Planetary Health

Safeguarding both human health and the natural systems that underpin it

"Planetary health is the health of human civilization and the state of the natural systems on which it depends" – Report of The Rockefeller Foundation-Lancet Commission on Planetary Health

OUR LIFE SUPPORT SYSTEM: NATURE

By most metrics, human health is better today than at any time in human history. Over the past several decades, life expectancy has soared from 48 years in 1955 to 70 years in 2012. In 1955 there were 21 million deaths in children under the age of five; by 1997 that number was more than halved to 10 million. However, these advances have occurred coincident with a vast degradation of nature's ecological systems on a scale never seen in human history. This is what some have termed the Environmentalist's Paradox.

The explanation of this paradox is straightforward and sobering: we have been mortgaging the health of future generations in order to realize economic and development gains in the present. By mining nature's resources at an unsustainable rate, global societies can flourish in the short term, but face significant health impacts from the degradation of nature's life support systems over the longer term.

OUR GROWING GLOBAL FOOTPRINT

It's become undeniable that human activity is rapidly transforming Earth's natural systems. The global health impacts of accelerating climatic disruption, land degradation, growing water scarcity, fisheries degradation, biodiversity loss, and pollution threaten the global health gains of the last several decades and are likely to represent the dominant global health threats of the next century. By altering the composition of the atmosphere, degrading arable lands faster than they can be replenished, overfishing, polluting, changing the chemistry and temperature of our oceans, withdrawing ground water faster than it can be recharged, and dramatically reducing the number and population sizes of species who co-inhabit the planet with us, we are putting the poor and future generations in harm's way.

The combination of exponential growth in the human population with rapid growth in per capita income has led to an extraordinary ballooning of humanity's ecological footprint, and the scale of anthropogenic change to Earth's natural systems is difficult to overstate. Most measures of human impact on ecological systems show similar patterns: a gradual rise in impact over the first part of the

nineteenth century with a very steep rise in impact starting around 1950 and continuing today. We human beings now appropriate between one third and one half of global ecosystem production for our use. Those species which still exist have seen their population sizes cut in half over the past 45 years. As a consequence of these and other impacts, humanity has become a primary determinant of Earth's biophysical conditions, giving rise to a new term for this geological period: the Anthropocene.

Current environmental trends indeed raise the grave prospect that many of the health gains we have recently experienced have been fueled by a pattern of resource use that is fundamentally unsustainable. It thus appears that these gains are built on shaky foundations, and that an urgent course correction is required, one that recognizes that the health of the environment and the health of humanity are inextricably linked.

A NEW FIELD, LONG OVERDUE

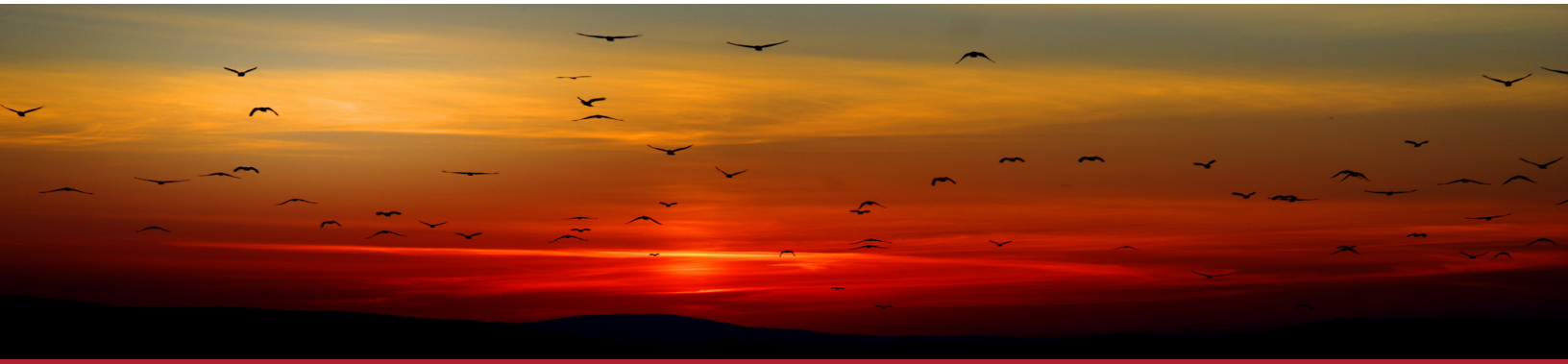
A long-standing partnership among The Rockefeller Foundation, Cornell University's College of Veterinary Medicine (CVM), and Harvard University has allowed for the laying of the foundation for a new field – *Planetary Health*. As stated in the Report of The Rockefeller Foundation-Lancet Commission on Planetary Health:

> *"Planetary health is the achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems – political, economic, and social – that shape the future of humanity and the Earth's natural systems that define the safe environmental limits within which humanity can flourish. Put simply, planetary health is the health of human civilisation and the state of the natural systems on which it depends."*

CORNELL PREPARING THE NEXT GENERATION OF LEADERS

The CVM's Planetary Health initiative emphasizes that degradation of ecosystems often leads to negative public health impacts. Unless, however, these impacts are proven and quantified in actionable ways, they remain vague externalities that are not factored into public health or natural resource management policy decisions. The emergent field of Planetary Health must be more than academic in nature, and if proactively conceived in the context of recognized policy gaps and needs, it is poised to deliver powerful new and convincing arguments that draw on the growing understanding of the range of critical relationships between the state of the natural world and health.

While much has been written about the social and economic determinants of health, all too often the need to address these determinants within finite environmental limits has been overlooked. Now is the time to transform the discipline of public health into one that integrates knowledge of the earth's underpinning systems with understanding of the determinants of health and develops evidence-based, integrated policy solutions that address environmental sustainability together with human health and development goals. Our recently launched Planetary Health Alliance offers a timely and promising way forward, as does the CVM-led new Master of Public Health (MPH) program.



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