

PLANETARY HEALTH

AN INTRODUCTION

Jeremy Pivor, Planetary Health Alliance

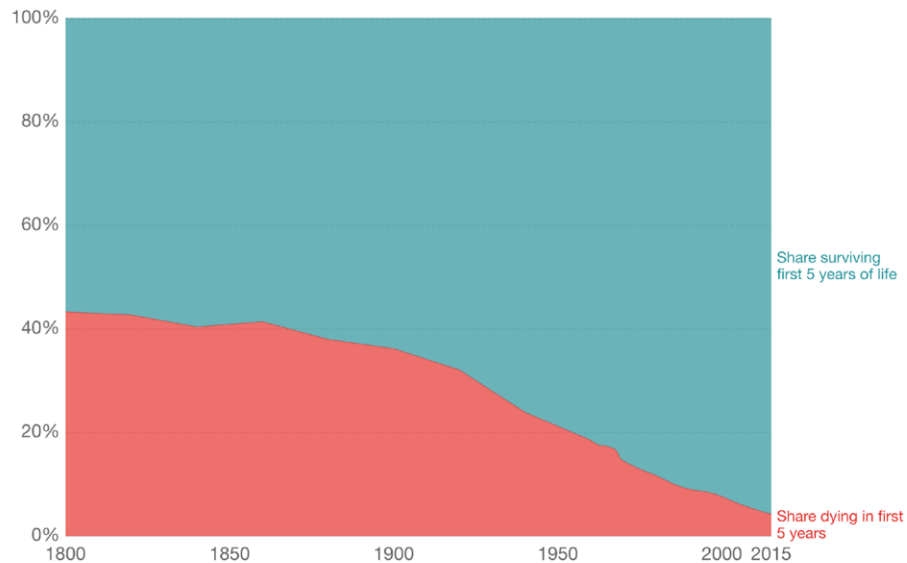


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Global child mortality

Share of the world population dying and surviving the first 5 years of life.

Our World in Data



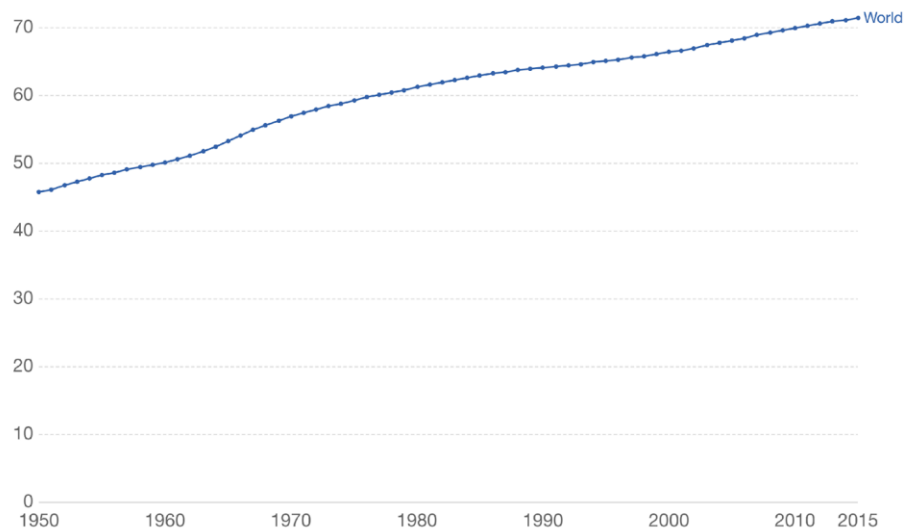
Source: Gapminder and the World Bank

OurWorldInData.org/a-history-of-global-living-conditions-in-5-charts/ • CC BY-SA

Life expectancy

Shown is period life expectancy at birth. This corresponds to an estimate of the average number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life

Our World in Data



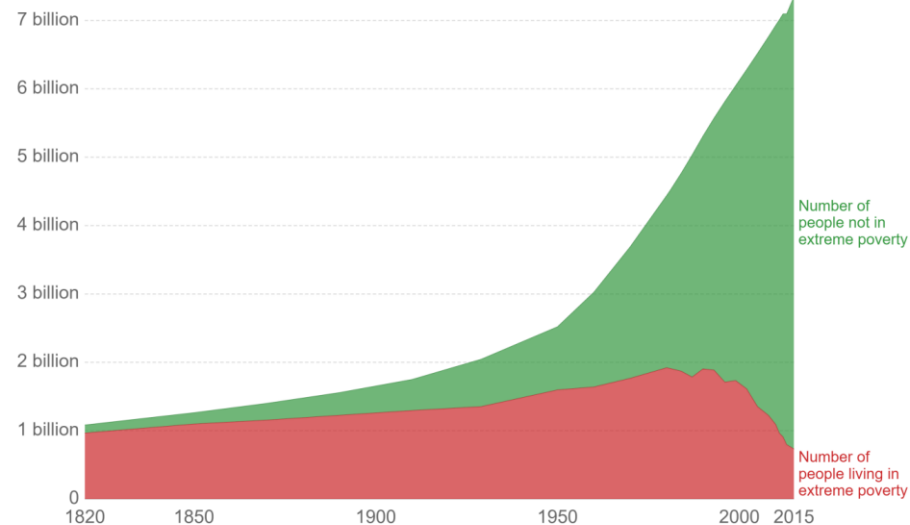
Source: Clio-Infra estimates until 1949; UN Population Division from 1950 to 2015

OurWorldInData.org/life-expectancy-how-is-it-calculated-and-how-should-it-be-interpreted/ • CC BY-SA

World population living in extreme poverty, 1820-2015

Extreme poverty is defined as living on less than 1.90 international-\$ per day. International-\$ are adjusted for price differences between countries and for price changes over time (inflation).

Our World in Data



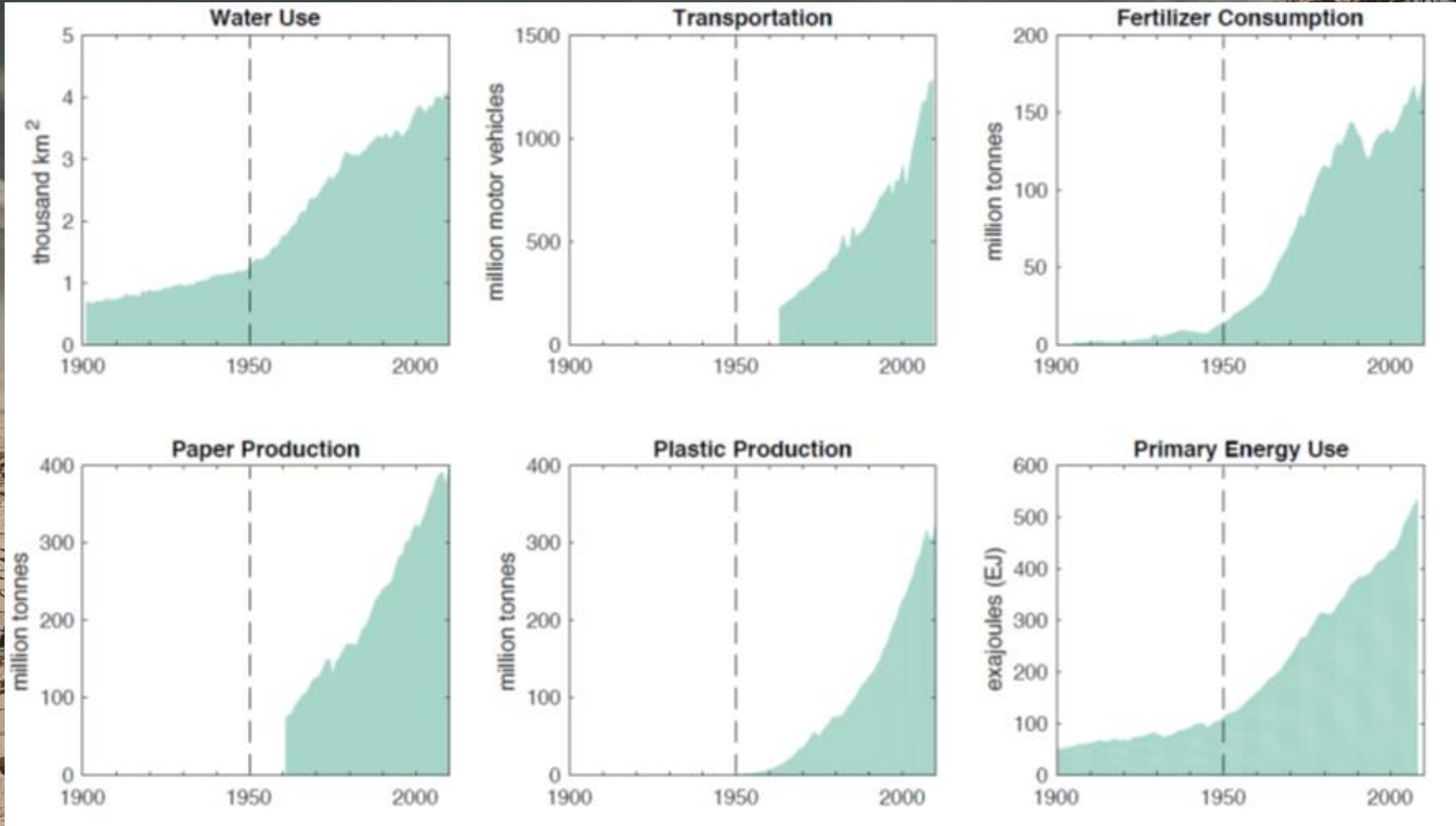
Source: OWID based on World Bank (2019) and Bourguignon and Morrisson (2002)

OurWorldInData.org/extreme-poverty/ • CC BY

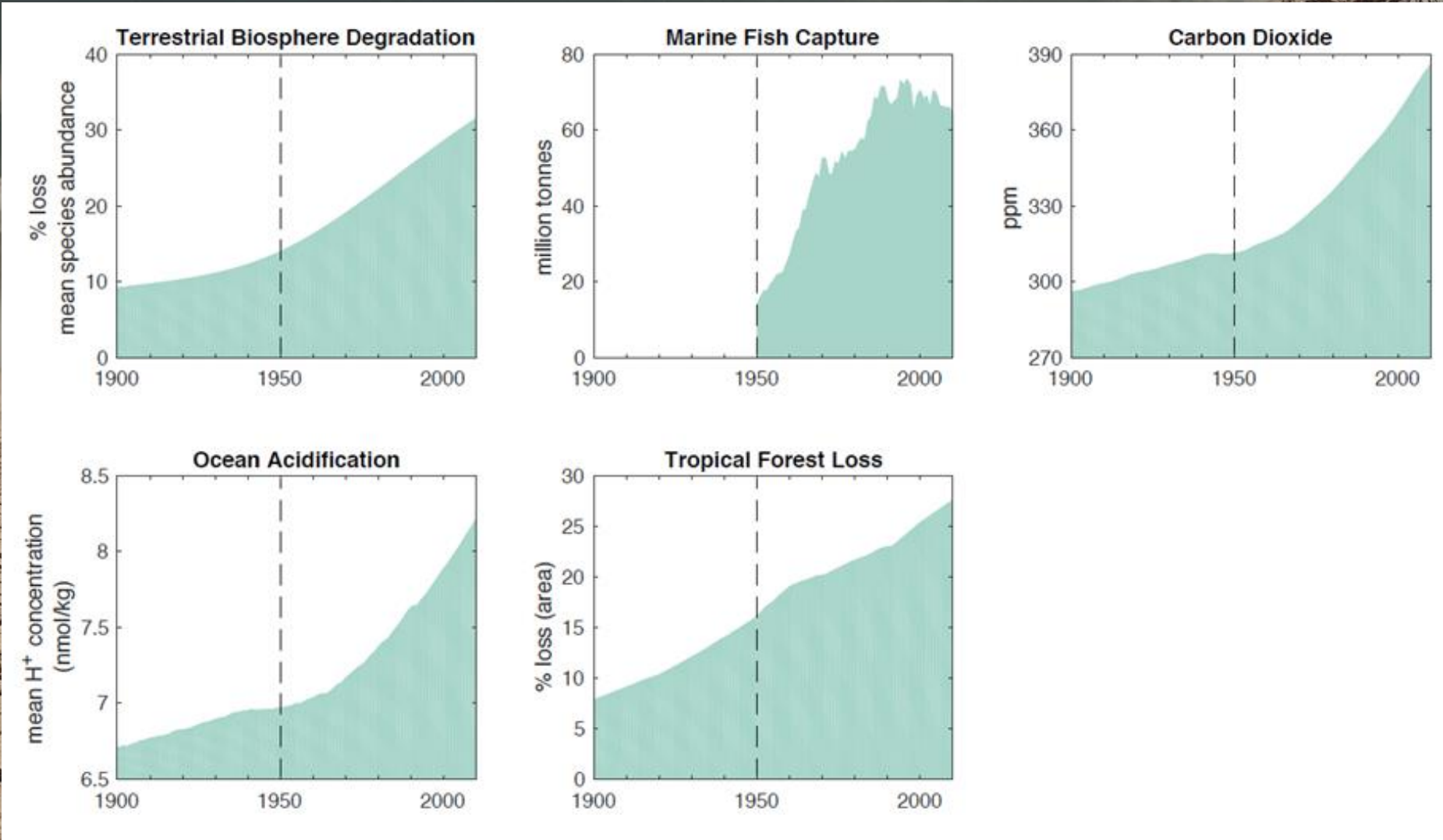


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The Great Acceleration: Consumption patterns skyrocket after 1950



The Great Acceleration: Accelerated human impacts on natural systems



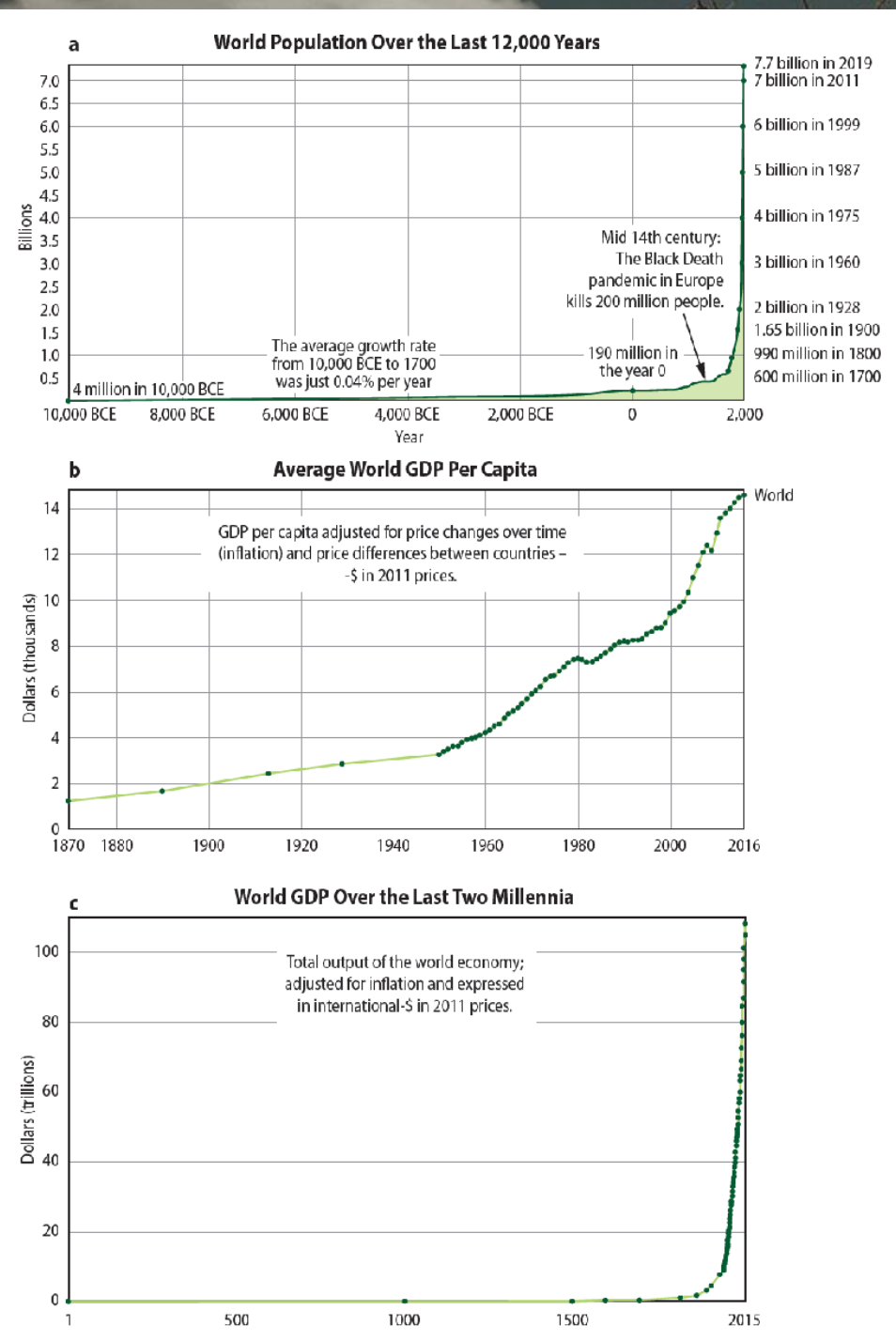
Since ~1870
Population Growth (7X)

X

Per Capita GDP Growth
(11X)

=

Massive Growth in Total
GDP



We are changing the environment — and it's not just climate.

- Converted 40% of land surface for croplands and pasture
- Appropriated about half accessible fresh water for human uses
- 90% of monitored fisheries at, or beyond, limits
- Cut down 7-11 million km² of forests
- Dammed 60% of rivers
- Growing air, water and land pollution
- Climatic Disruption
- Species loss 1000 times baseline rate
- Population sizes of mammals, fishes, birds, reptiles and amphibians reduced by half over past 45 years
- Roughly 1 million species facing extinction, many within decades




These changes in our environment severely **affect our health** and jeopardize decades of public health gains:

Human health impacts include, but aren't limited to:

- Cardiovascular diseases
- Respiratory diseases, like asthma and COPD
- Infectious zoonotic and diarrheal diseases
- Antimicrobial resistance
- Toxic and dioxin exposures
- Heat strokes
- Mental health effects
- Malnutrition
- Forced displacement and migration
- Civil strife and trauma

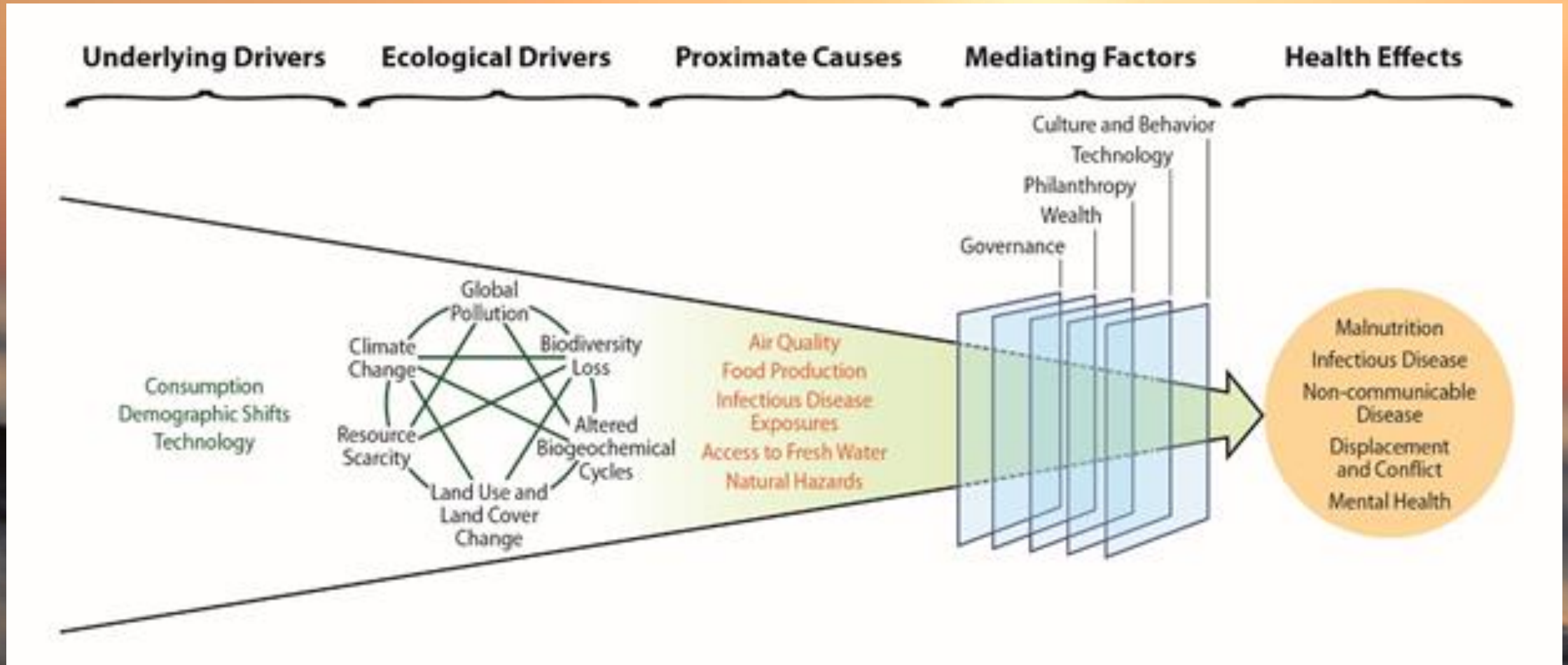




“We have mortgaged the health of future generations to realize economic and development gains in the present.”

The *Rockefeller Foundation–Lancet Commission* on planetary health (2015)

Planetary Health: A new scientific lens



From: Myers, SS. *Protecting Human Health on a Rapidly Changing Planet*, *The Lancet* 2017; 390(10114): 2860-8.

What makes **planetary health** so unique and adaptable?



Urgency & Scale
(of problems/solutions)

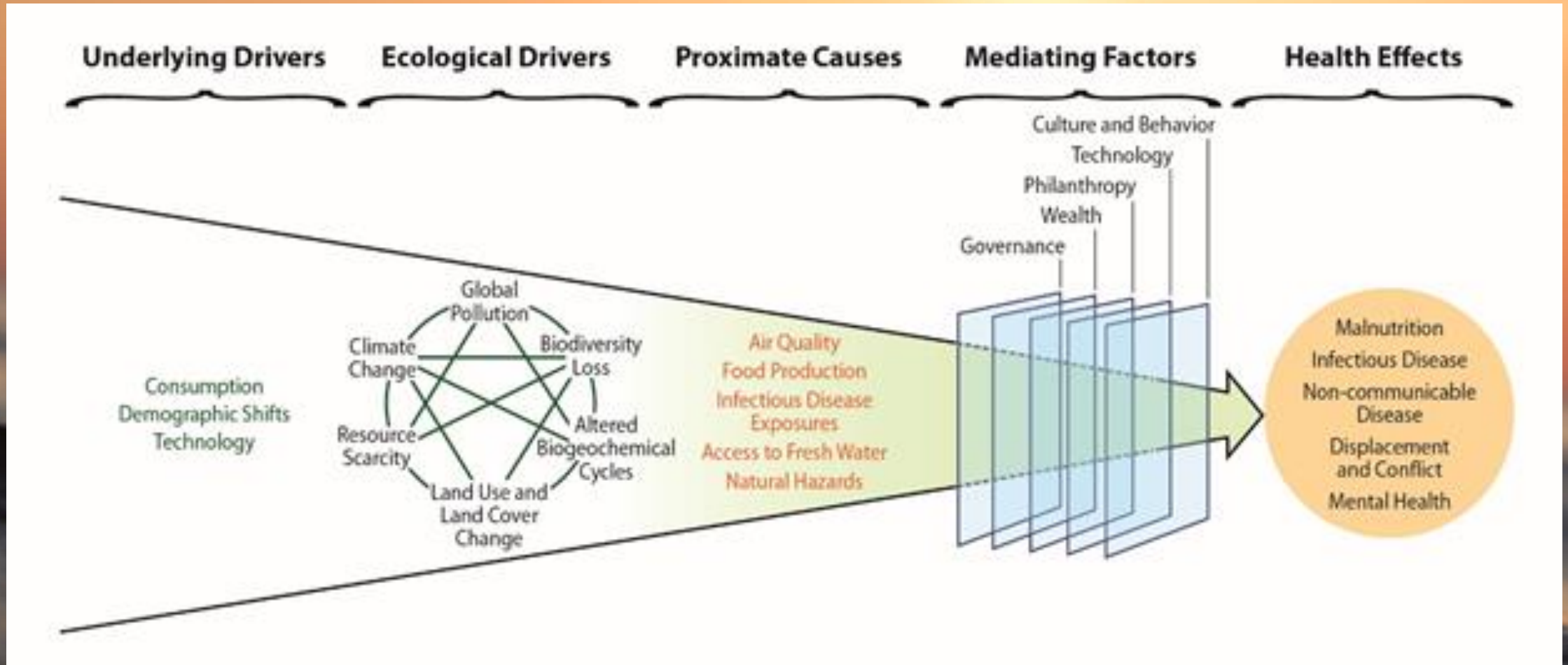


Scientific Field &
Social Movement

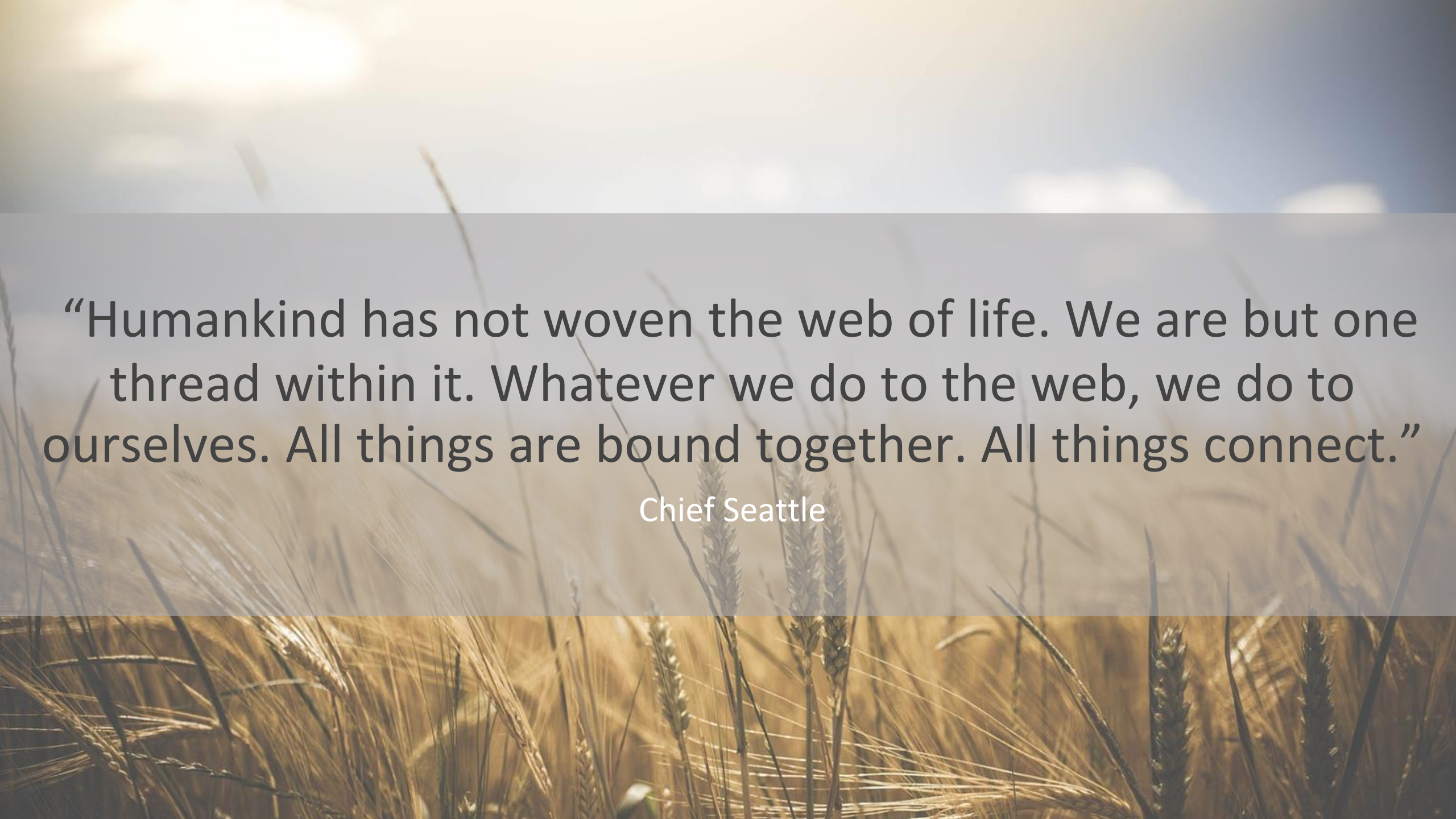


Transdisciplinarity
& Upstreamism

Planetary Health: A new scientific lens



From: Myers, SS. *Protecting Human Health on a Rapidly Changing Planet*, *The Lancet* 2017; 390(10114): 2860-8.



“Humankind has not woven the web of life. We are but one thread within it. Whatever we do to the web, we do to ourselves. All things are bound together. All things connect.”

Chief Seattle

Achieving planetary health will require a **Great Transition** where we all learn to do nearly everything differently, such as:

- How we produce and consume food, manufactured products, and energy;
- How we construct and live in our cities;
- How we manage our natural landscapes and resources;
- And the stories we tell ourselves about our place in the world, our relationship to Nature, and what it means to live a good life.



The Great Transition will require both:

Major **innovation** across fields:

- Energy and waste infrastructure
- Food systems and agriculture
- Land use and conservation
- Healthcare and biotechnology
- Manufacturing and supply chains
- Chemistry and materials science
- Business and economics
- Technology and digital media
- Urban planning and architecture

Profound **collaboration** across social sectors:

- Policy and governance
- Business and economics
- Natural sciences
- Health sciences
- Faith leaders
- Indigenous communities
- Tech and entrepreneurship
- Arts and humanities
- Education



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Many of our best efforts today remain siloed, fragmented, or rivalrous
— **but it will take all of us.**

- Policymakers
- Storytellers
- Businesspeople
- Faith leaders
- Technologists
- Engineers
- Artists
- Farmers
- Activists
- Researchers
- Journalists
- Military
- Healers
- Politicians
- Doctors
- Fashion designers
- Law enforcement
- Actors
- Indigenous leaders
- Librarians
- Scientists
- Students
- Nurses
- Educators
- Youth
- Writers
- Chefs
- Manufacturers

We need common terms, objectives, and visions for the future
— **that's where the PHA comes in.**



PLANETARY HEALTH ALLIANCE

about us



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The **Planetary Health Alliance** is a diverse community of 1000+ individuals and 250+ organizations from 55+ countries committed to understanding and addressing the health impacts of global environmental change through community-building, research, education, mainstreaming and action.

The PHA's mission is to promote, mobilize, and lead an inclusive, transdisciplinary field of planetary health and its diverse science, stories, solutions, and communities to achieve the Great Transition, a comprehensive shift in how human beings interact with each other and Nature.



To accomplish our mission, we

- **Encourage and empower a diverse global planetary health community** that crosses sectors, disciplines, generations, worldviews, and geographies;
- **Facilitate the education and training of next generation planetary health practitioners** through the development and curation of open-access resources, mentorship and leadership opportunities, and programs from primary to university levels;
- **Mainstream planetary health science, stories and solutions through broad public outreach** and direct engagement with civil society, private sector, general public and governments;
- **Promote actionable steps** that individuals and society can take to advocate for and achieve progress toward planetary health.

Community-building

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Education

•

Outreach

•

Action



“Our challenge is to make the world work for 100% of humanity, in the shortest possible time, through spontaneous cooperation without ecological offense or the disadvantage of anyone.”

Buckminster Fuller

Our core initiatives:

- Clinicians for Planetary Health (C4PH)
- PH Campus Ambassadors
- PH Regional Hubs
- PH education curriculum development and advocacy
- Global PH Annual Meetings
- Growing and nurturing our membership base

Our key resources:

- PH online community
- Monthly newsletter
- Global anthology of case studies with teaching guides (June 2020)
- PH textbook & open-access curricula directory (August 2020)
- Comprehensive website with 1,300+ peer-reviewed bibliography
- 250+ institutional partners from 50 countries with diverse expertise

Planetary Health = PH




Ways to **get engaged:**

- Sign up to our monthly newsletter
- Join the PH online community
- Follow us on social media and regularly use #planetaryhealth
- Find your local PH regional hub
- Join our Clinicians for Planetary Health (C4PH) initiative
- Become a PHA member institution
- Attend the 2022 PH Annual Meeting

Ways to **take leadership:**

- Become a PH Campus Ambassador or volunteer fellow with the PHA
- Educate your field or institution about PH and adapt/translate existing materials
- Spearhead or co-lead research, a regional hub, thematic working group, or other discrete project with members of our community
- Host PH events and workshops
- Start a PH club or center



“You cannot do all the good the world needs,
but the world needs all the good you can do.”

Jana Stanfield



**P L A N E T A R Y
H E A L T H
A L L I A N C E**

Join the Planetary Health Alliance!

Collaborate with over 240 organizations from 40+ countries committed to understanding and addressing planetary health: the human health impacts of global environmental change.

www.planetaryhealthalliance.org

**Subscribe to
our Newsletter
& Get Involved!**

- **Sign up** for our monthly planetary health newsletter
- **Follow us** on social media (Twitter/Insta: @ph_alliance)
- **Youth:** Join our Next Gen Network or PHCA program!
- **Clinicians & Educators:** Join C4PH or a working group!

Community-building

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Education

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Outreach

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Action

The future is now.

Join our vision for a healthier future for all:

www.planetaryhealthalliance.org

pha@harvard.edu



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