



University Leadership in
Advancing

Planetary Health

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The Rockefeller Foundation-Lancet Commission on planetary health

The Lancet Commissions



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The Rockefeller Foundation–Lancet Commission on planetary health

Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health

Sarah Whitmee, Andy Haines, Chris Beyrer, Frederick Boltz, Anthony G Capon, Braulio Ferreira de Souza Dias, Alex Ezeh, Howard Frumkin, Peng Gong, Peter Head, Richard Horton, Georgina M Mace, Robert Marten, Samuel S Myers, Sania Nishtar, Steven A Osofsky, Subhrendu K Pattanayak, Montira J Pongsiri, Cristina Romanelli, Agnes Soucat, Jeanette Vega, Derek Yach

Executive summary

Far-reaching changes to the structure and function of the Earth's natural systems represent a growing threat to human health. And yet, global health has mainly improved as these changes have gathered pace. What is the explanation? As a Commission, we are deeply concerned that the explanation is straightforward and sobering: we have been mortgaging the health of future generations to realise economic and development gains in the present. By

research and funding, together with an unwillingness or inability to deal with uncertainty within decision making frameworks. Thirdly, implementation failures (governance challenges), such as how governments and institutions delay recognition and responses to threats, especially when faced with uncertainties, pooled common resources, and time lags between action and effect.

Although better evidence is needed to underpin appropriate policies than is available at present, this

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This online publication has been corrected. The corrected version first appeared at thelancet.com on August 17, 2015

**It is time for a
new discipline.**



THE LANCET

#PlanetaryHealth



DAMAGING THE PLANET DAMAGES HUMAN HEALTH



CLIMATE CHANGE

If unchecked climate change related impacts could cause an extra

250,000

deaths per year

between 2030 and 2050³

BIODIVERSITY LOSS



Overfishing together with increasing acidity and other environmental changes threaten fish supplies



UNDER NUTRITION

Millions of people are at risk of under nutrition due to the combined effects of

climate change and other environmental changes



WATER USE

By 2050 over

40%

of the world's population could be living in areas under severe water stress



SOIL DEGRADATION

This leads to a loss of

1-2

million hectares of agricultural land per annum

#planetaryhealth

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TO SAFEGUARD HUMAN HEALTH WE NEED TO MAINTAIN THE HEALTH OF THE PLANET ON WHICH WE DEPEND

LEARN ABOUT PLANETARY HEALTH



Planetary health is the highest standard of health, wellbeing and equity worldwide. Human systems are responsible for shaping the future of human civilisation and the Earth's natural systems

REDUCE FOOD WASTE



30-50% of all food produced is never consumed. Reducing food waste means less land is needed for agriculture; saving energy, water, helping to protect biodiversity and improving food security

HEALTHY DIETS WITH A LOW ENVIRONMENTAL IMPACT



Diets low in red meat with plenty of fruit and vegetables reduce the risk of heart disease. Dietary changes could reduce greenhouse gas emissions and land use requirements by up to 50%

BETTER GOVERNANCE



Coordinated global, national and local policies that reduce environmental damage and improve health need to be implemented



TO SAFEGUARD HUMAN HEALTH WE NEED TO MAINTAIN THE HEALTH OF THE PLANET ON WHICH WE DEPEND

USE WATER MORE EFFICIENTLY



Although drip or trickle irrigation methods are more expensive to install, they can be 33% more efficient in water use

END DEFORESTATION



Since 2000 we have cut down over 2.3 million km² of primary forest. The REDD+ mechanism aims to reduce greenhouse gas emissions and improve local livelihoods

FAMILY PLANNING



Around 225 million women who want to avoid pregnancy are not using effective contraception. Access to family planning could cut maternal deaths by almost 30% and improve food security

CITY PLANNING



Planning healthy and sustainable cities can increase resilience to environmental change, reduce environmental impacts and improve people's health

Planetary health
broadens health research
to include the external
systems that sustain or
threaten human health.



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Read the latest research
in planetary health
www.thelancet.com/planetary-health

HEALTH SCIENCES

Cardiac medicine
Genetics research
Endocrinology & metabolism
Neurosciences
Infectious diseases
Nutrition & dietetics
Oncology
Psychiatry
Respiratory medicine
Virology

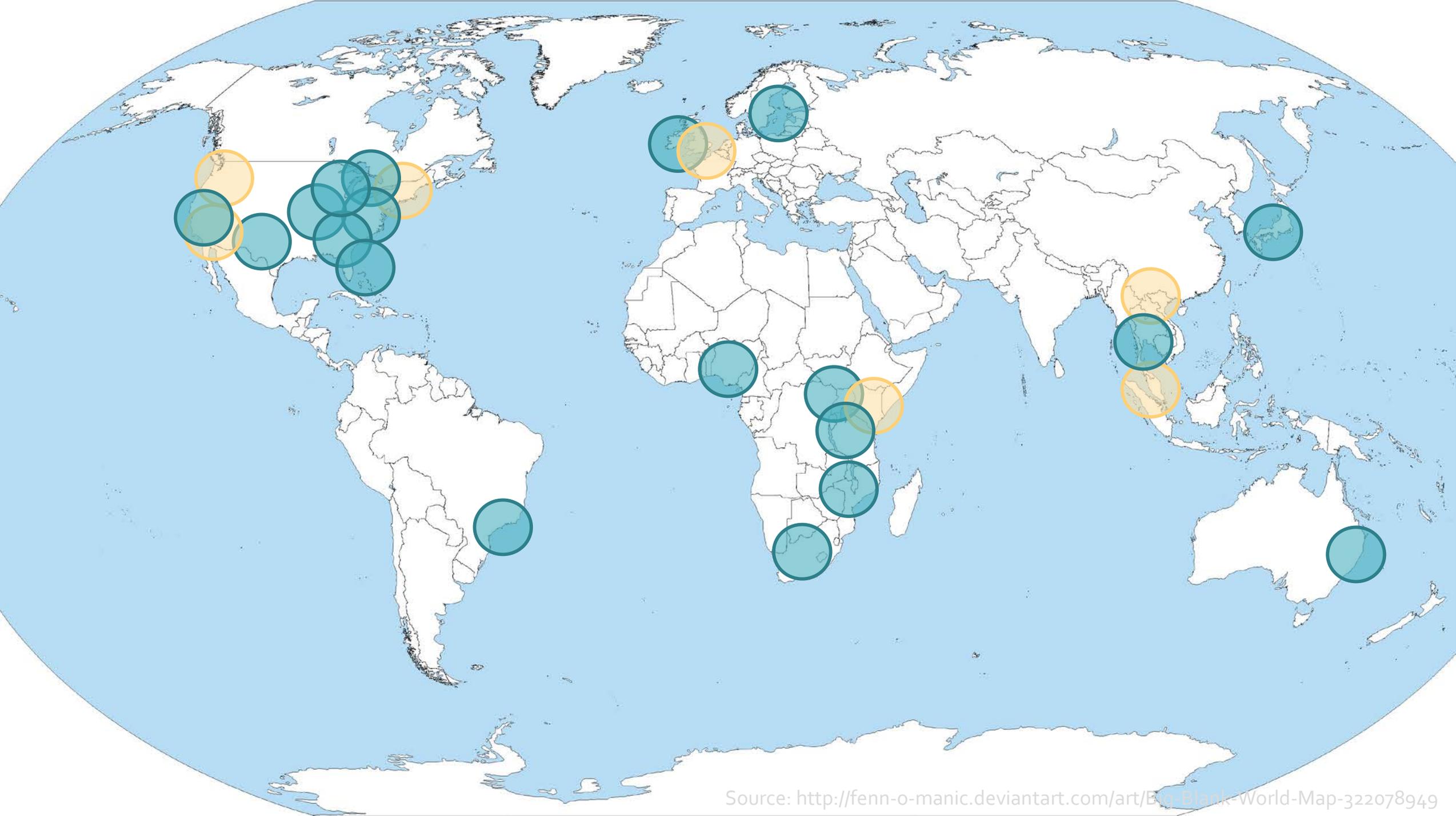
NATURAL AND PHYSICAL SCIENCES

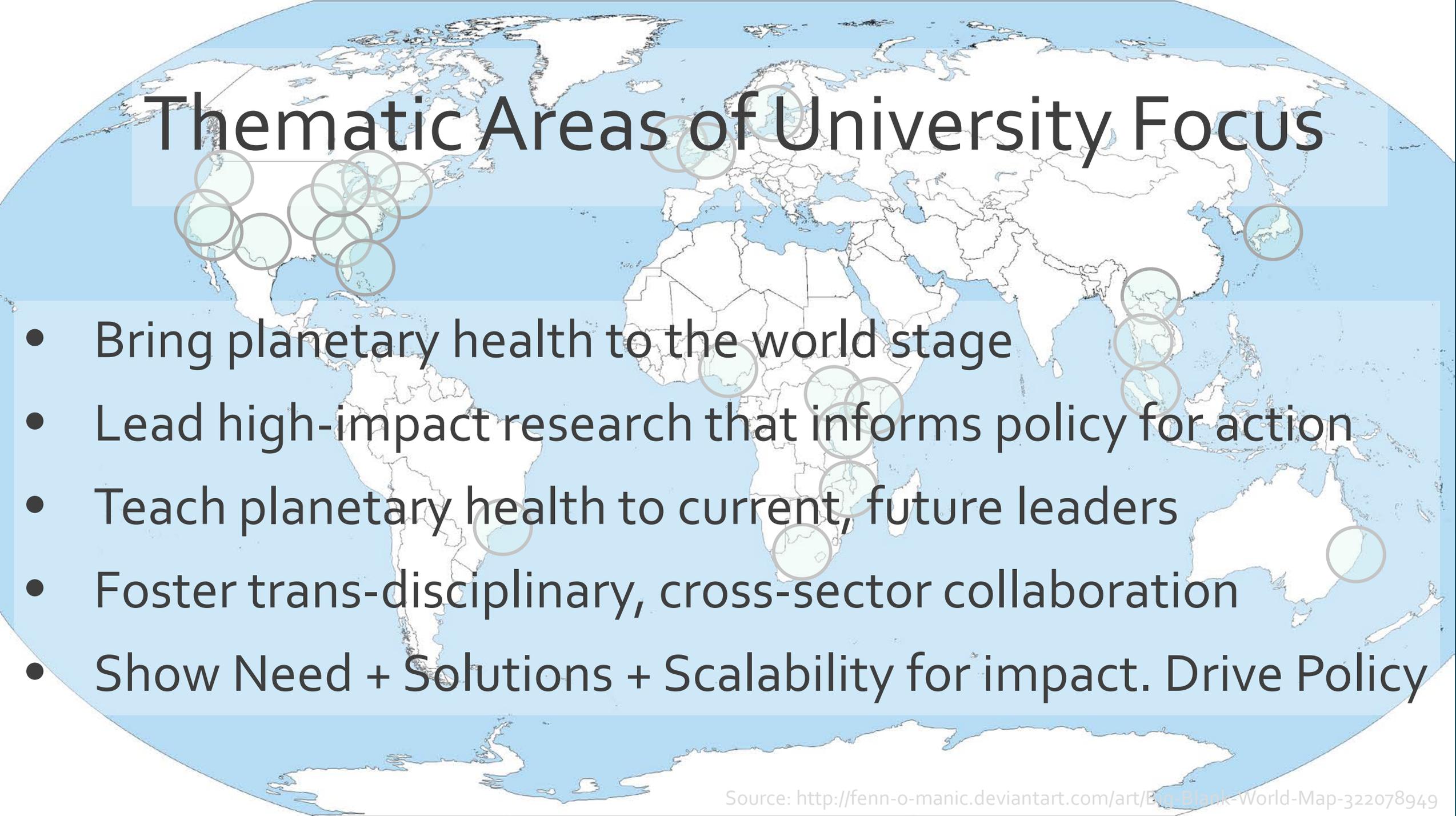
Agriculture
Biodiversity conservation
Ecology
Environmental sciences
Meteorology
Oceanography
Soil science
Urban planning
Water resources

**Planetary
health**



Universities helping to lead the charge in Planetary Health



A world map with a light blue background and white landmasses. Several semi-transparent circles are overlaid on the map, indicating university focus areas. The circles are concentrated in North America (USA and Canada), Europe, and East Asia (Japan and South Korea). There are also a few circles in South America, Africa, and Australia. The title 'Thematic Areas of University Focus' is centered at the top in a large, black, sans-serif font.

Thematic Areas of University Focus

- Bring planetary health to the world stage
- Lead high-impact research that informs policy for action
- Teach planetary health to current, future leaders
- Foster trans-disciplinary, cross-sector collaboration
- Show Need + Solutions + Scalability for impact. Drive Policy



Source: <https://pixabay.com/en/australia-continent-aerial-view-62823/>

University of Sydney

- Named Professor of Planetary Health
- Trans-disciplinary education and impact-focused research





Source: <http://www.gtreview.com/globe-earth-space-africa/>

Consortium for Advanced Research Training in Africa (CARTA)

- Multidisciplinary education
- Multidisciplinary research
- Population health impacts
- Government awareness; commitment
- Cross-sector partnerships



Credit: NASA

University of Edinburgh

- Cross-disciplinary partnerships
- Accessible education
- Summer school demonstration projects



London School of Hygiene & Tropical Medicine

- Advocacy for awareness, action
- Cross-sector partnerships
- Impact-focused research
- Accessible education

Harvard University

- Impact-focused research
- Accessible education
- Cross-sector partnerships
- Advocacy for awareness, action

Cornell University



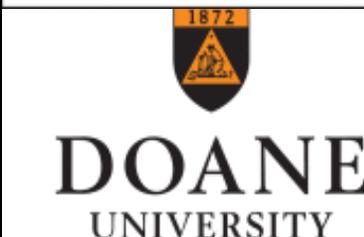
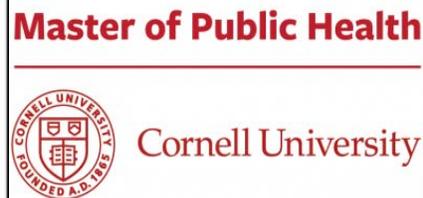
Teach, Research, Work Across Disciplines

- Multidisciplinary education
- Multidisciplinary research
- Cross-sector partnerships
- Research for impact, scalability
- Science policy work for the Planetary Health Alliance



- The United Nations University (Japan)
- Thammasat University (Thailand)
- Tshinghua University (China)
- The University of Sao Paulo (Brazil)

Partner Universities and Units



- Oregon Health and Science University
- Chinese Academy of Science
- Dartmouth University
- University of Wollongong
- University of Gothenburg
- Nottingham University
- University of Vermont
- University of Illinois