The Future is Now The UN Global Sustainable Development Report (GDSR)





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GLOBAL SUSTAINABLE 2319



1. A decisive decade ahead

Sounding the alarm bell:

The need to scale-up and accelerate implementation

GOAL		WITHIN 5%	5-10%	>10%	NEGATIVE LONG-TERM TREN	
Ŕĸŧŧŧ	Goal 1		1.1. Eradicating extreme poverty	1.3. Social protection for all		
""	Goal 2		2.1. Ending hunger (undernourishment)	2.2. Ending malnutrition (stunting) 2.5. Maintaining genetic diversity 2.a. Investment in agriculture*	2.2. Ending malnutrition (o verweight)	
	Goal 3	3.2. Under 5 mortality 3.2. Neonatal mortality		3.1. Maternal mortality 3.4. Premature deaths from non-communicable diseases		
	Goal 4	4.1 Enrolment in primary education	4.6 Literacy among youth and adults	4.2. Early childhood development 4.1 Enrolment in secondary education 4.3 Enrolment in tertiary education		
ę	Goal 5			5.5. Women political participation		
Å	Goal 6		6.2. Access to safe sanitation (open defecation practices)	6.1. Access to safely managed drinking water 6.2. Access to safely managed sanitation services		
- 	Goal 7		7.1. Access to electricity	7.2. Share of renewable energy* 7.3. Energy intensity		
M	Goal 8			8.7. Use of child labour		
	Goal 9		9.5. Enhancing scientific research (R&D expenditure)	9.5. Enhancing scientific research (number of researchers)		
	Goal 10			10.c. Remittance costs	Inequality in income**	
AI4	Goal 11			11.1. Urban population living in slums*		
00	Goal 12				12.2. Absolute material footprint, and DMC*	
	Goal 13				Global GHG emissions relative to Paris targets**	
) •	Goal 14				14.1. Continued deterioration of coastal waters* 14.4. Overfishing*	
\$ ~	Goal 15				15.5. Biodiversity loss* 15.7. Wildlife poaching and trafficki	
X	Goal 16			16.9 universal birth registration *		



A Success Story?



Understanding the systemic challenges

Biodiversity loss



Figure 3 (B) - Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

IPBES, 2019



Climate change



Future Earth, 2017, based on Schellnhuber et al. 2016

Raising inequalities



World Bank, 2016



2. Knowledge-based transformations Insight (a): From boxes to arrows – a systems perspective

Moving forward:

- address trade-offs
- harness co-benefits
- turn vicious- into virtuous cycles



SDG-level interactions



https://datablog.cde.unibe.ch/index.php/2019/08/29/sdg-interactions/



2. Knowledge-based transformations Systemic entry points

ENTRY POINTS FOR TRANSFORMATION





Insight (b): Levers for change in a hyper-connected world

Million ton-km (thousand)

200K

1.000K

2000M

트 1500M 호

.= 1000M

500M

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Mobile cellular subscriptions



Monthly active Facebook users worldwide

1950 1958 1968 1978 1988 1998 2008 2018





Air transport, freight

19501958 1968 1978 1988 1998 2008 2018

1950 1958 1968 1978 1988 1998 2008 2018

Rice imports by the EU



08______ 1950 1958 1968 1978 1988 1998 2008 2018

Foreign direct investment, net outflows



Net official development assistance received





International tourism, number of arrivals



International migrant, total





CONHODITY O BIOME YEAR RESIZE BY 🕕 RECOLOUR BY CHANGE VIEW 🕕 BETA Brazil - Soy 🗸 All ~ 2017 ~ Trade volume 🗸 Selection \vee Summary 🗸 MUNICIPALITY \checkmark EXPORTER IMPORTER COUNTRY \sim SORRISO SAO DESTDE 0 BUNGE CARGILL CARGILL BUNGE CHINA (MAINLAND) ADM AGROGRAIN LOUIS DREYFUS LOUIS DREYFUS COFCO AMAGGI AMAGGI COAMO COFCO GAVILON GLENCORE COAMO GAVILON CONCORDIA OTHER raguay BRAZIL OTHER Asuncion OTHER NETHERLANDS THAILAND SPAIN SOUTH KOREA FRANCE IRAN IRAN SFRMANY 📚 EDIT MAP LAYERS DOMESTIC CONSUMPTION DOMESTIC CONSUMPTION DEFORESTATION AGRICULTURAL LAND USED FOR SOY ■ N/A ■ 0 OTHER 20 40 60 Trase.earth Leaflet | © OpenStreetMap contributors, © Mapbox



2. Knowledge-based transformations Innovation through combined levers and new partnerships

ENTRY POINTS FOR TRANSFORMATION

LEVERS	Human wellbeing and capabilities	Sustainable and just economies	Energy decarbonisation and access	Food systems and nutrition patterns	Urban and peri-urban development	Global environmental commons
Governance						
Economy and Finance						
Individual and Collective Action						
Science and Technology						



Insight (c): Context and universality matter!

Striking the balance: no country is meeting basic human goals within biophysical boundaries



O'Neill et al. 2018



2. Knowledge-based transformations Context-specific pathways to transformation for sustainability

ENTRY POINTS FOR TRANSFORMATION



Each entry point: ✓ Impediments ✓ Levers

 ✓ Integrated and context-specific pathways
✓ Call to Action

Pathways to Transformation as context-specific configurations of levers to achieve transformation in each entry point



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Building sustainable food systems and nutrition patterns Levers





- Social protection floors Integrating social & env. externalities
- Governing value and supply chains
- Insurances against shocks
- Improved trade agreements
- Market access

Reducing food waste

- Changing dietary habits
- Lower environmental impacts
- Access to information and data
- Infrastructure and transportation



Building sustainable food systems and nutrition patterns Integrated pathways



Example: Start-ups for solar powered cold storage in low-income countries...



Building sustainable food systems and nutrition patterns Integrated pathways





The experience proved the potential for multiple co-benefits:

- Reduced food loss
- Increased local farmer income
- Improved nutrition
- Job creation for women
- Sustainable business model

Source: ColdHubs, http://www.coldhubs.com/



3. Science for Sustainable Development



From insight to impact The UN Global Sustainable Development Report (GDSR)





Prof. Dr. Peter Messerli Centre for Development and Environment (CDE) University of Bern, Switzerland THE FUTURE IS NOW science for achieving sustainable development

