

Strengthening Links between Science and Policy for the Sustainable Development Goals

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UN conferences on Sustainable Development and Implementing Sustainable Development

- 1972: United Nations Conference on the Human Environment (UNCHE) in Stockholm
- 1987: Our Common Future (Brundtland Report) “Sustainable Development”
- 1992: UN Conference on Environment and Development (UNCED) Rio Earth Summit; Rio Declaration, Agenda 21, GEF and UNCSD
- 2000: Millennium Summit (UN Millennium Declaration; Millennium Development Goals)
- 2002: World Summit on Sustainable Development (Rio+10) in Johannesburg

- **Type II partnerships (2002)**

“implementation of partnership initiatives voluntarily undertaken by some Governments, international organizations and major groups” (Final report: Environment and sustainable development: implementation of Agenda 21 and the Programme for the Further Implementation of Agenda 21; 12 Dec. 2002)



- 12 Dec. 2002
- 2012: Rio+20 (UNCSD): ‘The Future We Want’

- Establish the sustainable development goals (SDGs) (para 246)
- These goals should address and incorporate **in a balanced way all three dimensions of sustainable development and their inter-linkages.**



- 2015, 25-27 September: UN Summit to adopt the **2030 Agenda for Sustainable Development** (‘Transforming Our World’)



Evaluation of MDGs

Positive

Contents:

- Improvement in poverty eradication, facilitate development assistance, multi-stakeholder participation (UNGA 2011a; UNDP 2011)

Goal setting:

- Create linkage between sectors (Vandermoortele 2011)
- Clear and Comprehensive goal setting

Institutions:

- Result-base management

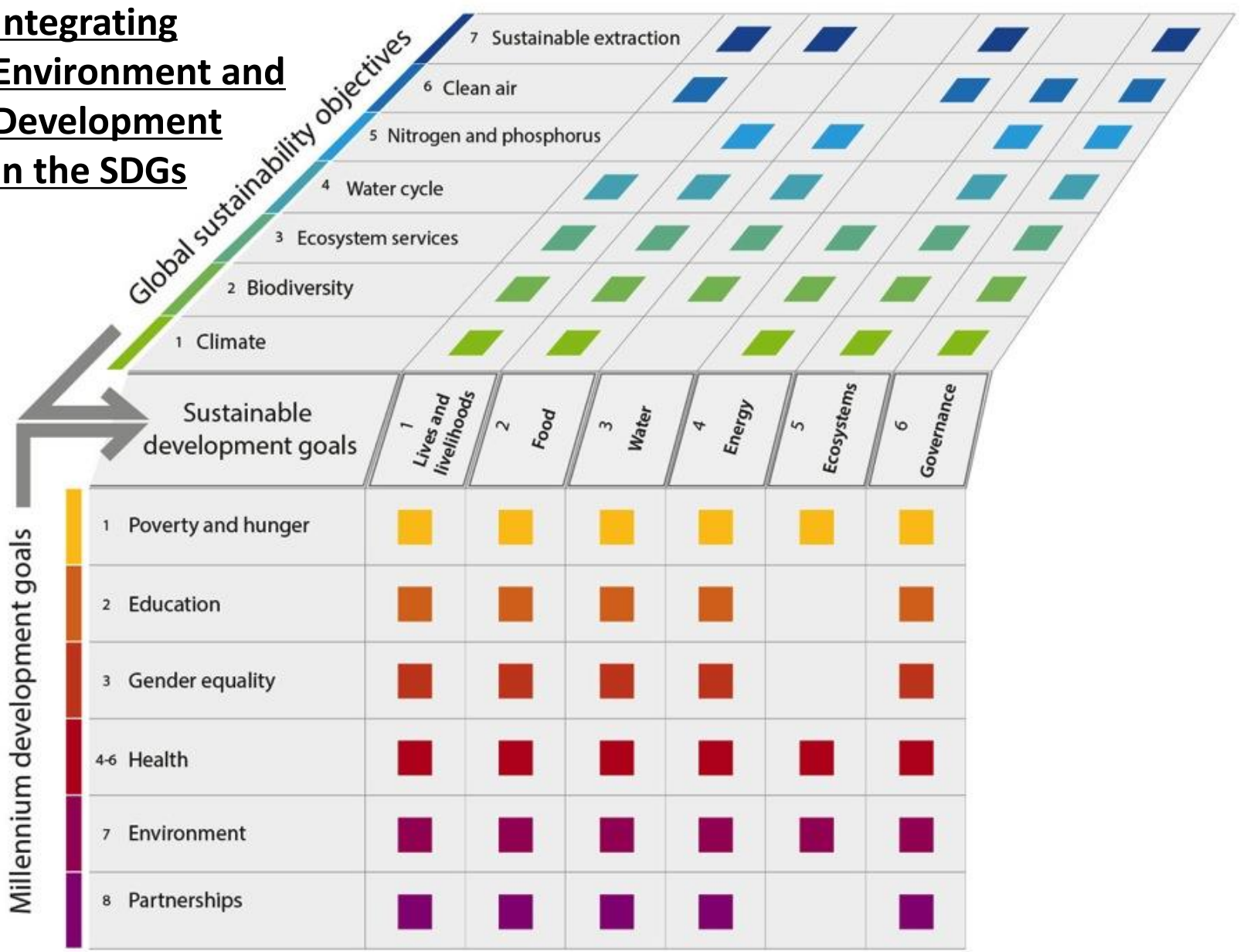
Finance:

- Increase ODA, prioritize poverty eradication in development policies (Moss 2010; Pollard et al. 2010; Manning 2010; Vandermoortele 2011)

Negative

- Some MDGs are not expected to reach the goal (lack of concreteness and comprehensiveness)
 - enhance effectiveness
- “One size fits all” nature of the goals
 - Gaps between countries and regions (Verdenmoortele 2011)
- Lack of linkage between goals and lack of roadmaps after achieving the target

Integrating Environment and Development in the SDGs



David Griggs, Mark Stafford-Smith, Owen Gaffney, Johan Rockstrom, Marcus C Ohman, Priya Shyamsundar, Will Steffen, Gisbert Glaser, Norichika Kanie and Ian Noble, 'Sustainable Development Goals for People and Planet.' *Nature* (Vol 495, 21 March 2013).



SUSTAINABLE DEVELOPMENT GOALS



17 goals

169 associated targets

Indicators to be decided in March 2016

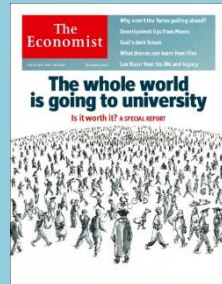
SDGs: 17 Goals and 169 Targets for 2030

Pros

- ❑ Inclusiveness: “No one will be left behind”
- ❑ Universality: apply both for developed and developing countries
- ❑ Diversity: targets could be set at national level (guided by global ambition), indicators could be complemented at regional/national levels
- ❑ Integration: Economic, Social and Environmental dimensions
- ❑ Address concrete behaviors

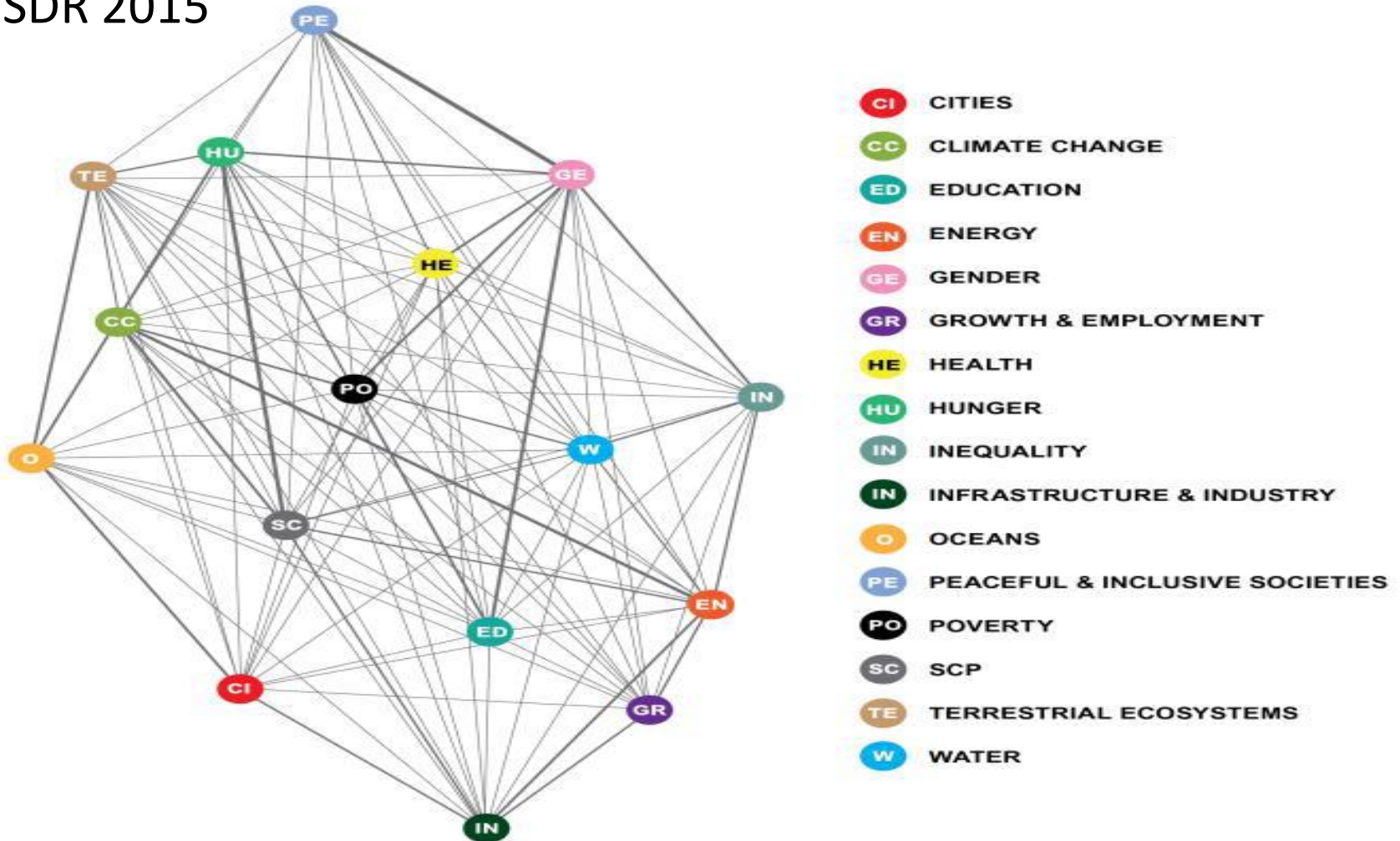
Cons

- ❑ Too many goals and targets (i.e. Economist Mar 28)
- ❑ Not “easy to understand”
- ❑ May take resources out from not-listed areas
- ❑ Low level of concern in developed countries
- ❑ Non legally binding



Links among the SDGs

GSDR 2015



Resilience in the SDGs

Goal1 End poverty in all its forms everywhere

target 1.5 by 2030 build the **resilience** of the poor and those in vulnerable situations, and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

Goal2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.4 by 2030 ensure sustainable food production systems and implement **resilient** agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality

Goal9 Build **resilient** infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 develop quality, reliable, sustainable and **resilient** infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.a facilitate sustainable and **resilient** infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, LDCs, LLDCs and SIDS

Goal11 Make cities and human settlements inclusive, safe, **resilient** and sustainable

11.b by 2020, increase by x% the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, **resilience** to disasters, develop and implement in line with the forthcoming Hyogo Framework holistic disaster risk management at all levels

11.c support least developed countries, including through financial and technical assistance, for sustainable and **resilient** buildings utilizing local materials

Goal13 Take urgent action to combat climate change and its impacts

13.1 strengthen **resilience** and adaptive capacity to climate related hazards and natural disasters in all countries

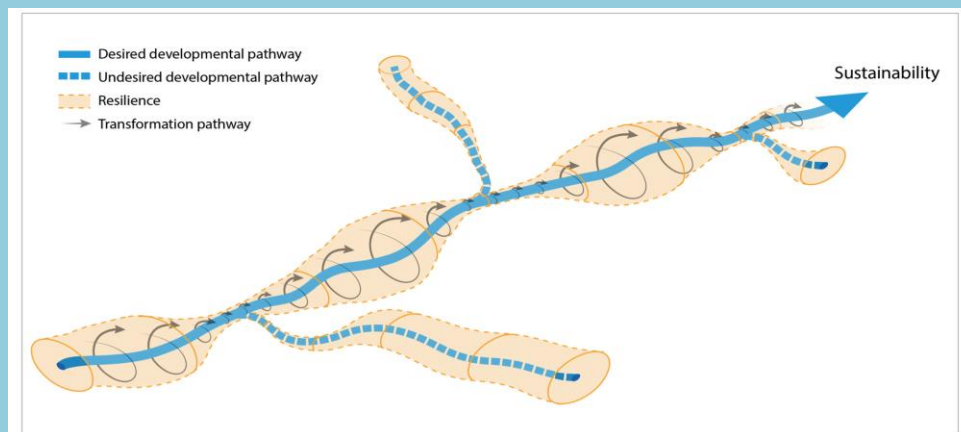
Goal14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.2 by 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their **resilience**, and take action for their restoration, to achieve healthy and productive oceans



Complementary Relationship between Sustainability and Resilience

- Debates concerning the relationship between **sustainability and resilience** have become increasingly complex.
- However, they **complement each other** and defining their relationship is important for beneficial progress.
- The concept of sustainability is a “**normative goal**”, while resilience is “**the capacity**” of a system to absorb disturbance. (Elmqvist et al., unpublished)
- The concept of resilience includes not only the capacity to recover from disturbances, but also the **capacity to adapt to a new situation**.
- By considering the capacity of transformations, each of which have various optional interventions, **resilience will be better linked with sustainability**.



(Elmqvist et al., unpublished)

Three Challenges to Governance for the SDGs

- Problems of human well-being (unachieved MDGs)
- Unprecedented changes in the nature
 - Connected problems (scale and scope): problems emerged from one country cause problems in other countries
- Governance - Diversity of stakeholders
 - Diversity of problem solving
 - Generating new ideas
 - New types of networks



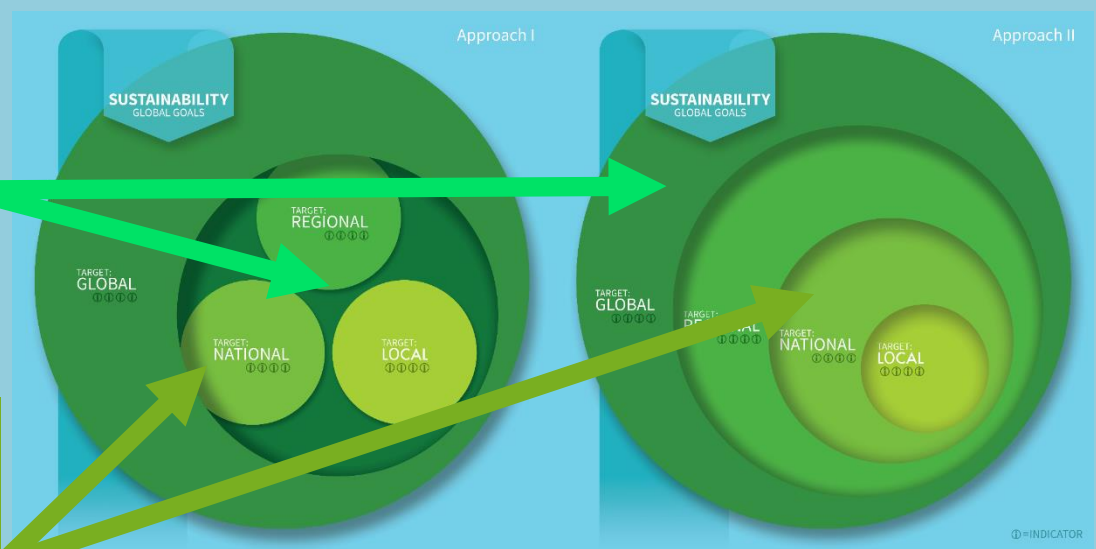
Need to Address SDGs at Multiple Levels of Governance

After the decision at the UN in September 2015, SDGs will enter into regional, national and local level making, implementation, and follow-up and review.



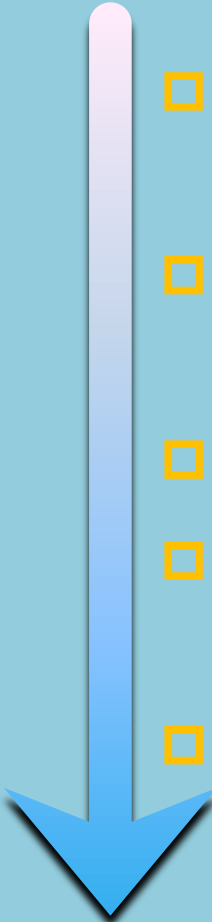
Implementation of the SDGs at the UN level
 What will implementation mechanism of the SDGs?
 What are the mechanisms to link global and national/local levels?

Regional and National level SDGs
 How to make national-level SDGs?
 How to make implementation mechanisms of the SDGs?
 How to establish the process to get stakeholder engagement?
 How to materialize integration of social, economic, and environmental sustainability?



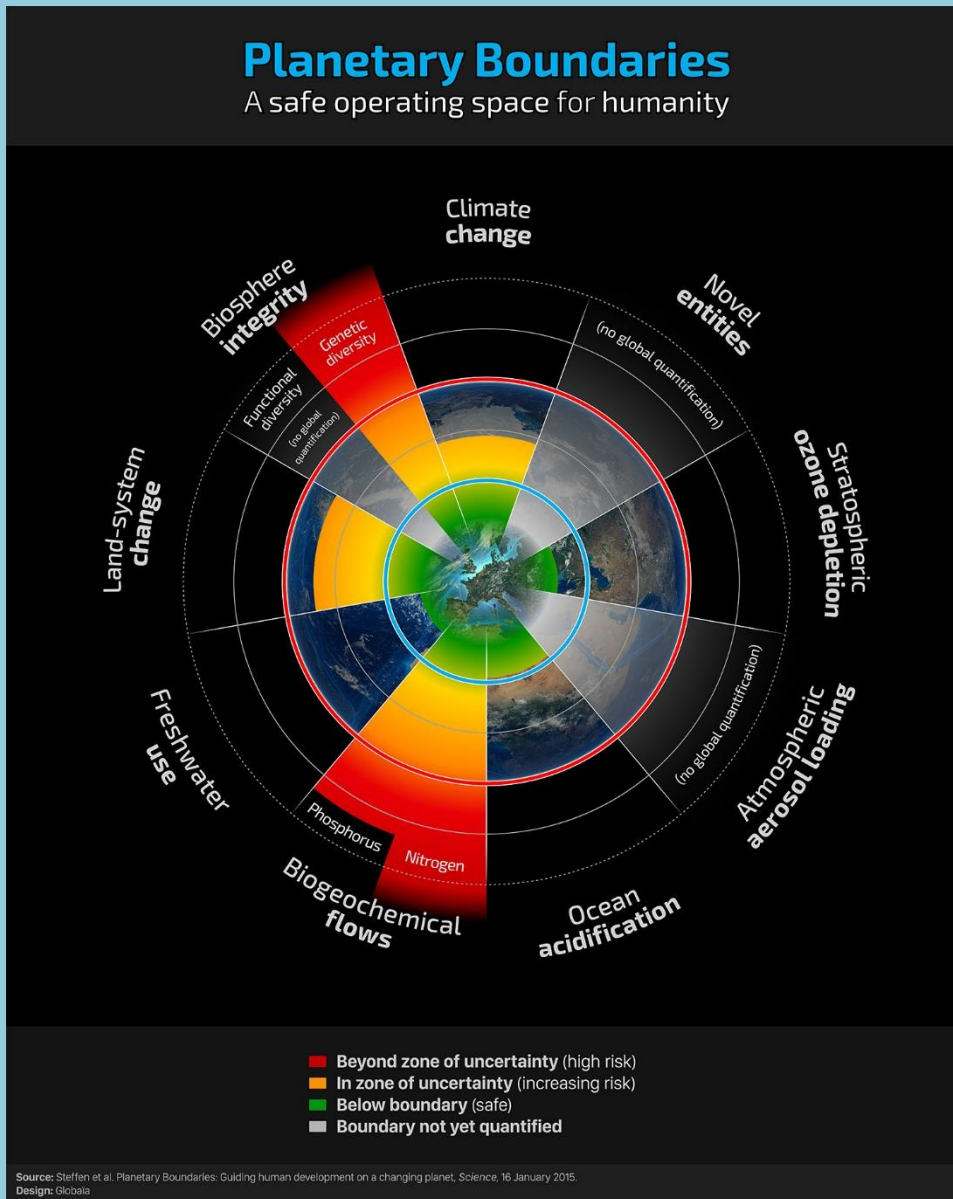
The way forward...

Implementation and “Follow-up and Review”

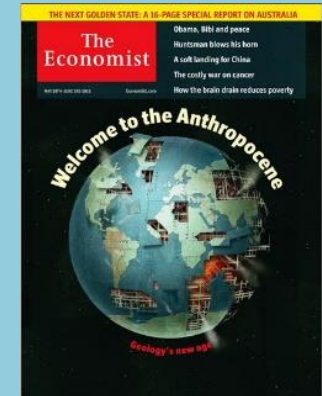
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- 30 Nov. -11 Dec. 2015: UN Climate Change Conference in Paris (COP21/CMP11)
 - March 2016: 47th Session of UN Statistical Commission (indicator framework for the SDGs)
 - 23- 24 May 2016: World Humanitarian Summit (Istanbul)
 - 11 -20 July 2016: The United Nations high-level political forum on sustainable development (HLPF) will meet under the auspices of ECOSOC
 - 17 - 20 Oct. 2016: HABITAT III (Quito)

Preconditions in the 21st Century

- Planetary Boundaries -

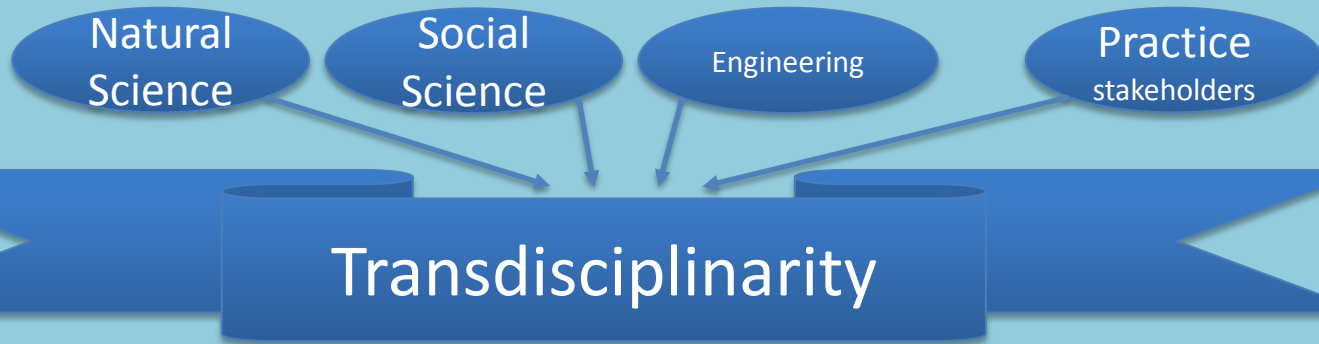
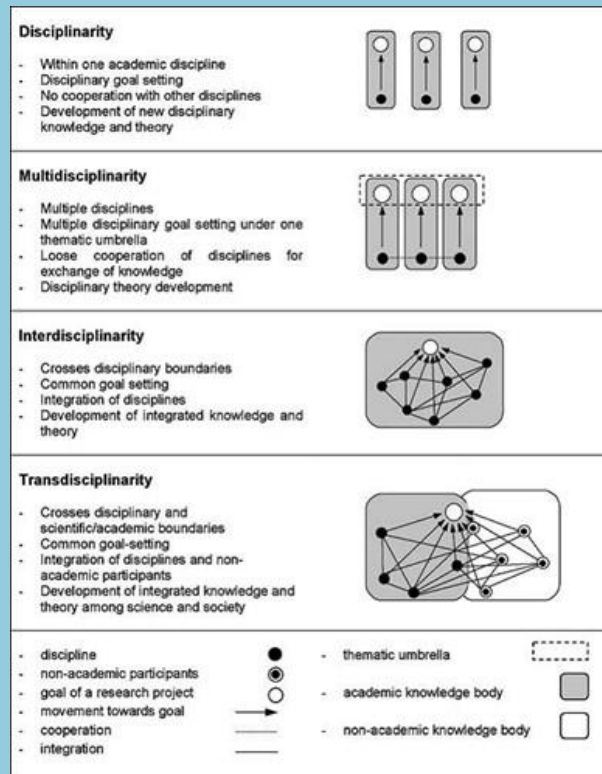


Steffen et al.,
Science
(2015)



⇒ from Environmental Problems to Earth System Transformation
c.f. Anthropocene
(Crutzen 2002)

Transdisciplinarity is a Key for Scientific Contribution



Tress et al. 2005
Landscape Ecology 20:
 479-493



Future Earth

Strategic Research Agenda 2014

A Dynamic Planet

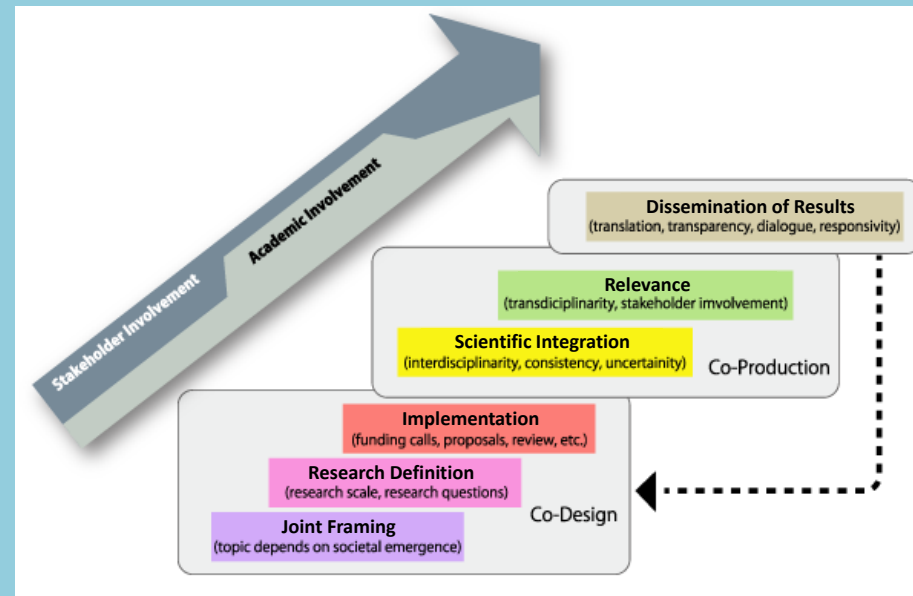
- a1 Observing and attributing change
- a2 Understanding processes, interactions, risks and thresholds
- a3 Exploring and predicting futures

B Global Sustainable Development

- b1 Meeting basic needs and overcoming inequalities
- b2 Governing sustainable development
- b3 Managing growth, synergies and trade-offs

C Transformations towards Sustainability

- c1 Understanding and evaluating transformations
- c2 Identifying and promoting sustainable behaviours
- c3 Transforming development pathways



Future Earth (2014) Future Earth Strategic Research Agenda 2014. Paris: International Council for Science (ICSU)

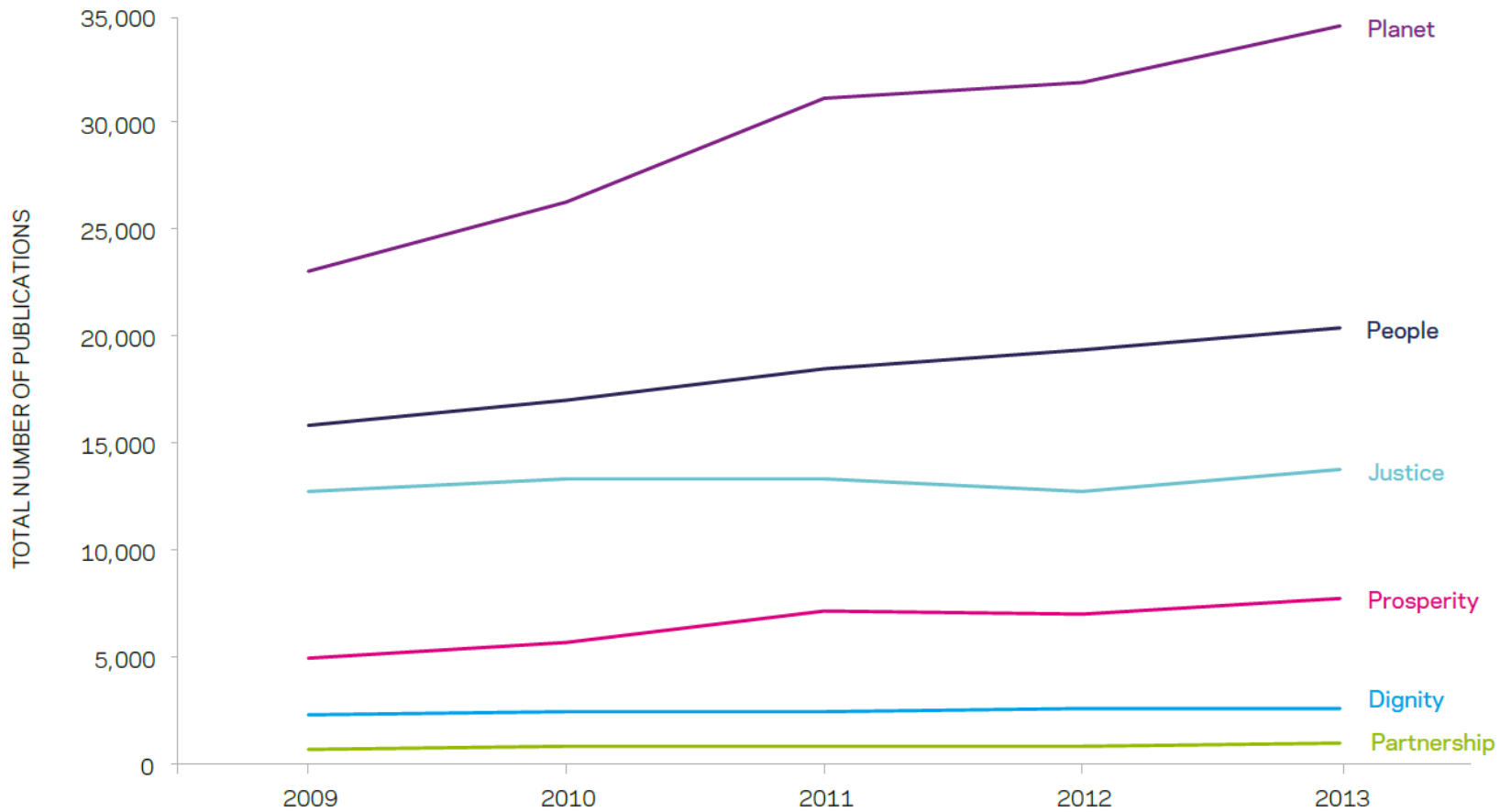


Figure 1.3 — Total number of publications; for the world; per theme for sustainability science; per year for the period 2009-2013.

Disparities in Contributions to Sustainability Science

HIGH-INCOME COUNTRIES

76% (254 629) of all publications in sustainability science (2009-13)

LOW-INCOME COUNTRIES

2% of all publications in sustainability science (2009-13)

SDSN Japan Officially Launched on 28th July, 2015



What is SDSN?

The Sustainable Development Solution Network (SDSN) is a new independent global network of research centres, universities and other stakeholders including business and civil society organisations, launched in 2012 by the United Nations Secretary-General Ban Ki-moon. It aims to help find solutions for some of the world's most pressing environmental, social and economic problems, and to achieve sustainable development. A



ISAP 2015, held at Yokohama Pacifico

What's the purpose of SDSN Japan?

The need to build a more sustainable society has been seen as increasingly important in recent years, in Japan.

SDSN Japan aims to make a significant contribution to the efforts towards the formulation and implementation of SDGs at the national level, through its activities.

What will SDSN Japan do?

Outreach and capacity building activities on sustainability

Organize conferences, workshops and seminars, including with Future Earth

Establish an innovative platform for stakeholder engagement, by bringing together actors from multiple sectors

Collaborative research with SDSNs in other countries on implication and implementation of SDGs

Draft Proposal for Japan version of the SDGs by S-11 project (<http://www.post2015.jp/en/>)

Areas	Targets		Interlinkage with UN SDGs																
Food	Target 1.1	Reduction of environmental burden from food production																	
	Target 1.2	Access to sustainability information of food																	
	Target 1.3	National food security and local community development																	
	Target 1.4	Adaptation to climate change and preservation of the genetic diversity of seeds																	
Water	Target 2.1	Sustainable water cycle and balance between water supply and demand																	
	Target 2.2	Improvement of water quality and biodiversity																	
	Target 2.3	Securing water supply in any cases of emergency and efficient use of water																	
	Target 2.4	Improvement of water literacy																	
	Target 2.5	Contribution to global water issues																	
Energy	Target 3.1	Improvement in energy efficiency																	
	Target 3.2	Expansion of the use of renewable energy																	
	Target 3.3	Improvement in energy literacy and governance of energy supply system																	
Health	Target 4.1	Healthy life expectancy society																	
	Target 4.2	Maintaining mental healthy life and prevention of narcotic drug abuse																	
Equity/ Work	Target 5.1	Ensuring fair and high-quality medical, care and welfare service for all																	
	Target 5.2	Elimination of barriers for birth caused by economic and social disparity																	
	Target 5.3	Promoting equitable and secured working environment																	
Education	Target 6.1	Promoting equitable access to education																	
	Target 6.2	Promoting Education for Sustainable Development (ESD)																	
	Target 6.3	Promoting inclusion in education and society																	
	Target 6.4	Promoting international cooperation in higher education and research to solve the global issues																	

How to transform the world by the SDGs?

Key Questions

- What are the key challenges for effective implementation of the SDGs?
- What is the role of science and scientific community?
- How to link science and policy in transforming our world towards sustainability in the 21st Century?



UNU-IAS's new initiative to contribute to SDGs
GGs: Grant for Global Sustainability

