Addressing Disaster Resilience in the Global 2030 Agenda

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Major Global Challenges – “Wicked” problems
Global Risks 2017 - World Economic Forum

A global risk is an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years.

Governments and society
• Economic risks - relationships between hazards, climate, poverty, health, economy and all issues
• work together for actions to reduce risks
October 26, 2017 – International Council for Science (ICSU) and International Social Sciences Council voted (over 90%) to MERGE

- International Science Council – ISC
- 40 international scientific unions and associations + > 140 national/regional org.
- Vision - advancing all sciences as a global public good
- “to strengthen international science for the benefit of society”; for all societies
- SCIENCE – transdisciplinary – across natural, social, economic, health, engineering, …
The post-2015 development agenda, financing for development, climate change and disaster risk reduction …
Ensuring credible links, … between these processes will contribute to building resilience and achieving the global goal of eradicating poverty.” …action within and across sectors by States at local, national, regional and global levels
Four priority areas for Disaster Risk Reduction

1. Understanding disaster risk; Integrated research
2. Strengthening disaster risk governance risk; How, risk-governance
3. Investing in disaster risk management Evidence-based strategies
4. Enhancing disaster preparedness for effective action and to “Build Back Better” in recovery, rehabilitation and reconstruction.
The 7 global targets - measured at the global level - develop appropriate indicators. National targets and indicators - outcome and goal of the present Framework. Seven global targets are:

(a) Substantially reduce global disaster mortality by 2030, …;
(b) Substantially reduce the number of affected people globally…;
(c) Reduce direct disaster economic loss…;
(d) Substantially reduce disaster damage to critical infrastructure and disruption of basic services, …;
(e) Substantially increase … countries with national and local disaster risk reduction strategies…;
(f) Substantially enhance international cooperation to developing countries … national actions…;
(g) Substantially increase … multi-hazard early warning systems…;
Welcoming the adoption of United Nations General Assembly resolution A/RES/70/1, “Transforming our world: the 2030 Agenda for Sustainable Development”, in particular its goal 13, and the adoption of the Addis Ababa Action Agenda ... and the adoption of the Sendai Framework for Disaster Risk Reduction.

**Article 2**

1. This Agreement, .. aims to strengthen the global response to .. threat of climate change, .. context of sustainable development and efforts to eradicate poverty:

   (a) Holding the increase .. global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the increase in the global average temperature to 1.5°C, significantly reduce the risks and impacts of climate change; MITIGATION

   (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; ADAPTATION

   Linking all hazards – strategies, monitoring, data

   Sendai Framework for Disaster Risk Reduction 2015-2030
SDGs – Connecting across the Global Policy Agenda – Global 2030 Agenda

Sendai Framework for Disaster Risk Reduction 2015-2030

UNFCCC - Climate Convention CoP21, 2015

Oceans

Peace – WSF 2017

Urban Agenda 2016

SDGs – 17 with 169 Targets
An integrated approach to research on disaster risk through: an international, multidisciplinary collaborative research programme.

Objectives:
1. Characterization of hazards, vulnerability and risk
2. Effective decision making in complex and changing risk contexts … risk interpretation to action
3. Reducing risk and curbing losses through knowledge based actions

Projects:
- Assessment of Integrated Research on Disaster Risk (AIRDR)
- Disaster loss data (DATA)
- Forensic Investigations of Disasters (FORIN)
- Risk Interpretation and Action (RIA)

IRDR International Centres of Excellence – ICOE (12)
- Mission is to facilitate the analysis and prediction of Earth system variability and change for use in practical applications or direct relevance, benefit and value to society. Objectives of the WCRP are:
  • to determine the predictability of climate; and
  • to determine the effect of human activities on climate

Leading source of science for IPCC – WGI, WGII – assessments.

More extreme weather? Which types? How to get out forecasts?
Accelerating transformations to global sustainability through research and innovation

Knowledge-Action Networks (KAN) are collaborative frameworks that facilitate highly integrative sustainability research.

- SDGs; Cities; Water-Energy-Food
- HEALTH; Oceans
- Finance & Economics
- Emergent Risks and Extreme Events DRR

CO-DESIGN – full science-stakeholder involvement

Implementation
(funding calls, proposals, review, etc.)

Research Definition
research scale, research questions

Joint Framing
(topic depends on societal emergence)

Relevance
(transdisciplinarity, stakeholder involvement)

Scientific Integration
(interdisciplinarity, consistency, uncertainty)

Dissemination of Results
(translation, transparency dialogue, responsibility)
PRIORITIES

1. UNDERSTANDING disaster risk
2. Strengthening disaster risk GOVERNANCE to manage disaster risk;
3. Investing in disaster risk reduction for RESILIENCE;
4. Enhancing disaster preparedness for effective response, and to “BUILD BACK BETTER” in recovery, rehabilitation and reconstruction.

Global Targets: global - national levels by 2030:
- **Reduce**: mortality; affected people; economic loss; damage infrastructure, services,
- **Increase/enhance**: national/local disaster risk reduction strategies; international cooperation; multi-hazard early warning systems and DRR information and assessments

Science Priorities + Approaches

1. Characterization of hazards, vulnerability and risk
2. Effective decision making RIA
3. Reducing risk and curbing losses - knowledge based actions
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Disaster loss data (DATA)
Forensic Investigations of Disasters (FORIN)
Risk Interpretation and Action (RIA)
ICOEs
Assessments
ADDRESSING MAJOR GLOBAL CHALLENGES

Global Policy Agenda 2015-2030

Paris Climate Agreement

Sustainable Development Goals

Disaster Risk Reduction Sendai Agenda 2016

Global Research Agenda

Integrated Science-Policy Interface

ISC- 2018

CO-DESIGN – full science-stakeholder involvement
- co-production
- co-delivery

Open Data in a Big Data World

International Network of Government Sciences Advisers
Science and technology action for a disaster-resilient world

TOKYO STATEMENT 2017

Thank you for your attention