

# What Is Planetary Health and Why Now?

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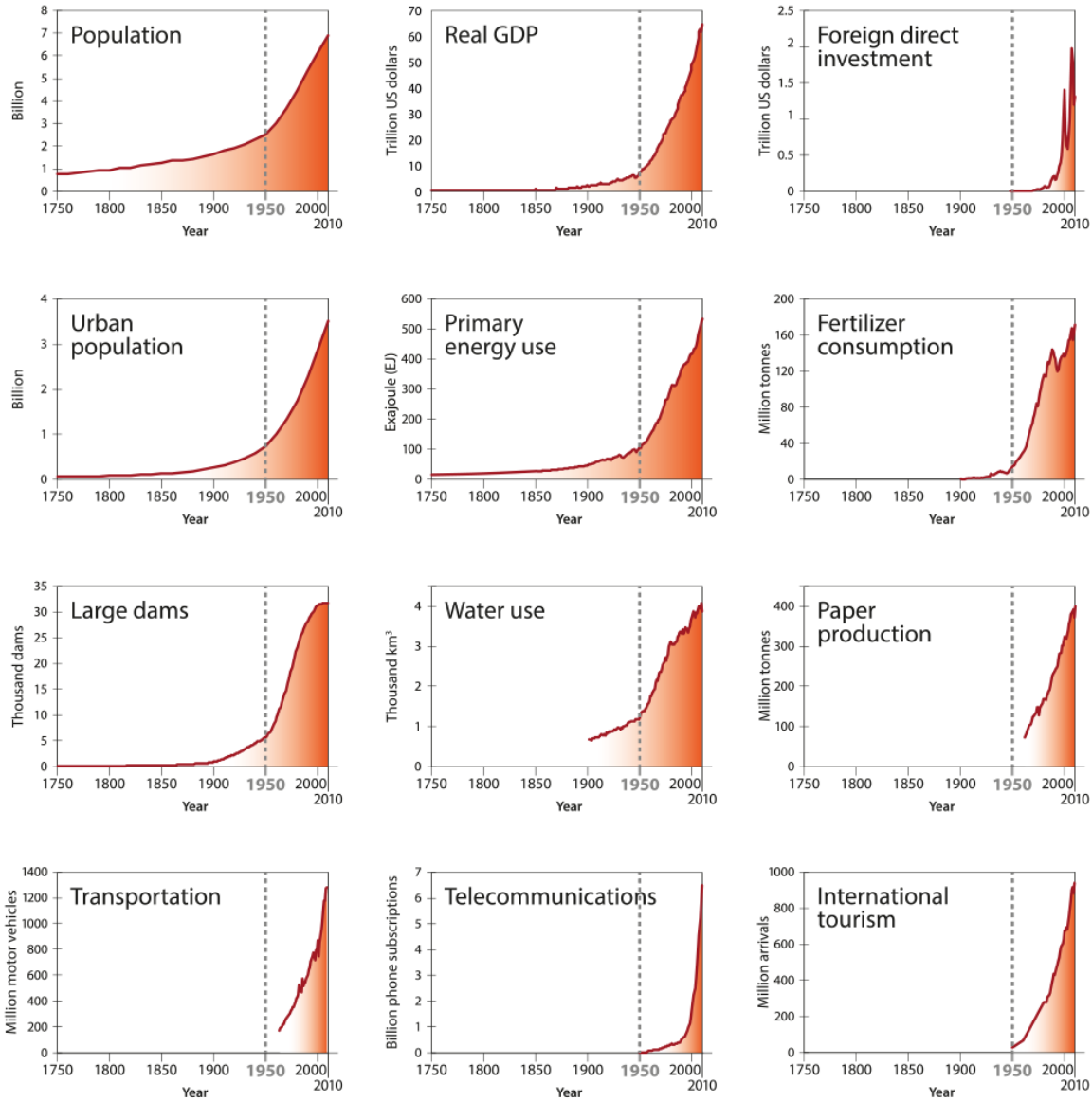




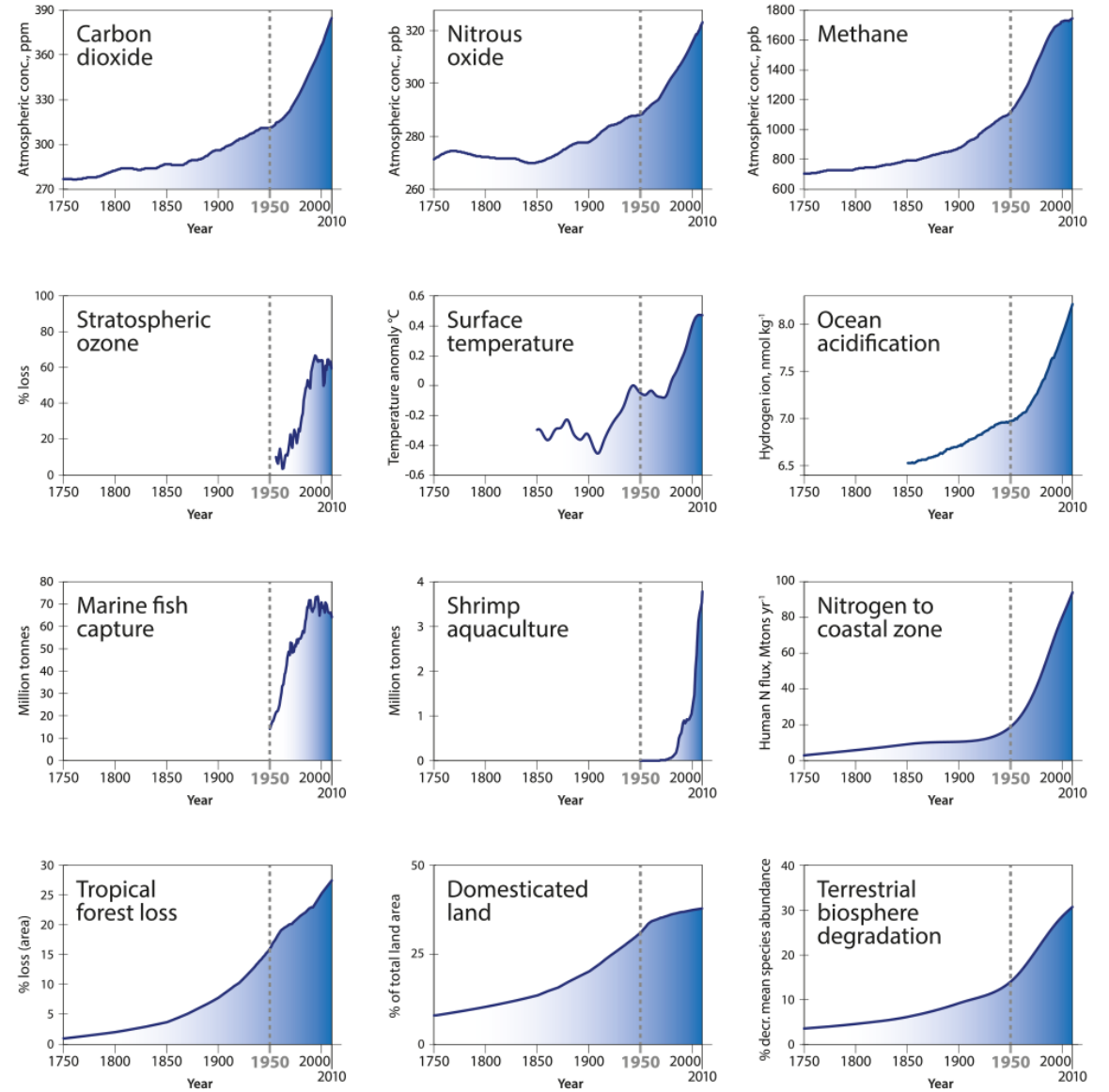
BOTTOM OF PIT SHAFT, 1860



## Socio-economic trends



## Earth system trends

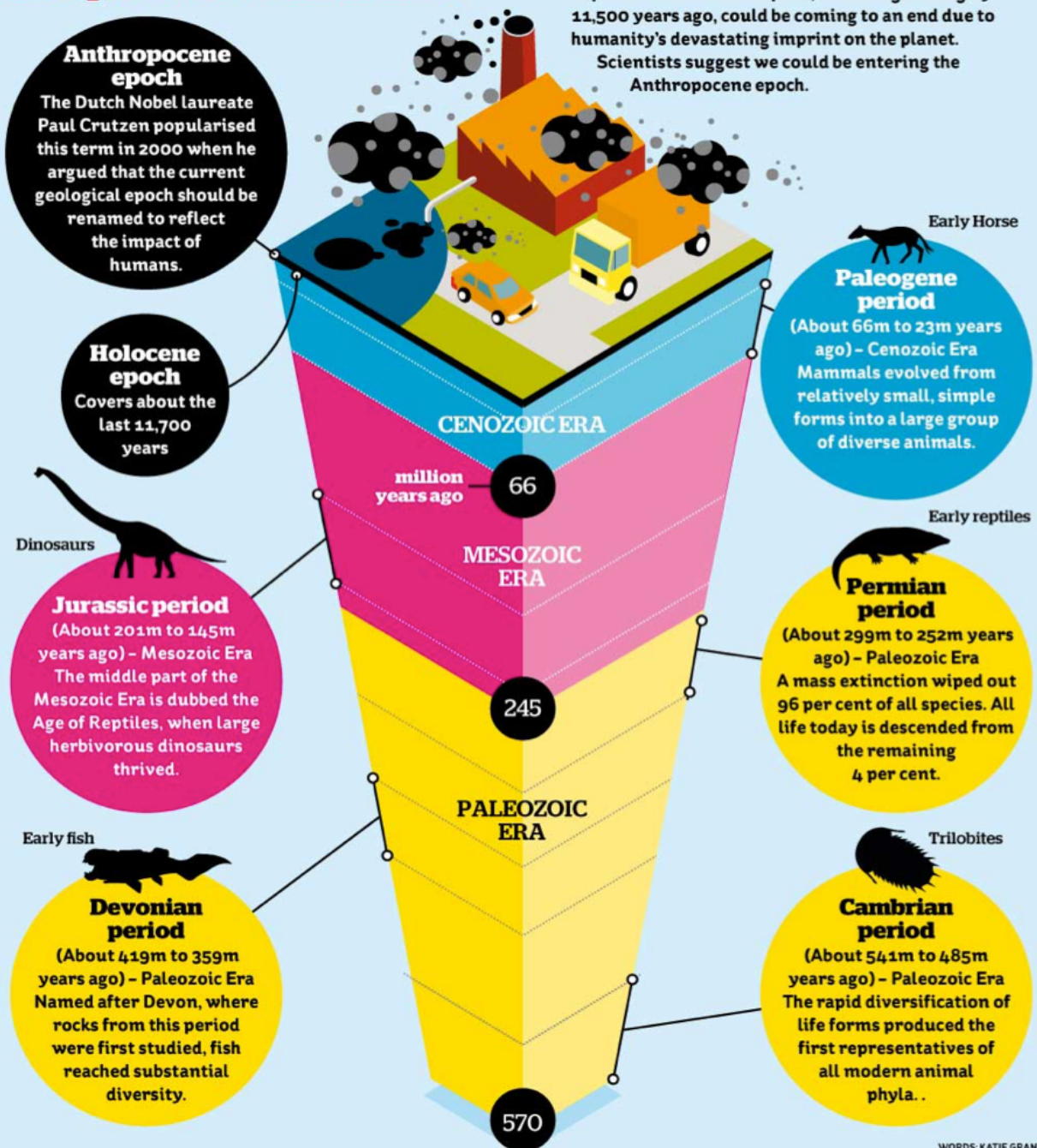


## TIMELINE

# An epoch for humankind?

Humankind is entering a new epoch, according to an influential group of geologists, ecologists and climate experts. The Holocene epoch, which began roughly 11,500 years ago, could be coming to an end due to humanity's devastating imprint on the planet.

Scientists suggest we could be entering the Anthropocene epoch.



### Anthropocene epoch

The Dutch Nobel laureate Paul Crutzen popularised this term in 2000 when he argued that the current geological epoch should be renamed to reflect the impact of humans.

### Holocene epoch

Covers about the last 11,700 years

### Paleogene period

(About 66m to 23m years ago) - Cenozoic Era  
Mammals evolved from relatively small, simple forms into a large group of diverse animals.

### Jurassic period

(About 201m to 145m years ago) - Mesozoic Era  
The middle part of the Mesozoic Era is dubbed the Age of Reptiles, when large herbivorous dinosaurs thrived.

### Permian period

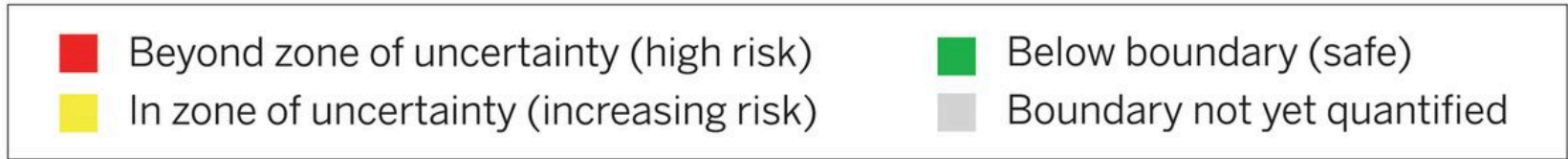
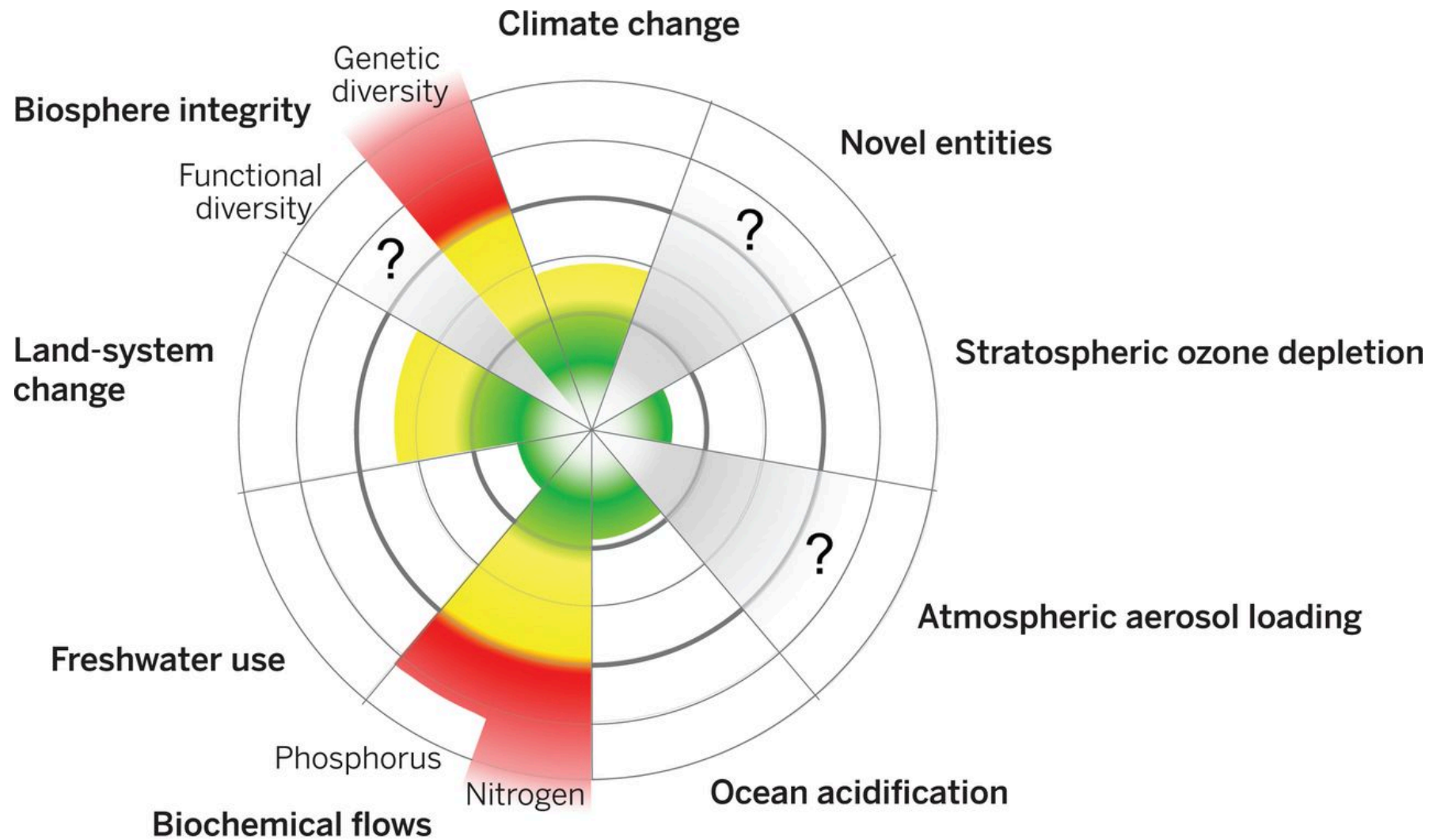
(About 299m to 252m years ago) - Paleozoic Era  
A mass extinction wiped out 96 per cent of all species. All life today is descended from the remaining 4 per cent.

### Devonian period

(About 419m to 359m years ago) - Paleozoic Era  
Named after Devon, where rocks from this period were first studied, fish reached substantial diversity.

### Cambrian period

(About 541m to 485m years ago) - Paleozoic Era  
The rapid diversification of life forms produced the first representatives of all modern animal phyla.



**PLANETARY  
HEALTH**



# What is Planetary Health?

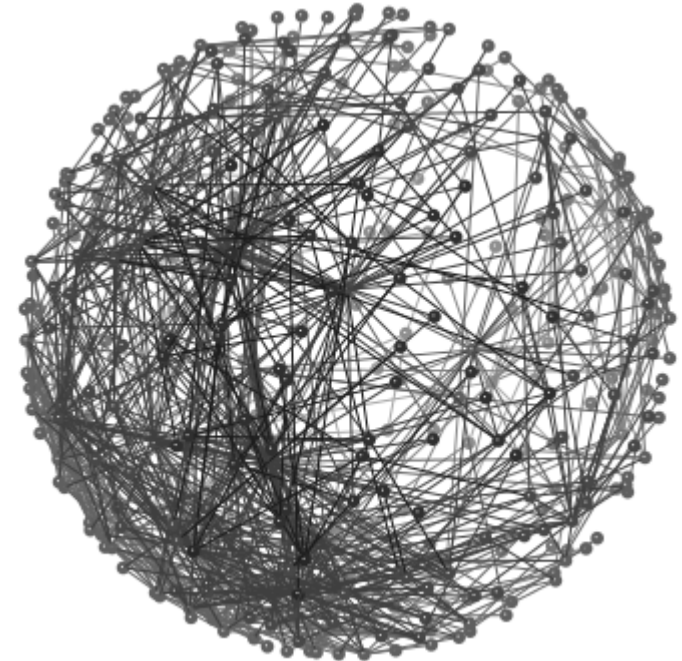
“Put simply, planetary health is the health of human civilization and the state of the natural systems on which it depends.”



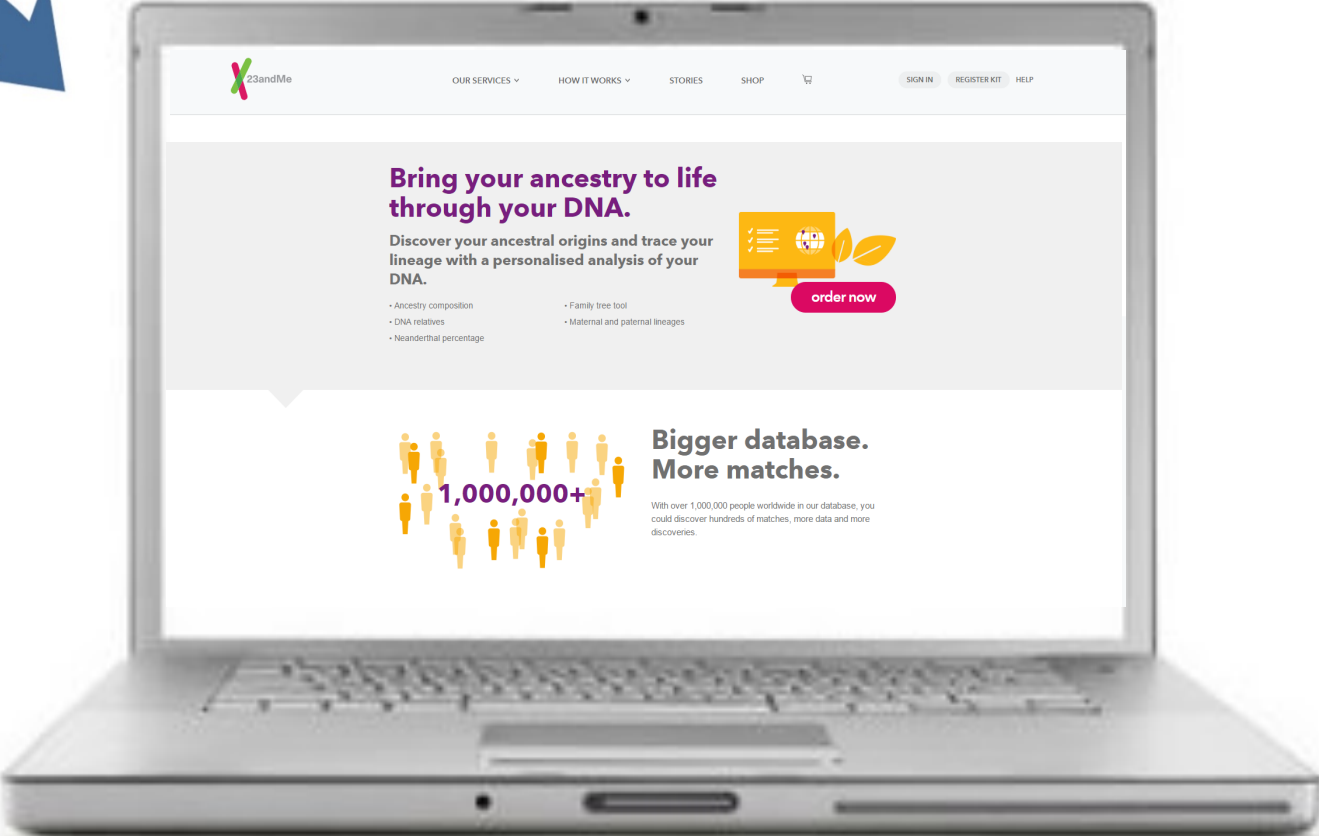
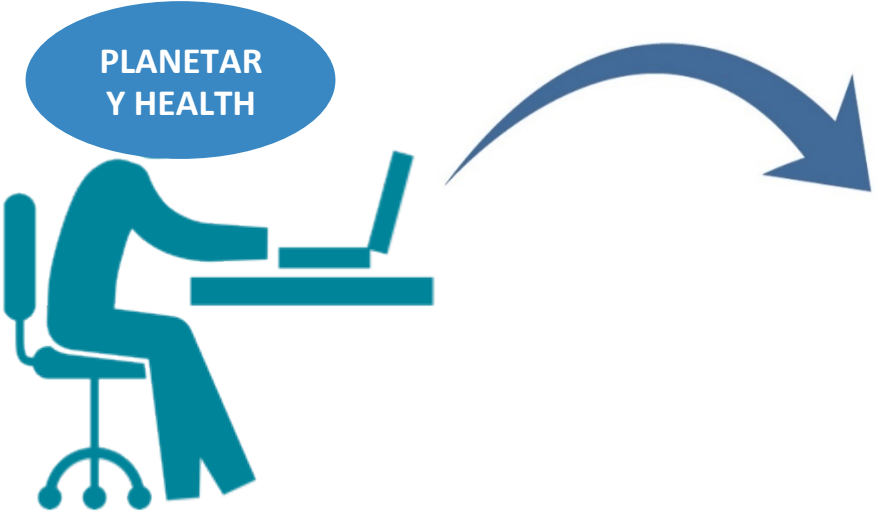
# What is Planetary Health?

Planetary Health is the systematic application to human health, from global to local scales, of the Four Laws of Ecology:

1. Everything is connected to everything else.
2. Everything must go somewhere.
3. Nature knows best.
4. There is no such thing as a free lunch.



# The hunt for ancestry



**PLANETARY  
HEALTH**

**TROPICAL  
MEDICINE**

**PLANETARY  
HEALTH**

**TROPICAL  
MEDICINE**



**INTERNATIONAL  
HEALTH**

**PLANETARY  
HEALTH**

**TROPICAL  
MEDICINE**

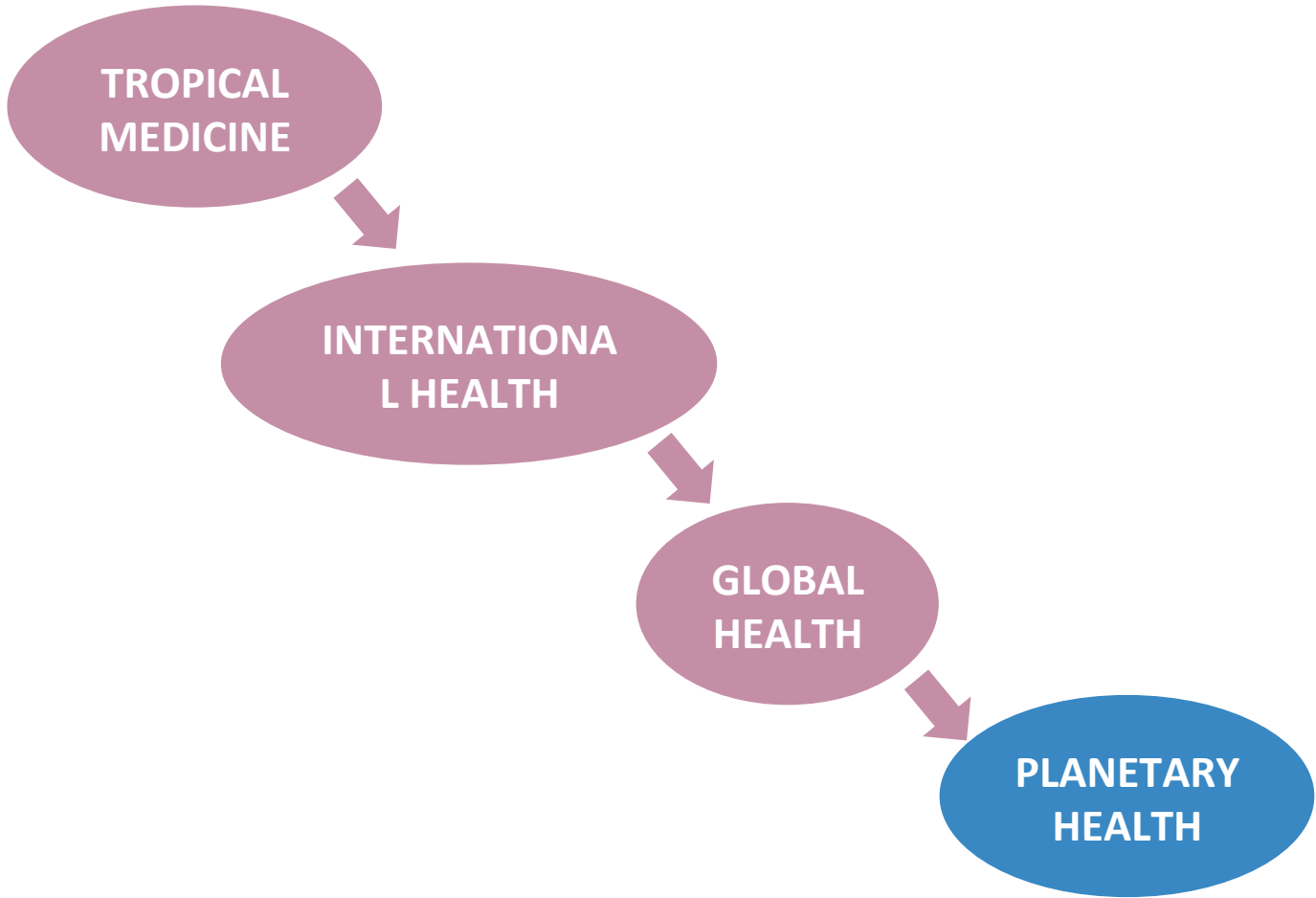


**INTERNATIONAL  
HEALTH**

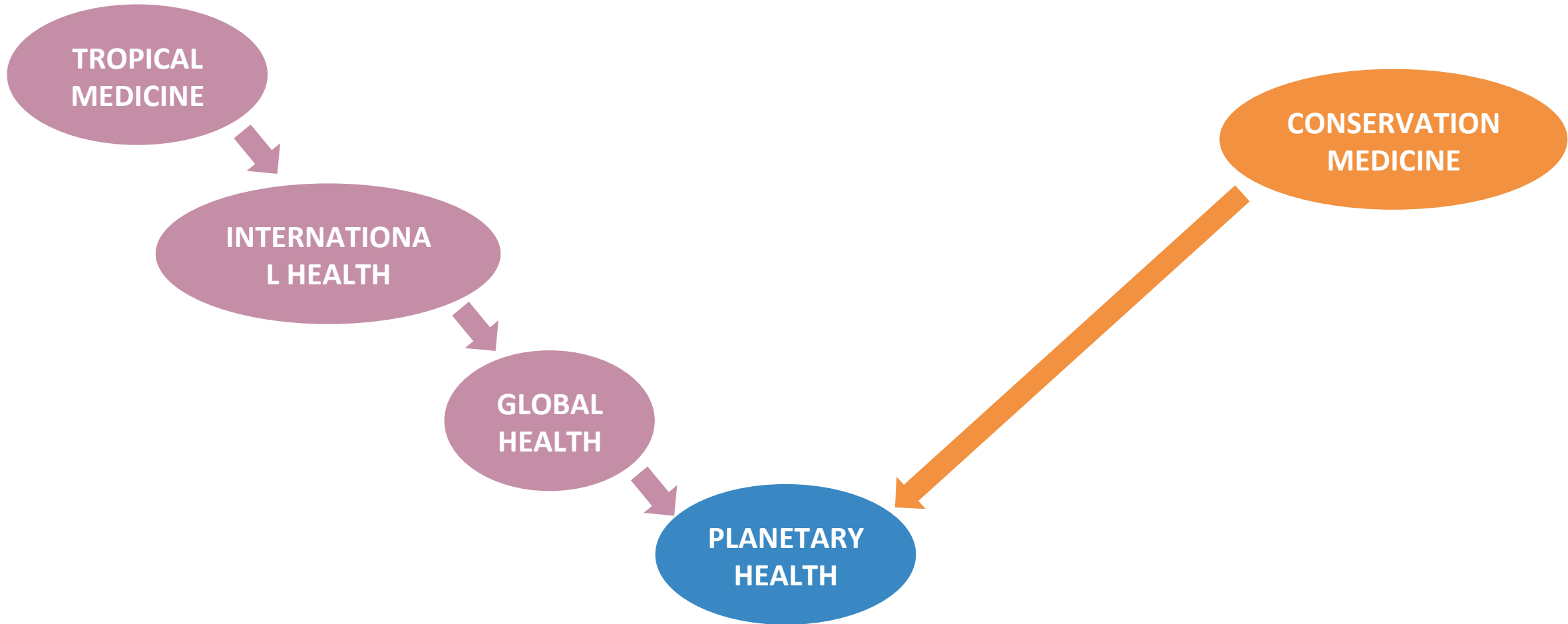


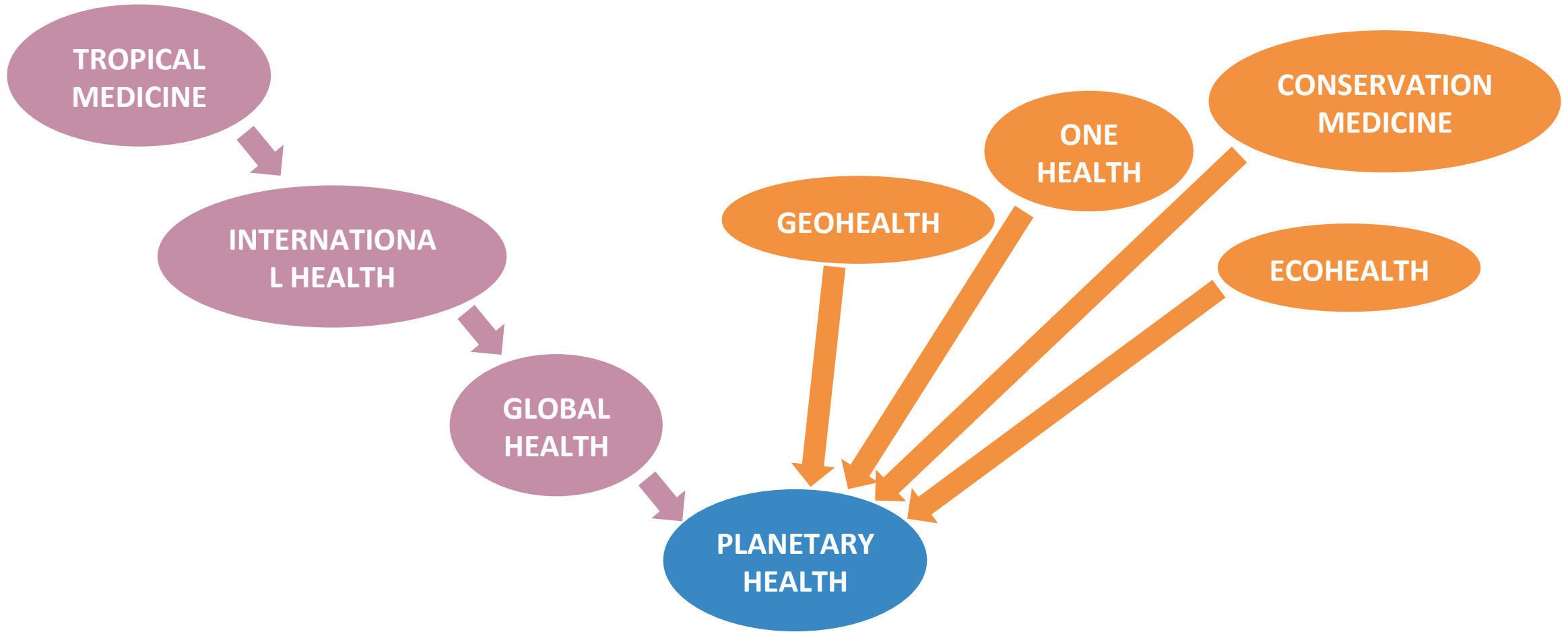
**GLOBAL  
HEALTH**

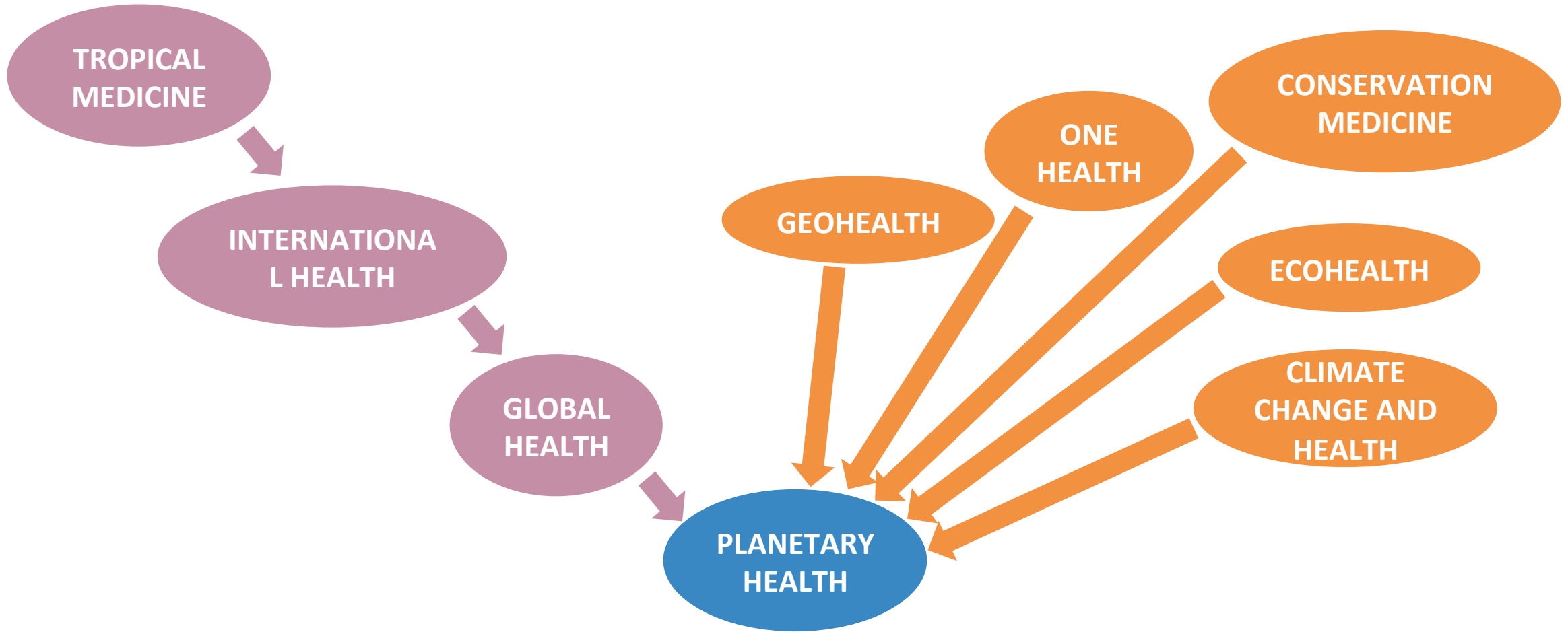
**PLANETARY  
HEALTH**

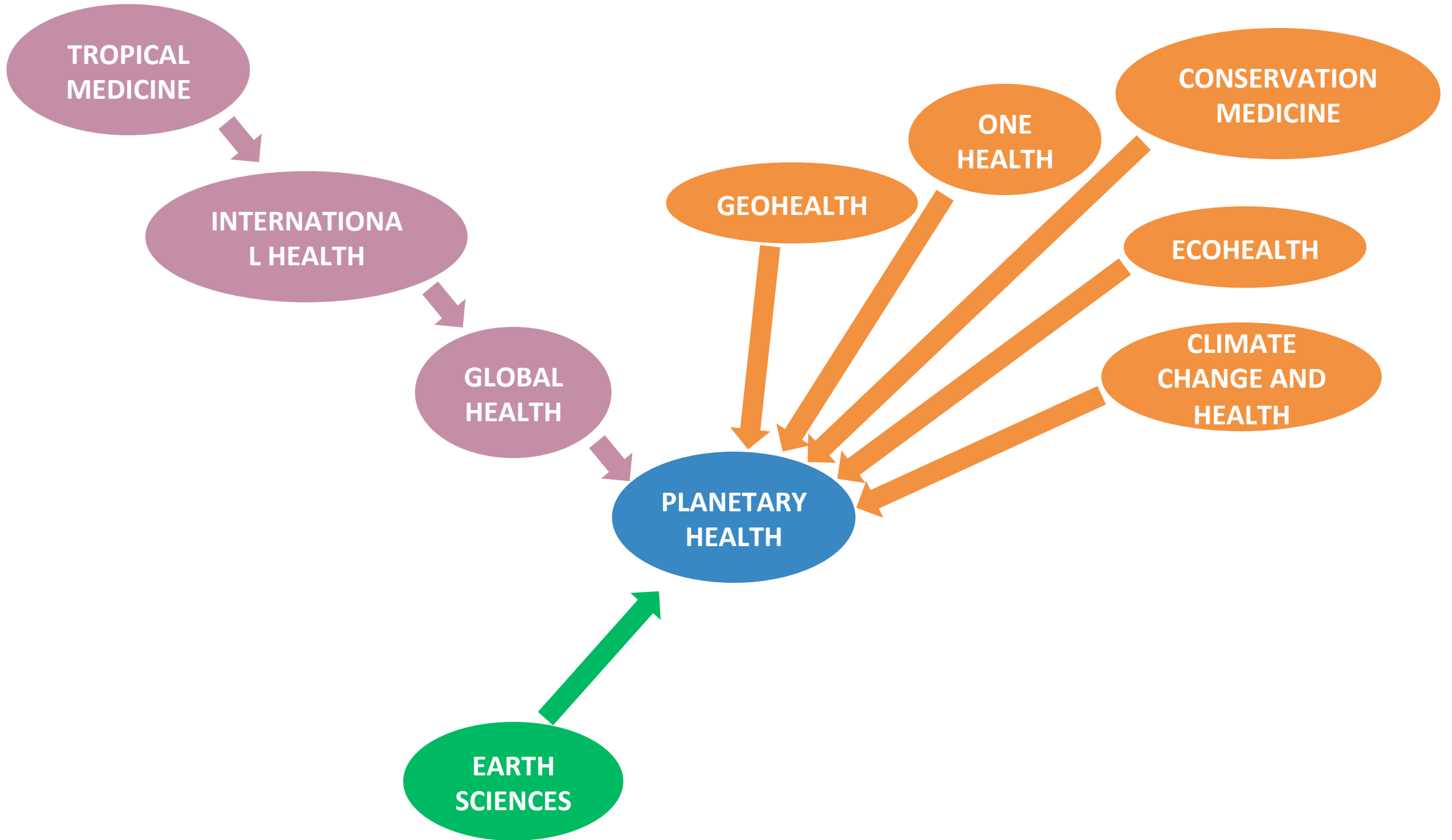


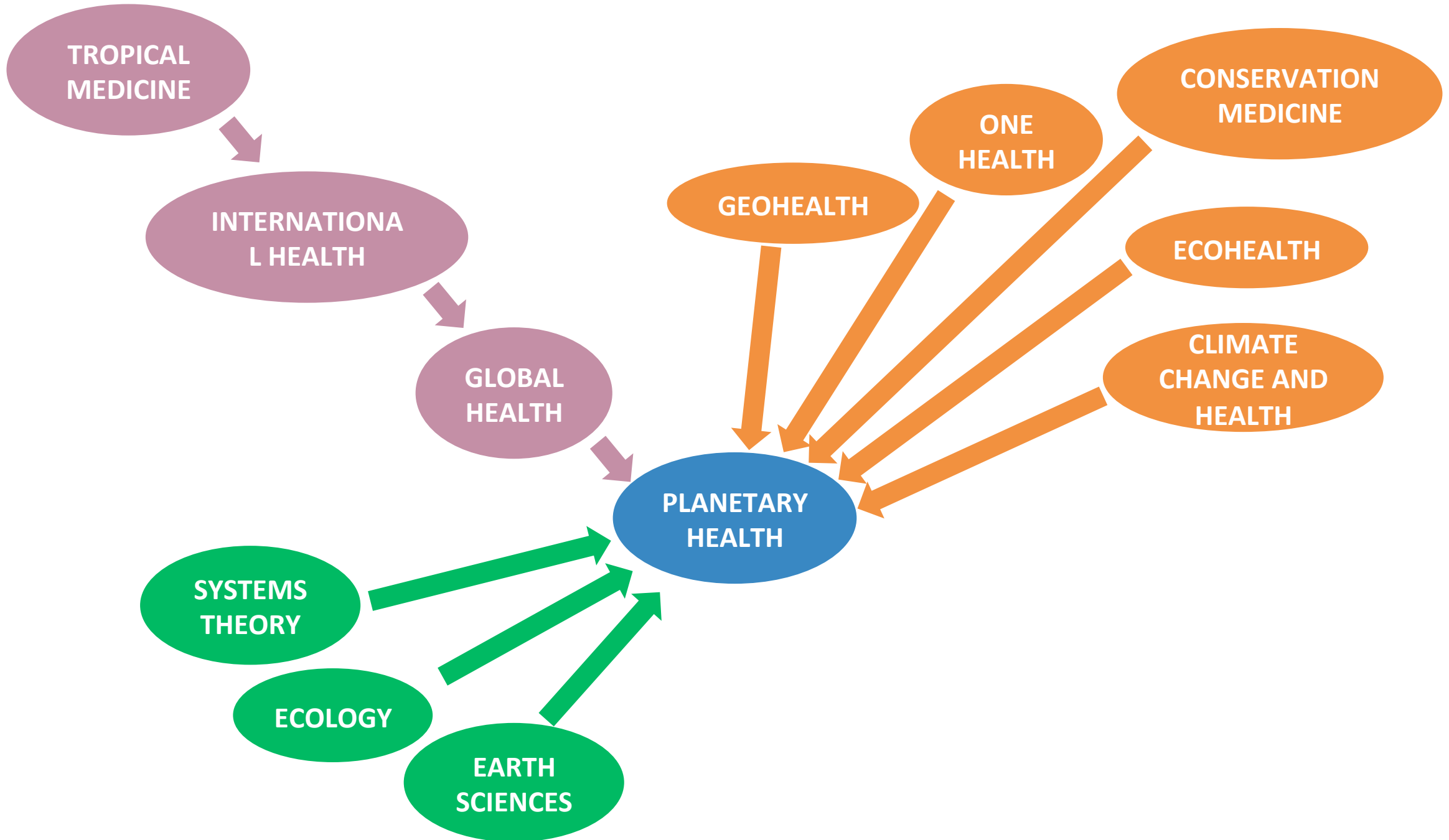


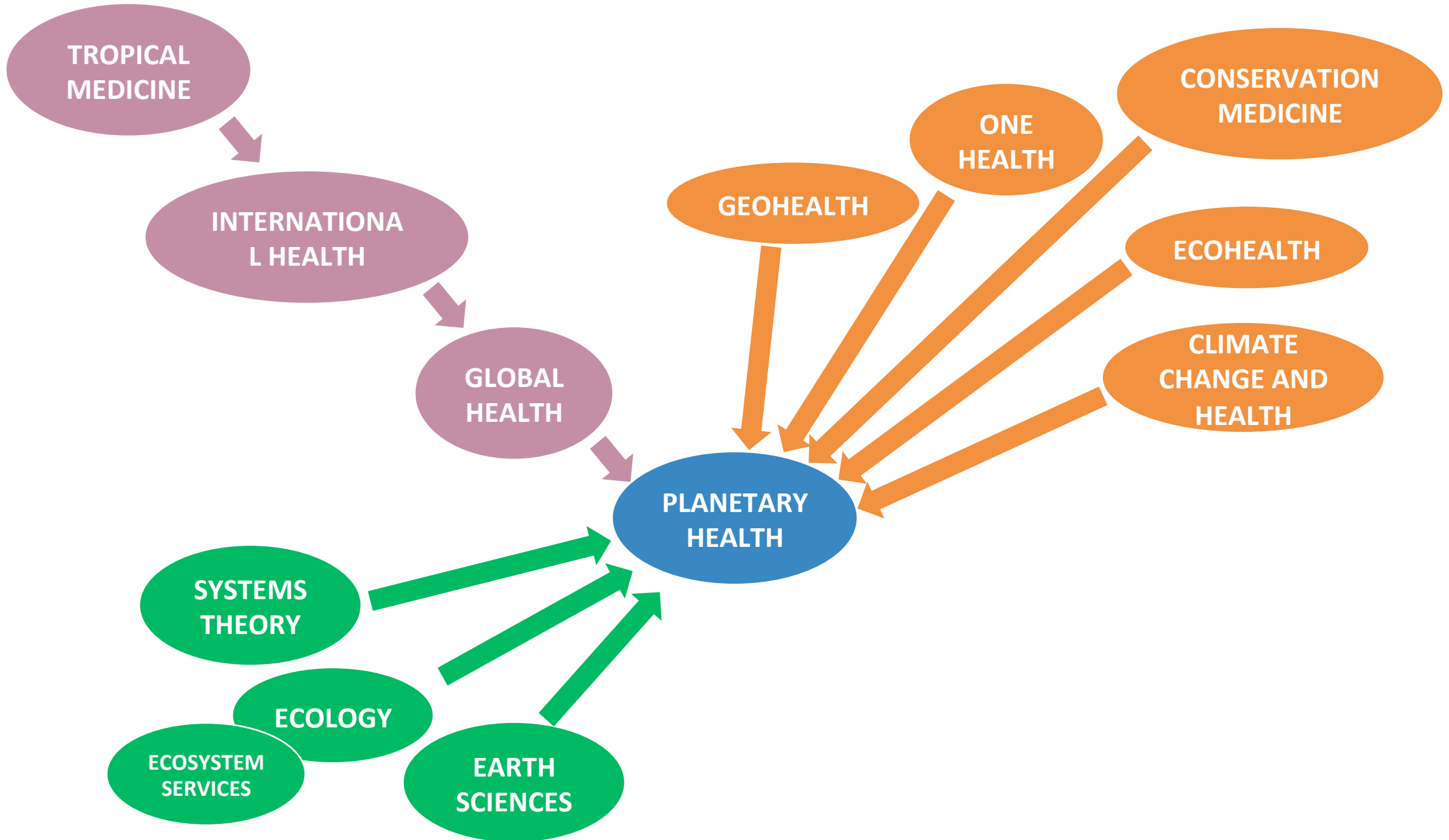


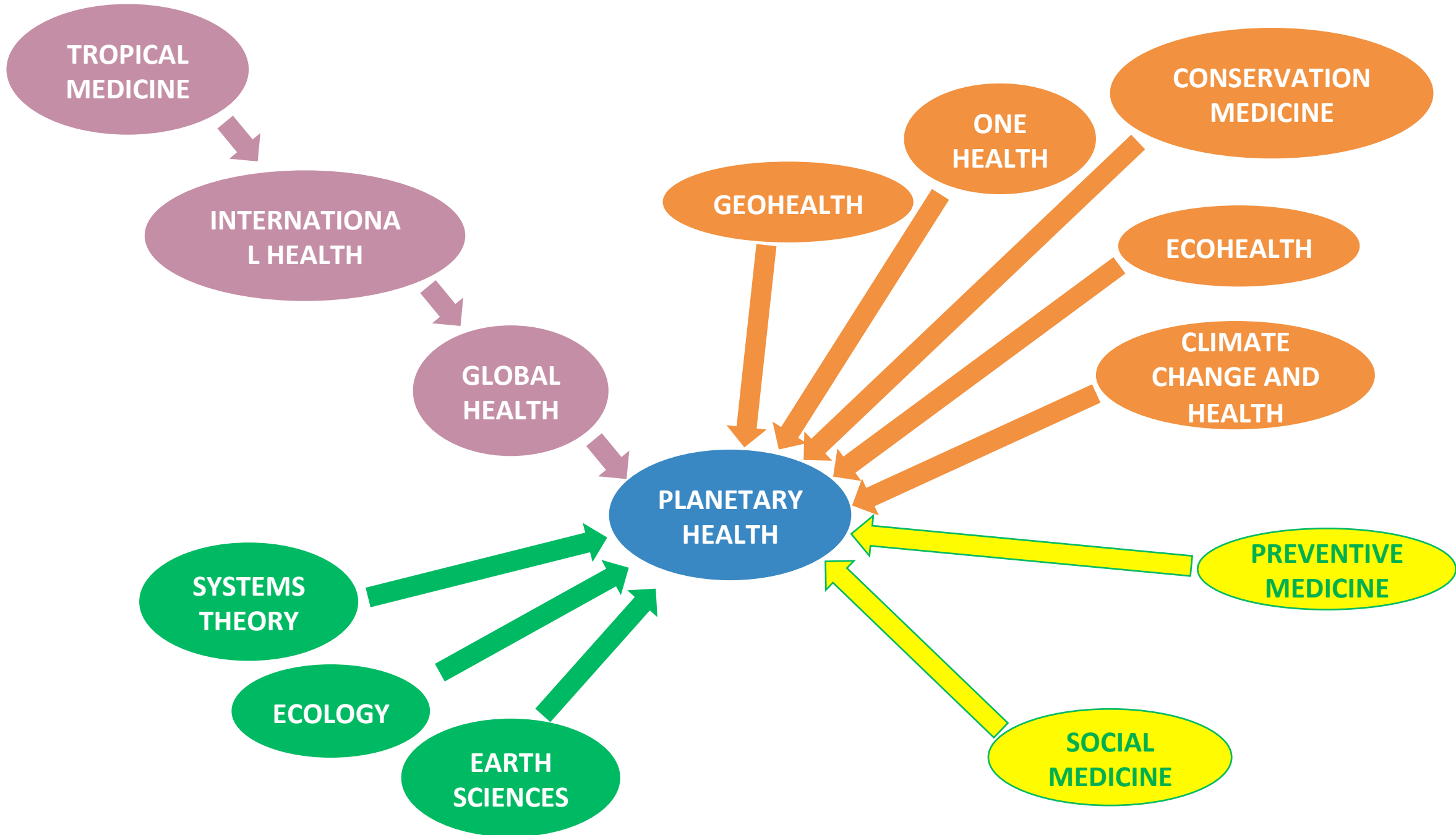


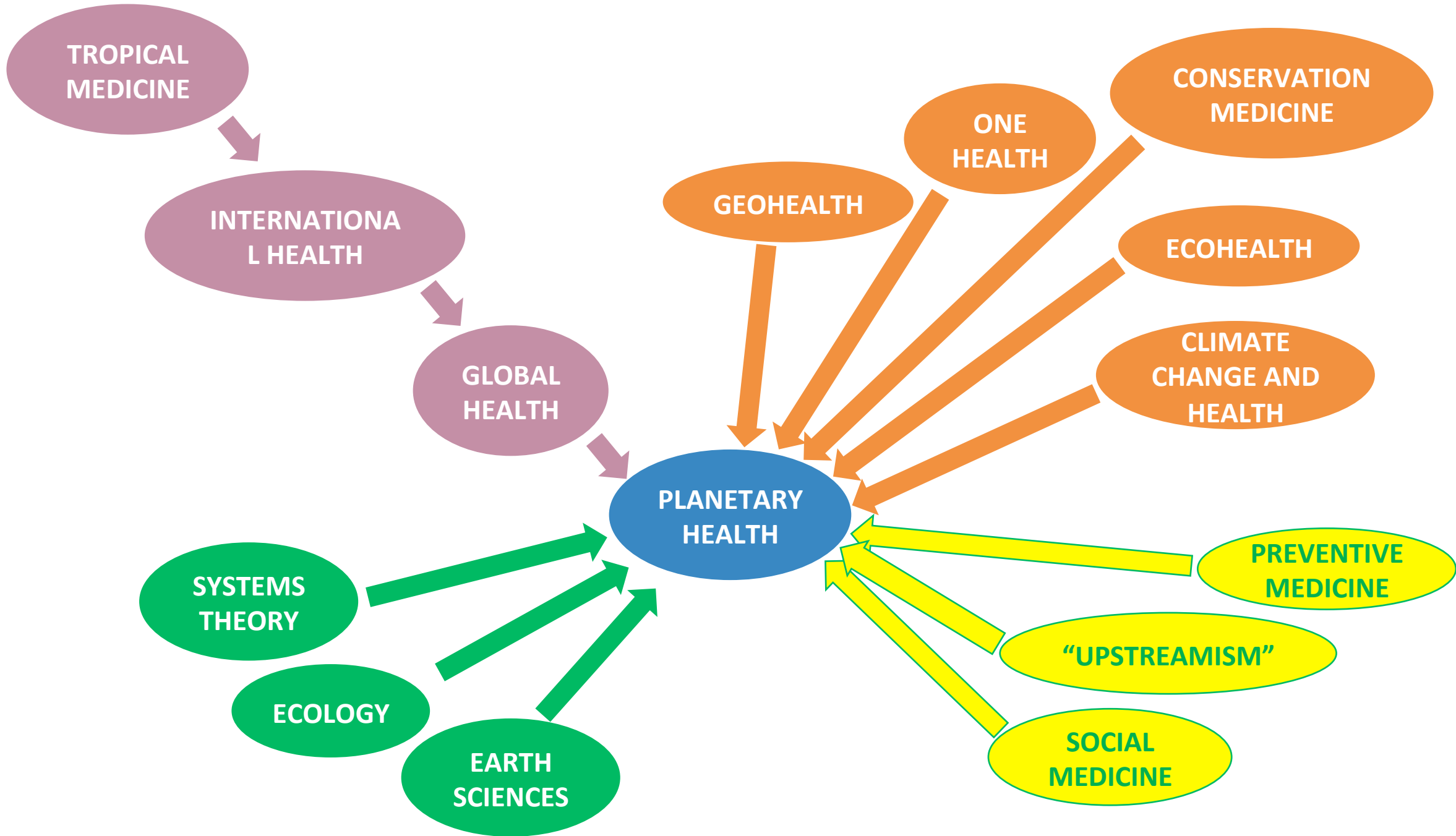




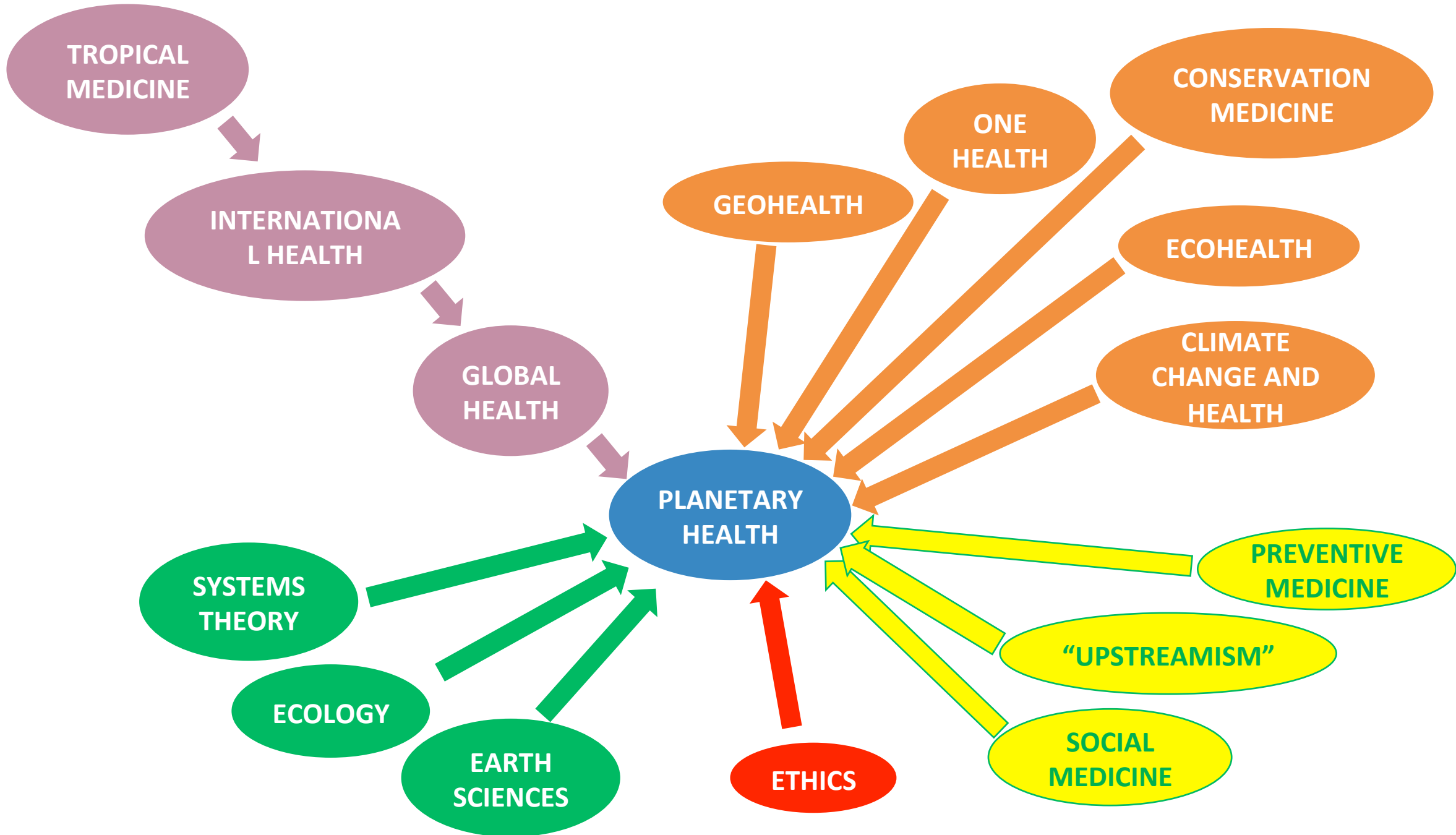












# Planetary health is...

1. A field
2. A scientific paradigm
3. A policy framework
4. A communication strategy
5. A moral imperative

# Planetary health: A field

- A **field** is a set of institutional arrangements
  - Journals, meetings, professional associations, jargon
- Observations:
  - This field functions through other fields (agriculture, urban planning, etc.)
  - This field has a high level of conviviality
  - This field is young and remains fragmented
- Questions:
  - Do we need to consolidate?
  - Do we need a consensus statement of identity and direction in the field? A textbook?
  - How to structure meetings?
  - How to cultivate funds for research and training?
  - How to define and facilitate career pathways?

# Planetary health: A scientific paradigm

- “Nothing in biology makes sense except in the light of evolution.” (Dobzhansky)
- A Planetary Health version: “Nothing in human health, well-being, thriving, or survival makes sense except in the light of Planetary Health.”
- Features: Systems thinking, complexity, surprises and uncertainty, ecological principles, probabilistic thinking, multiple temporal and spatial scales, deep cross-disciplinarity,.
- Observation:
  - Universities not well structured to tackle such problems
- Questions:
  - Do we need more systematic reviews? A Cochrane-like process?
  - Do we need a research agenda?

# Planetary health: A policy framework

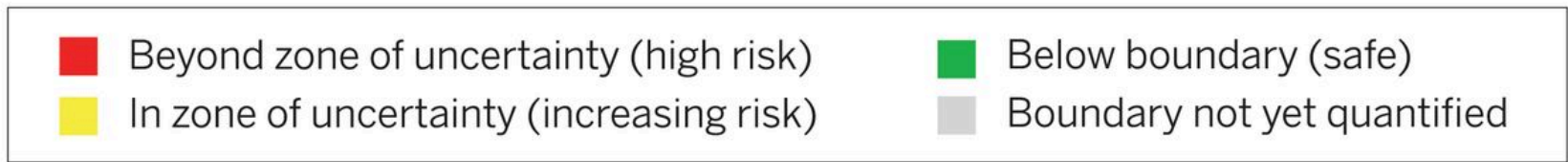
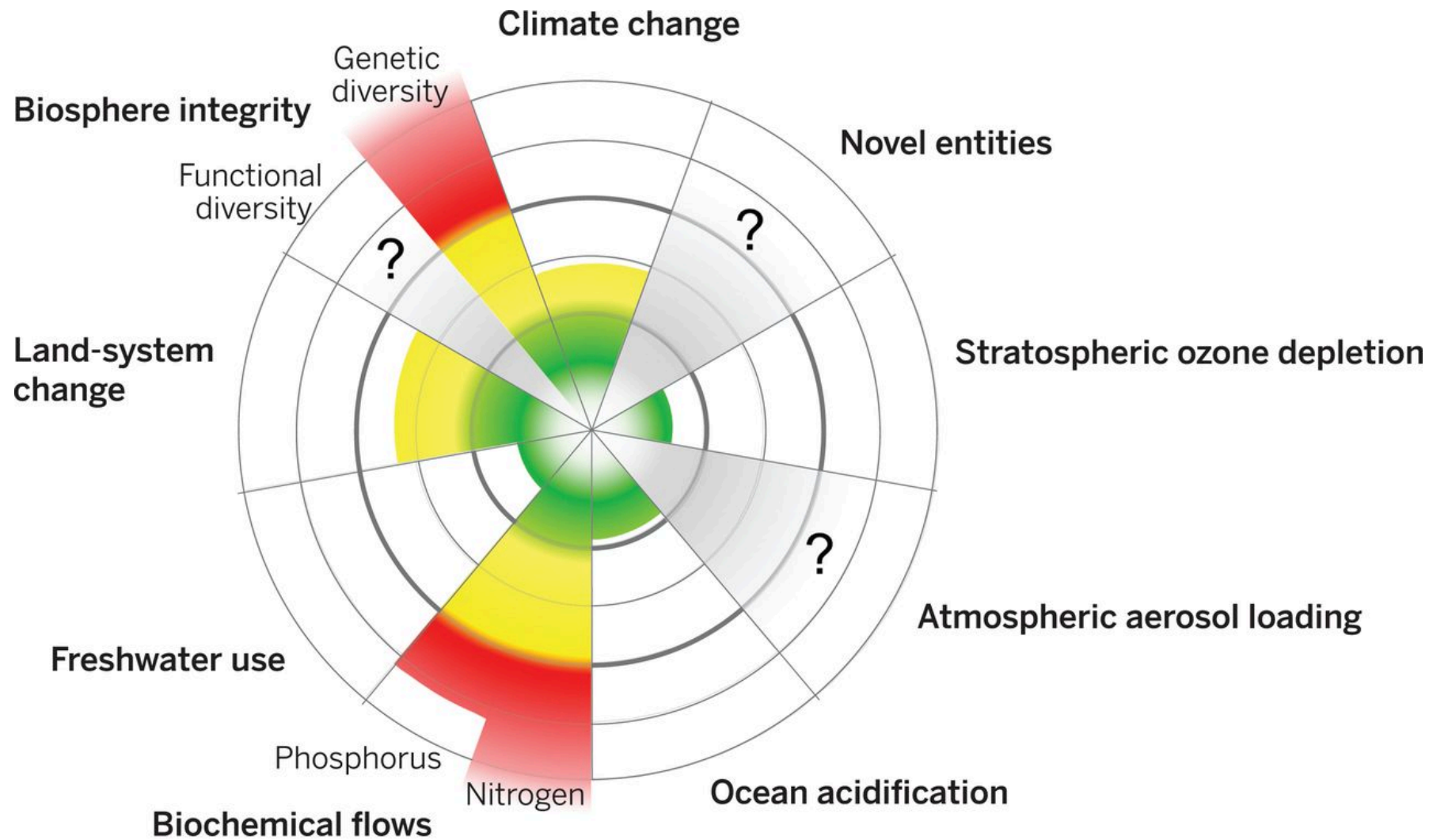
- Scientific input into policy must be...
  - Anchored in the needs of decision-makers
  - Anchored in the perspectives of people and communities
- Observations:
  - Highest impact when applied to specific challenges: hunger, transportation, energy generation, air pollution, etc.
  - Approaches will differ based on spatial scale, short-term vs long-term, North vs South
- Question:
  - Should we be distilling data into information (indicators)?

# Planetary health: A communication strategy

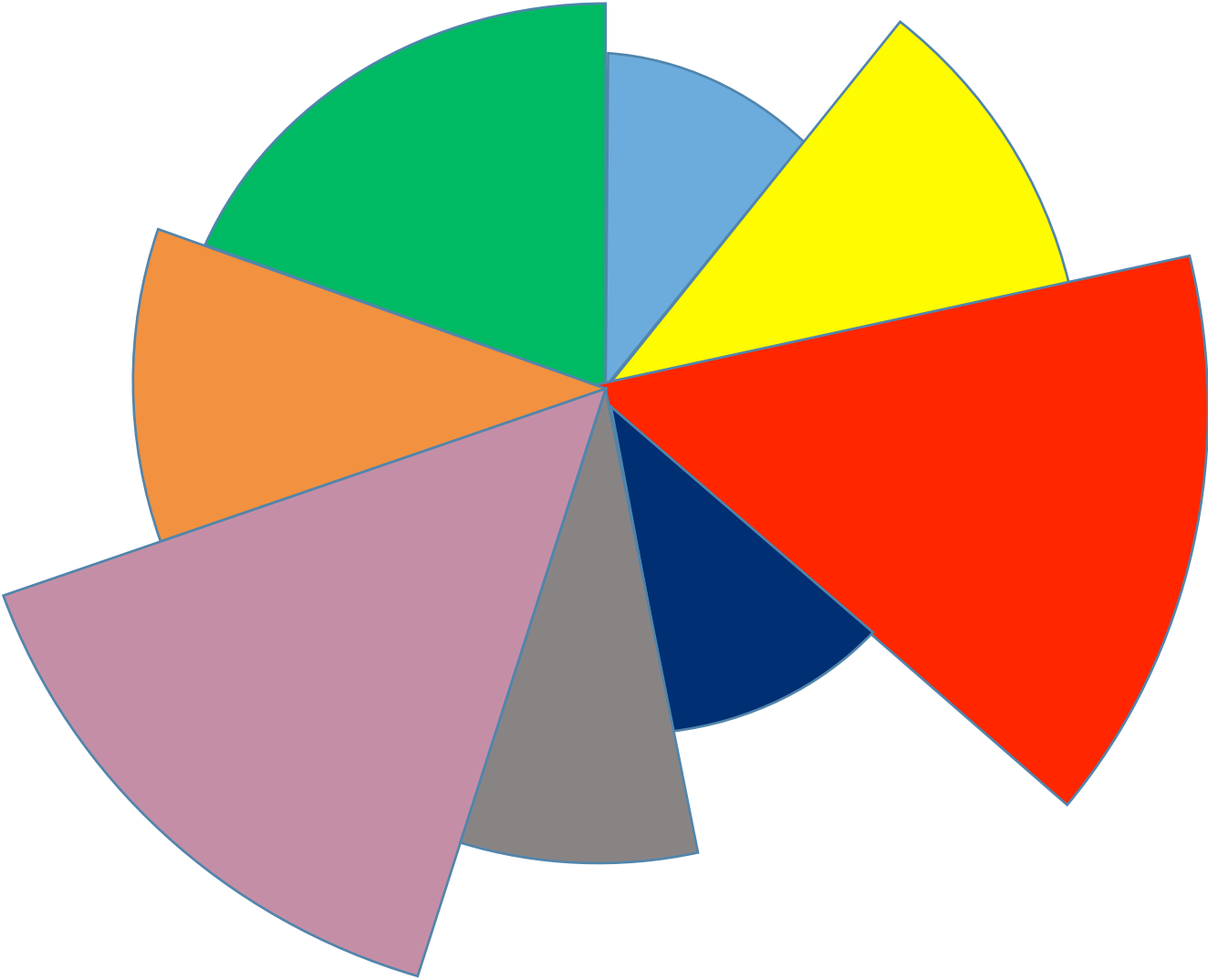
- Planetary health: A way to frame and communicate reality in the Anthropocene.
- Observations:
  - “Planetary Health” is a wonky term.
  - Complexity confuses and numbers numb. But stories stick and pictures persist.
- Questions:
  - Who are the audiences?
  - What are our key (scientific and values) messages?
  - What are the most compelling personal journeys, success stories and inspiring anecdotes?
  - Should speaker training be a part of the agenda?

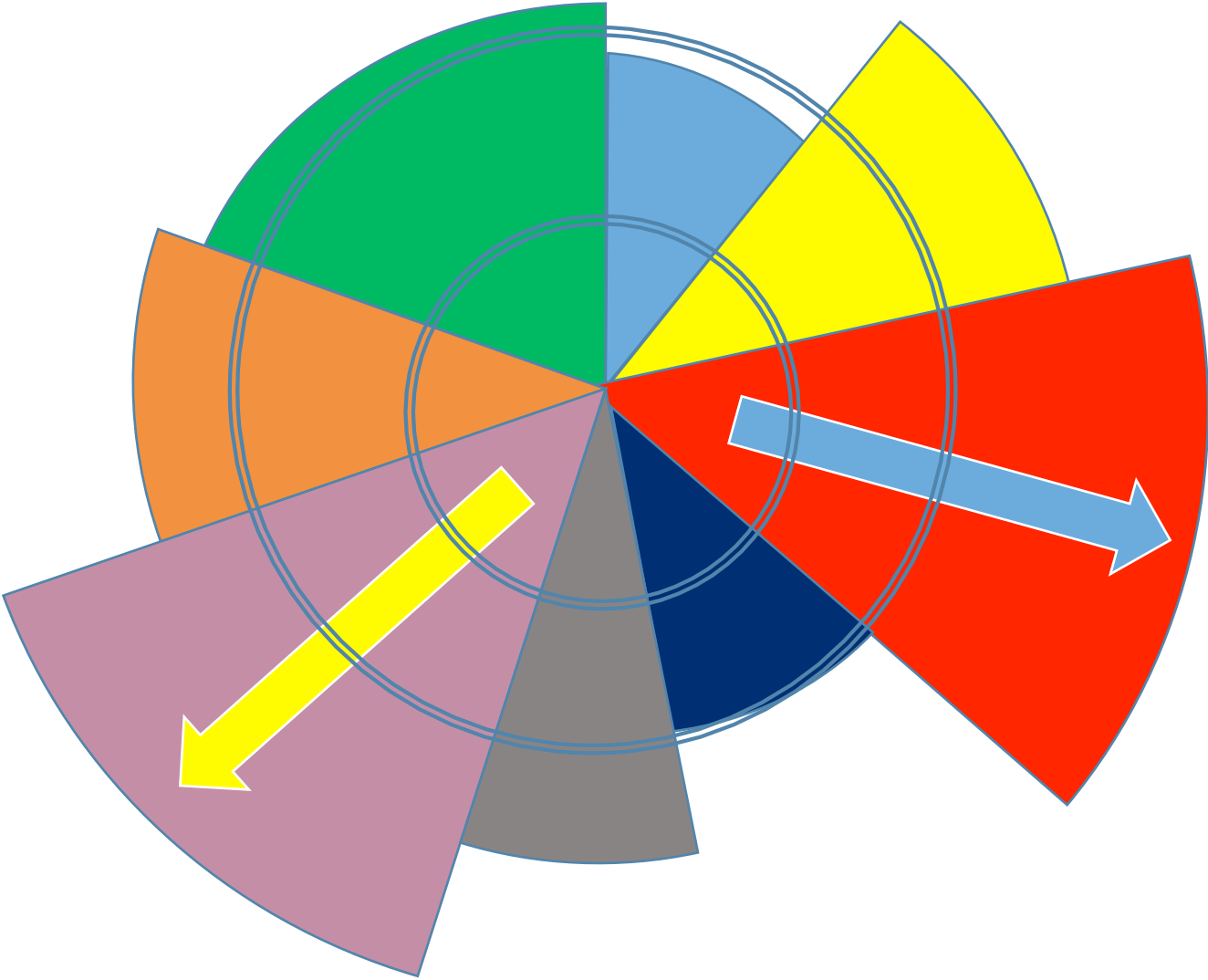
# Planetary health: A moral imperative

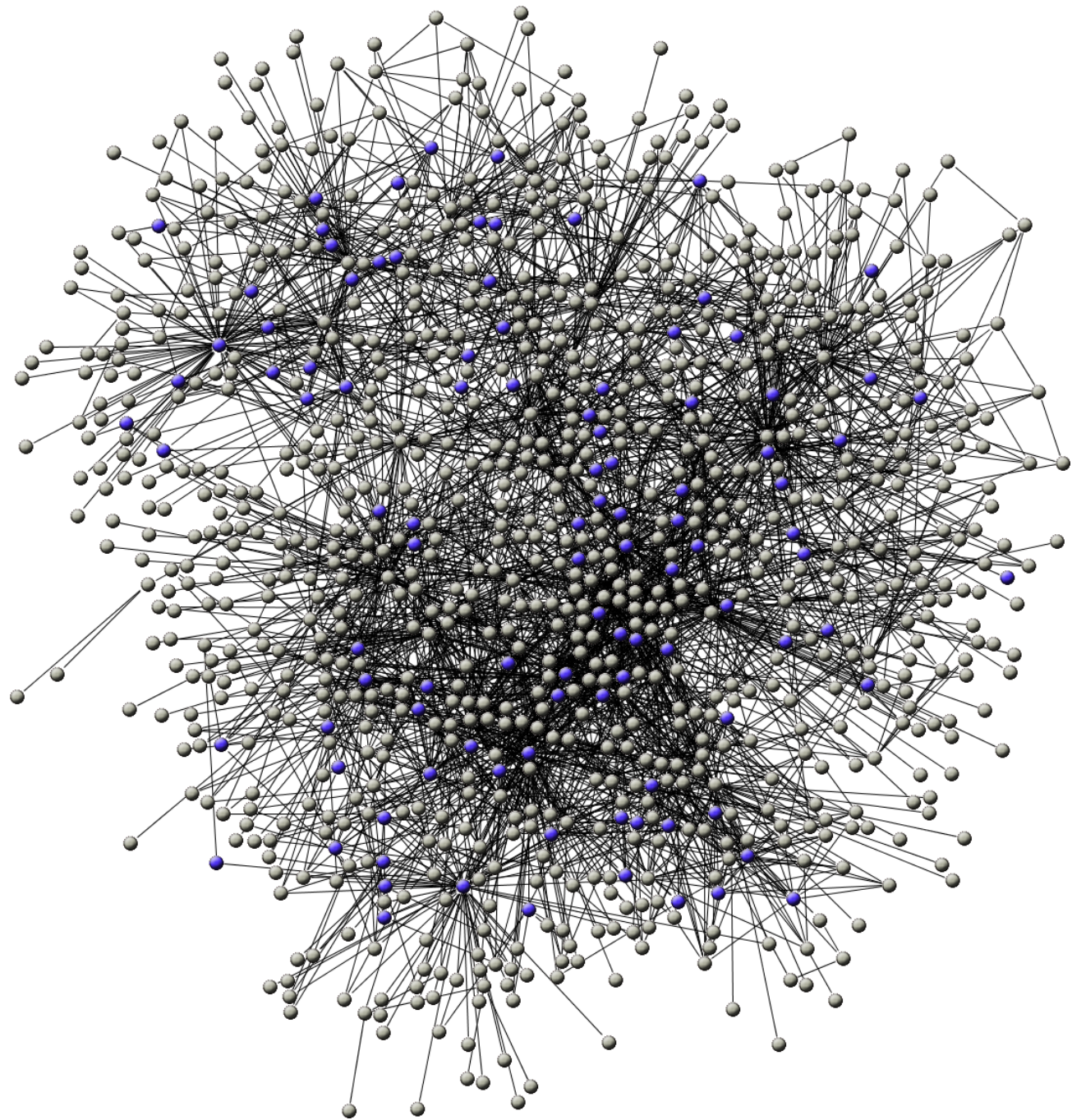
- Starting points:
  - Equity
  - Bioethics principles: Autonomy, justice, beneficence, non-maleficence
- An ethics for the Anthropocene?
  - “Human prosperity in a flourishing web of life”<sup>1</sup>
  - Human civilization is a precious and beautiful thing, and when it is threatened, we are called to rescue it.
- Observation:
  - The language of passion and moral conviction is a far cry from the measured, careful discourse of scientific meetings
- Questions:
  - How do we give ourselves permission, and learn, to engage in moral discourse?
  - How do we build alliances with faith communities?

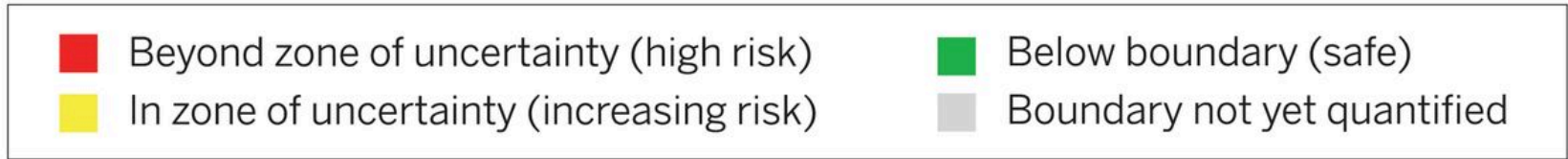
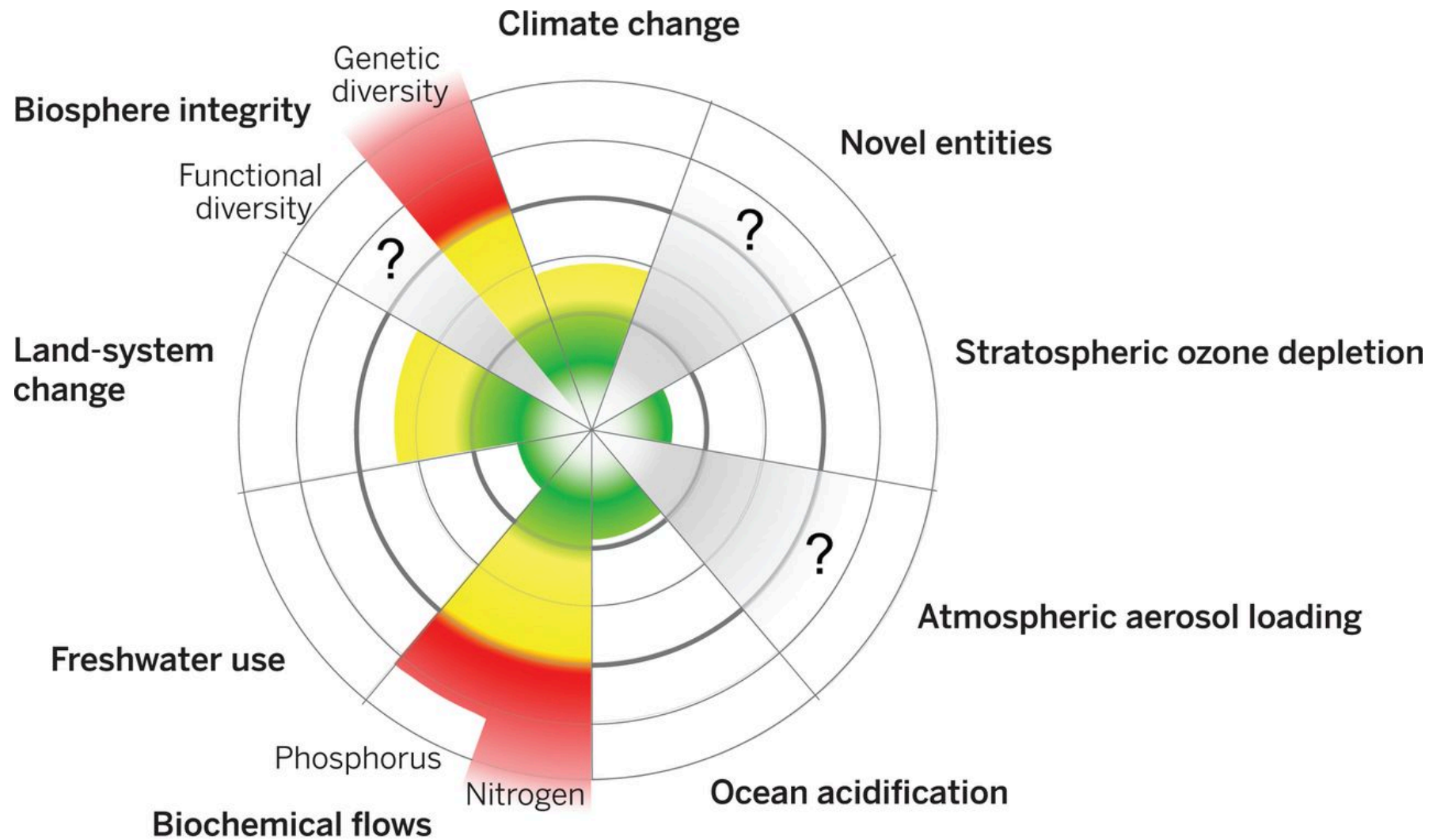




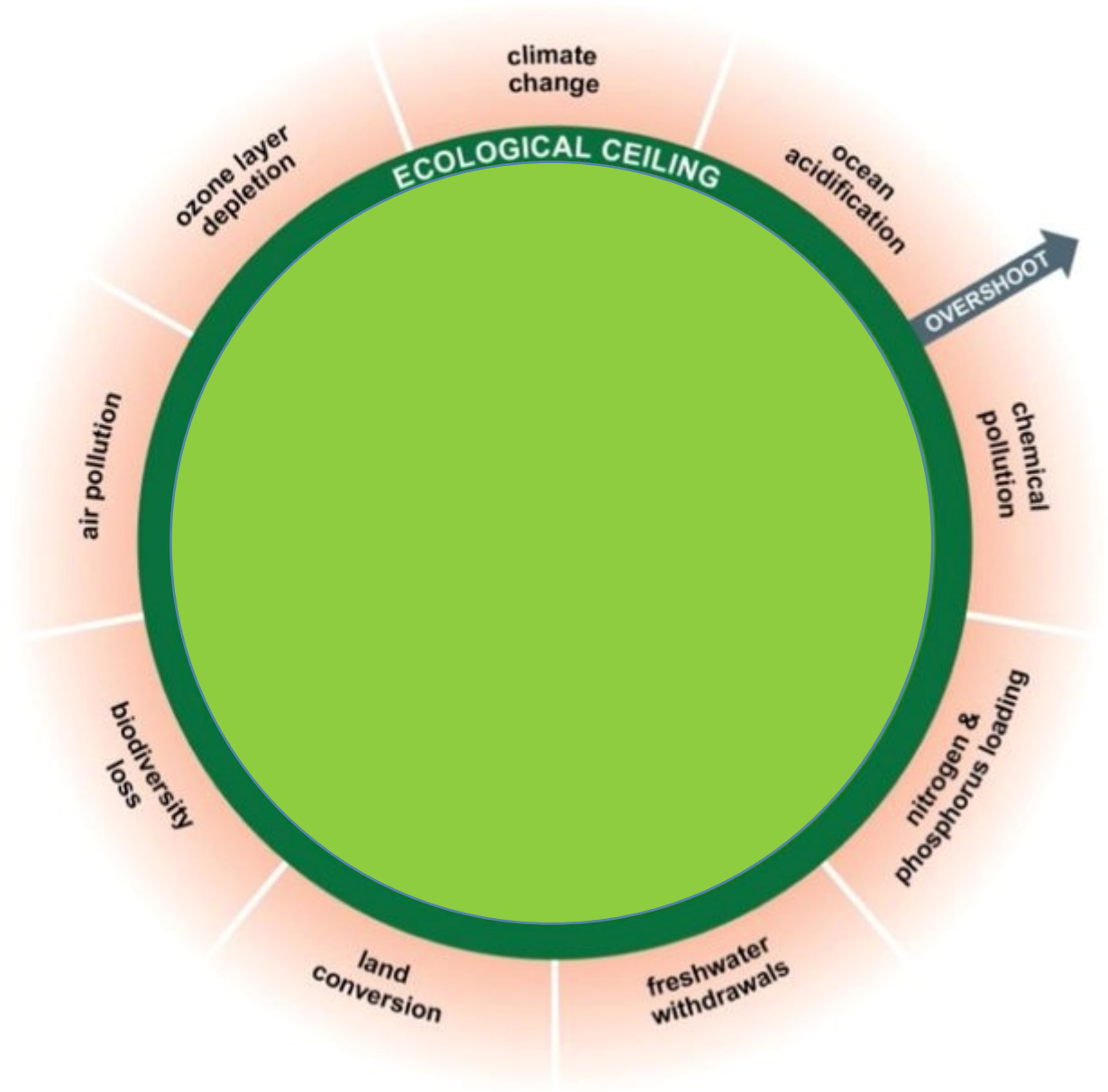


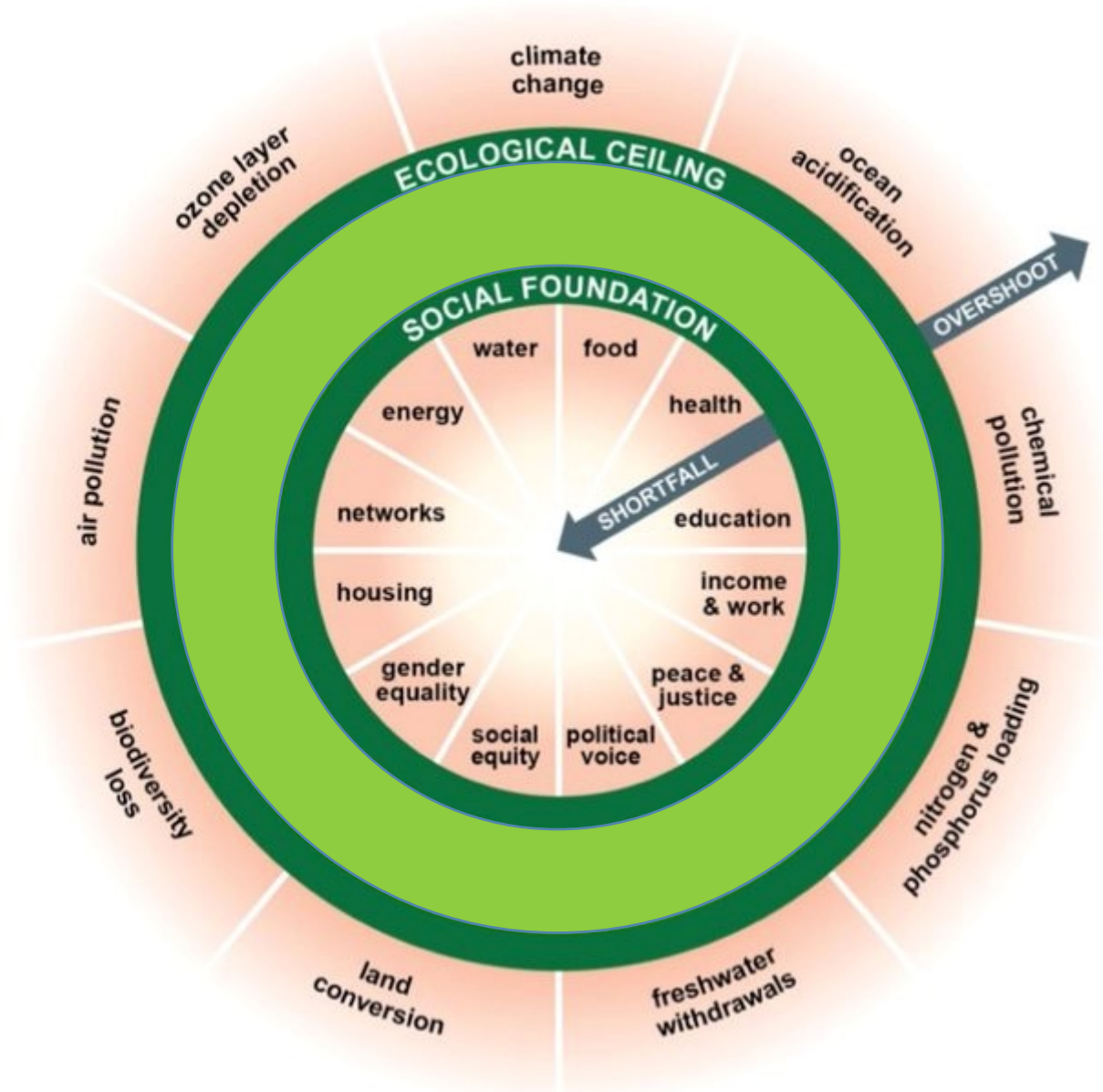


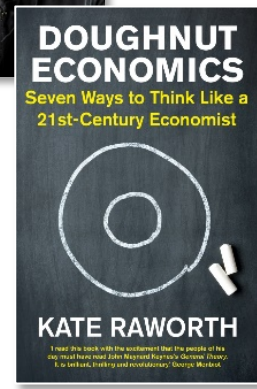




Steffen et al. 2015. Planetary boundaries: Guiding human development on a changing planet. *Science* 347:1259855.







**DOUGHNUT ECONOMICS**  
 Seven Ways to Think Like a  
 21st-Century Economist

**KATE RAWORTH**

Found this book with the comment that the people of the world had read John Maynard Keynes's General Theory, it is still just, timely and revolutionary. George Monbiot

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Thank you!