



Nexus – Research and “How To” for Action

**From 2011 Bonn Nexus Conference to 2014 follow up
in support of sustainable development goals**

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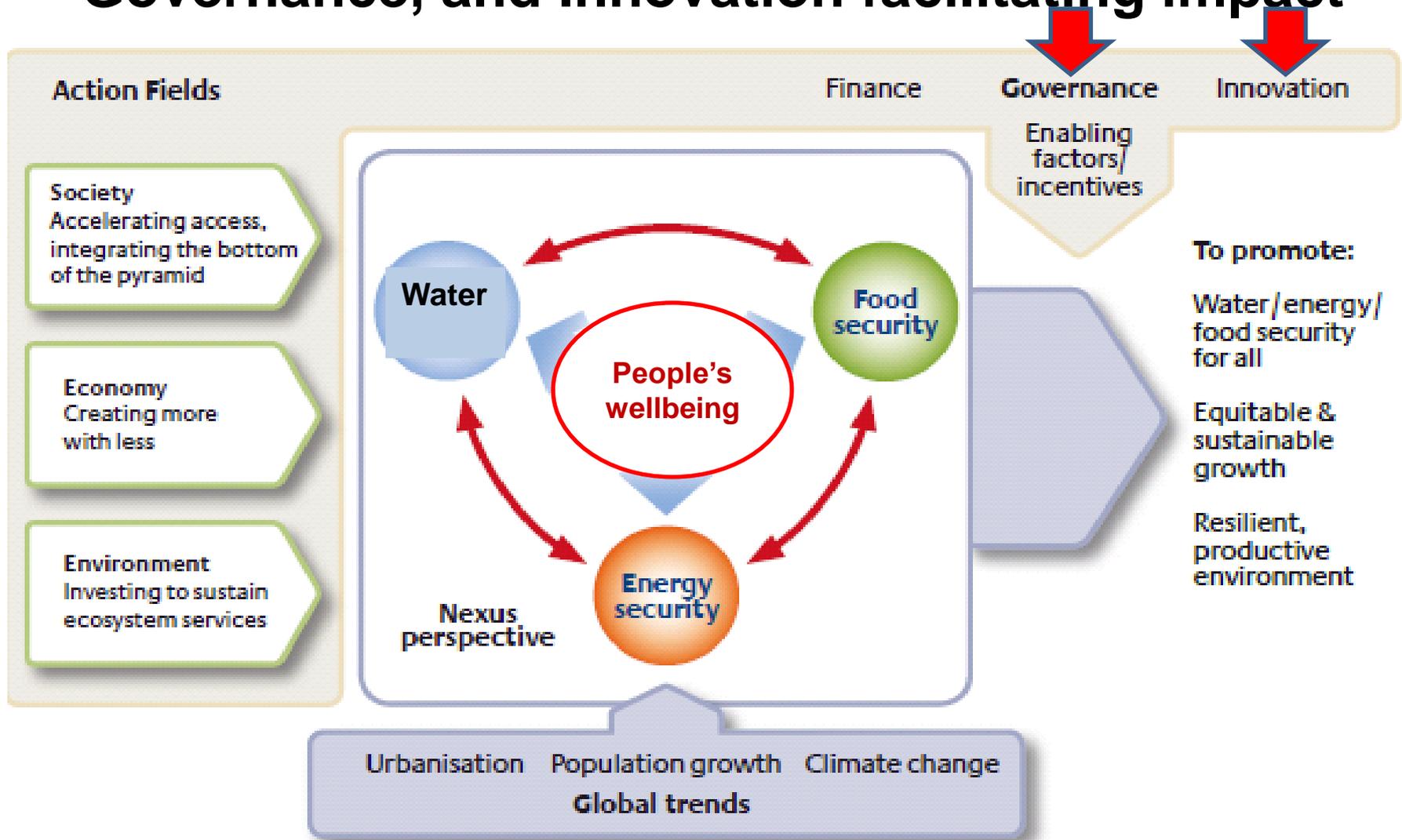
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Nexus 2014 Water, Food, Climate, Energy Conference

Learning from the Past, Building a New Future: Nexus Scientific Research

Nexus Approach: People at the Center !

Governance, and Innovation facilitating impact



Messages from the 2011 Bonn Nexus Conference (1)

Principles:

1. Putting people at the center of the nexus
2. Work toward legislative frameworks, good gov., reducing corruption
3. Involve local communities

How to?

Incentives, policy coherence mechanisms, institutional frameworks, education, information, research and empowerment

Messages from the 2011 Bonn Nexus Conference (2)

Nexus opportunities require and entail

- Overcome sector silos / tap synergies
- Get coherence
- Accelerate access to w-f-e
- Create more with less
- End waste, minimize losses
- Value natural infrastructure / ecosystems
- Mobilize consumers

The Nexus 2014 Declaration

Declaration is great! Can impact on SDG
Thinking and effective Implementation

Consider more emphasis on:

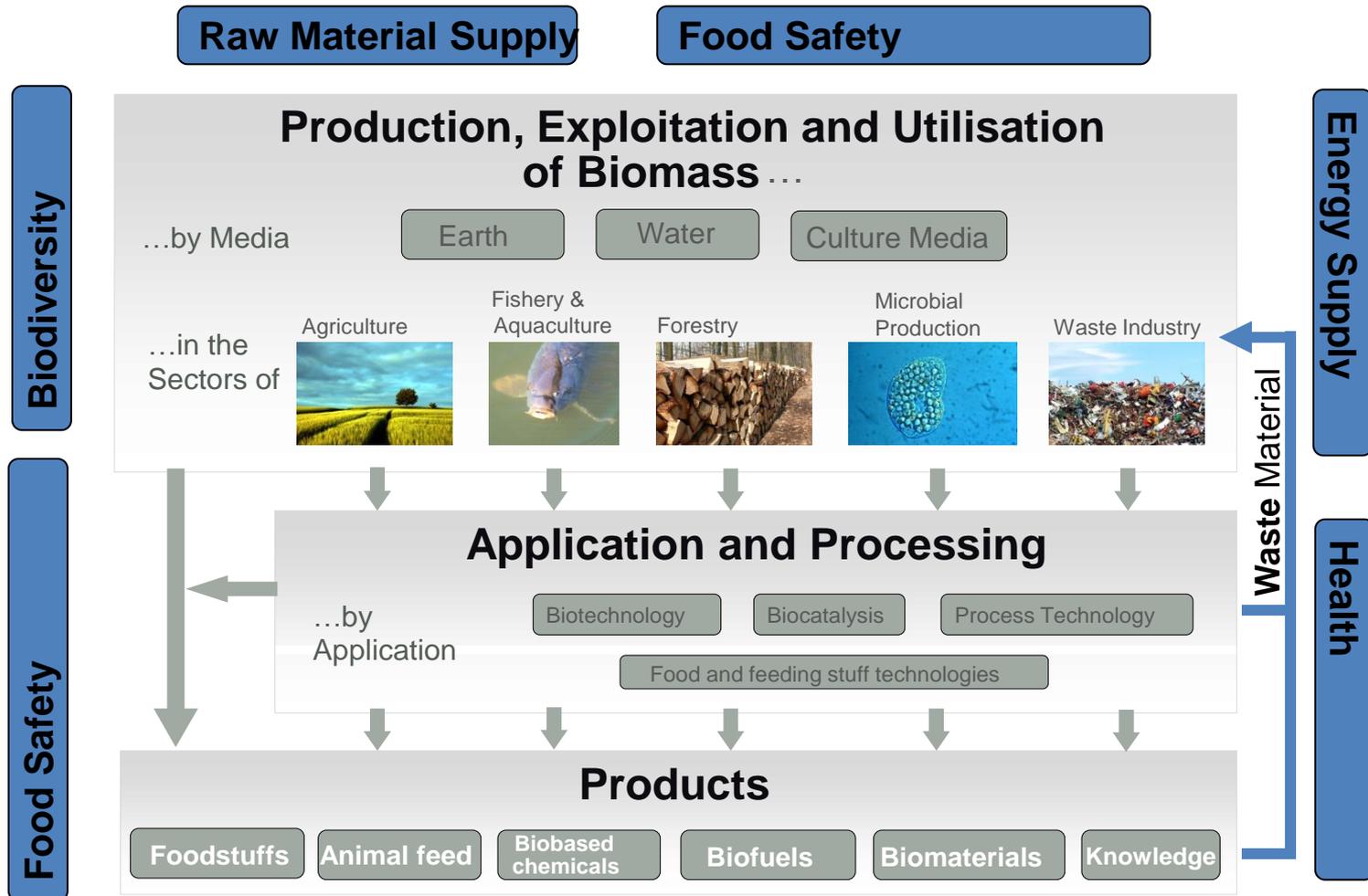
- Science and Technology;
- Health & Sanitation;
- Connect to industrialization and growth (see OWG/SDG) through resource efficient transformations.
- Governance and management of Nexus;

Nexus research to address 3 key issues

1. Trans-sectoral actions for SD investment (bioeconomy)
2. Governance (decentralization and scale)
3. Innovation (new research opportunities)

Key Issue No. 1: Trans-Sectoral Actions

Example : Bioeconomy (connecting water, food, energy in “value nets” needs multi-stakeholder systems)



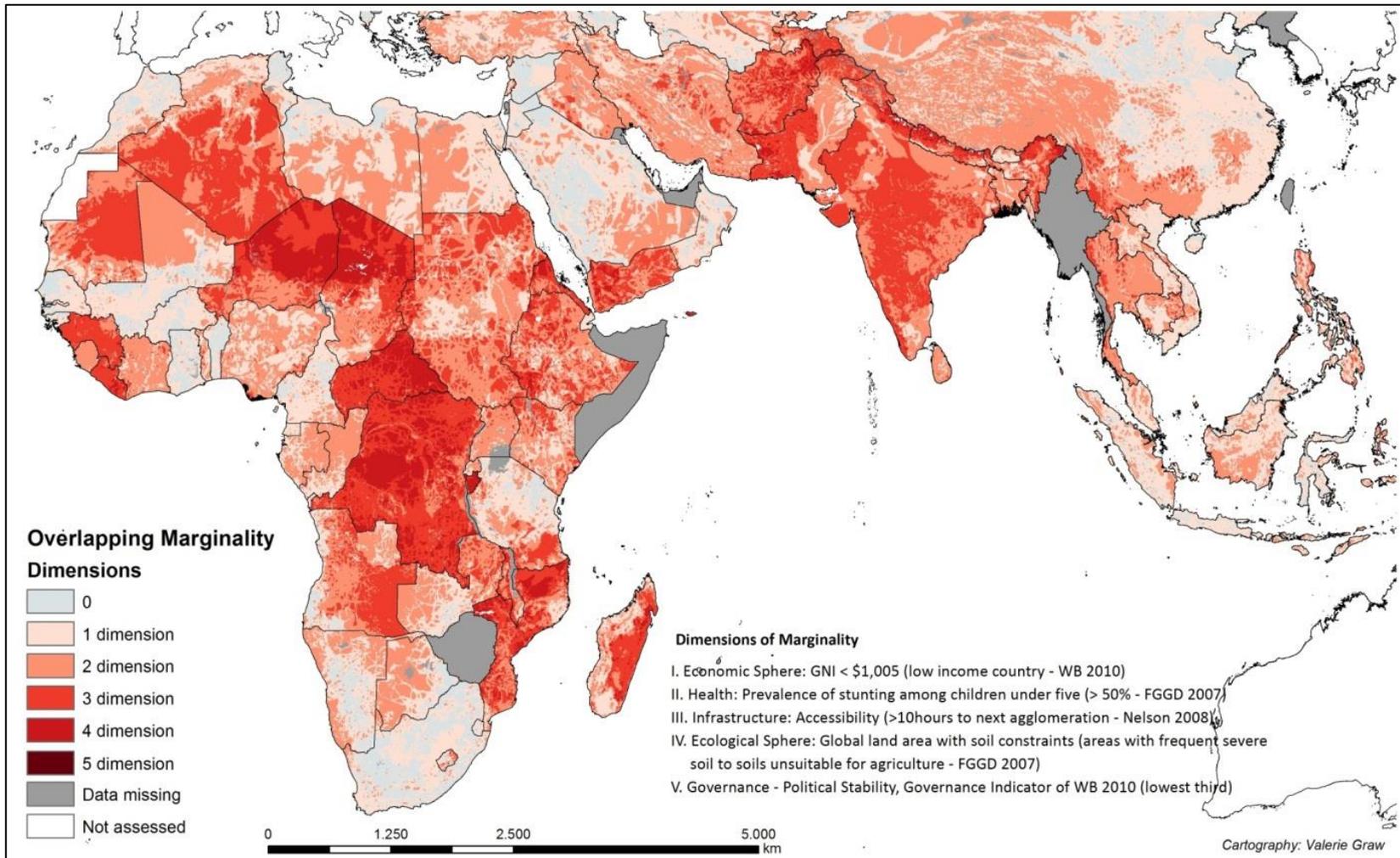
Key Issue No. 2: The Nexus governance challenges

Governance done in isolation

- Water: public, private and contested
- Food: private and neglected
- Energy: public, private and regulated and mismanaged
- Climate: largely ungoverned

Challenge to govern nexus aspects... but how?

Governance Accross Scales (must be governed in centralized and decentralized ways; for instance adjusted to marginality patterns in ecology context (food, soil, water, etc.)



Source: Graw & Husmann, Chap.5, in von Braun, Gatzweiler, 2013

An online book, free for all at: <http://www.springer.com/environment/book/978-94-007-7060-7>

What Nexus scales?

Food-Water-Energy Nexus is

- mostly local,
- some national,
- some transnational
- some global

>>> big implication for Nexus themes in SDGs

Emphasis on local governance in combination with global (SDG) rule-making

- Requires well functioning decentralization – fortunately positive world wide trend toward better decentralization
- The three elements of effective decentralization matter for nexus governance:
 1. Administrative decentralization
 2. Political decentralization
 3. Fiscal decentralization

What nexus governance?

- 1st best - establish Nexus governing bodies? = Not likely
 - 2nd best - establish intra-governmental consultative mechanisms for Nexus-governance = many exist already
 - not bigger / better silos, but flexible accross sectors
 - direct government-to-government networks, rather than international organizations
 - move from context specific “best practices” to “good fit”
- >>> Big implications for Nexus approach in SDGs

Key Issue No 3: Nexus innovation accross sectors, and scales, and regions

Needs science policy in support of trans-disciplinarity to tap Nexus opportunities.

Examples:

1. Comprehensive foot-print analyses (e.g. global externalities of scarce water foot prints in multi-country models)
2. Comprehensive food security – climate change research (not as currently: 85% focused on production effects, neglecting access, volatility, extreme events, nutrition)
3. Information and behavioral change support in complex adverse Nexus environments, e.g. WATSAN – Agriculture multi-use water systems in peri-urban zones

>>>Big implications for Nexus themes in SDGs

The way forward with nexus approach

The opportunity: Nexus approach facilitates results oriented connection among key SDGs, and effective SDG implementation >2015

The needs:

- Facilitate stakeholders' voice (i.e. business and political bodies)
- Identify governance mechanisms; respect great diversity ("best fit")
- Drive Nexus innovation and research agenda toward the highest expected returns to science investments *between* sectors

The way forward with nexus approach

The doubts: sectoral forces are very strong;
They will try to capture their piece of Nexus
or fight for their special interest domains

The fact:

- We must overcome hurdles on the way forward with Nexus
- The SDGs will not function without a Nexus approach guiding their implementation