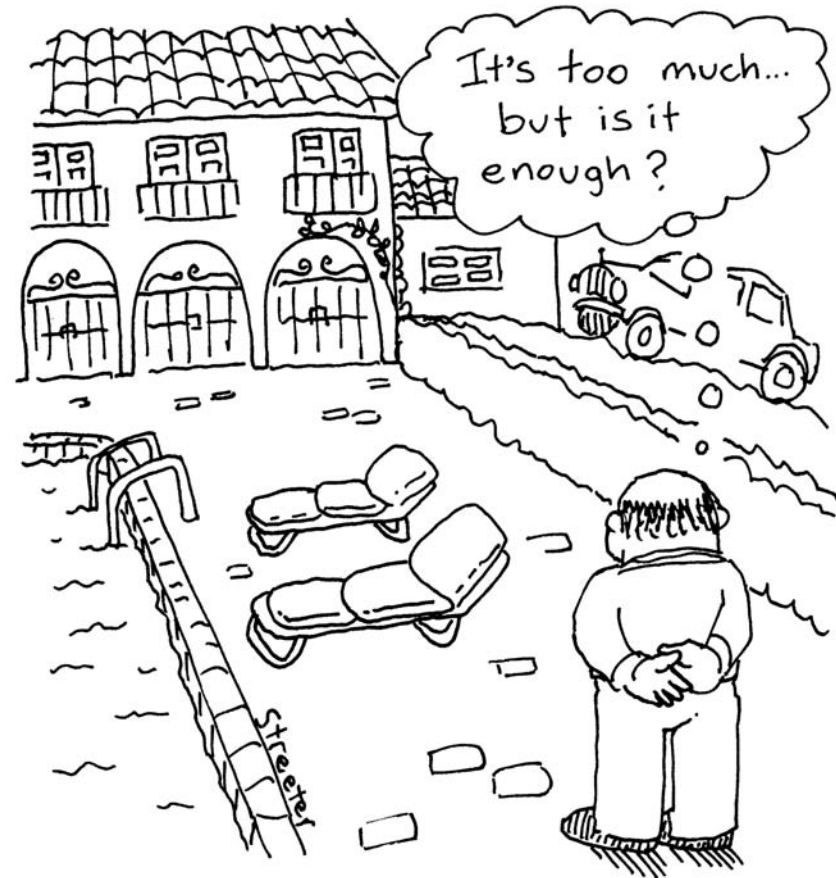


A photograph of a forest floor covered in a dense carpet of small white wildflowers. Tall, slender trees with green foliage stand in the background, with sunlight filtering through the canopy. The text "Living within our limits: the role of Earth Jurisprudence" is overlaid in white, bold, sans-serif font in the center of the image.

# Living within our limits: the role of Earth Jurisprudence

# Overview

- A key element of Earth Jurisprudence is that we live within ecological limits
- How do we do this? How much is enough?
- Tools to help us live within our limits exist – so why aren't we there yet?
- Earth Jurisprudence challenges us to create **governance structures** that help us live within our limits – and it offers a framework for bringing multi-disciplinary approaches together



## Key question ...

If we woke up tomorrow, and every citizen, government and organisation on earth agreed that humanity has to live within Earth's ecological limits (within the 'great law') –

***how would we do it?***

# The problem

- Humans have used more resources since the 1950's than in all previous history (Durning)
- Currently use 1.5 planets worth of resources
- By 2030, we'll need 2 planets to meet human demands (Global Footprinting Network)
- “Welcome to the Anthropocene”



Photo: Dubai; National Geographic

# Millennium Ecosystem Assessment

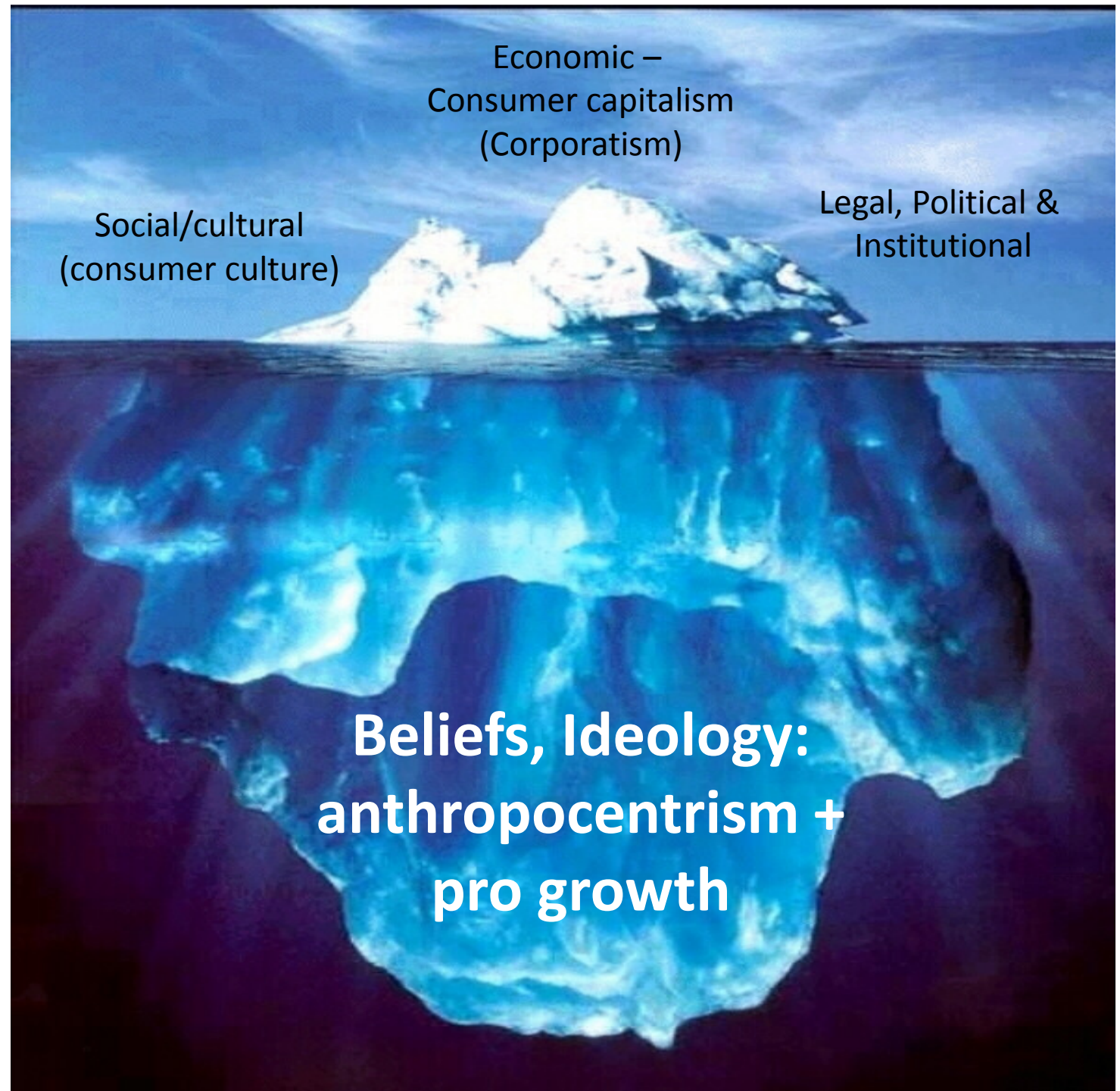


In 2005, a report compiled by over 2000 scientists from ninety-five countries concluded that:

**60% of global ecosystem services were "being degraded or used unsustainably"** including fresh water, fisheries, air and water purification and the regulation of natural hazards and pests.



Why?



# Solution?

The obvious solution is to consume less and to 'limit human consumption so it doesn't exceed the sustainable level of production from natural systems'.

(Ian Lowe, 2006)

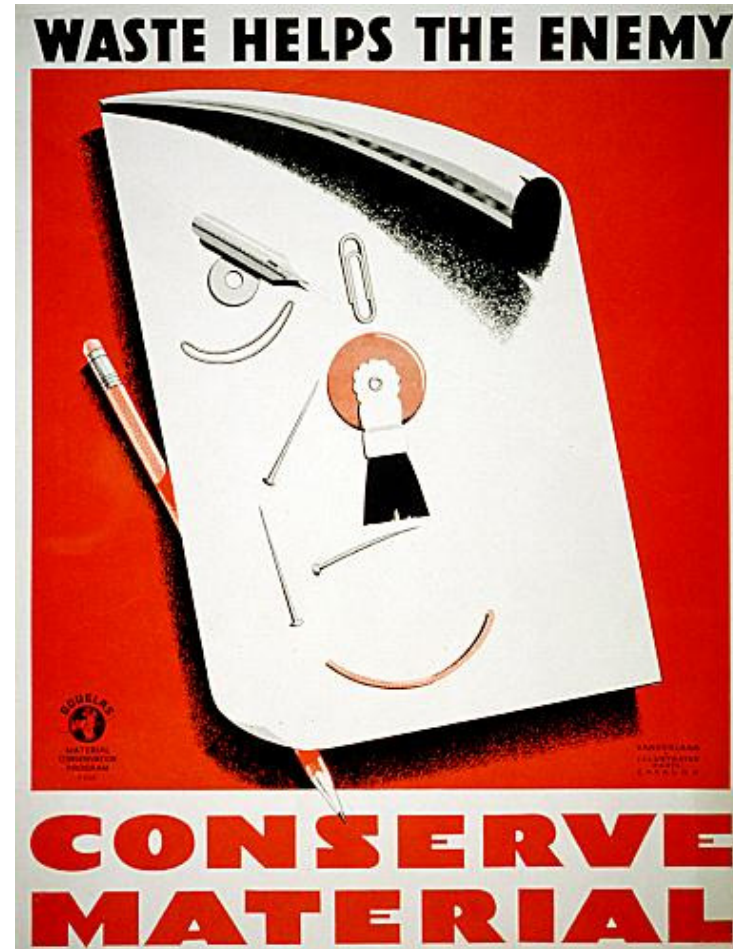




# Ideas about limits

- Many indigenous cultures understood ecological limits and structured their societies to work within them
- Modern western society has developed ideas about limits during the 20<sup>th</sup>/21<sup>st</sup> centuries
  - 1972 – Limits to Growth, Club of Rome
  - 1970's – James Lovelock, Gaia Theory
  - 1987 – 'Sustainable Development', Brundtland
  - 20 and 30 year revisiting of 'Limits to Growth'
  - 2009 – 'Planetary Boundaries'

Modern history has examples of state sponsored material frugality ...



## Sustainability has lots of tools

land planning laws

water allocation/planning

infrastructure planning

utilities – demand management

pollution control laws

ecological economics (linked to biophysical realities)

urban and household metabolism  
(environmental resource flow analysis)

industrial ecology assessment and planning

the economic valuation of environmental impacts (externalities)

material and energy flow analysis – focus upon water, energy and greenhouse gas emissions

**sustainability indicators – including ecological footprint analysis, environmental-economic accounting**

the use of environmental input-output methods and life cycle analysis to assess sustainable consumption relating to water and energy

life cycle assessment and hybrid life cycle and input-output analysis techniques for assessing the sustainability implications of goods and services, organisations, industries, infrastructure and urban form

# Problem with all these tools?

- Tools we have are primitive – linear, locked into disciplines (Allenby, 'Industrial Ecology')
- They're like loose jigsaw pieces – no 'big picture'
- **They exist within pro-growth, anthropocentric political and economic structures**
- Collective entities that currently 'control' much of the world's resources – (eg governments, corporations) don't accept limits
- What we need: overarching principles and operational framework for ***accepting, understanding and setting limits***



# What Earth jurisprudence says about living within our limits

- We need to defer to the 'great law' – the laws of the universe, as the parameters of our life – live within ecological limits
- We need to respect the interconnectedness of all things; the relationships between members of the Earth community (earth centric world view)
- **The rights of each being are limited by the rights of all other beings (rights, obligations)**
- We need to regulate ourselves (not nature) so that Earth systems can continue to function and our evolutionary companions continue their evolutionary journey
- Thomas Berry suggested all key institutions – education/academic, religious, government, corporate - need to focus on deepening their understanding and connection to the natural world
- *Earth jurisprudence is compatible with, and deepens the arguments in favour of, ecological justice, ecological integrity, planetary boundaries*



# What governance structures should we use to live within our ecological limits?



- Whether we design completely new systems (viva la revolution!)
- Or improve what we do now
- How do we put all our good ideas together?

## Beware the solutions ...

*“ (Today, environmentalists) ... construct integrated multiscale ecological-economic models and assessments online, utilizing the results of adaptive, biocomplex, computational, cross-cutting, holistic, integrated, interactive, interdisciplinary, multifactorial, multifunctional, multiscale, networked, nonlinear, simulational, synthetic, externally funded research, addressing uncertainties, vulnerabilities, complexities, criticalities, and surprise scenario forecasts. **Thus they adopt in a contemporary form the very economic and utilitarian approach their predecessors deplored**”*

— Sagoff 1994, p.155

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*Fair point ... but to move modern societies to a world with limits, we need to start somewhere*

# Role of Earth jurisprudence - questions

- How do we know our limits? How do we know Earth and our place in it?
- How do we set our limits of consumption?
- How do we respect the relationships between the members of the Earth community? How do we allocate 'rights' between species, to protect the whole Earth community?
- How do we 'regulate' ourselves to stay within these limits?

*(And how do we get there? How do move our societies to address these issues?)*

# Earth Jurisprudence can bring the big questions together into one framework

Understanding the Earth System and our place in Mother Earth

- Opens door to scientific understanding of how our planet works and human impacts
- Opens door to cultural, spiritual and ethical values; how we want our relationships and state of the world to be

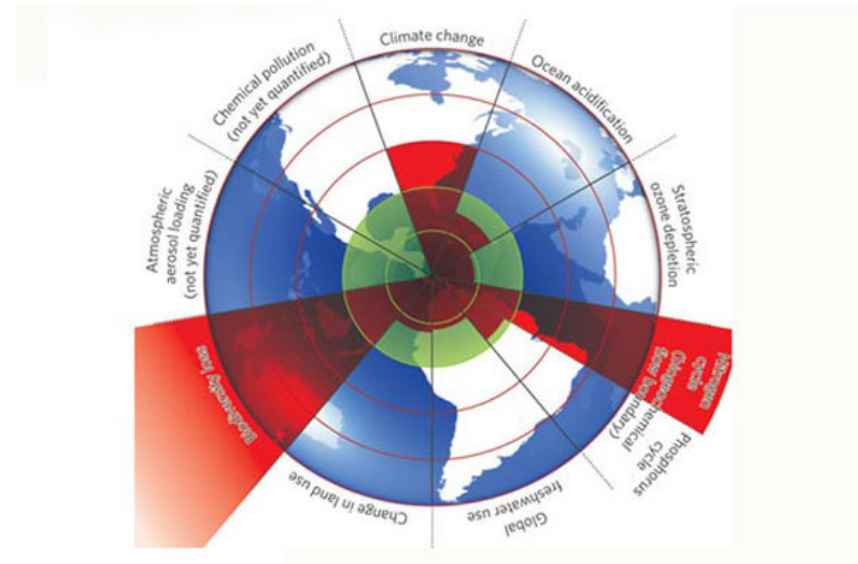
How do we live within the Earth System and respect valued relationships?

- What is it we value and how do we secure this? There's only some development/lifestyle pathways that deliver the world we want
- What kind of governance systems will deliver this?
- What and how do we measure? How do we guide? Ethical frameworks , legal principles, economics, politics



# Task 1: Understanding Earth Systems

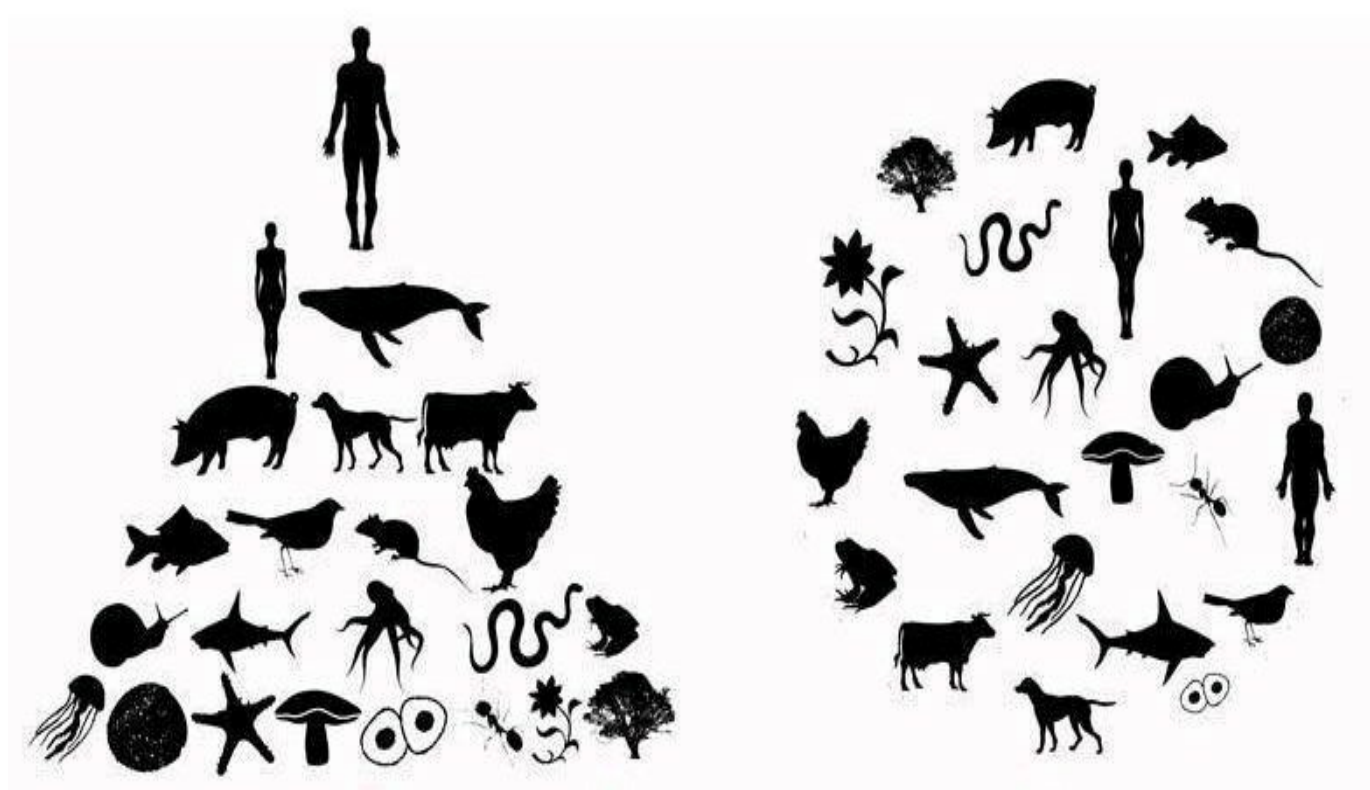
- First step - we need to deepen our understanding of the natural world
- What can we learn from science?
  - Interconnectedness
  - Ecological integrity
  - Planetary Boundaries
  - Catchment/local level limits
  - Limits of scientific knowledge
- What can we learn from indigenous knowledge?
- Spiritual connections to the world?



Planetary Boundaries – Rockstrom, Steffan, et al

a framework of 9 “planetary boundaries” designed to define a “safe operating space for humanity” for the international community, including governments at all levels, international organizations, civil society, the scientific community and the private sector.

## Task 2: Understanding our place in Mother Earth




Whether our world view is influenced by science, spirituality, morality, ethics ... or all, an ecocentric starting point shapes our values → helps us identify important relationships → and our values shape our decision making 'tools' (on any scale)

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# Task 3 – Governance structures

## What is it we value?

- Earth community
- Role of ethics – Berry's Principles , Earth Charter
- Processes for collective decision making – role of civil society; state centred deliberative democracy, etc

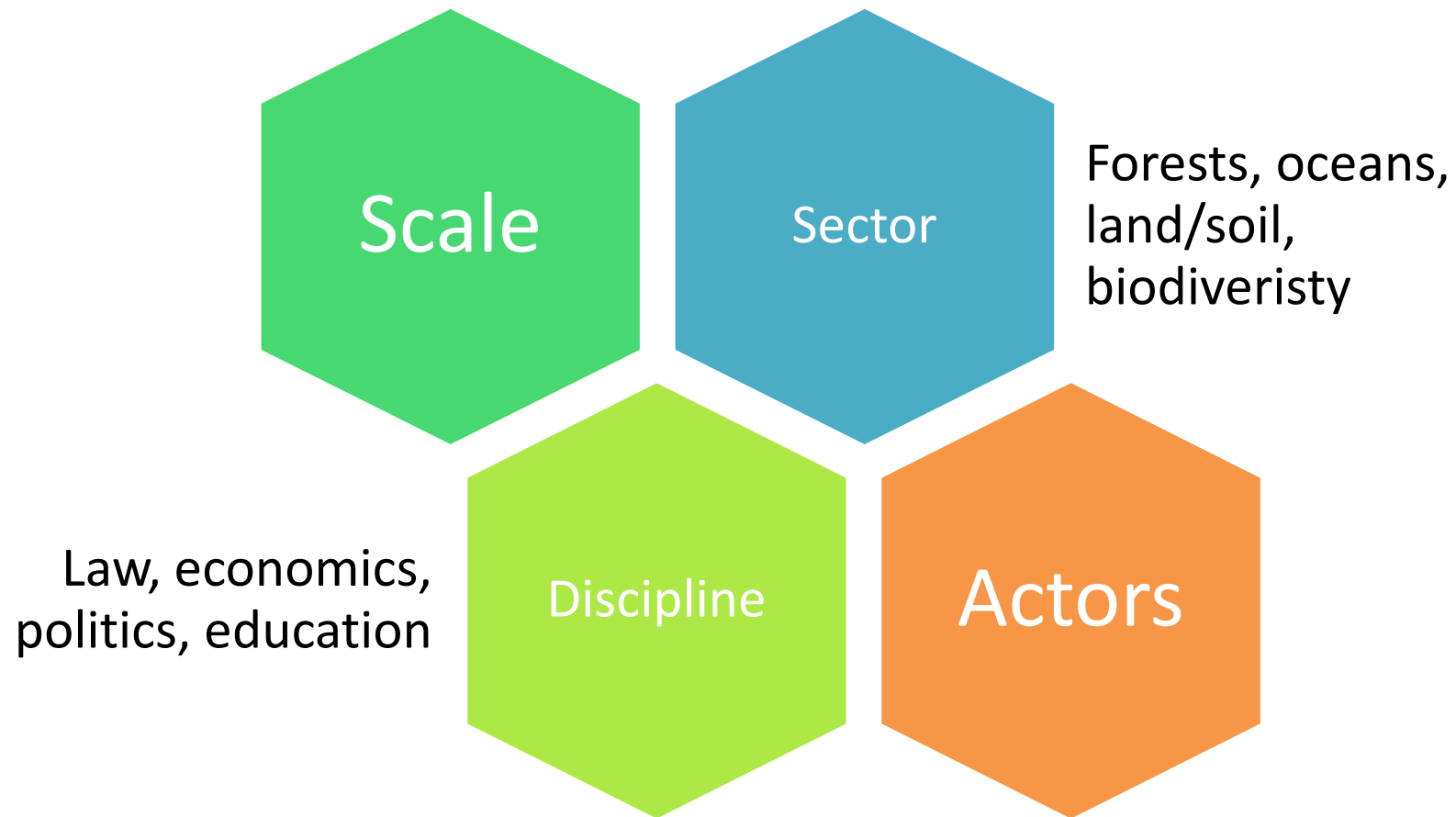
## What governance structures will support what we value and limit humanity's impact on the earth?

- Governance is multi-disciplinary, multi-scaled, complex
- What economic system do we want to have?

## What and how do we measure, guide, monitor?

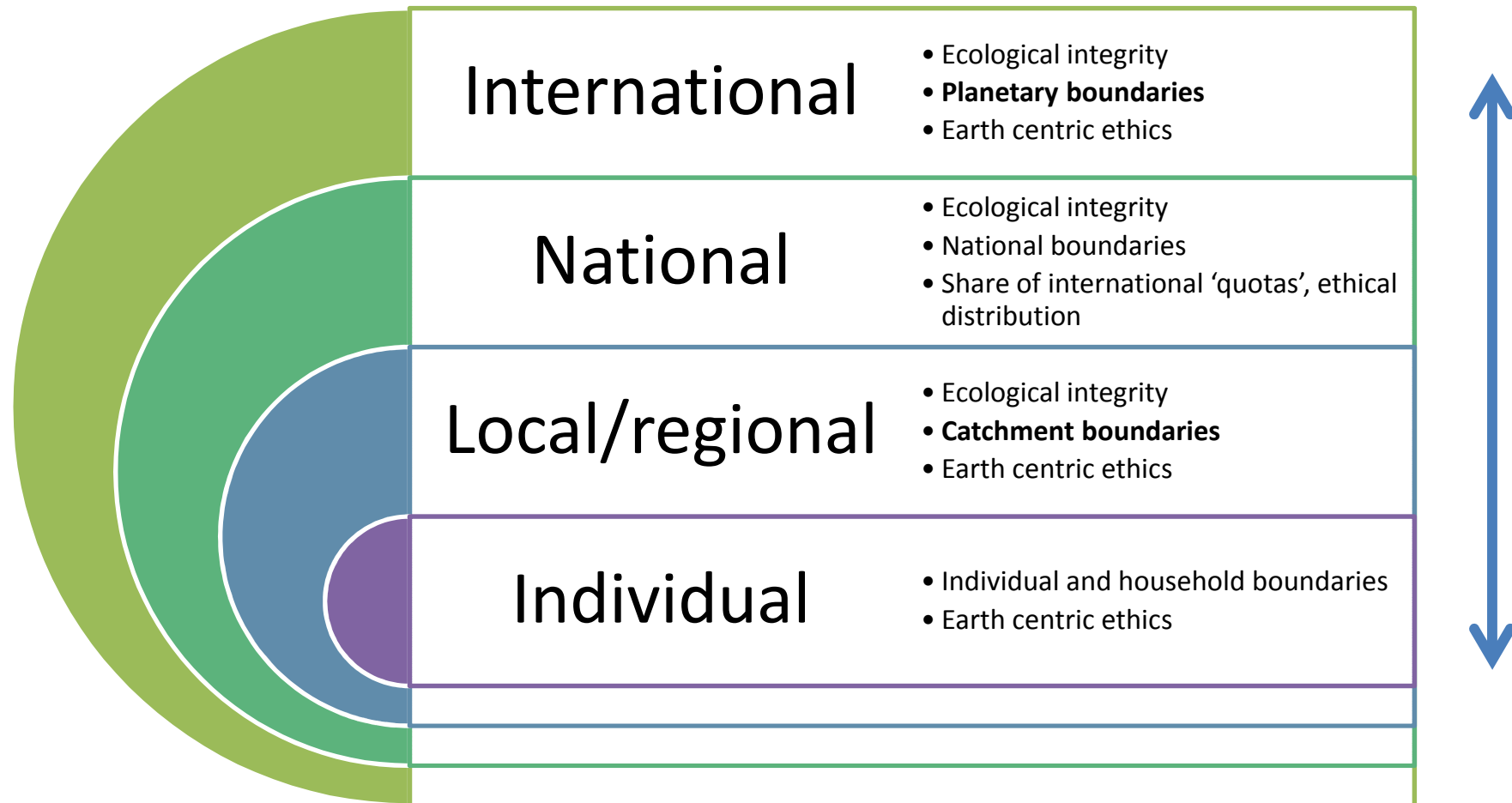
- A return to tools – within an Earth Jurisprudence framework

# Different 'lenses' for looking at governance ...

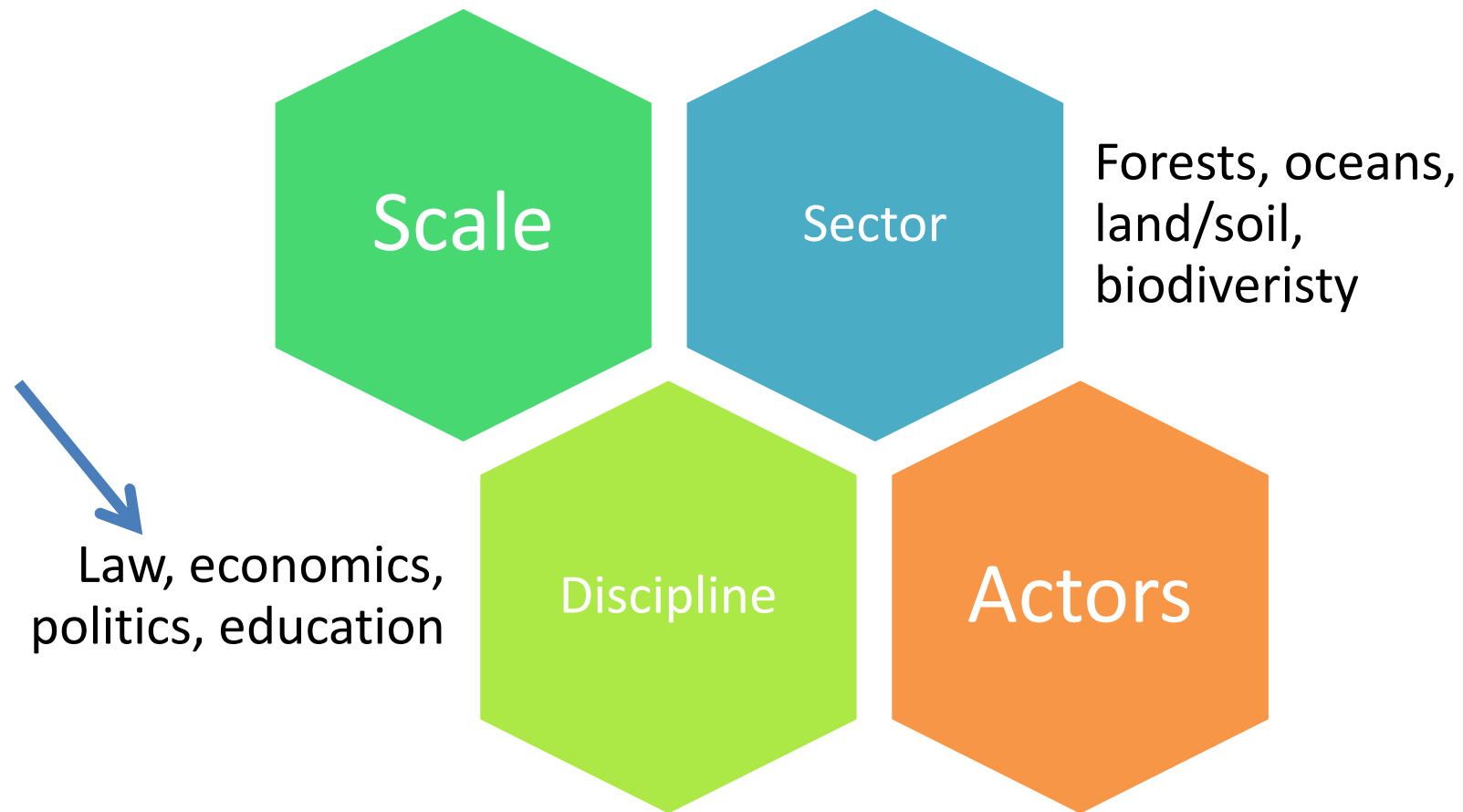




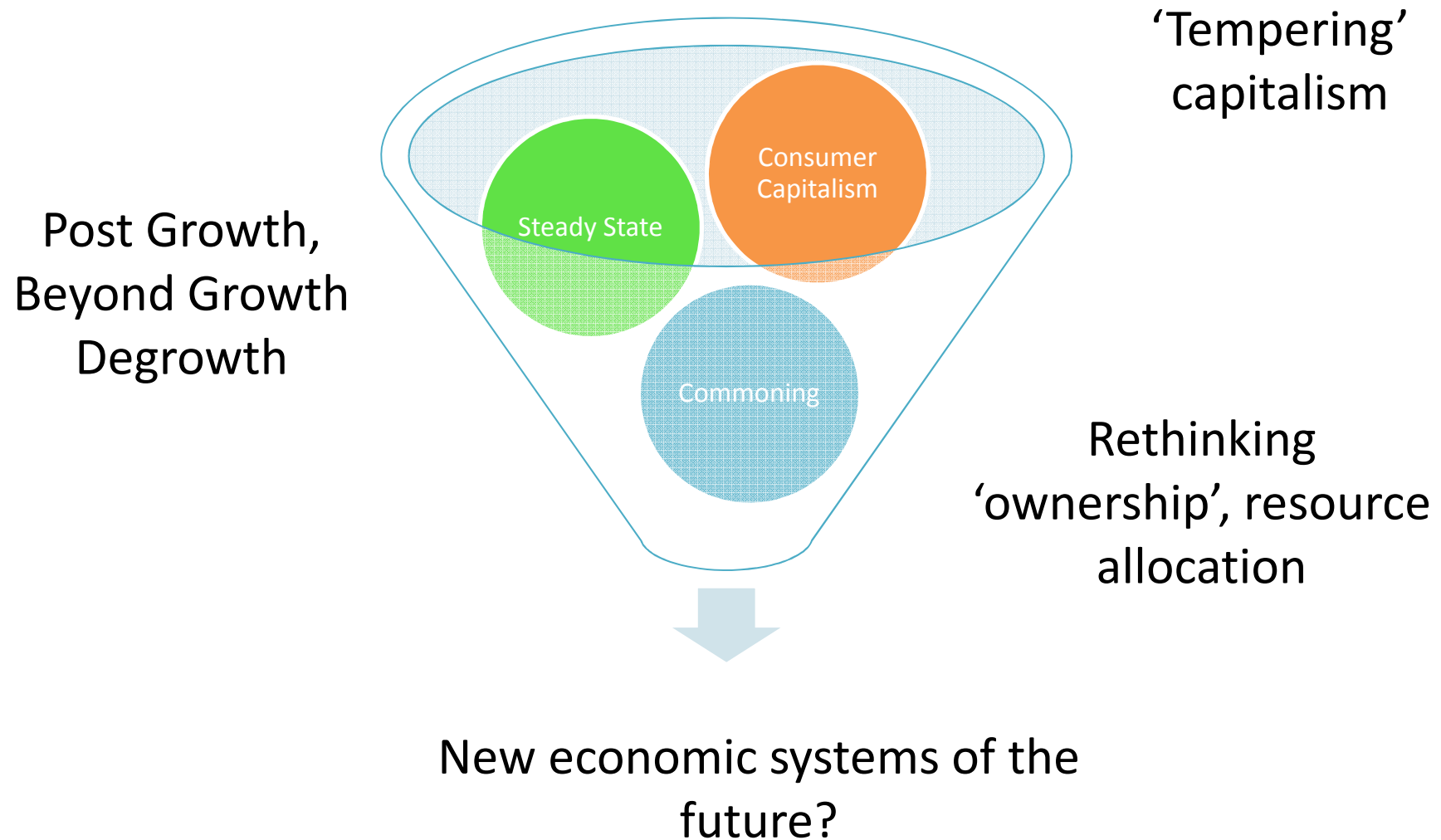
# Eg Scale – governance for limits needs a nested/ 'systems' approach



# Different 'lenses' for looking at governance ...



# Economics – in transition?



# The role of law?

- Does it lead or follow?
- Sets the framework for many other systems
  - Economics
  - Participation
  - Social and ecological justice



# Law in a pro-growth world

- Earth jurisprudence sees current legal system as anthropocentric, pro-growth
- Guth (and others) - current legal system is built for 'empty world' economics; the idea that there are limitless resources – law facilitates development (private property laws, investment laws etc)
- 'Environmental law' historically 'pollution laws' – no framework for managing demand or limiting volume of consumption (of anything) just mitigation of development impacts (eg industrial processes; Qld – coal and CSG) (Salzman)
- Absence of legal frameworks for setting ecological limits
  - Eg Planning laws – typically manage pro-development allocation of land between competing private interests in political jurisdictions; don't link to broader understanding of carrying capacity or ecological limits; rarely factor in cumulative impacts



# Law in a finite world

- Acceptance of *ecological integrity, planetary boundaries, rights of nature* as legal principles which could be applied to the entire legal system rather than just environmental law (all levels of law)
- Law would play a role in creating **positive regulatory frameworks** for living within our limits
  - Ethical considerations and collective decision making (deliberative democracy, social and environmental justice)
  - Regulatory frameworks for institutionalising ‘limits tools’ (eg ecological footprints)
  - Planning laws (water, land allocation) actually linked to physical realities
  - Regulatory incentives – renewable energy
  - Laws at various ‘scales’ – nested - for setting ‘budgets’ for living within limits
    - Eg International law – Planetary boundaries, WEO
    - National level – eg UK Climate Change Law, carbon budget
    - Use of Contraction and Convergence model

# Law in a finite world (2)

- Regulatory mechanisms for setting limits
  - Rights of nature – guardian at law, other mechanisms
  - Structures to support new economic structures – (environmental accounting? GDP vs GPI? Rationing, energy budgets etc)
  - Reversal of the onus of proof for development
    - All new ‘development’ would have to prove how it is beneficial to the Earth community
    - Onus on development proponents – not individuals/communities - to defend position
- Legal frameworks for increased civil society involvement in values and allocation (participatory democracy)
  - Eg introduce values into decision making processes about production and consumption – deliberative democracy/processes for identifying what resources get used, what’s preserved
  - ‘values’ discussions exist in wild life protection laws, but few other legal regimes)

# Living within our limits - role of Earth Jurisprudence

- Humanity is really at the beginning of understanding and coming to terms with our 'limits'
- Planetary boundaries research is a huge catalyst
- Need cross-disciplinary approaches; need political 'activism' to support limits
- Earth Jurisprudence has much to offer
- Brings the pieces of the governance jigsaw together
- Eco-centrism as a starting point takes us to a very different place than pro-growth, anthropocentrism







*there is no planet b*