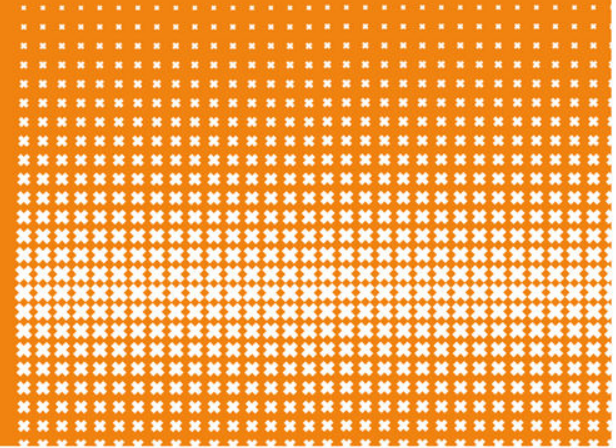




Amsterdam Institute for Social Science Research



Sharing Our Earth: The Water-Energy-Food Nexus

Joyeeta Gupta

Nexus Governance Challenges

- Glocal evolutionary governance
 - The rise of legal pluralism
 - The enormous future demands ahead
- Contested glocal nature
- The Sharing Our Earth challenge

Legal pluralism

Quality/Intensity	Weak relations	Strong relations
Contrary	Type 1: Indifference/Co-existence	Type 2: Competition
Affirmative	Type 3: Accommodation	Type 4: Mutual support

Legal Pluralism: Competition poses a challenge for nexus governance

- **UNECE and UN Watercourses Convention have different principles: quality or quantity**
- **Groundwater rules and UN watercourses Convention have different principles: sovereignty or equity**
- **Global climate governance and national energy governance compete**
- **Bio-fuel non-regime, had serious impacts on water, land, and society**
- **Free trade rules not implemented – agricultural subsidies in EU?/US**

Glocal Evolutionary Challenge: Nexus governance has to face:

2014

7 billion people

Income:

- Top 20% have 83%
- Bottom 20% - 1.4%
- 71% living on USD 1 per day live in Asia
Using 1.5 Earth

2030

8.3 billion (mostly & younger in S)

Unemployment/inequality

60% in cities

50% water stressed

Energy use increases

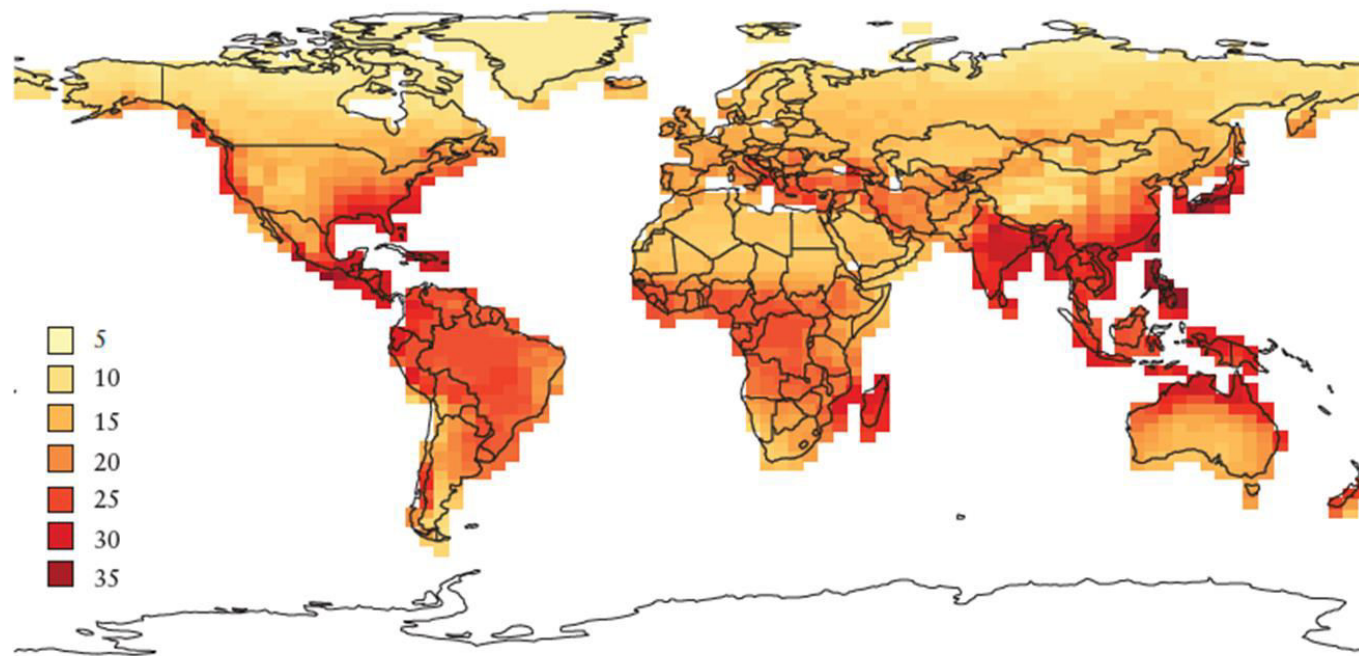
Temp rise by 0.5-1.5 degree

Biodiversity decline

Hazards increase

Glocal Evolutionary Challenge: Nexus governance has to face:

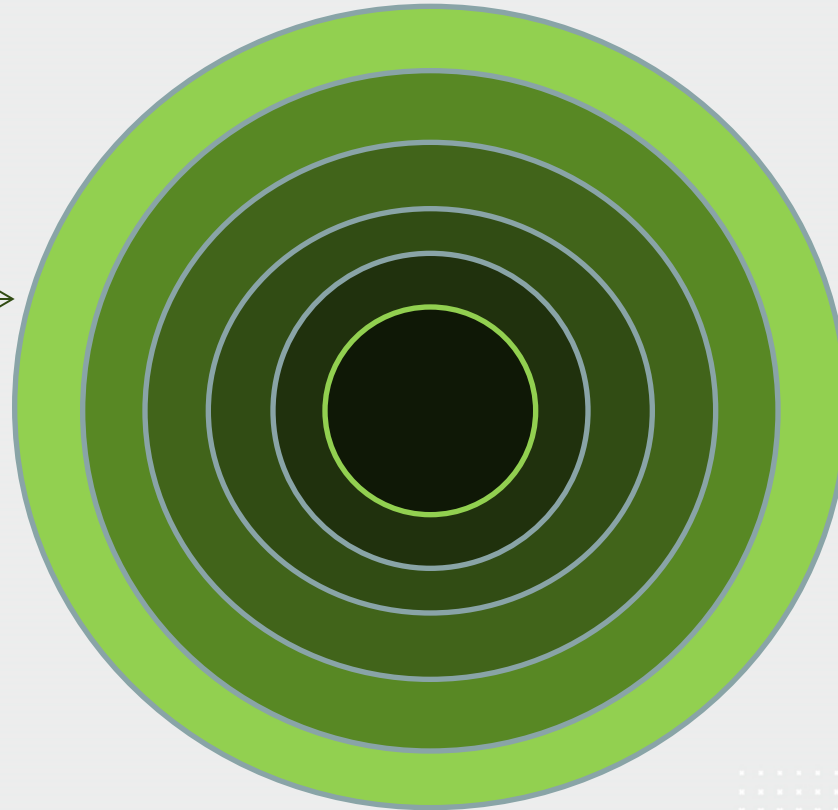
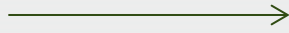
Figure 13: Global Multi-hazard Indicator for the 2030s



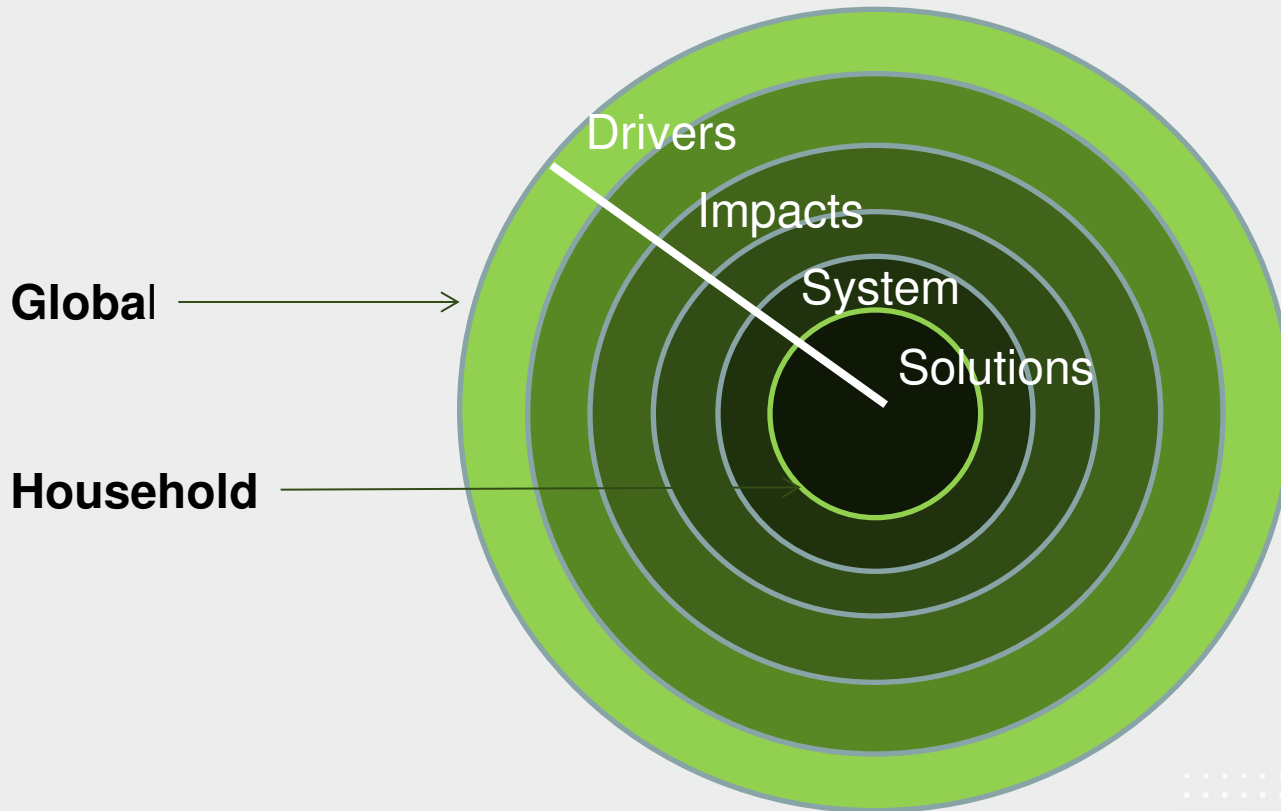
This shows the combined hazard exposure for drought, flood, high temperature, tropical cyclone and earthquake for the 2030s.

Nexus governance has to deal with scalar analysis

Global

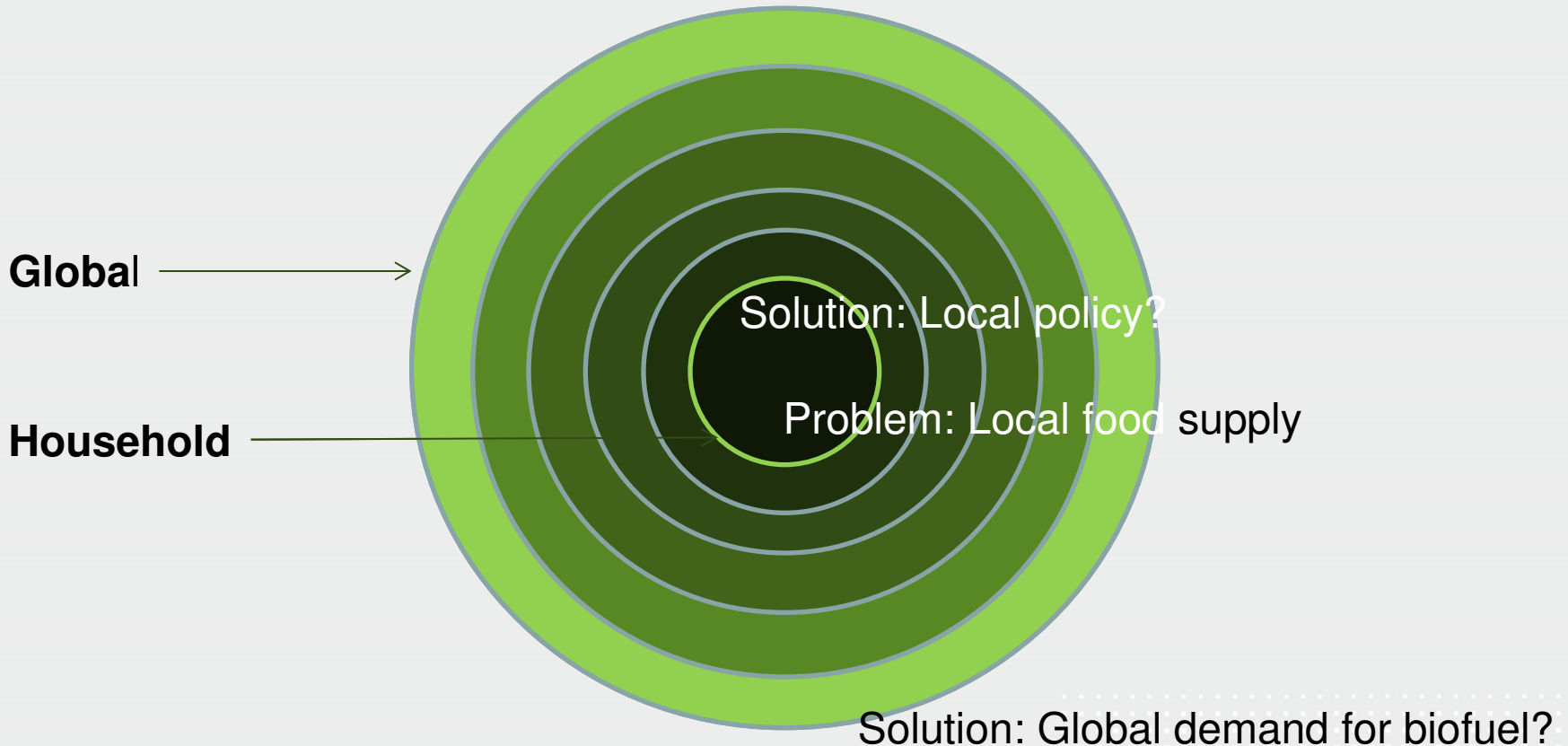


Nexus governance has to deal with scalar analysis



Nexus governance has to deal with scalar analysis

Problem: Neo-liberal market discourse



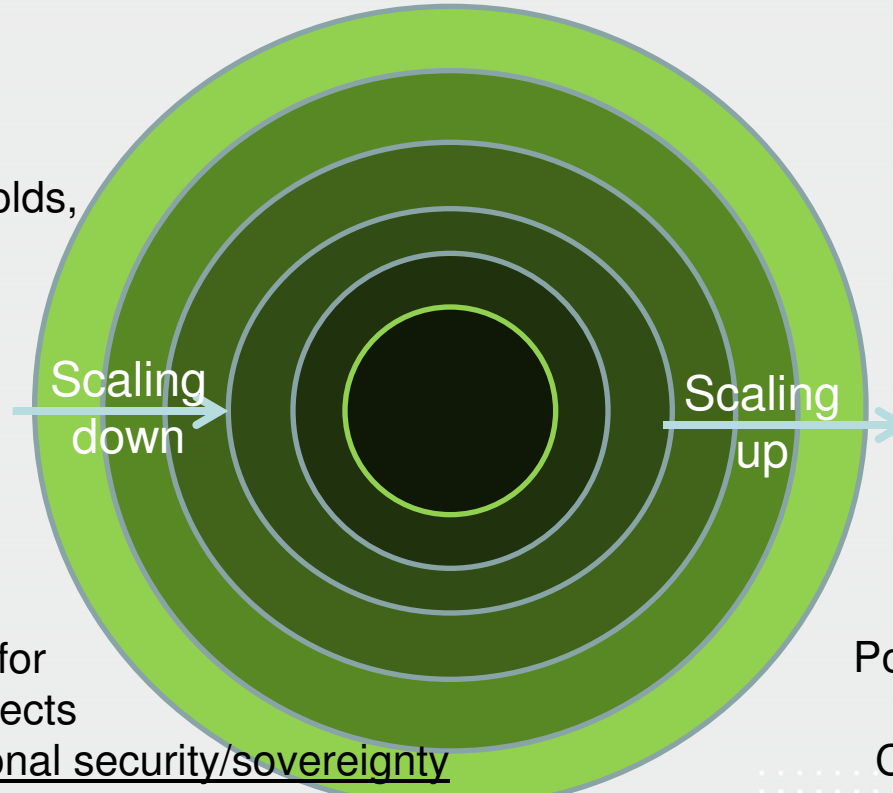
Nexus governance has to deal with scalar politics

Understanding, Effectiveness, Interests

Local rights based regimes
Local drivers, impacts, thresholds, goals

Avoid global responsibilities
Mobilize local institutions

To avoid liability for externalised effects
To promote national security/sovereignty
To divide and rule, include and exclude



Global paradigms
Global drivers, impacts, thresholds, goals

Assign RRR,
Share ecospace
Mobilize global bodies

Postpone domestic action
Minimize free riding
Create level-playing field
Gain influence over extra-territorial resources



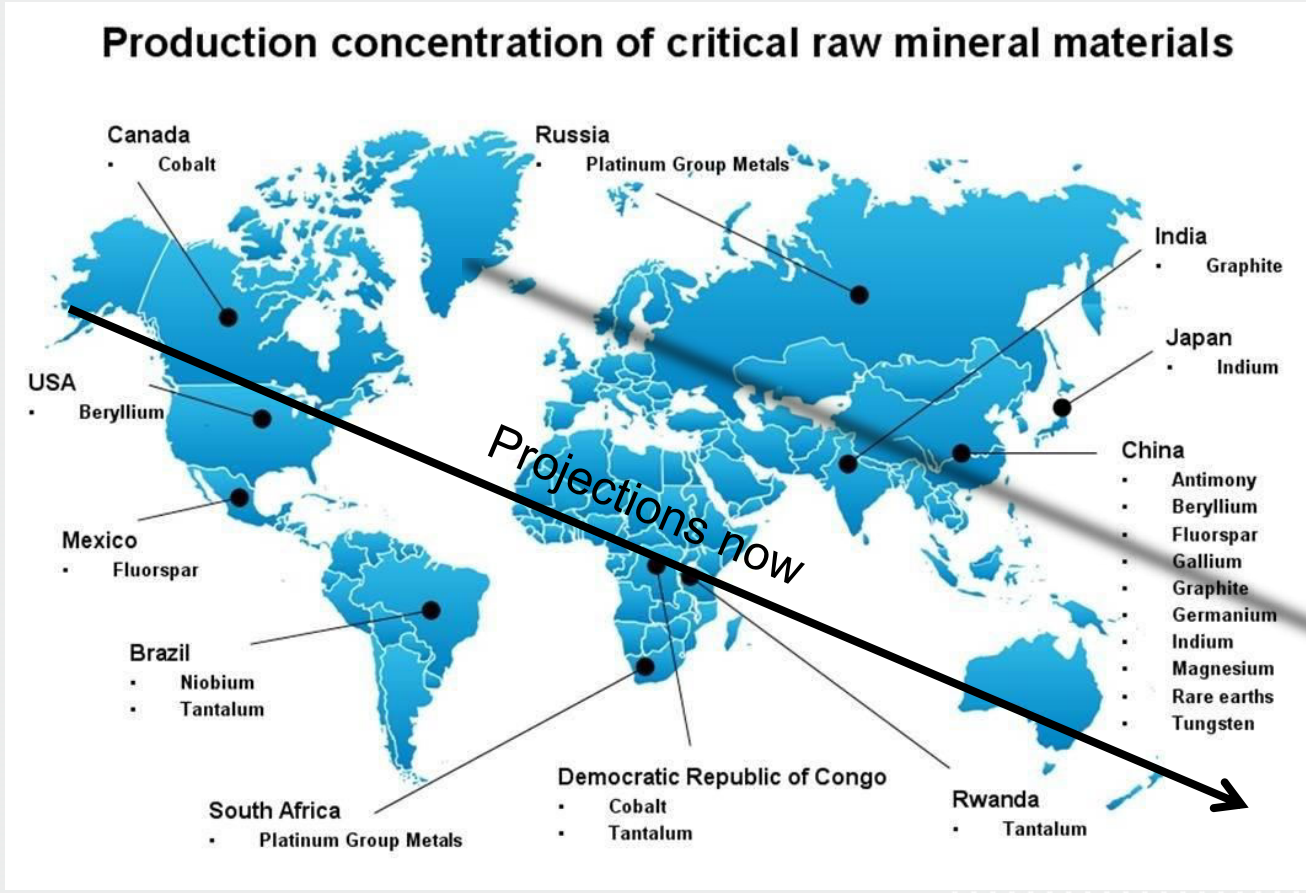
CAN NEXUS HELP IN SHARING OUR EARTH?



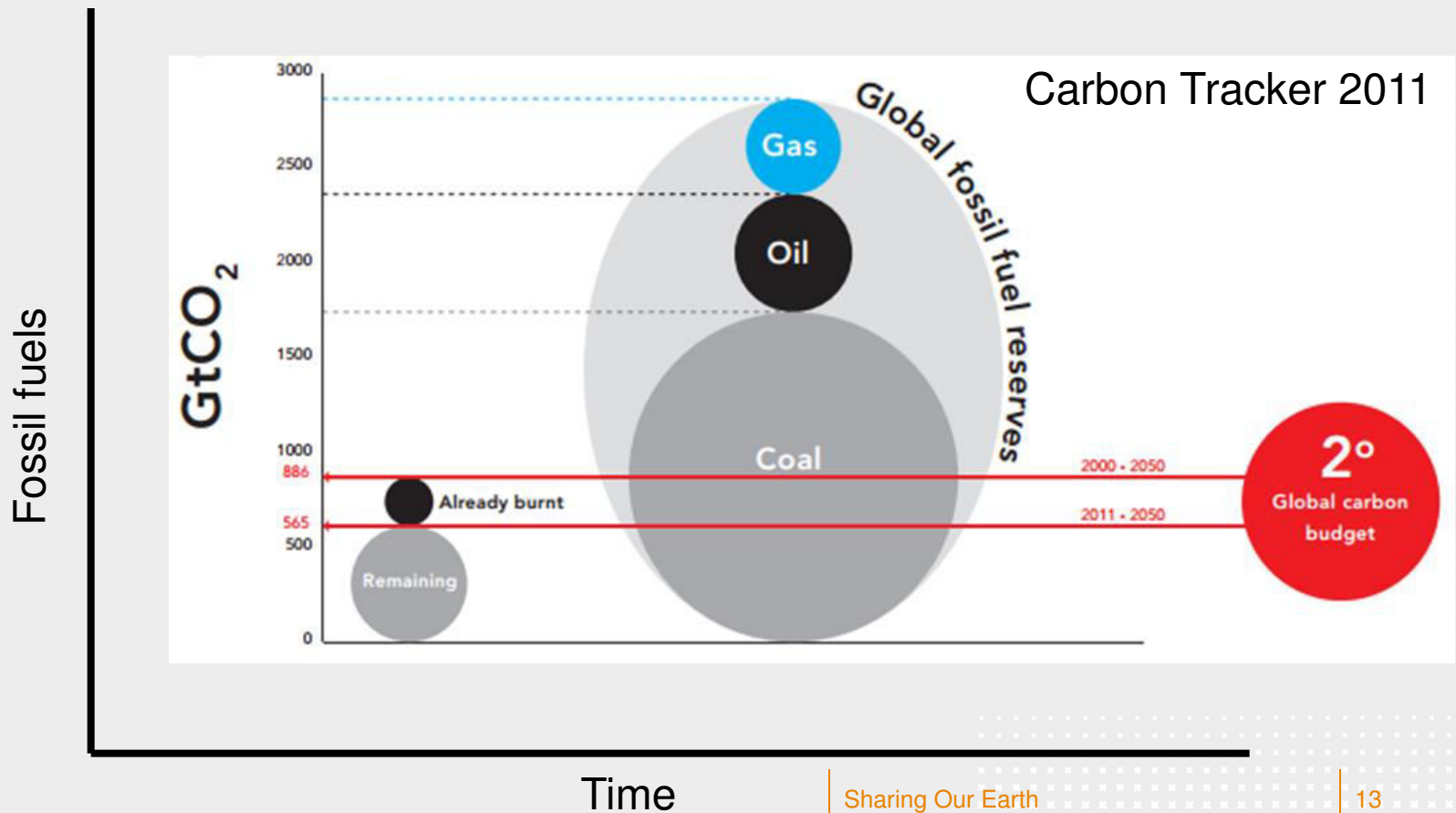
Figure 2. ESTIMATES OF STATIC RANGES (YEARS OF EXTRACTION) BY STATIC OR GROWING CONSUMPTION

1. Shrinking abiotic resources -

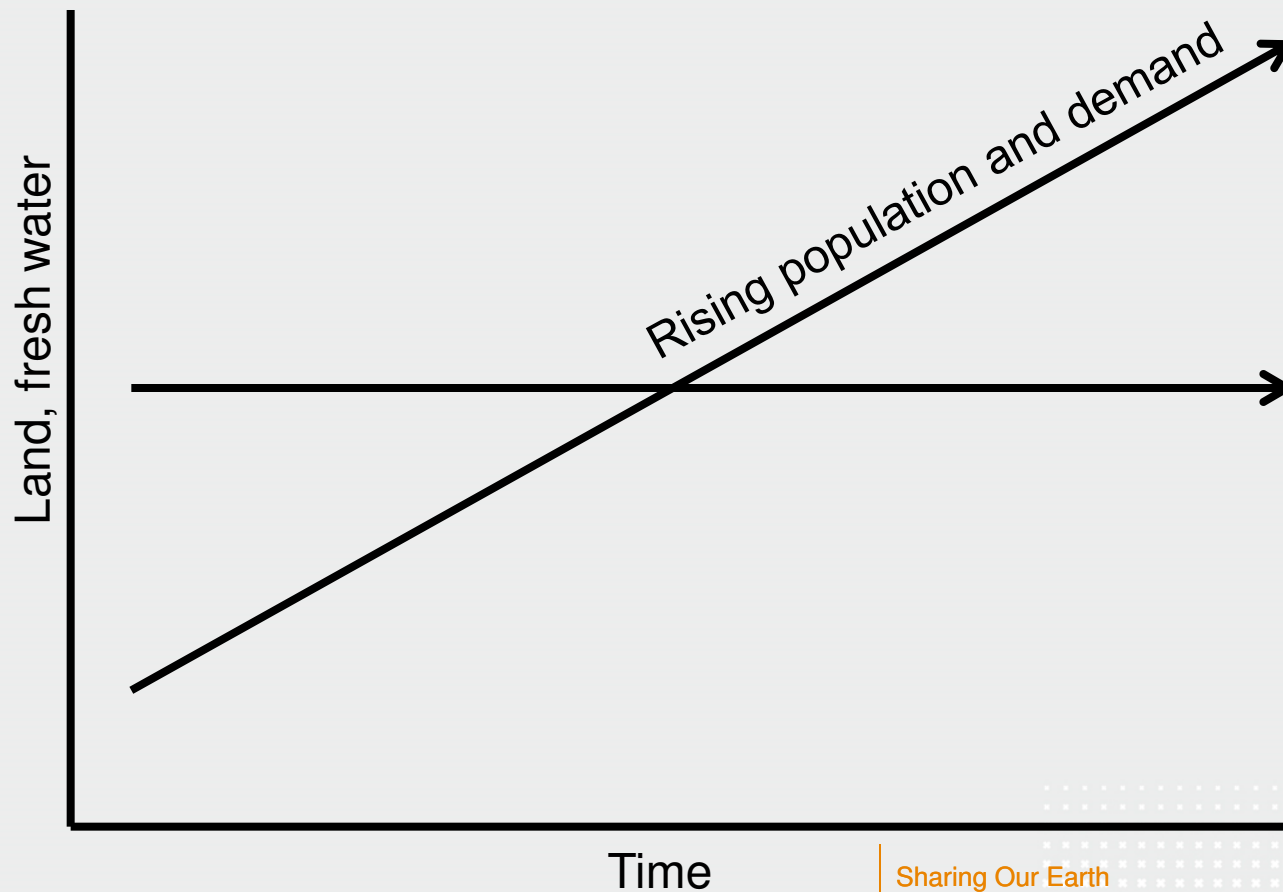
Some metals, strategic minerals, rare earths, chemicals



1. Shrinking abiotic resources - b

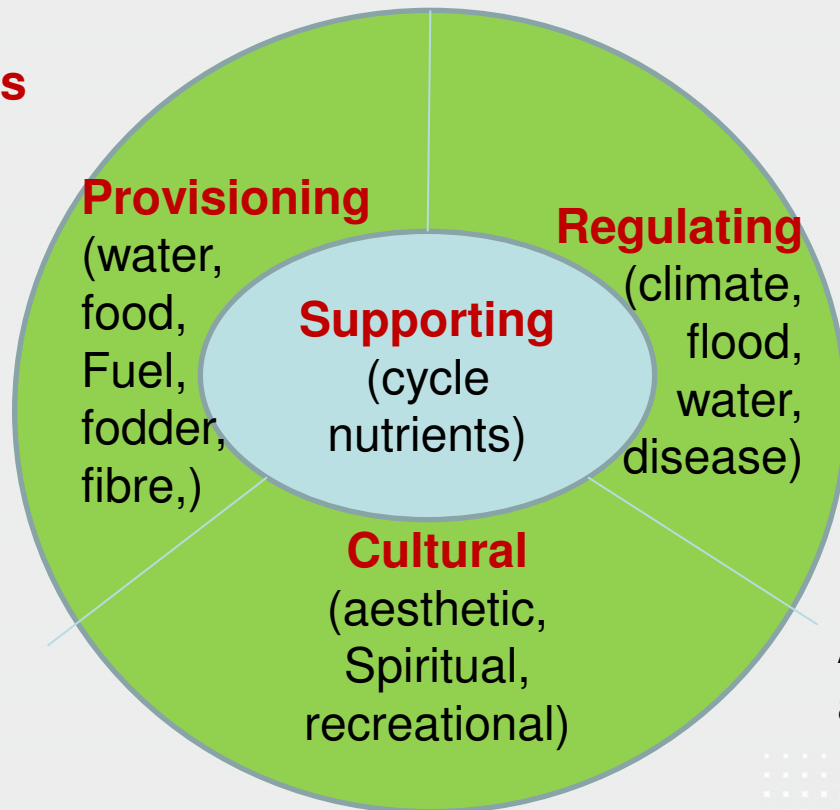


2. Fixed resources, rising demand



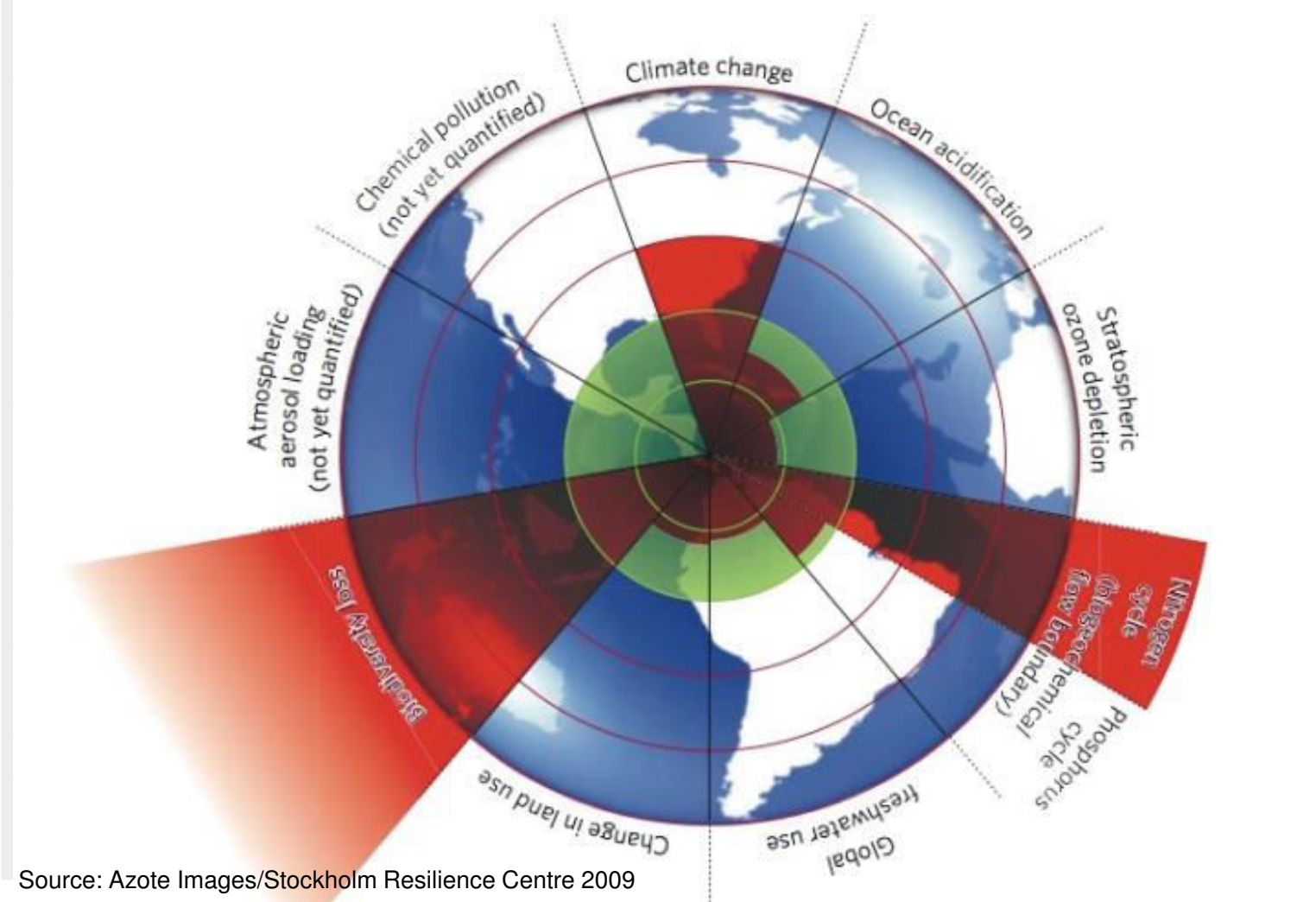
3. Unlimited ecosystem services over time, if sustainably managed

Ecosystem services



And ecosystems have an intrinsic value

4. But, we are crossing planetary boundaries,



Source: Azote Images/Stockholm Resilience Centre 2009

Shrinking ecospace

- Resource shrinks (metals)
- Sink shrinks (greenhouse gas emissions into atmosphere)
- Resource constant, demand increases

Why share?

- Common atmosphere, hydrosphere, lithosphere, and biosphere; common ozone layer; climate (common concern/heritage, global public good)
- Damage to others must be compensated (no harm principle)
- Resources needed for food (right to live)
- Past ecospace use determines who gets ecospace in the future
- Strategic minerals – is first come, first served appropriate; mineral extraction impacts on people/environments

Sharing

- Access (to minimum needs/ human rights)
- Allocation (of rights, responsibilities, and risks)

Shrinking ecospace governance options

Neo-liberal

Markets
Pricing
Privatize

Confidential
contracts/
arbitration

Hegemonic

Bi-
plurilateral
Agreements

Sovereignty
Securiti-
zation

Polycentric

Multiple
actors/
approaches

Self-mgt
Experimen-
tation

Sustainable

Universal
Intergovernm
ental

Role for all
actors and
approaches

Conclusion

- Nexus must deal with historical patterns and future expectations. This may be possible in an incremental manner.
- Nexus must deal with glocal drivers and impacts. This is more difficult without getting coherence at global level.
- Coherence at global level will have to confront the 'Sharing our Ecospace' problem! Not easy!

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Role for all
actors;
nexus?

Develop systemic instruments

