importance of Planetary Health and will bring that into their respective careers.

In Engaging People

When considering the necessary changes in personal aspects, our goal is to promote both individual and social consciousness concerning ways of thinking, deciding, and acting, within the context of our shared existence on planet Earth.

Our Shared Destination	Transformative Changes	Related Actions
Transformative learning and structural change are introduced.	Transform "the education process as a means to enable/empower students to connect with what they learn, and eventually encourage the flourishing of Planetary Health values.[40]"	1. Collaborate across disciplines while tapping into shared personal values in order to engage with the complex dynamics of our ever-changing world. 2. Encourage transformative learning by following the Canmore Declaration's second principle, focusing on instilling values, attitudes, and behaviours, along with empathy and personal responsibility, as essential for attaining Planetary Health (Prescott et al., 2008).

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[40] Planetary Health Education Framework

Our Shared Destination	Transformative Changes	Related Actions
Transdisciplinarity[41] is mainstreamed across education.	Design transdisciplinary Planetary Health curriculum (i.e., incorporating a robust range of subject areas) and teacher education and preparation.	1. Commit to making transdisciplinarity a fundamental part of one's life, beyond professional boundaries. 2. Understand and embrace transdisciplinarity as a personal goal, an essential aspect of personal growth and development, and essential for individual and groups' facilitating the just, global transition. 3. Build and nurture diverse human connections to enhance understanding and collaboration across disciplines.
Nature-based and experiential learning are included in curricula.	Disseminate currently available and newly developed resources. Focus on embedding Indigenous People's perspectives in Planetary Health education.	1. Acknowledge the global nature of the Planetary Health movement and the significance of incorporating diverse firsthand experiences, backgrounds, and Indigenous knowledge. 2. Enable everyone to spend time in nature. Recognise that human civilisation and nature are inextricably connected and remind your family, friends and communities of this. 3. Embrace the Indigenous perspective of unity with nature, emphasising reverence, reciprocity, and responsibility towards the Earth. Promote the awareness of belonging to nature as a foundational principle for protecting Planetary Health
Youth are empowered as current and future leaders.	Promote transformative learning and structural change – "the education process as a means to enable/ empower students to connect with what they learn, and eventually encourage the flourishing of Planetary Health values."	1. Contribute to transgenerational justice by acknowledging and valuing diverse motivations for engaging in the Planetary Health field. Foster an environment that supports the growth and development of future leaders in Planetary Health. 2. Encourage students to join the Planetary Health Alliance's Next Generation Network and Campus Ambassador programme to advance their knowledge and understanding of Planetary Health through local community efforts, educational events, and research projects. 3. Support youth to identify with the Earth and the interconnection of all beings and thereby share their resolve to conserve it. This personal determination can then flourish among aspiring health professionals who can take the Planetary Health Pledge, which incorporates Planetary Health values and principles into their mission statement.

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41 Transdisciplinarity refers to an approach that transcends traditional disciplinary boundaries, integrating insights, methods, and perspectives from multiple fields of study to address complex problems. It emphasises collaboration and communication among researchers, practitioners, and stakeholders from diverse backgrounds to generate holistic understandings and solutions. Transdisciplinary research typically involves a synthesis of knowledge from various disciplines, often with the aim of addressing real-world challenges that cannot be adequately tackled within the confines of any single discipline. This approach recognises the interconnectedness of different domains of knowledge and seeks to foster interdisciplinary dialogue and cooperation to tackle complex issues more effectively.

Four Ambitious and Actionable Key Steps to Effect Change

1. **Universal, Inclusive, and Value-Centred Planetary Health Curriculum**: Develop and integrate a comprehensive, lifelong educational framework, using resources and principles laid out in the São Paulo Declaration on Planetary Health, Planetary Health Education Framework, and this Roadmap. Emphasise Planetary Health literacy; incorporate nature-based, conservation, and biodiversity principles, with a focus on creating opportunities for all people to participate in creating the necessary changes to ensure no community is left behind.

2. **Community and Empowerment**: Strengthen community engagement and representation in Planetary Health education at all levels and across diverse perspectives. Elevate and leverage the knowledge of Indigenous Peoples and wisdom traditions to advance societal change and global wellbeing. Empower youth and marginalised groups, such as women and girls, through gender equity and equal access to education. Highlight evidence on the impact of girl child education and women empowerment as a means of addressing Planetary Health issues and achieving socioeconomic development through demographic dividends. Ensure that lower socioeconomic groups are not disadvantaged in the short-term by sudden changes to which they cannot easily adapt.

3. **Educator, Accreditor and Decision-Maker Engagement**: Equip educators with innovative, nature-based teaching methods. Work with accreditation bodies to embed Planetary Health education within the standards of accreditation across various disciplines. Educate policymakers to advocate for a Planetary Health-centred worldview. Partner with lawmakers on the creation of policies that foster ethical, just economies, local innovation, and a sustainable biosphere for future generations. Ensure education is geared towards creating a conscious shift towards valuing all life and fostering kindness and cooperation.

4. **Global Transformation through Education**: Promote and unite around a global education initiative that unifies the agenda for structural societal wellbeing, prioritising universal education and community-centric approaches. Acknowledge the global nature of the Planetary Health movement and the significance of incorporating diverse firsthand experiences and backgrounds. Cultivate respect for diversity and inclusivity, and encourage all individuals to adopt a Planetary Health consciousness as a way of being.

4.3

CHANGE AREA 3
Engaging Businesses to Commit to Operating in Alignment with Planetary Health Principles

From the São Paulo Declaration:

For Businesses: The sustainability and long-term profit of businesses depend on the wellbeing of society and Nature. Investments and corporate principles must correspond to Planetary Health values and strategies that decrease greenhouse gas emissions, increase biodiversity, reduce soil, air, and water pollution, and improve health equity. Companies must begin investing in and implementing plans for net-zero, Nature-positive businesses immediately, and uphold agreements already in place including the Aichi and Paris accords. To achieve this, enact sustainable economic and business models that respect planetary boundaries and operationalise Planetary Health. Advocate for government policies and incentives that promote the just, global transition.

Supporting Business in Transitioning to Just, Global Solutions and Opportunities

Do the businesses you engage with, as a consumer, employee, or investor, see climate change or Planetary Health as an existential threat to their competitiveness, profitability, and survival? How about to their reputation and legacy, or employee families and customer communities? What about for generations to come? If not, why not?

Our urgent response to the Planetary Health crisis is necessarily pushing us into a new revolution, with market and social shifts as seismic as the Industrial and Digital Revolutions. To ensure our survival on this planet, the changes we must all be a part of are one way: there is no going back. We cannot do this without businesses of all sizes being part of the solution. Hence, while we need to have empathy for the challenges they face, we need to be just as encouraging that those challenges are surmountable, forcing innovation that will unlock huge business opportunities in the process.

Ideally, the purpose of any business is not merely to make short-term profits but to 'do things' that address the problems confronting us as customers and communities, suppliers and shareholders, employees, families and retirees so that everyone can survive and thrive. When a business receives this message from outsiders, they often assume the messengers are detached and do not understand how stressful their world is. We need to do a better job explaining the threats in the business language and through frameworks that they understand.

Many businesses today want to do the right thing but tell us they suffer from climate change fatigue and confusion. They feel overwhelmed by the rapidly expanding number of regulatory bodies, acronyms, standards and regulations. Many of the communications they have received are associated with introducing better ESG (Environment, Social and Governance) compliance, such as assessing, reducing and reporting greenhouse gas emissions across Scope 1, 2 and 3 of their business. Others talk about preserving their reputation and trust with customers and investors by ensuring that their products and services are increasingly sustainable, non-exploitative and do not engage in green washing.

Then, there are the calls to preserve the balance of nature, restoring natural carbon sinks and biodiversity to slow down and eventually reverse the increasingly dangerous impacts of climate change we are experiencing today. And finally, there is Planetary Health. The planetary crisis is also becoming a casualty of culture wars, where in some countries it has become a partisan issue, seen as being part of woke culture or a liberal plot. Often, the impact of the sudden introduction of sustainability policies comes with a cost lower socioeconomic groups cannot easily afford, but this is not fully considered by elite policy makers.

While all these standards and initiatives may sometimes feel unrelated, they all share the same core values and purpose - stopping the collapse of human civilisation by learning how to live in better harmony with nature and each other. Everything is connected, and thus Planetary Health has emerged as a way to frame the inextricable relationship between us and our planet's health.

Much of the language is science-based and does not always fit into discussions with a company's Finance, Sales, Product or Tech teams. Workers feel threatened by the transition needed to become more sustainable often because they are. If the transition threatens their jobs, plans to replace those jobs must be a part of that transition. It is understandable and laudable that people, especially in developing countries, want to uplift themselves, their families, and their communities by being able to afford and access, for example, clean water, refrigerators, and decent healthcare. The wealthy will need to give up some of their wealth in order for this to happen, although they will still be wealthy. However, we are moving too slowly to extract ourselves from a deeply embedded culture of creating wealth "at any cost," even if that makes the environment less stable, the planet less habitable, and communities less safe or healthy. This is short-sighted and reckless: a "business as usual" mindset

despite clear evidence of the threats to Planetary Health from unsustainable human industrial activities and outdated regulatory and economic systems. We need to help all businesses transform to a more common-sense sustainable model whilst not neglecting their needs to continue to prosper and provide employment. The two are not mutually exclusive.

We are keen to ensure that this Roadmap is not just 'more noise' or another layer of complexity on top of all the other environment-related communications targeting business. Our goal is to create a genuinely useful and continuously improving resource for practitioners – one which will gain greater industry and country specificity over time, designed to help them, and the businesses they engage with, step back and rethink how they, their customers, employees, communities, and families can not only reduce risk, but increase resilience and prosper.

This Planetary Health lens encourages a much-needed reboot to the traditional ways a company has defined Values, Vision, Mission, Strategic Objectives and Key Results (measured impact). By raising the bar above just short-term revenue-at-any-cost (to health or the environment) thinking, and instead embracing the critical need to live in harmony with each other and with the environment on which we all depend, it is possible to map out a sustainable future that results in more long-term revenue, lower costs, higher investment and investor returns, and greater health and safety for people.

Smart companies are already cutting their energy and material costs by switching to a rapidly growing number of sustainable (green) suppliers. If they are a supplier, they are increasing their business and market share by becoming a sustainable (green) supplier both locally and internationally – helping their customers achieve and exceed their goals by being compliant and offering new sustainable solutions. Smart companies are also pivoting to innovate around their core competencies and create brand new sustainable, regenerative products and services that enable them to step into "white spot" (brand new) markets – serving customers who are looking for more sustainable products and services – and where there is currently little competition. However, it needs to be acknowledged that at first these new, more sustainable products can also be high price. Subsidies may be required to enable everyone to adopt them, and this will more easily bring about transition than forced transition that brings short-term financial hardship to those least able to afford it.

> *We have mortgaged the health of future generations to realise economic and development gains in the present.*
>
> *The Rockefeller Foundation– Lancet Commission on Planetary Health*

> We live in a fundamentally changed world. It is time for your approach to strategy to change, too.
>
> *Andrew Winston*

How do Climate Change and Planetary Health Factor into This, and How do They Relate to One Another

There is emerging consensus that we are moving too slowly in changing how businesses operate. Firmer resolve in stopping and reversing the damage to our planet and its inhabitants has to start now. To do this, businesses of all sizes must engage.

For example, we must transition towards a world powered by sustainable electricity generated by wind and solar rather than fossil fuels. This must be done across the transport and manufacturing, construction, energy, tech, agriculture, apparel, pharmaceuticals, consumer goods sectors and more. But this transition presents its own social challenges. We have seen auto workers strike because EVs require 30 percent less effort and fewer workers to assemble and maintain. We have also seen steel workers strike because electric arc furnaces require fewer workers. We also need to transition towards farming that is less toxic to the environment and humans while maintaining biodiversity. However, we now see farmers protesting that this will reduce their earnings which are already under pressure from cheap imports.

Politicians who want to court the vote from these communities often find themselves stepping back from the discussion about needed change and instead being pulled towards more populist policies that protect short-term jobs and other immediate goals without connecting the dots to serious implications that will result if they continue to ignore the risks. Too often, declining health and wellbeing of their communities take a back seat, despite the damage from emissions and pollution; danger to property and infrastructure from extreme weather, flooding, and landslides; and mass migration from intolerably hot regions and neighbouring countries to major cities that cannot support the influx. This is their reality, and if we want to support business engagement in the just, global transition then we must learn to speak their language. But at the same time we must ensure that all sustainable changes include in their planning long-term and equitable futures for those who are most disadvantaged. What happens to the 30 percent of car manufacturers made redundant by the EV factory? What happens to the steel workers? Planetary Health needs to ask - and answer - these questions.

Populist politicians court these votes because deep structural change is long-term, complicated, and difficult to convey in a sound bite. New communications efforts around Planetary Health are needed to allow people to embrace an alternate path. Populist politicians might offer false hope and empty promises but they are the only hope and promises these workers have.

Imposing change without thinking about long-term human factors is always a mistake, and work is needed to understand the creation of employment and new revenue streams while avoiding the mass migration that transitioning to a greener, more circular economy can create. We have a responsibility to help the most affected communities navigate the change. Engaging with the people who set the rules - the politicians and the unions - is a key part of this.

Businesses of all sizes must be part of the solution and must remain responsible for their workers when the business model changes: to accelerate progress before it is too late and the slide towards decline happens instead.

The Planetary Health Guide for Business

The companies that will still be operating ten years from now will be those with their environmental and Planetary Health reputations intact and who cared about the wellbeing of their workers. Work by Price Waterhouse Coopers has shown that businesses that thrive in times of crisis are those people want to work for. If the business treats people badly, they leave when problems hit. If it treats them well, they ride it out together. Those who have re-examined their core purpose and either made their existing products and services safer and carbon neutral, and/ or seized the opportunity to create new categories of regenerative products and services find themselves in good stead for the future. The winners will have business models that do not depend on environmentally harmful subsidies.[42]

This section of the Roadmap is designed to help us help businesses of all sizes take a step back and consider how, with the changing world, they should and can change their purpose, strategy and priorities. We propose applying a Planetary Health lens that helps set priorities and make trade-offs in business by thinking just as much about negative impacts on humans (employees, customers, suppliers, investors, communities) and human civilisation, as about co-benefits and short-term revenue generation. We want to help business leaders understand that when in doubt about their business priorities or trade-offs, they should think about the relative impact on human civilisation and the long-term prosperity of themselves, their families, their employees, communities, and future generations.

This relates to businesses of all sizes, not just the largest corporations. In most countries, the majority of contributions to the prosperity of society are made by small and medium businesses. Sometimes, family-owned businesses can change course and become more sustainable and ethical faster than often larger public companies. Such smaller companies also show large corporations that such approaches have public support and can drive markets in a more positive direction.

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[42] https://www.businessfornature.org/news/subsidy-reform

A key message for any business owner in 2024 is that sustainability in products, services, and practices has evolved from being optional to necessary for the survival of their business and of the communities from which they draw their employees, customers, and investors. Next year is too late. Now is the time to get ahead of the curve on evolving their business and purpose to remain relevant, resilient and profitable — through changing trends and economic conditions.

Connecting sustainability and social equity thinking into a Planetary Health approach should be at the core of how businesses plan and operate. This will strengthen companies fundamentals by maximising customer, employee, and investor trust, as well as long-term cash flow and company valuation.

Understanding external factors is also key. Many segments in countries around the world want to move away from overconsumption to embrace a circular economy approach; offering more regenerative and repairable products (Four Rs - reduce, reuse, recycle, recover). Ownership may become less important than access. How will this change the approach to developing and selling products and services?

Not every business feels they are in the most enabling environment. Some governments are more helpful than others in supporting efforts to move to sustainable energy, transport and industry. Businesses should actively consider what they can do to influence their country and regional leaders individually or as industry groups. While government and regulation can be a critical accelerator to change, private industry can achieve a lot by getting ahead of the curve and appealing to consumer tastes and value changes. Often, family businesses are the ones that can move rapidly to evolve their values and ethics.

Pushback against sustainable approaches still exists within many internal finance teams, external finance and stock markets, where sustainability is often considered non-core and confused with corporate responsibility, public relations (PR) and compliance. In fact, revenue and profitability - not only for individual companies, but for entire sectors and whole countries - can only be optimised with sustainability. While 'growth at any cost' has started to evolve into 'profitability whatever it takes,' there is still a lack of longer-term strategic thinking in this space. However, sustainability at any cost is not the solution - innovation is needed to make better, more sustainable products that improve the longer-term prospects for business and for people.

Key Points to Remember

Health of the planet: The planet's health is linked to the health of businesses. Climate change, pollution, and other environmental issues can significantly impact the availability of natural resources, affecting business supply chains, production processes, and risk profiles.

Health of customers: Customers are increasingly concerned about the environmental impact of the products and services they use. Businesses prioritising Planetary Health can attract and retain customers by offering eco-friendly products and services that align with their values.

Health of employees: Employees are the backbone of any business. Environmental factors such as air pollution, water contamination, and exposure to hazardous chemicals can harm the health of employees, leading to increased absenteeism, decreased productivity, and higher healthcare costs. Bring your employees along on the journey, be transparent, and give them the responsibility to make assessments and propose solutions.

Health of immediate business environment: The immediate business environment, including the local community, can be affected by environmental issues such as pollution and climate change. Businesses that prioritise Planetary Health can help create a healthier and more sustainable environment for their employees and the local community.

Regulatory compliance: Governments worldwide are increasingly implementing regulations and policies to reduce the environmental impact of businesses. Businesses prioritising Planetary Health can stay ahead of the curve by complying with these regulations and avoiding potential legal and financial penalties.

Planetary Health lens: To rethink, innovate, prioritise, or trade-off, always bring discussions back to a positive or negative impact on human civilisation. Is the company, the service, or the product helping or hindering human civilisation from avoiding decline, and pivoting to thriving and living in harmony with the planet and each other? Are there co-benefits to be had?

Nature-based solutions: Employ natural processes such as soil formation and habitat restoration to address environmental challenges sustainably. Nature-based solutions integrate green infrastructure, ecosystem restoration, and nature-based solutions management to promote resilience and biodiversity. NBS deliver multiple benefits, such as flood control, water quality improvement, and carbon sequestration. They support long-term sustainability by harmonising human needs with ecological integrity. These solutions offer co-benefits for both people and nature, making them vital components in addressing global challenges like climate change and biodiversity loss.

Where Do Businesses Stand?

First things first. Help the business you are talking to assess where it is now.

Kate Raworth, the acclaimed author of Doughnut Economics, defines five levels of corporate doing:

1. Do nothing (don't change business model)
2. Do what pays (eco-efficiency to cut costs)
3. Do your fair share (commit to science-based targets)
4. Do no harm (design for zero emissions)
5. Be generous (regenerative by design)

For more on this see: https://www.greenbiz.com/article/can-we-do-business-doughnut-economy

In creating jobs, revenue, and wealth, what is the deficit regarding the negative impact on the health and wellbeing of people and communities, both upstream and downstream of the business?

After 30 years of knowing that human expansion and industrialisation are damaging to Planetary Health and human wellbeing, and are threatening medium-term prosperity and long-term survival, many companies are at a point of inflexion where they are deciding either to evolve to offer more sustainable products, services and value chains, or pivot to offer innovative new products and services that open up opportunities in new green economies.

The table below provides a quick overview of potential questions to ask business leaders against Raworth's five levels of corporate doing. It is followed by a more in-depth analytical framework for those who may be seeking deeper engagement with businesses.

Business Activity/ Category	Specific Negative Impact on Planetary Health	Questions/Prompts for Business	Prompts based on Kate Raworth's "Five Levels of Corporate Doing
Agriculture	Intensive farming practices lead to deforestation, soil degradataion, water pollution from fertilizers and pesticides, poor animal welfare and overuse of antibiotics, and loss of biodiversity. Overuse of water resources for irrigation contributes to water scarcity.	• How can we reduce our water comsumption? • Are there more sustainable alternatives to chemical fertilizers and pesticides? • How can we support biodiversity in agricultural practices?	
Energy Production (Fossil Fuels)	Burning fossil fuels for energy releases large amounts of CO_2, contributing to climate change. Oil drilling and coal mining can lead to habitat destruction, water pollution, and air quality issues.	• Can we transition to renewable energy sources? • How can we reduce emissions in our current operations? • What measures can we take to mitigate local environmental impacts?	• **Do nothing:** Are we content with the current state of our environmental impact?
Manufacturing (Chemicals and Heavy Industry)	Releases hazardous materials and pollutants into the air, water, and soil, posing health risks to humans and wildlife. Heavy industries such as steel and cement production are significant contributors to CO_2 emissions.	• Can we adopt cleaner production technologies? • How can we minimise waste and emissions? • Is there a way to recycle or safely dispose of hazardous waste?	
Mining (Metal and Mineral Extraction)	Disrupts land use, causes deforestation, contaminates water supplies with heavy metals, and results in loss of biodiversity. Open-pit mining alters landscapes and can create long-term environmental damage.	• Are there more efficient extraction methods that reduce environmental impact? • How can we restore mined areas to their natural state? • Can we improve water treatment processes to prevent contamination?	• **Do what pays:** Can we identify eco-friendly improvements that also reduce costs?
Plastic Production and Consumption	Contributes to pollution, with plastics ending up in oceans and waterways, affecting marine life and ecosystems. The production process also emits greenhouse gases and uses non-renewable resources.	• Can we reduce our reliance on single-use plastics? • Are there biodegradable or recyclable alternatives? • How can we encourage consumers to recycle?	• **Do your fair share:** Have we set science-based targets for reducing our environmental footprint?
Textile and Fashion Industry (Fast Fashion)	Uses large quantities of water and chemicals, contributing to water pollution and scarcity. Fast fashion leads to high waste due to rapid consumption and disposal of clothing.	• Can we shift towards sustainable materials? • How can we design products for longevity and recyclability? • Is it possible to adopt a circulare economy model?	
Transportation and Logistics	Emissions from vehicles and shipping contribute significantly to air pollution and greenhouse gas emissions, affecting climate change. Infrastructure development can lead to habitat destruction.	• Can we optimise routes to reduce fuel consumption? • Are there cleaner transportation options available? • How can we improve the energy efficiency of our operations?	• **Do no harm:** How can we redesign our practices to achieve zero emissions?
Construction and Urban Development	Consumes large areas of land, leading to habitat loss and fragmentation. Construction activities can result in soil erosion, air and water pollution, and increased energy consumption.	• Can we incorporate green building practices? • How can we minimise the impact on local ecosystems? • Are there opportunities to use recycled materials?	
Electronic Waste	Improper disposal of electronic waste leads to toxic substances such as lead and mercury contaminating the soil and water, posing health risks to humans and environmental damage.	• How can we design products for easier recycling? • Can we offer take-back or recycling programs for consumers? • How can we improve longevity and upgrade the potential of products? • Are there ways to reduce the generation of electronic waste?	• **Be generous:** Can we contribute to regenerative agriculturral practices?
Tourism and Leisure Industry	Can lead to overuse of natural resources, pollution, and habitat destruction in ecologically sensitive areas. Increased carbon footprint from travel and infrastructure development can negatively impact local environments.	• How can we promote sustainable toursm practices? • Can we offset the carbon footprint of our operations? • Are there ways to involve the community in conservation efforts?	

The ACT-D Framework

ACT-D refers to the High-level Business Actions guided by the impact on Planetary Health: Assess, Commit, Transform and Disclose. The content in this section of the Roadmap builds on the ACT-D framework which was developed collaboratively by the Capitals Coalition, Business for Nature, The World Business Council for Sustainable Development (WBCSD), Task Force on Nature-related Financial Disclosures (TNFD), the Science Based Targets Network, World Economic Forum, World Wide Fund for Nature (WWF) and supported by many key organisations. This framework can support Planetary Health advocates, by showing how businesses can set a forward-looking strategy to enable their future success in the context of sustaining Planetary Health. This entails aligning with a powerful coalition to set targets and take meaningful actions and make changes to business as usual, in order to avoid and reduce negative impacts while restoring and regenerating the planet.

Here, we present twelve steps across ACT-D to illustrate what companies can do and how the application of a Planetary Health approach can support them. Further, we offer links to external resources that may be helpful:

ASSESS: PLANETARY HEALTH IMPACT

Step 1:

Assist businesses in conducting their first Planetary Health Impact Assessment: Unlike a simple Materiality Assessment, which focuses on regulatory compliance measurement and mechanisms, a Planetary Health Impact Assessment incorporates a deeper understanding of the impact on human civilisation - specifically human health and wellbeing.

This can be a critical tool for organisations that are seeking to understand and prioritise issues that are most significant to their operations, stakeholders, and the wider community. Organisations may opt for a more fundamental strategy rather than a purely tactical approach. Stakeholder engagement is crucial in a Planetary Health Impact Assessment. We emphasise engagement with stakeholders — including employees, customers, local communities, investors, and public health experts — to understand their concerns and perceptions regarding human health impacts. This will help in identifying and prioritising the issues that are most significant to them.

Step 2:

Assess Contribution to Negative Impact: For each Planetary Health Indicator identified, a business should assess its contribution to the negative impact on human health and wellbeing. This involves considering both direct (e.g., health problems caused by exposure to toxic substances) and indirect impacts (e.g., health issues stemming from climate change-induced changes in nature and extreme weather events). As their Planetary Health contact, help them to deploy best-practice methodologies to assess and measure impact. Pull on networks and available resources (see below) to help with this.

As an additional exercise, have someone with an awareness of environmental and public health issues, either from within the company or from a trusted external partner, write an imaginary local news article that zeroes in on companies who are negatively impacting the health of the local community and who are engaging in green washing. The severity of the article written about their own company can expose holes in their internal narrative and identify serious gaps.

COMMIT & TRANSFORM: REFINED VALUES, STRATEGIES AND TACTICS

Step 3:

Commit to Zero Negative Planetary Health Impact: To mitigate adverse impacts on human civilisation and health, request the company leadership to consider enshrining Planetary Health considerations into values, strategy and operational planning. Avoid setting distant future targets. Do not do the minimum to be compliant with regulations. Instead, encourage them to start taking immediate and measured steps to reduce their company's negative impact on the planet and its people - towards a target of zero negative impact.

Would a business choose A, B, or C?

A. Reform company's existing purpose, products and services to become a Planetary Health Neutral company (a minimum bar for any ethical company working along the entire supply chain). In other words, instigate meaningful reform through a series of significant and measurable steps working the entire supply chain to ensure that no harm is caused to people or the environment by company operations. Examples of supply chain components that companies may rely on to stop further damage to Planetary Health include materials used (may need to be changed), energy consumed (switch to sustainable energy suppliers), GHG emissions (reform processes), waste handling (no waste to landfills, rivers or seas – even if not in their own region or country), working conditions and health impacts from consumption. Where neutrality cannot be immediately achieved (for example, if you are in a country where green energy for facilities, vehicles or factories is not yet available), ensure excessive energy use and waste is eliminated and carbon offsets (from a reputable source) are obtained.

B. Evolve company's purpose to become a Planetary Health Positive company. In other words, a company that passes through the Reform stage of Planetary Health neutrality but goes further to the point where they are actively contributing to the reversal of prior damage to Planetary Health. They rethink how to evolve their business so that they are not paying for carbon credits merely to offset any harm created, but are instead entirely carbon neutral. This is done by rethinking their existing businesses to supporting them to buy demands from customers around reducing waste through regenerative products and circular economy (buy products that are repairable or pre-owned, or to consider rentals or subscriptions that cost less, or at the very least no more, over the long-term than a new model, as a mode of ownership), and eliminate materials that require any kind of GHG emissions. Further, when the company may choose to contribute to initiatives that repair prior damage — such as reforestation, restoring biodiversity, eliminating landfills, reversing ocean pollution and acidification, and eliminating child labour outside of their own company — they do so as a form of payback to the planet and to its people for their success, and not just to balance negative impact from current operations.

C. Pivot so that the company decides its core purpose is to use its ability to become a Planetary Health Centric company. This third option is the most advanced of all and describes a company who decides that its core purpose is to use its ability to reverse prior damage to Planetary Health. This is done by utilising their abilities to help other companies achieve A and B (i.e., helping them reform and evolve, by supplying sustainable materials, parts, and energy). The company may be helping others with their internal processes (e.g., evolve and reform product and financial planning). Alternatively, this could also describe a Business to Consumer (B2C) company that provides services that enable individuals to live entirely sustainable lives while contributing to initiatives that reverse Planetary Health damage, through the contribution of a certain percentage of their profits to such endeavours.

They may discuss this at the beginning of the commitment and transformation process, then revisit it after progressing through the other steps. If there is still pushback against this, has the connection between Planetary Health and the sustainability of their business not been proven to them? What evidence do they need? Is there a particular team driving the dissent?

Step 4:

Align Company Values: How will businesses better align their company values with a commitment to do no harm to the environment or to people? One approach to consider could be for company leadership to write down their personal and company values, especially those related to protecting human health, wellbeing and equity. Which of these overlap? These overlapping values should be reflected in a refined set of core company values, influencing how strategy is defined, clarifying priorities and making trade-offs.

Most importantly, do the refined company values resonate with employees? Consider acceptance-testing company values with a subset of influential employees at different levels of seniority before rolling out new values. There is no point in having values unless these new values are authentic and can be incorporated into every aspect of the business.

Step 5:

Ensure Employee Engagement: Do their employees believe that the company management is committed to Planetary Health principles? Are the employees committed to Planetary Health principles? Ensuring alignment here can significantly increase employee motivation, engagement, bottom-up innovation and overall performance, fostering a company culture that is environmentally forward-thinking, competitive and more attractive to top talent in the market.

Step 6:

Prioritise Issues: How can a business adjust its prioritisation process to ensure that environmental, sustainability or equity considerations are not always pushed down the priority list by traditional short-term revenue initiatives? Based on stakeholder feedback and impact assessment, prioritise company issues adding negative Planetary Health impact as a high-priority criterion. Think about the real financial cost of not making these changes both to the business and to the community. This will help focus efforts on maximising revenue while ensuring sustainability by minimising negative Planetary Health impact.

Step 7:

Develop Transformative Strategies and Objectives: Sustainability considerations should be integrated throughout the business, not limited to a single leader, or a single team, on the periphery of a company. Ideally, these will be a key part of transforming business in response to market and environmental changes. A company should adjust their strategy and objectives to mitigate adverse impacts on human health and address the above priorities — not just because it is the right thing to do, but because it makes business sense.

- For each Transformative Strategy, a business should propose 4-5 objectives with associated measurable success criteria. This could include implementing more sustainable manufacturing processes, reducing emissions, improving waste management, preserving biodiversity, enhancing health and safety measures, or investing in community health initiatives.

- They should also consider only using renewable energy sources, optimising facilities' energy efficiency, and stopping non-critical travel. Many companies have discovered that they can generate savings by negotiating an energy contract with a supplier of sustainable "green" energy – not only helping them with evolving regulations and gaining carbon credits but potentially reducing their energy costs, even when compared to heavily subsidised alternatives.

- Most importantly, focus on a few things that can have the most impact. Be impact-centric rather than delivery-centric: three big achievements at the core of the business are better than dozens of small experiments on the periphery.

Step 8:

Innovate towards Sustainable and Regenerative Products and Services: Being customer-centric ("customer obsessed"), as demonstrated by the most successful companies in the world, is critical to winning and maintaining market share as well as delivering the most long-term cash flow and value. Being environmentally responsible and nurturing could be the next evolution separating the winners and losers as expectations and tastes change.

- As part of a "Customer Lens," through which everything a company does benefits customers, consider adding Planetary Health as an essential element to protect your customers and gain deeper trust and loyalty.

- Customers have increasingly shown brand loyalty towards companies that demonstrate authentic commitment to sustainability, equity, and safety.

- Successful products and services are always evolving to remain competitive and deliver value to customers and investors. This is why successful companies prioritise and trade off ideas competing for a place on their Roadmaps by the impact they generate — especially positive impact for customers, which in turn translates into revenue and value. Consider also the negative impact that the products and services have on planetary and human health, which will translate into revenue and value lost as the competitive business world is quickly transforming.

- Business should increase investment in research and development for products that offer environmental benefits and set targets for revenue from products that reduce emissions pollution, or targets for reducing unsustainable use of natural resources. There is a real opportunity for Planetary Health alignment to be a revenue accelerator rather than a revenue sink. The Planetary Health Alliance and greater Planetary Health community can connect businesses with universities and colleges worldwide that may be able to help with research, development, and marketing.
- Business should adopt life cycle management practices that allow their company to make profits while considering environmental and social dimensions. This includes assessing the environmental impact of a product or service from creation to use to maintenance to disposal.
- Business should consider more Circular Economy Principles: Adopting circular economy practices can minimise resource use and waste, thus reducing environmental impact and fostering sustainability.

Each company should consider what this would look like for them.

Step 9:

Hold Suppliers and Partners to High Standards: Businesses can ensure the entire supply chain and business partnerships adhere to high environmental and ethical standards. This means auditing and possibly restructuring supplier relationships to ensure environmental responsibility.

There should be an acknowledgement that this is not a minor task. However, it can be something that undergoes continuous and gradual improvement, until the entire end-to-end supply chain has been overhauled. It is in the interest of all suppliers to do this, and most of their customers will be demanding similar improvements.

DISCLOSE: FREQUENT AND TRANSPARENT UPDATES ON PROGRESS TOWARDS ZERO

Step 10:

Reform Governance: Business should consider incorporating the value of planetary capital into financial planning, recognising that short-term profits should not come at the cost of long-term environmental damage.
- Subsidies on which many companies and industries rely may disappear. This is due to government commitments to environmental standards and agreements. Many companies may be dangerously exposed if they do not start taking mitigating actions to reduce their reliance on certain subsidies or subsidised materials.
- Business should engage in responsible banking and investment practices that prioritise sustainability. This involves aligning financial activities with sustainable development goals and climate action targets.
- Business should ensure transparency and independent oversight: To avoid greenwashing, it is essential to report sustainability practices and achievements transparently and to subject these reports to independent verification.

Step 11:

Monitor and Report: This is already underway: from traditional reporting of deliverables to increasing emphasis on impact reporting. This includes financial reporting and financial impact (which should be maximised within sustainable parameters), non-financial reporting and social/ environmental Planetary Health impact (which should be minimised to ensure long-term cash flow).
- Help business establish metrics and indicators to monitor progress to address the prioritised human health impacts. As part of broader sustainability or ESG reporting, regular reporting on these issues is important for transparency and accountability.
- Business should set and gain approval for Science-Based Targets and adopt transparent, time-bound plans for achieving net-zero operations. These include ensuring nature-positive business operations, adopting circular resource use models, and addressing pollution.

Step 12:

Review and Update: The Planetary Health Assessment should be dynamic. Businesses should regularly review and update the assessment to reflect changes in their business, the environment, societal expectations, and scientific understanding of planetary and health impacts.
- Business should plan and report progress every quarter, just as how financial returns are reported; and not only commit to an end number at a distant future date. Businesses should focus on areas such as energy consumption, waste production, and carbon emissions. This involves rethinking operations to be more resource-efficient and environmentally friendly.

> "
> *...the most profound act of corporate responsibility for any company today is to rewrite its corporate by-laws, or articles of association, in order to redefine itself with a living purpose, rooted in regenerative and distributive design, and then to live and work by it.*
>
> *Kate Raworth, Doughnut Economics 2017 (p. 233-234)*

Resources

Planetary Health Alliance

Selected Planetary Health Alliance members, partners, and associates may be able to provide support to businesses locally and globally by:

1. Conducting transdisciplinary research to improve processes, innovate, and open up new business opportunities.
2. Providing access to expertise and consulting services to support businesses in developing overall goals focused on creating value and contributing to society.
3. Building relationships with suppliers around a shared purpose and with similar values, to increase reliability and simplify collaboration.
4. Training entrepreneurial employees in specific Planetary Health topics.
5. Assisting in staying synchronised with global changes. https://www.planetaryhealth.ox.ac.uk/2019/09/11/making-corporate-strategy-part-of-planetary-health/
6. Referencing the Planetary Health Report Card https://phreportcard.org/ which currently focuses on health facilities.

External

1. The Business of Wellbeing - https://weall.org/transforming-business
2. Big Pivot: Radically Practical Strategies for a Hotter, Scarcer, and More Open World by Andrew Winston
3. Doughnut Economics Business Tool - https://doughnuteconomics.org/tools/191
4. Economy for the Common Good Matrix - https://www.ecogood.org/apply-ecg/common-good-matrix/
5. B-Impact Assessment Tool - https://www.bcorporation.net/en-us/programs-and-tools/b-impact-assessment/
6. Lim, W. M. (2022). The sustainability pyramid: A hierarchical approach to greater sustainability and the United Nations Sustainable Development Goals with implications for marketing theory, practice, and public policy. Australasian Marketing Journal, 30(2), 142-150.
7. While focused more on assessment around policy shifts there are useful tools included in the World Health Organization's Health Impact Assessment: https://www.who.int/tools/health-impact-assessments

Inspiration: Case Studies

Case Study: Vaude's Holistic Aproach to Business Sustainability

Vaude is an outdoor equipment manufacturer which sees itself as part of the global textile industry. Winner of the German Sustainability Award 2024, the company acknowledges the problems of its industry regarding extinction of species, climate crisis, environmental pollution and plastic waste, including micro plastics in the ocean. As such, the company seeks to be part of the solution by doing business in balance with the environment and people. Vaude's two guiding principles are i) having the smallest environmental footprint possible, via innovation in regenerative product design, materials, production and business models, and ii) ensuring the greatest possible quality of life, through health, safety and equity for customers, employees and communities throughout its supply and value chain.

The company's supply chain has achieved the Fair Wear mark for all its production worldwide. Innovative sustainable materials are used, such as plant-based (instead of oil-based) plastic for toggles, and milk fibre for boot lining. Products are designed to be long lasting, and it is investing in new business models to rent out products and provide a repair service.

Vaude uses the Economy for the Common Good's 'Common Good Balance Sheet' (CGBS) as an instrument to evaluate the entire company's business model and operations, and to have a holistic view on all the measures undertaken. It helps to measure progress and to derive goals in a continuous improvement process. Vaude derives 70% of the information needed for the CGBS through its other reporting initiatives such as EMAS (EU Eco-Management and Audit Scheme), GRI (Global Reporting Initiative), Fair Wear, and the German sustainability codex. The remaining 30 percent is not usually covered by other sustainability standards, such as questions on finance and investments, democratic and ethical aspects such as tax justice, power concentration and pay gaps.

CEO Antje von Dewitz acknowledges that courage is needed to internalise costs and externalise benefits, but this pays off in terms of strategic development and for external communication. She feels that applying the Economy for the Common Good model brings the company closer to the modern consumer and their expectations. It enables them to identify the issues and solve them before they become a problem. She feels that incentives and rewards are needed for companies that serve the common good, to avoid being disadvantaged in the market.

> *I see the Common Good Balance Sheet as a blueprint for how companies can be evaluated, not just on financial aspects, but also environmental, ethical, social, democratic aspects and as a blueprint for legislation that can be a basis for a level playing field, bringing sustainable business out of the niche and to the market.*
>
> *Antje von Dewitz, CEO*

Case Study: Unilever Compass for Sustainable Growth

The Unilever Compass for Sustainable Growth serves as a guiding framework that underpins Unilever's strategic direction towards achieving sustainable business practices and long-term growth. Developed as part of the company's commitment to the Unilever Sustainable Living Plan (USLP), the Compass is an evolutionary framework that encapsulates Unilever's holistic approach to sustainability across its entire value chain. At its core, the Unilever Compass for Sustainable Growth revolves around three interconnected pillars: improving the health and wellbeing of people, reducing environmental impact, and enhancing livelihoods. These pillars are aligned with the SDGs, reflecting Unilever's dedication to addressing global challenges while creating value for society.

Firstly, Unilever aims to improve the health and wellbeing of individuals by providing access to safe and nutritious products while promoting hygiene and sanitation. This entails developing and delivering products that meet high standards of quality and safety, as well as investing in initiatives that promote health education and disease prevention in communities worldwide.

Secondly, Unilever is committed to reducing its environmental footprint by minimising resource consumption, mitigating climate change, and advancing circular economy principles. Through initiatives such as sustainable sourcing, waste reduction, and carbon footprint reduction, Unilever strives to ensure that its operations are environmentally sustainable and contribute positively to the health of the planet.

Lastly, Unilever recognises the importance of enhancing livelihoods, particularly for smallholder farmers and women in its value chain. By promoting inclusive business models, supporting entrepreneurship, and fostering skills development, Unilever seeks to empower individuals and communities, thereby creating economic opportunities and promoting social equity.

The Unilever Compass for Sustainable Growth serves as a roadmap for the company's business decisions and investments, guiding its efforts to integrate sustainability into every aspect of its operations. By aligning its business strategy with societal and environmental needs, Unilever not only drives positive impact but also strengthens its resilience and competitiveness in an increasingly complex and interconnected world.

CHAPTER 5

COMMUNICATIONS AND ADVOCACY

Tools for Building a Global Communications and Advocacy Approach for Planetary Health.

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From the São Paulo Declaration

For Media: The just, global transition depends on a free press and an open platform for discussions, connections, and sharing. Commit to inform and educate society on Planetary Health science, values, challenges, and solutions. Tell the stories of those who are protecting Nature and fighting for justice and equity, and elucidate the connections between their actions, a safe environment, and human health. Hold to account those who are damaging the planet's natural systems and mistreating other people. Inspire and motivate rather than eliciting fear. Use imagery that is honest and respects the dignity of people portrayed. Fight infodemics of misinformation and lift up the voices of those who do not traditionally hold power.

"

Fight for the things that you care about. But do it in a way that will lead others to join you.

Ruth Bader Ginsberg

The Role of Communications in Facilitating the Just, Global Transition

In the fast-paced world of research and practice, we often find ourselves searching for effective ways to communicate our work and drive real change.

Why Communicate? Communication on Planetary Health can raise awareness, educate, and empower individuals to understand and address the interconnection between human health and the environment. It aims to foster collaboration among diverse stakeholders, enabling interdisciplinary solutions. Effective communication can drive behaviour change towards sustainable practices and should influence policy decisions by shaping public opinion and mobilising support. It is instrumental in promoting collective action to protect natural systems, which, by extension, will enhance and protect human wellbeing.

In the hustle of daily responsibilities, it is easy to lose sight of the bigger picture. This section of the Roadmap is our way of streamlining communication efforts, ensuring that the vital work in Planetary Health is not drowned out by the noise. It is a practical guide to help you cut through the clutter and make a meaningful impact.

Who is it For? This section is designed for people shaping the narrative of Planetary Health. Whether you are elbow-deep in research and data analysis, or implementing solutions on the ground, this guide is a tool for everyone who wants their message to be heard beyond their immediate circles.

How to Use it? Think of this chapter as a toolkit rather than a rulebook. Dive into its sections for tips, strategies, and real-world examples. Use it to refine your messaging, connect with diverse audiences, and make your work accessible to a wider community. This is about empowering you to communicate effectively, not adding more complexity.

In the midst of our busy schedules and specialised jargon, we hope that this can be a practical guide that helps amplify our collective voice. It is not just about what we are doing; it is about ensuring that people understand why it matters. So, grab this Roadmap, use it as a reference, and let us collectively take Planetary Health communication to the next level.

Need some motivation? Watch [this video](#) by Professor Katherine Hayhoe on where to start.

What Relevant Work is already Underway?

The Working Group has compiled several resources which are available in the online document repository [here](#).

Problem Statement

The concept of Planetary Health has not gained as much popular traction as it ideally should. The following may be some of the barriers to communicating Planetary Health:

Complexity and Abstraction: The emphasis on interconnection within Planetary Health makes it a complex and abstract concept for many people. They may find it challenging to relate to or grasp the full scope. Planetary Health requires an element of systems thinking and systems transformation which, in turn, needs enhanced knowledge and understanding of how to generate systems shifts. Willingness to go against mainstream thinking to address these complexities is difficult. Systems shifts thinking differentiates Planetary Health from other intergovernmental and global processes. Planetary Health is inherently global, which can make it seem distant and overwhelming to individuals and communities who may feel that they cannot effect change on a global scale.

Systems shift thinking involves a holistic approach to problem-solving that acknowledges the interconnectedness of various components within a system. It focuses on understanding the underlying structures, dynamics, and feedback loops of complex systems to drive transformative change. Rather than addressing isolated issues or symptoms, systems shift thinking seeks to identify leverage points where interventions can lead to profound and sustainable shifts in the system's behaviour and outcomes. This approach emphasises collaboration, innovation, and long-term thinking to address systemic challenges effectively.

Short-Term Focus and Resistance to Change: Many individuals, including policymakers and politicians, tend to prioritise short-term goals and immediate concerns, often overlooking the long-term consequences of their actions on the planet. Many modern lifestyles prioritise increasingly fast and easy purchasing and travel, and encourage immediate gratification of urges, (e.g., buying the latest phone or pair of sneakers), rather than thinking about the consequences of such actions on natural systems.

'Break through Echo Chambers': Be prepared to stand up against climate deniers with evidence. This can be in person, in mainstream media, anywhere. Use social media to spread those messages. As a movement and an agenda, Planetary Health struggles against competing interests, existing biases, and filter bubbles driven by human interest and disseminated/amplified by technology. This can stifle productive dialogue and collaboration. The Planetary Health community needs to find ways to leverage technology's power to bridge divides, advance credible evidence, build consensus, and drive collective action. This can be done by encouraging responsible use of technological platforms, and creating a more informed and engaged citizenship empowered to advocate for Planetary Health in online and offline spaces. Keep in mind technology's power for good. For example technology's ability to broaden participation in important discussions including Planetary Health and the international collaboration it has enabled between researchers across the world. The classic example of this is the way the international research community came together to share SARS Cov2 genomes and vaccine development during the Covid-19 pandemic.

Political and Economic Interests: Planetary Health often clashes with powerful political and economic interests, which hinders its promotion and implementation. Industries that profit from practices which are harmful to the environment tend to resist change. The fossil fuel industry, chemical fertiliser producers, and other major polluters hire major advertising and public relations agencies to present alternative narratives. Many parties have significant resources to do this.

Political Divides: Health issues can become polarised along political, environmental, economic, technological and social lines, making it difficult to build broad-based support for Planetary Health initiatives.

Case Study: The broadening in 2023 of London's Ultra Low Emissions Zone imposed a daily charge of £12.50 ($16.00) on all diesel vehicles in the city's outer boroughs. This left families who relied on such vehicles for work, transporting children to school, weekly grocery shopping etc. (many of whom had bought such vehicles at a time when diesel emissions were promoted as more environmentally friendly than petrol) with little choice but to replace their cars, which were now worthless on the second-hand market, with no compensation given to most. This left a vacuum that populist politicians and those opposed to London's Mayor were able to exploit. A lack of consideration of social equity (the policy disproportionately impacted lower-income families with older vehicles and little agency to replace them with cars of equal value) has negatively impacted green policies within the city and across the UK.

The disregard for social equity inherent in the decision runs against Planetary Health ethics. Fair compensation for car owners disadvantaged by the decision, with practical financial support to swap their diesel cars for electric vehicles would have been a truly Planetary Health approach that would have helped win public support for green policies going forward.

Lack of Awareness: Not everyone is aware of the concept of Planetary Health and its importance. Education and awareness-raising efforts are essential to making this concept more widely understood.

Media Coverage: Media often prioritise short-term and sensational stories over long-term environmental issues. This can affect public awareness and the perceived urgency of Planetary Health concerns.

Human Disconnect from Nature: Fifty-six percent or 4.4 billion people today live in urban environments and are increasingly disconnected from the natural world. This can lead to a lack of understanding of and appreciation for the environment. It is also important to bear in mind that perceptions and understanding of "nature" vary – from simple perspectives of its beauty to others where nature can mean life or death depending upon its ability to provide food and other forms of sustenance.

Who is Involved?

Planetary Health activism involves a wide range of individuals and organisations committed to promoting the health of the planet and all its inhabitants. These stakeholders are described in the São Paulo Declaration on Planetary Health, as is the role that they are encouraged to play in advancing the Planetary Health agenda. They include:

- Health Professionals: Including doctors, nurses, and public health experts who play a crucial role in advocating for Planetary Health.
- Indigenous Communities: Recognising their traditional knowledge and practices related to environmental stewardship.
- Academics and Researchers: Engaged in studying Planetary Health and proposing evidence-based solutions.
- Policy Makers: Responsible for implementing policies that promote sustainability and wellbeing.
- Civil Society Organisations: Advocating for change and raising awareness about Planetary Health.
- Faith Communities: Recognising that in many parts of the world, faith leaders have an elevated status in a community and can address issues about Planetary Health.
- Community-based organisations: Particularly those supporting and representing socially disadvantaged urban groups who can struggle to adapt to changes brought in by Green policies without support.

They collaborate to address the interconnected challenges of health, environment, and social justice. Key to success is the ability communicate what needs to happen.

Understanding Effective Planetary Health Communications

Despite these challenges, there is growing awareness and momentum behind Planetary Health, thanks to the efforts of scientists, advocates, and organisations that are working to communicate its importance and implement practical solutions. As more people understand the interconnectedness of our wellbeing with that of the planet, there is hope that Planetary Health will gain the popular traction it needs to tip the scales and generate momentum towards the just, global transition.

Case Study: The Caribbean Community Climate Change Centre launched the "1.5 to Stay Alive" campaign ahead of COP15 in December 2009. The two-tiered campaign sought to sensitise citizens across the Caribbean community about people beginning to explore the impact of climate change on livelihoods in the region and make a convincing case at the global level for the reduction of greenhouse gas emissions to a level not exceeding 350 ppm (parts per million) as an effective means of stabilising global warming.

Messages were propagated by the media across TV, radio and print. Additionally, a film "1.5 to Stay Alive" about climate change in the Caribbean region and why there is a need to stay below a 1.5°C global temperature increase was released in April 2015. It won first prize in the category of short documentaries up to one hour, at the world's oldest environmental film festival in Barcelona in late 2016. The film allows experts and musicians from the Caribbean region to tell their own story and perform music about the threat of climate change to local people and the environment in the region. Among such effects include more frequent and violent tropical storms, sea level rise and the death of coral reefs.

As a result, "1.5 to Stay Alive" became a conversational piece that was explored by newspaper columnists and the general public, which the campaign was primarily targeting. Its broad appeal demanded that people and organisations think creatively. The campaign achieved its aims to stimulate thought about what actions could influence the quality of life in the future.

Source: https://www.youtube.com/watch?v=vH1SwOLFH_w

Key to effective communication is simplifying messaging and making it relatable. There are several "how to" points here:

1. To the extent possible, steer away from language that confuses or is not immediately easy to understand. For example:

    a. Talking about PM2.5 and the damage it causes to human health is less relatable than showing a photo of black lungs caused by PM2.5 inhalation.

    b. Instead of using technical terms such as "heat stress" or "hypothermia," you can describe it as getting really sick from surroundings that are too hot. For instance, if you are outside for a long time on a scorching day and you do not drink enough water, you might feel dizzy, or nauseous, or even faint. Your body is struggling to cool down, and this can be dangerous.

c. Instead of mentioning terms such as "particulate matter" or "ground-level ozone," you can talk about breathing problems caused by polluted air. For example, when we burn things such as fossil fuels, the air can get polluted. Breathing in this polluted air can be like trying to take a deep breath through a dusty cloth, and it can lead to problems such as coughing, wheezing, or even more serious issues for our lungs.

d. Instead of using terms such as "vector-borne" or "zoonotic diseases," you can explain the spread of diseases through bugs or animals. For instance, when mosquitoes or ticks bite us, they can carry parasites that make us sick. Since these tiny creatures become carriers of diseases, we might catch something from a bug bite if we are not careful.

e. Instead of technical terms such as "climate-induced extreme events," you can describe it as floods, hurricanes, or storms. For example, when the weather is made worse, with heavy rains or very intense winds, it can lead to disasters. Homes might be flooded, or trees might fall, and that kind of weather can be really scary and harmful to people.

f. Instead of using terms such as "food insecurity" or "water scarcity," you can talk about not having enough decent food and clean water. Imagine you are really hungry, and there's not enough food for everyone. Or think about not having clean water to drink – that is not just about being thirsty; it can make you sick. So, when we do not consider and steward the environment, it can affect the things we need to stay healthy, such as having enough to eat and drink.

2. Recognise and remember the importance of context, culture and local ways of living:

a. Remember that cultural relevance drives engagement, and so acknowledging and incorporating local culture in communication materials ensures that the message resonates with the community. People are more likely to engage with and respond positively to information that reflects their values, beliefs, and cultural context. Tailoring content to local customs fosters a sense of connection and relevance, enhancing the effectiveness of campaigns on Planetary Health.

b. Community ownership and empowerment need to be a central tenet of any communications, advocacy campaign or outreach. Recognising local culture empowers communities to take ownership of Planetary Health initiatives. When communication materials align with cultural norms and traditions, they are more likely to foster a sense of pride and responsibility within the community. This, in turn, can encourage active participation and collaboration, as individuals are more likely to embrace and champion initiatives that respect their cultural identity.

c. Cultural nuances play a crucial role in how information is received and transmitted. By aligning communications with local culture, messages are more likely to be understood and retained by the target audience. This approach facilitates effective knowledge transfer, ensuring that the information is not only heard but also integrated into the community's understanding and practices regarding Planetary Health.

d. Contextualising environmental challenges so that they are relatable must be a key priority. Localising communications allows for a more nuanced understanding of environmental challenges specific to a region. By considering the local environment and its unique characteristics, campaigns can address issues in a way that is directly relevant to the community. This enables individuals to see the direct impact of Planetary Health on their immediate surroundings, making the message more tangible and actionable.

e. And finally, building trust and credibility takes time and hard work. Cultural sensitivity contributes to building trust and credibility within communities. When communication materials are crafted with an understanding of local values and norms, it demonstrates respect for the community's perspective. This, in turn, enhances the credibility of the messaging and the organisations behind it. Trust is a crucial foundation for inspiring behavioural change and sustained engagement in Planetary Health initiatives.

3. Accept that the global communications environment is diverse, confusing, fast-moving and challenging to engage with in a systematic manner. That said, there are some tips and tricks which should be considered in building a Planetary Health communications strategy on new (i.e., social) platforms.

a. Visual Storytelling: Leverage the power of visual content to tell compelling stories about Planetary Health. Use impactful images, infographics, and short videos to convey key messages in an engaging and easily shareable format. Visuals can quickly capture attention on social media platforms and make complex environmental concepts more accessible to a diverse audience.

b. Interactive Content and Challenges: Encourage active participation through interactive content and challenges. Create polls, quizzes, or interactive maps related to Planetary Health issues to involve your audience. Challenges, such as eco-friendly practices or awareness campaigns, can turn passive observers into active advocates. Use catchy hashtags to promote participation and create a sense of community around the campaign.

Case Study: The Pakistan National University of Medical Sciences (NUMS) Department of Public Health hosted a Planetary Health seminar in May 2023. The seminar highlighted climate challenges and plastic pollution, emphasising the need for a cross-sectoral approach. This is due to Pakistan's vulnerability and rapid population growth (one of the world's most rapid rates), which hinders climate adaptation and UN SDG achievement.

Students creatively integrated a role-play performance into the event. The role play conveyed stakeholder contributions to climate change and incorporated a melodious song which highlighted the fragile environment and the importance of protection.

This youth engagement and advocacy campaign also received submissions for creative video and e-poster competitions. The e-poster category which focused on the triple planetary crisis received a great response. The 'fossil fuel phase-out' video category was won by students, reflecting the campaign's success.

The role play in the main event was well received and appreciated by all. Student videos were very much appreciated and were shared across NUMS social media.

Audience: Youths; students of public health, nutrition, biological sciences, allied health sciences; and undergraduates in medicine.

Media: social media posts, call for e-poster and video submission (which, in itself, created a lot of awareness), role plays, song by Ms Amna Nasir on how to stop polluting our environment, and a quiz on climate change.

c. Collaboration with Influencers and Advocates: Partner with influencers, local experts, or passionate advocates in the field of Planetary Health. Their credibility and existing follower base can amplify the reach of your campaign. Influencers can use their platforms to share information, personal stories, and calls to action, bringing a human touch to the campaign and making it more relatable to their audience.

d. Timely and Trend-Relevant Content: Stay current and tap into trending topics or relevant events to keep your content timely and shareable. Relate Planetary Health messages to ongoing conversations, global events, or environmental observances. This can increase the visibility of your campaign and position it within the broader context of current discussions, making it more likely to be shared and discussed.

e. Community Engagement and User-Generated Content: Foster a sense of community by actively engaging with your audience. Encourage users to share their experiences, ideas, and solutions related to Planetary Health. User-generated content not only diversifies your campaign but also empowers individuals to feel like active contributors. Acknowledge and showcase user contributions to create a more inclusive and collaborative online environment.

f. Tailored Communication: Remember to tailor your social media strategy to the specific platforms of your target audience, adapting content formats and messaging styles accordingly. Consistency, authenticity, and responsiveness are key to building a strong online presence for your Planetary Health communications campaign.

4. Build art and music into communications. There are several reasons why this is important:

a. Emotional Resonance and Awareness: Music and art evoke powerful emotions and convey messages in ways that words alone often cannot. Incorporating music and visual art into a Planetary Health communications campaign can create a stronger emotional connection with the audience. Stepping outside our comfort zone on how to capture the imagination of different generations and cultures is important. See Billie Eilish - All the Good Girls go to Hell for example.

b. Inspiration for Action: Music and art can serve as sources of inspiration, motivating individuals to take action. Incorporating elements that inspire hope, resilience, and a sense of collective responsibility can encourage people to engage in sustainable practices and support initiatives aimed at improving Planetary Health. Whether through uplifting melodies, thought-provoking lyrics, or visually striking artwork, these creative expressions can be powerful catalysts for positive change. Example: Climate Live concerts, which aim to engage people through the power of music, and then educate and empower them.

c. Cross-Cultural Communication: Music and art are universal languages that transcend cultural and linguistic barriers. In a Planetary Health communications campaign, incorporating diverse musical genres and visual art forms can facilitate cross-cultural communication. This inclusivity helps reach a global audience and convey messages that resonate with people from diverse backgrounds, fostering a sense of shared responsibility

for the health of the planet. Example: The [Music Declares Emergency](#) movement brings together musicians and the music industry to address the climate crisis. Artists from various genres have joined, emphasising the need for collective action on climate change. This movement showcases how the music industry can transcend cultural boundaries to promote environmental awareness.

d. Cultural Narratives: Art and music often reflect cultural narratives and values. By integrating these cultural elements into a communications campaign, it becomes possible to align Planetary Health messages with the values and beliefs of specific communities. Artists and musicians can use their platforms to weave sustainability into cultural narratives, making it more likely for individuals to embrace eco-friendly practices and advocate for environmental conservation. For example, [Xiuhtezcatl Martinez - Tlahuiliz/Light Song](#)

e. Community Engagement and Events: Music and art events provide excellent opportunities to engage communities to discuss Planetary Health. Concerts, art exhibitions, and festivals can serve as platforms to showcase the campaign's messages in an immersive and interactive manner. Live performances, installations, or interactive art projects can captivate audiences, fostering a sense of community and shared commitment to Planetary Health goals. These events create spaces for dialogue, education, and the cultivation of a collective consciousness towards environmental stewardship. The [Bow Seat Ocean Awareness](#) annual competition is a popular example, for teens worldwide and their teachers.

Engagement with Policymakers, Politicians and Civil Society Organisations

Much of what needs to be done to encourage real change sits in the realm of policymaking through politicians and the ability of civil society organisations to mobilise public opinion. It is important to avoid approaching policymakers and politicians with a one-sided presentation or a preconceived and inherently negative stance on their current policy and political priorities. Engage in open and respectful dialogue. Listen to their concerns and questions and address them thoughtfully. Present Planetary Health challenges as opportunities for positive change. Show how addressing these issues can lead to a healthier and more prosperous future for their constituents and the planet. Remember that:

• Policymakers and politicians are often focused on short-term outcomes, such as winning an election or securing funding. Emphasise the immediate benefits of Planetary Health initiatives, such as cost saving, job creation, and public health improvements. Show how these initiatives can address the concerns of their constituents and improve the health of their communities.

- Civil society organisations have the power to mobilise communities, raise awareness, and advocate for policies that prioritise Planetary Health, creating a groundswell of public support for environmental and public health initiatives. By serving as a bridge between citizens and policymakers, these organisations can drive meaningful change and hold decision-makers accountable for protecting the planet and its inhabitants.

For effective engagement with these three groups, there are several things that Planetary Health activists need to understand.

With Policymakers:

1. Know Their Priorities: Before reaching out to policymakers, research their key concerns and interests. Understand their political objectives and areas of focus. Tailor your message to show how Planetary Health aligns with their priorities.

2. Use Simple Language: Policymakers may not be experts in environmental science or health. Speak plainly, avoiding technical jargon. Explain complex concepts in straightforward terms, using relatable examples. For example, instead of discussing "anthropogenic emissions," talk about "human-made pollution" or "human-made air pollutants." Make sure to explain the connection between the environmental status and the human health impact.

3. Highlight Economic Benefits: Emphasise the economic advantages of Planetary Health initiatives, such as healthy citizens, children and workers; cost saving, job creation, and the value of regenerative economics. Demonstrating that these initiatives are fiscally responsible can garner more support.

4. Provide Clear Data: Support your arguments with easy-to-understand data and evidence. Use charts, infographics, qualitative data and statistics to present information concisely.

5. Offer Practical Solutions: Do not just highlight the problems; provide practical solutions. Explain how proposed policies and initiatives can address Planetary Health issues effectively. Discuss the feasibility and potential positive outcomes of these solutions.

Case Study: Germany's commitment to transitioning to renewable energy sources, such as wind and solar, has led to the creation of thousands of jobs in the renewable energy sector. While such initiatives do not immediately translate into reducing social and economic (or environmental) inequalities, the country's "Energiewende" policy has not only reduced carbon emissions but also made Germany a global leader in renewable energy technology and exports.

With Politicians

1. Relate to Constituents: Politicians are elected to represent the interests of their constituents. Frame Planetary Health as an issue that matters to their voters. Voters are concerned about their own health and the health of their families. Voters care about economic stability and their financial security. If green policies may disadvantage them in the short term (e.g., by being more expensive, or requiring them to invest in solar panels, cleaner emissions vehicles, or organic food they will struggle to afford) ensure financial subsidies are available to support the transition. Voters concerned with social justice can be motivated by Planetary Health to ensure equitable solutions. They recognise the need for policies and practices that ensure stable living conditions and a sustainable future for future generations whilst making that transition as painless as possible for the current generation. Share stories and examples that resonate with the people they serve.

2. Use Emotion: Connect with politicians on an emotional level. Highlight the human impact of Planetary Health issues. Human beings connect with stories. Stories of healthier communities, cleaner air, and safer environments can change hearts and minds. Share real-life examples and narratives that illustrate the impact of Planetary Health issues on people, communities, and the economy. Paint a vivid picture of what is at stake: what the world could be if we do not take action at the speed and scale required — as well as the positive changes that could result from addressing these issues.

3. Collaborate: Engage in dialogue with politicians. Listen to their concerns and ideas. Build a relationship with them. Show that you are willing to work together to find solutions that benefit both the planet and their constituents.

4. Encourage Policy Action: Empower politicians to take action by proposing practical policies and initiatives. Illustrate the tangible benefits of these proposals for their communities.

5. Highlight Quick Wins for Long-term Impact: By framing Planetary Health solutions as catalysts for immediate positive change, we can incentivise politicians to act on long-term issues for a healthier planet and a more satisfied electorate.

With Civil Society Organisations

1. Build and Join Alliances: Collaborate with civil society organisations that share your Planetary Health goals. Joining forces can amplify your message and impact.

2. Share Resources: Offer educational materials, data, and expertise to help these organisations understand and advocate for Planetary Health. Support their efforts with knowledge and information.

3. Mobilise Grassroots Support: Engage civil society organisations in grassroots efforts. Encourage them to raise awareness and mobilise their members to advocate for Planetary Health.

4. Advocate for Policy Change: Work together to advocate for policies and regulations that support Planetary Health. Sharing information, coordinating efforts, and rallying support can lead to meaningful change, as can listening, learning and accepting that others may have better solutions to offer. Recognise that negotiation often includes the need to find compromise.

Effective communication with key stakeholders is vital to advancing Planetary Health initiatives. Whether addressing policymakers, politicians, or civil society organisations, remember to simplify your language, highlight benefits, and propose practical solutions. Building collaborative relationships with these groups will help drive positive change for our planet and all its inhabitants. By working together, we can create a healthier, more sustainable future.

After your initial communication, follow up with policymakers and politicians. Share updates on progress and provide them with additional information if needed. Building a long-term relationship can lead to continued support for Planetary Health initiatives.

Communicating Planetary Health to policymakers and politicians is a crucial step in addressing the challenges faced by our planet. We can make our message more accessible and persuasive by using simple language, telling compelling stories, highlighting immediate benefits and using the content provided by the PHA and its partners. Collaboration, data, and practical solutions will empower us to drive change, protect our planet, and create a healthier, more sustainable future for all.

Engagement as Citizens

Remember that change often starts at the grassroots level. By engaging in these actions and using your voice, you can contribute to pushing Planetary Health to the top of political and policy agendas and inspire others to do the same. You will also be more aware of the pressures and challenges facing communities that may make it harder for them to engage with Planetary Health goals. Understanding these challenges will help to overcome them.

Here are some actions you can take:

Stay Informed: Educate yourself about Planetary Health issues. Understand the connections between environmental challenges, human health, and wellbeing. Stay up to date with the latest research and news.

Advocate: Reach out to your local, regional, and national representatives. Write letters, make phone calls, and attend town hall meetings to express your concerns about Planetary Health. Encourage representatives to support policies that protect the environment and public health.

Join Environmental Organisations: Become a member or volunteer with environmental, health or social justice organisations that focus on Planetary Health. These groups often carry out campaigns, petitions, and advocacy efforts which you can participate in.

Use Social Media: Utilise social media platforms to raise awareness about Planetary Health issues. Be sure to follow the Planetary Health Alliance on social media channels. Share articles, infographics, and success stories related to environmental protection and sustainability.

Participate in Public Demonstrations: Attend rallies, marches, and protests that advocate for Planetary Health. Public demonstrations can draw attention to such issues and put pressure on policymakers.

Support Sustainable Practices: Make sustainable choices in your daily life, such as reducing waste, conserving energy, shifting to a more planet friendly diet; and supporting eco-friendly products and practices, including people, policies, and business initiatives that prioritise Planetary Health. Your personal actions will influence others and demonstrate the benefits of sustainable living.

Vote Responsibly: Research the environmental and health positions of candidates during elections at every level. Vote for individuals who prioritise Planetary Health and sustainability.

Engage in Community Initiatives: Get involved in local environmental and health initiatives. Participate in clean-up efforts, community gardens, and other projects that promote a healthier environment.

Educate Others: Share your knowledge about Planetary Health with friends, family, and colleagues. Engage in conversations and help people understand the importance of these issues.

Support Green Businesses: Choose to support businesses that prioritise sustainable and environmentally responsible practices. Your consumer choices can encourage the private sector to adopt more eco-friendly approaches.

Advocate for Education: Encourage your local schools and educational institutions to include Planetary Health and sustainability in their curriculum. The next generation needs to understand these issues from an early age. Their learnings will influence their parents and others.

Lead by Example: Be a role model for others by embodying Planetary Health values in your life. Your actions can inspire others to follow suit.

Collaborate: Join or form local or online groups of like-minded individuals to work on Planetary Health initiatives. Collaborative efforts can have a more significant impact. Make use of the Hylo platform hosted by the Planetary Health Alliance where you can convene discussions, seek advice, share information and engage with like-minded individuals.

Be Aware of Disinformation: Combat the spread of false or misleading information about Planetary Health by fact-checking sources before sharing information online. Be cautious of disinformation campaigns that seek to undermine environmental progress and promote unsustainable practices. Encourage those with good information to engage early with the same mainstream and social media channels. Befriend journalists, engage influencers and have the courage to counter - online or offline - views you disagree with.

Avoid Misinformation: Take responsibility for ensuring the accuracy of the information you share about Planetary Health. Avoid inadvertently spreading misinformation. This can be done by verifying the credibility of sources and cross-referencing information with reputable scientific sources and experts. Clarify misconceptions and promote accurate understanding among your social circles and online networks.

Information should be reliable, factually correct and appropriate for the context.

For example, high-quality information can spread faster than disease, encouraging early adoption of protective behaviours and building trust in reliable sources.

Misinformation is false or inaccurate information, including rumours, shared in the belief that it is correct. Misinformation can fill a void where information is lacking, particularly when information from authorities and officials is slow to emerge, contradictory, confusing or inconsistent.

Disinformation is information that is intentionally false or misleading, and may be spread for political, economic or social gain to advance a particular agenda.[43]

Engage with the Planetary Health Alliance: Join a PHA regional hub, become a campus ambassador (or help a student you know become one), attend webinars, connect with other members via Hylo, make plans to attend the Annual Meeting (in-person or virtual), and engage with the literature and information materials available on PHA's website.

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[43] Taken from: https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/15892/SSHAP_6_ Ways_to_Incorporate_Social_Context_and_Trust_Infodemic_Management.

BRINGING IT ALL TOGETHER: THE PLANETARY HEALTH ACTION PLAN

Typically, when challenges to the 'steady state' of any system are too great to assimilate, change is not gradual and linear but instead is characterised by disruption and disturbances to behaviour before the system can reorganise.

This is the current state of Planetary Health—disrupted and disturbed.

We are currently experiencing increased variability in the planetary systems that we need to sustain and nourish life on Earth. This must change and we should not shy away from the challenges that lie before us. We can no longer avoid the necessary, uncomfortable, and challenging discussions required to force change in new and innovative ways that will reassert a balance to the systems that are most critical to the survival of the planet, humanity, and all life on Earth.

To guide our path, we must define, measure, communicate, educate, innovate, and achieve buy-in. This course of action is rooted in a step change to our education priorities and systems, and how joined up we are. Coordinated advocacy and enhanced communications will help us to ensure that our fellow planetary citizens realise that systems integration, sustainable governance and regenerative business practices are essential to achieve an inclusive and healthy planet.

We can't wait any longer.

The time to act is now.

Join us as we confront the challenges together!

Planetary Health
From Evidence to Action

Start Time:
Now

↓

Proposed Actions

**Measuring
Planetary
Health**

1

**Communicating
Planetary
Health**

2

**Building
Holistic
Governance**

4

**Educating to
Achieve the Great
Transition**

3

**Balancing Business
and Planetary
Health**

5

**Mainstreaming
Planetary
Health**

6

**Healthier planet
for all into the
future...**

01 Proposed Action:
Measuring Planetary Health
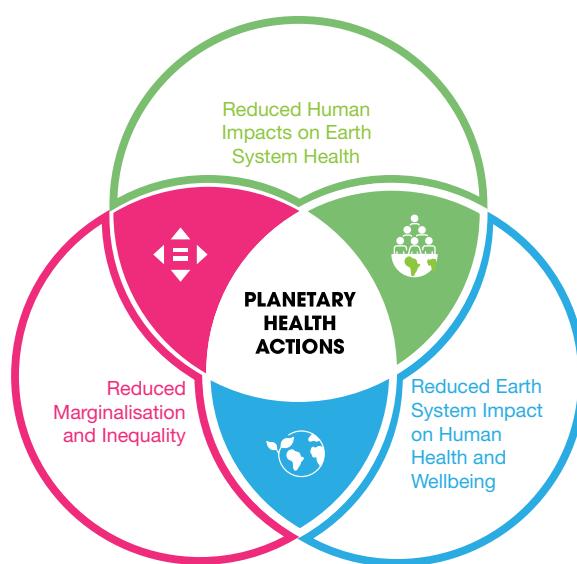
Action Leaders
Sunway Centre for Planetary Health and Pacific Disaster Center

Action Contributors (to be identified during PHAM 2024)

Example Planetary Health Composite Index

Reduced Human Impacts on Earth System Health

Reduced Marginalisation and Inequality

PLANETARY HEALTH ACTIONS

Reduced Earth System Impact on Human Health and Wellbeing

Baseline measurements of planetary health are needed for the success of the movement for two key reasons:

1. We want to make sure we are leveraging an evidence-based approach to support focused investment in Planetary Health.

2. We want to create the ability to measure the effectiveness of our efforts.

We must be able to measure the effectiveness of our interventions, just as health practitioners do when treating patients.

First, we diagnose, then we prescribe treatment, then we measure the results to determine if the desired outcome was attained. The same principles apply for assessing the health of the planet.

Output

A new metric for measuring Planetary Health with a focus on identifying areas of investment that will help bring balance to human and natural systems and support equity. The assessment will be a composite measure of the various characteristics that comprise Planetary Health at the national level. This will allow for a baseline to be established and the impact of the Planetary Health Alliance to be better understood.

A first prototype assessment will be released in 2024.

02 Proposed Action: Communicating Planetary Health

Action Leaders
Sunway Centre for Planetary Health and Pacific Disaster Center

Action Contributors (to be identified during PHAM 2024)

Planetary Health Actors
(example use of symbols and pictographs)

Individual

Household

Community

Local Government

National Government

Organisations

Regional Partners

International Partners

The development of a communications campaign, operating at global, national and sub-national levels, with clear, consistent and coordinated key messages that can be tailored to a variety of different sectors and stakeholders will create a universal understanding of Planetary Health.

The goal of the communications plan is to share solutions to Planetary Health challenges, thus informing, warning, persuading, and mobilising people. Ultimately, the communication plan will serve as one of the foundations for education needed to achieve the just, global transition.

Effective communication starts with listening to the partners and involving them in a dialogue. It employs a variety of channels that can be accessed and understood at a variety of literacy levels. See International Federation of the Red Cross and Red Crescent Societies example to the left for inspiration.

Output

Creation and implementation of an international communication campaign to promote global community awareness. Communicating Planetary Health will require a thorough understanding of key audiences and co-creating key messages with them. This includes generating and using a variety of materials and mediums that can be leveraged and adapted to support engagement with individual, household, communities, local government, national government, the business sector, nongovernmental organisations, and regional groups. Communicating Planetary Health will require a thorough understanding of key audiences and key messages tailored to their concerns. The creation of an outreach plan for dissemination as well as a timeline for their delivery should also be defined.

03 Proposed Action:
Educating to Achieve the Great Transition

Action Leaders
Planetary Health Alliance

Action Contributors (to be identified during PHAM 2024)

We need a fundamental shift in how we live on Earth. This just, global transition that we must make requires rapid and deep structural changes across most dimensions of human activity. To effectively achieve these changes a thoughtful and comprehensive education process that is both traditional and non-traditional in nature is essential. Achieving a commitment to the integration of Planetary Health principles across a variety of domains and disciplines starts with ensuring that people are informed. Universities, schools, kindergartens and adult educators, as well as providers of experiential learning, community education, continuing professional development and non-traditional education must be supported to play their role. Educational programs should be purposeful and intentional and support desired outcomes.

Education, in its many forms, equips individuals with the best-available knowledge, skills, and critical thinking abilities needed to make informed decisions and actions that are sustainable. It fosters awareness and empowers future generations as well as marginalised groups to create positive change and environmentally responsible behaviours and practices within their communities. Education provides the knowledge and awareness needed for informed decision-making by individuals, policymakers, businesses, and our future generation of leaders.

Output

Building on the Planetary Health Education Framework and its five domains, development of the Planetary Health educational strategy and foundational materials that can help to achieve the just, global transition. A formal strategy document should accompany educational content and provide the framework and general guidance for the integration of Planetary Health concepts across curricula. The strategy document will support educators with materials that can be adapted to support the introduction of Planetary Health concepts that are capable of reaching diverse communities. This approach will ensure availability of the necessary resources to raise awareness, build knowledge and skills, foster sustainable behaviours, promote advocacy and action, and help address inequalities and disparities.

04 Proposed Action:
Building Holistic Governance

Action Leaders (to be identified during PHAM 2024)

Action Contributors (to be identified during PHAM 2024)

Preserving and enhancing Planetary Health requires the development of fit-for-purpose holistic and joined up global, national and sub-national governance structures. These will can support the seamless integration of environmental, social, and economic elements into policies and regulations. Such structures will mandate the alignment of Planetary Health with existing sustainable development objectives and goals. This in turn will amplify the importance within existing institutions while also recognising the need for policies which promote regenerative economic and social systems. A phased path toward transformative rules and mechanisms is needed if we are to implement, coordinate, and enforce holistic governance measures to meet the needs of planet and people today and into the future. The right regulatory frameworks will incentivise the adoption of sustainable practices and help to reprioritise how financial and non-financial resources are used.

Output

The development of foundational governance framework templates that can be appropriately adapted to better integrate Planetary Health into policy at all levels of government. General guidelines and a practical 'how to' guide will also be developed to support the effective integration of Planetary Health considerations into governing institutions.

05 Proposed Action:
Balancing Business and Planetary Health

Action Leaders (to be identified during PHAM 2024)

Action Contributors (to be identified during PHAM 2024)

Successful business practice does not need to be at the expense of the planet's health, and a healthy planet doesn't prevent business from thriving. However, the application of innovations already available, as well as those yet to come, is required to support the health of the planet and, consequently, human health. Alignment of business practices with Planetary Health objectives can support advancements in business and industry and incentivise change.

Business leaders are already a driving force in developing, innovating, and advocating for transformative policies to accelerate Planetary Health initiatives and support a thriving, sustainable and regenerative economy. Helping business to work in accordance with Planetary Health principles can be achieved by setting clear objectives, integrating regeneration into business strategies and operations, adopting new practices, fostering partnership and embracing innovation and technology. All of this must be underpinned by value-added guidance and methodological approaches that business leaders, at all levels, see as valuable and supportive of their business interests.

Output

The development of a guidebook to support the mainstreaming of Planetary Health objectives into business and industry.

06 Proposed Action:
Mainstreaming Planetary Health

Action Leaders
Planetary Health Alliance

Action Contributors
All of us

We can't wait any longer – the time to act is NOW. This Roadmap and Action Plan are tools to help mainstream Planetary Health. They are the manifestation of the PHAM 2024 theme – From Evidence to Action: Confronting Reality. As we continue to collectively build this global social movement, it is important that we have opportunities to join together to celebrate our successes, learn from experiences, and identify ways to collaborate to amplify our messages and efforts. To sustain the momentum towards mainstreaming Planetary Health, we invite you to actively participate in future Planetary Health Annual Meetings and other convenings, engage in Planetary Health Regional Hubs and other networks, and contribute to online discussions through Hylo and other platforms.

The aim is that as we progress through this Planetary Health Roadmap we can use it to work towards a mainstreaming of Planetary Health into our daily operations. It becomes part of our planning cycles, a guide to our regular budgeting processes, and serves as a cross-cutting and foundational element of our daily existence. The five proposed actions of measuring, communicating, educating, building governance structures, and finding balance between business and Planetary Health will mainstream the Planetary Health movement.

Output

Development of local and national programs, policies, and outreach campaigns to preserve and enhance Planetary Health for future generations. It is also important to collect stories highlighting these initiatives and describing the key ingredients to success and to overcoming implementation challenges, in order to allow others to leverage those experiences in their own communities.