The Landscape of Global Risks and Global Opportunities: Transforming the Biodiversity Agenda in a Changing Global Context

Dominic Waughray: Head, World Economic Forum Centre for Global Public Goods
CBD Seminar on Transformational Change for the Biodiversity Agenda
Montreal, Canada July 8 2018,
Global Risk Landscape 2018
Global Risk Landscape 2018: top right hand quadrant
Top five risk interconnections

1. Biodiversity loss and ecosystem collapse
   - Food crises

2. Extreme weather events
   - Failure of climate change mitigation and adaptation

3. Water crises
   - Large-scale involuntary migration

4. Interstate conflict
   - Profound social instability
   - Failure of national governance

5. Unemployment or underemployment
   - Adverse consequences of technological advances
The 13 trends driving the global risk landscape

- Ageing population
- Changing landscape of international governance
- **Changing climate**
- Degrading environment
- Growing middle class in emerging economies
- Increasing national sentiment
- Increasing polarization of societies
- Rising chronic diseases
- Rising cyber dependency
- Rising geographic mobility
- Rising income and wealth disparity
- Rising urbanization
- Shifting power
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### Top 5 Global Risks in Terms of Likelihood

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<tbody>
<tr>
<td>1st</td>
<td>Asset price collapse</td>
<td>Asset price collapse</td>
<td>Asset price collapse</td>
<td>Storms and cyclones</td>
<td>Severe income disparity</td>
<td>Severe income disparity</td>
<td>Income disparity</td>
<td>Interstate conflict with regional consequences</td>
<td>Large-scale involuntary migration</td>
<td>Extreme weather events</td>
<td>Extreme weather events</td>
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<tr>
<td>2nd</td>
<td>Middle East instability</td>
<td>Slowing Chinese economy (&lt;6%)</td>
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<td>Flooding</td>
<td>Chronic fiscal imbalances</td>
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<td>Extreme weather events</td>
<td>Extreme weather events</td>
<td>Extreme weather events</td>
<td>Extreme weather events</td>
<td>Natural disasters</td>
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<td>3rd</td>
<td>Failed and falling states</td>
<td>Chronic disease</td>
<td>Chronic disease</td>
<td>Corruption</td>
<td>Rising greenhouse gas emissions</td>
<td>Rising greenhouse gas emissions</td>
<td>Unemployment and underemployment</td>
<td>Failure of national governance</td>
<td>Failure of climate-change mitigation and adaptation</td>
<td>Major natural disasters</td>
<td>Cyberattacks</td>
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<tr>
<td>4th</td>
<td>Oil and gas price spike</td>
<td>Global governance gaps</td>
<td>Fiscal crises</td>
<td>Biodiversity loss</td>
<td>Cyber attacks</td>
<td>Water supply crises</td>
<td>Climate change</td>
<td>State collapse or crisis</td>
<td>Interstate conflict with regional consequences</td>
<td>Large-scale terrorist attacks</td>
<td>Data fraud or theft</td>
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<tr>
<td>5th</td>
<td>Chronic disease, developed world</td>
<td>Retrenchment from globalization (emerging)</td>
<td>Global governance gaps</td>
<td>Climate change</td>
<td>Water supply crises</td>
<td>Mismanagement of population ageing</td>
<td>Cyber attacks</td>
<td>High structural unemployment or underemployment</td>
<td>Major natural disasters</td>
<td>Massive incident of data fraud/theft</td>
<td>Failure of climate-change mitigation and adaptation</td>
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### Top 5 Global Risks in Terms of Impact

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<td>1st</td>
<td>Asset price collapse</td>
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<td>Fiscal crises</td>
<td>Major systemic financial failure</td>
<td>Major systemic financial failure</td>
<td>Fiscal crises</td>
<td>Water crises</td>
<td>Failure of climate-change mitigation and adaptation</td>
<td>Weapons of mass destruction</td>
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<td>Retrenchment from globalization (developed)</td>
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<td>Climate change</td>
<td>Water supply crises</td>
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<td>Climate change</td>
<td>Rapid and massive spread of infectious disease</td>
<td>Weapons of mass destruction</td>
<td>Extreme weather events</td>
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<td>Oil price spikes</td>
<td>Geopolitical conflict</td>
<td>Food shortage crises</td>
<td>Chronic fiscal imbalances</td>
<td>Water crises</td>
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<td>Natural disasters</td>
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<td>Chronic disease</td>
<td>Chronic disease</td>
<td>Asset price collapse</td>
<td>Chronic fiscal imbalances</td>
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<td>Interstate conflict with regional consequences</td>
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Fourth Industrial Revolution points to optimism and uncertainty

Respondents assessed 12 new technologies for benefits and negative consequences

- **AI, Robotics and Biotechnologies**
  - Offer biggest opportunities but biggest risks
  - Opens a door for policy

- **Anecdotal evidence**
  - Pace and complexity of technological change is overwhelming
“Climate and tech pose the biggest risks to our world in 2018”

Alison Martin  Group Chief Risk Officer, Zurich Insurance Group, January 2018
“Damage to nature and tech pose the biggest risks to our world in 2020”

500 Leading CEOs from the Finance, Tech and Industrial Sectors, June 2020
In a world of shifting power and changing landscapes for international governance, **Systems thinking and a Platform Approach** are core tenets of creating scaled change.

- **Map system**
- **Identify opportunities “acupuncture points”**
- **Catalyse action**
- **Measure impact**
Transformation Maps: Environment and Natural Resource Security
Tropical Forest Alliance 2020: to strip deforestation out of key supply chains, lower GHG emissions and improve smallholder farmer incomes
A public private platform to help governments deliver national water security by 2030 in line with their economic growth aspirations
WRG has 500+ partners globally: this is just in Peru
Transformation Maps: Oceans

Summary

Pollution

The oceans have become a catch-all for the world’s pollution

Rivers and runoff form the highways that transport man-made pollutants into the ocean. The biggest man-made threat to ocean health is, far and away, carbon pollution. In the last decade, the oceans have absorbed about 30% of the carbon dioxide emitted by industry. This has significantly slowed the advance of climate change, but at great cost to ocean health. When carbon dioxide is absorbed by seawater it increases acidity levels. [... read more]
Global Plastic Action Partnership

Key Output: National PPP Plastic Action Plan “Proofs of Concept” in 3 countries by 2020
Key Outcome: National Action Plans Replicated to Stop Growth in Plastic Ocean Pollution by 2030
Key Output: Ocean Food Security Report 2020 – Status and Future

Key Outcome: Increase the proportion of food coming from the Ocean sustainably by 2030
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[Graph showing the assessment of 12 new technologies for benefits and negative consequences. The graph plots technologies on a scale with benefits on the x-axis and negative consequences on the y-axis. Key technologies include: Artificial intelligence and robotics, Proliferation and ubiquitous presence of linked sensors, Geoengineering, Blockchain and distributed ledger, Biotechnologies, Neurotechnologies, New computing technologies, Advanced materials and nanomaterials, 3D printing, Space technologies, Energy capture, storage and transmission.]
Meat: The Future
Fourth Industrial Revolution and the Bio-economy

Genomics

Sequencing the world

WASHINGTON, DC

An ambitious effort to map, store and disseminate genetic information about much of life on Earth gets under way

IN NOVEMBER 2015, 23 of biology’s bigwigs met up at the Smithsonian Institution, in
The internal combustion engine was king – until it wasn’t.
Promoting platforms and multi-stakeholder alliances in support of wider international objectives

- Not one project; not one partner; rather a “movement”
- Requires an *Imprimatur* to open up the space and invite “action” by a given time frame
- Requires a “Forcing Function”
- *Framed as complementary*, supportive, buttressing the formal process
- Draws in *surprising champions* and new angles – from private sector, investors, innovators and civil society
- Based on clear insight (new reports aimed at economic decision makers) and a “portfolio of potential solution” areas
- Delivers for Heads of State: *seeks to make the economy stronger, mobilise new finance and innovation (the 4IR)*
- Links a *global narrative* with *sector and national* innovations
- Allowed to *snowball*
- Requires Government and International Organisation collaboration – it is not about “contracting out” solutions
- Wider momentum *gives extra confidence to officials to be bold*
A New Deal for Nature

A Heads of State Summit for a New Deal for Nature
in Support of Beijing CBD COP 2020
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mainstreaming agenda of COP 14
Mobilises a number of cross cutting systems initiatives (food systems, health systems)

Spurs development of non-climate science based targets for the biosphere for business,
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Mobilises civil society, indigenous peoples, media and millennials
Trapped in a dogma?

- Energy Independence
- Preserve Rainforests
- Sustainability
- Green Jobs
- Livable Cities
- Renewables
- Clean Water, Air
- Healthy Children
- Etc. Etc.
“What if its all a big hoax and we mobilise business, investors, innovators, civil society and Heads of State to get behind an ambitious new global deal for nature, but they suggest we transform the CBD to do it?”
Thank you

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