

Understanding Disaster Risk and Resilience

Online Workshop on DRR, Risk-informed Governance, Finance
Mechanisms and Innovative Solutions for Local Resilience

11 April 2023



UNDRR

UN Office for Disaster Risk Reduction

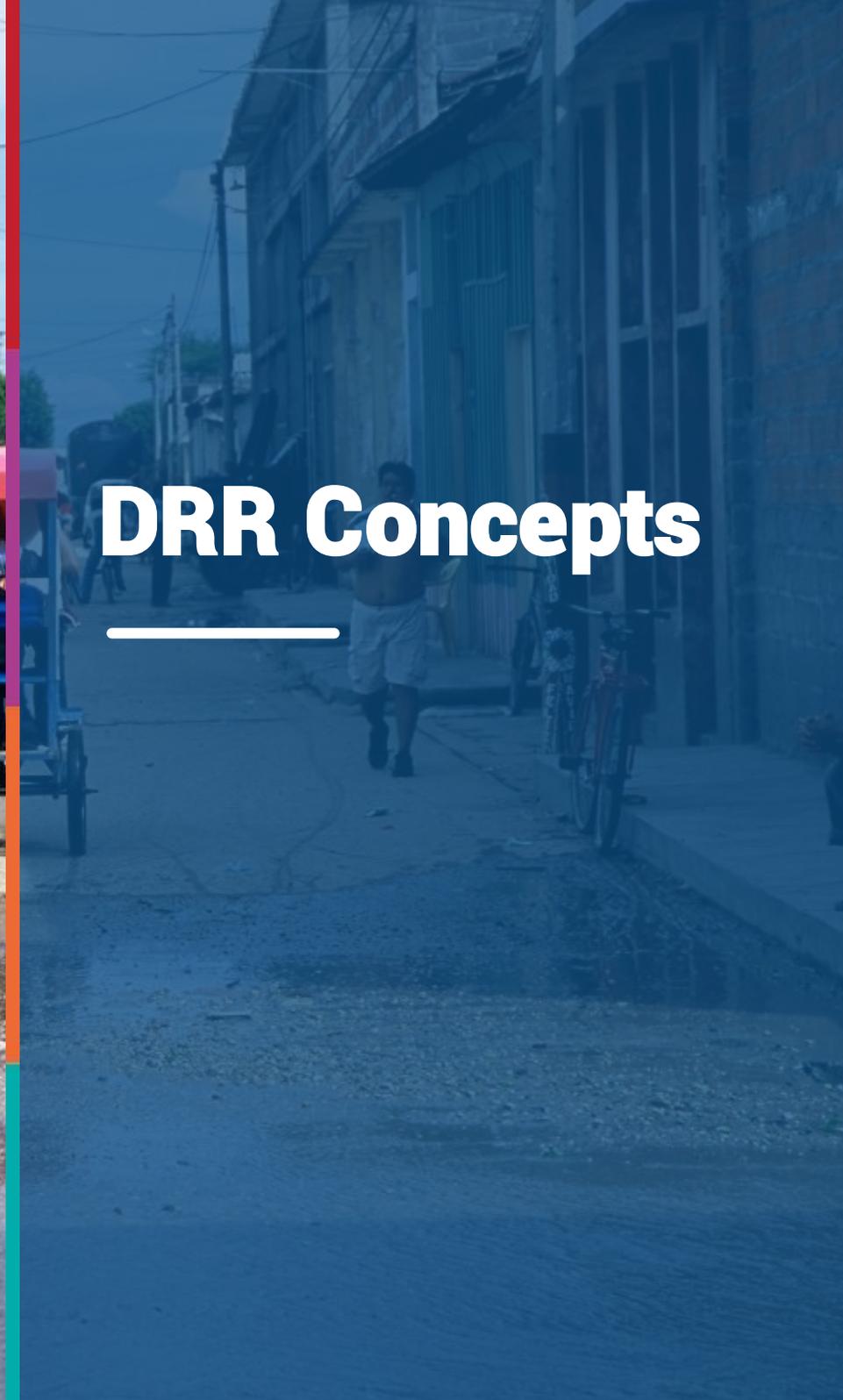
SENGAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

With the support of





DRR Concepts



Disaster Risk

A function of...

UN Spider Photo

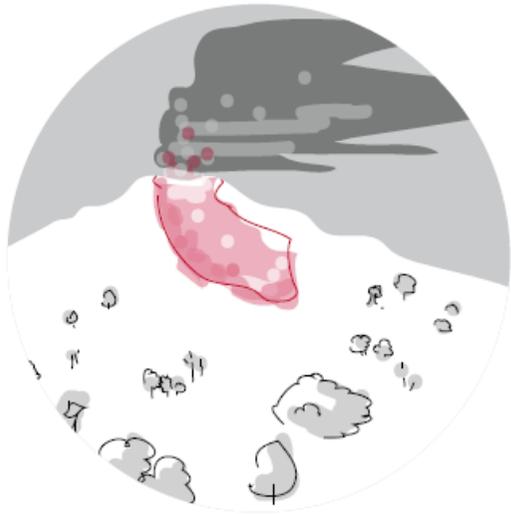


a simple picture of disaster risk



Understanding Risk

Risk and the context of hazard, exposure and vulnerability



There is no such thing as a **natural disaster**, only **natural hazards**



We make **choices** as to where we inhabit, how we build and what research we do

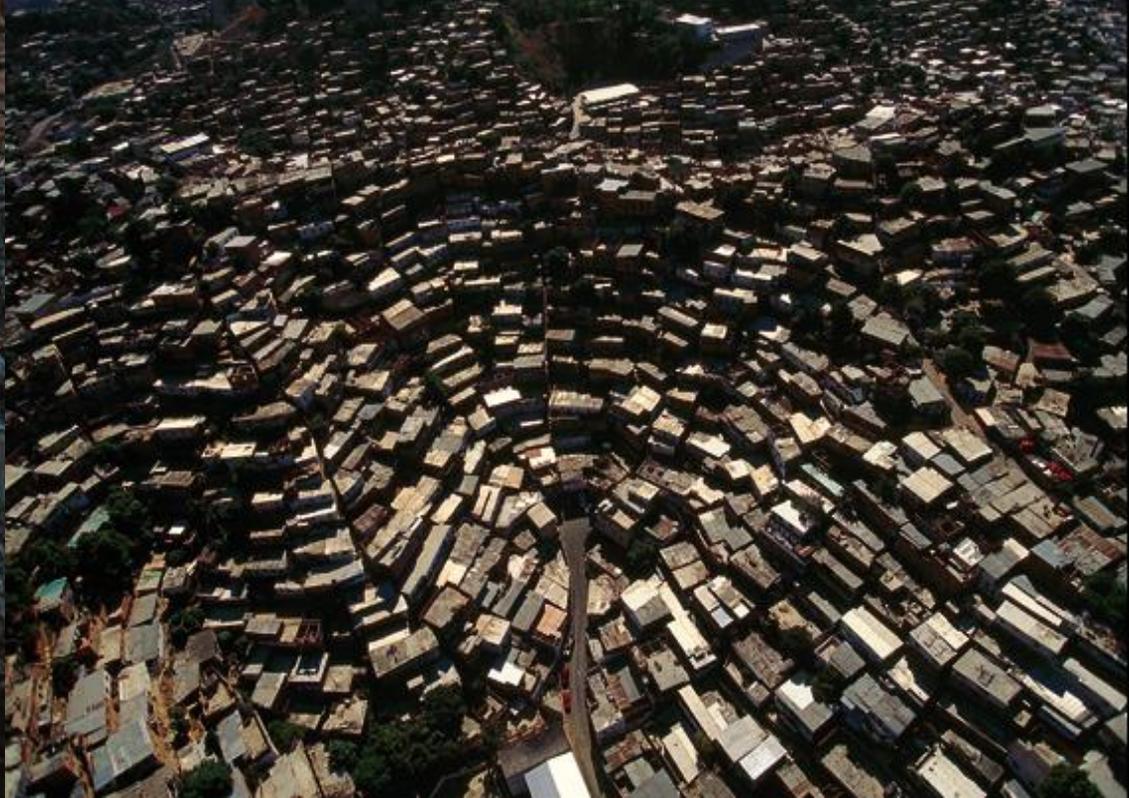


Risk is the combination of **hazard, exposure** and **vulnerability**



Death, loss and **damage** is the function of the context of hazard, exposure and vulnerability

Disasters are not natural



Hazards – multiple types

Hazards could be natural, human-induced, or both, in origin. Types include:

- Geophysical
- Hydrometeorological
- Environmental
- Chemical
- Biological
- Technological
- Others



Put your answer in the chat

Which hazards are the most common in your community?



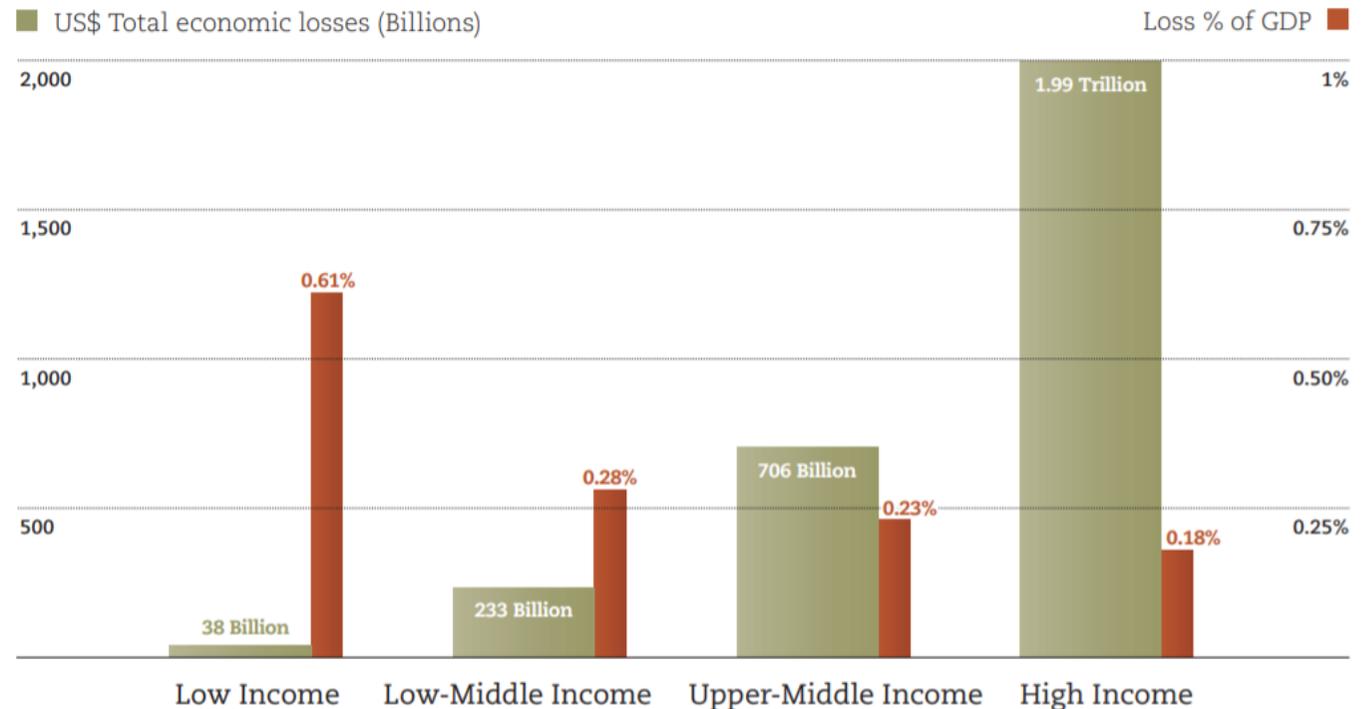


Disaster Trends

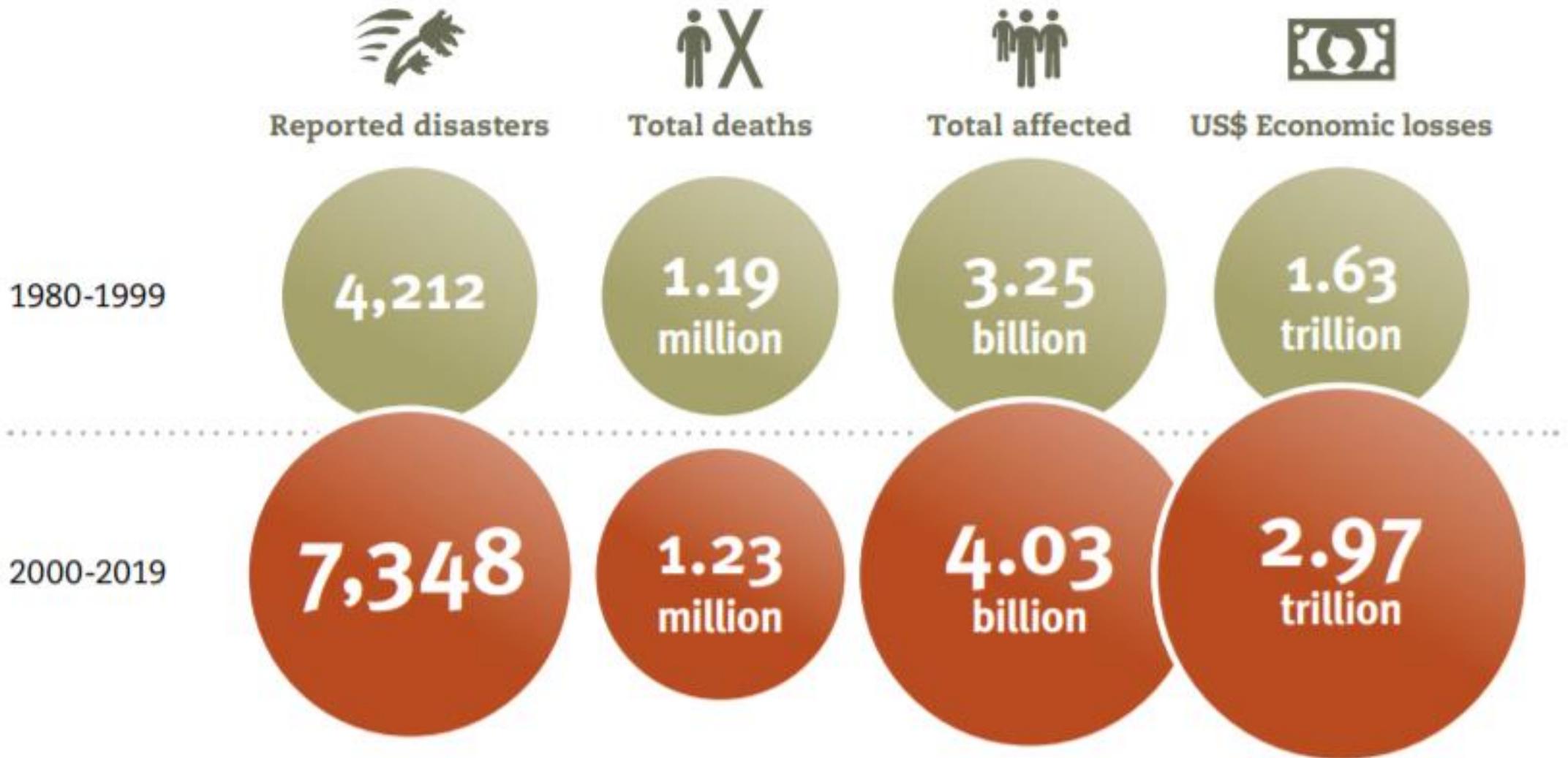
Impact in numbers

Climate and disaster risk – driving inequality and crises

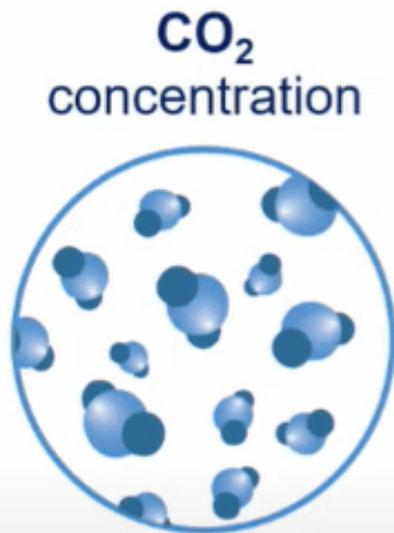
- Hazards and climate change do not affect everyone equally – and never have.
- Climate and disaster risks do not exist in a vacuum – they exacerbate existing vulnerabilities and other risks, and can themselves be exacerbated by instability and shocks.



The Growing Human Cost of Disasters: Disaster Loss



IPCC AR6 Climate Change 2021: The Physical Science Basis



Highest
in at least
2 million years



Fastest rates
in at least
3000 years

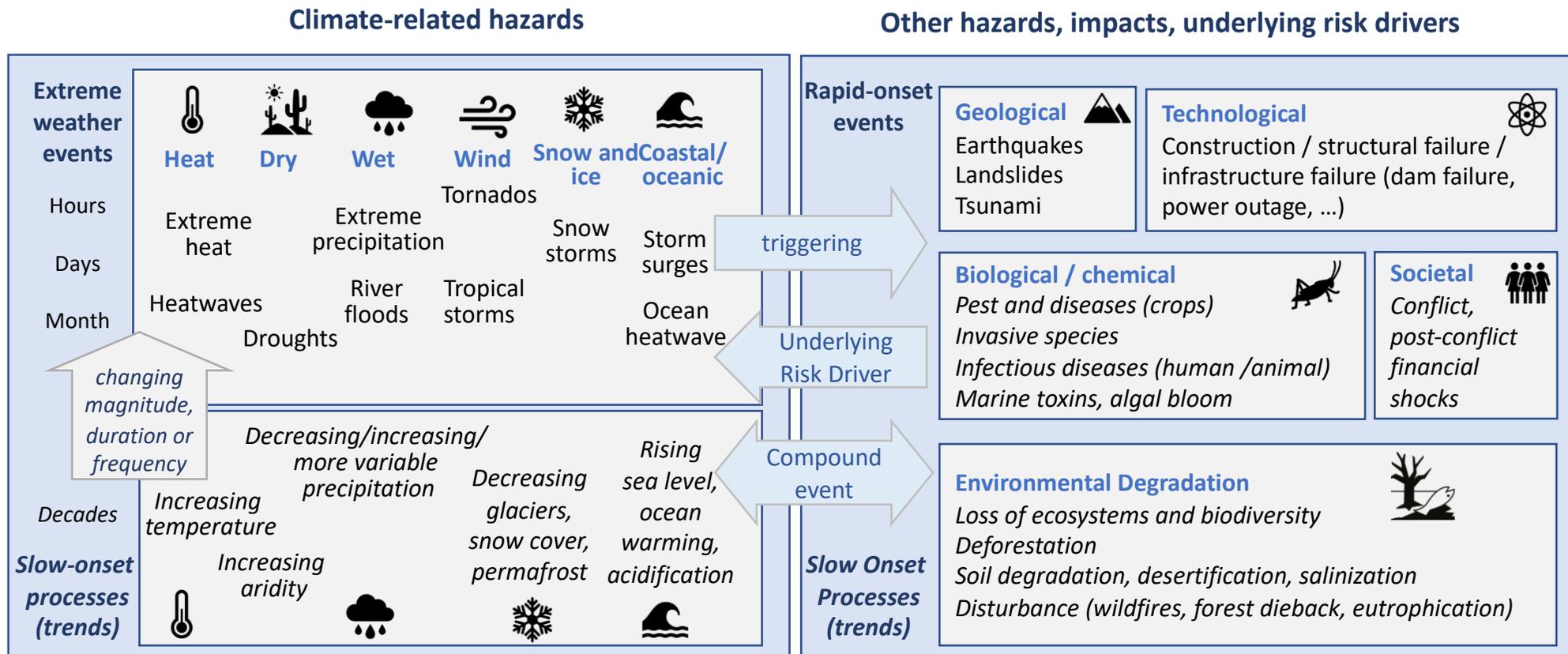


Lowest level
in at least
1000 years



Unprecedented
in at least
2000 years

Climate change is an underlying risk driver



Climate change as underlying risk driver

WEF Global Risk Report

Perceptions of Risk: Top 5 Global Risks in Terms of Likelihood



WEF Global Risk Report

Perceptions of Risk: Top 5 Global Risks in Terms of Impact

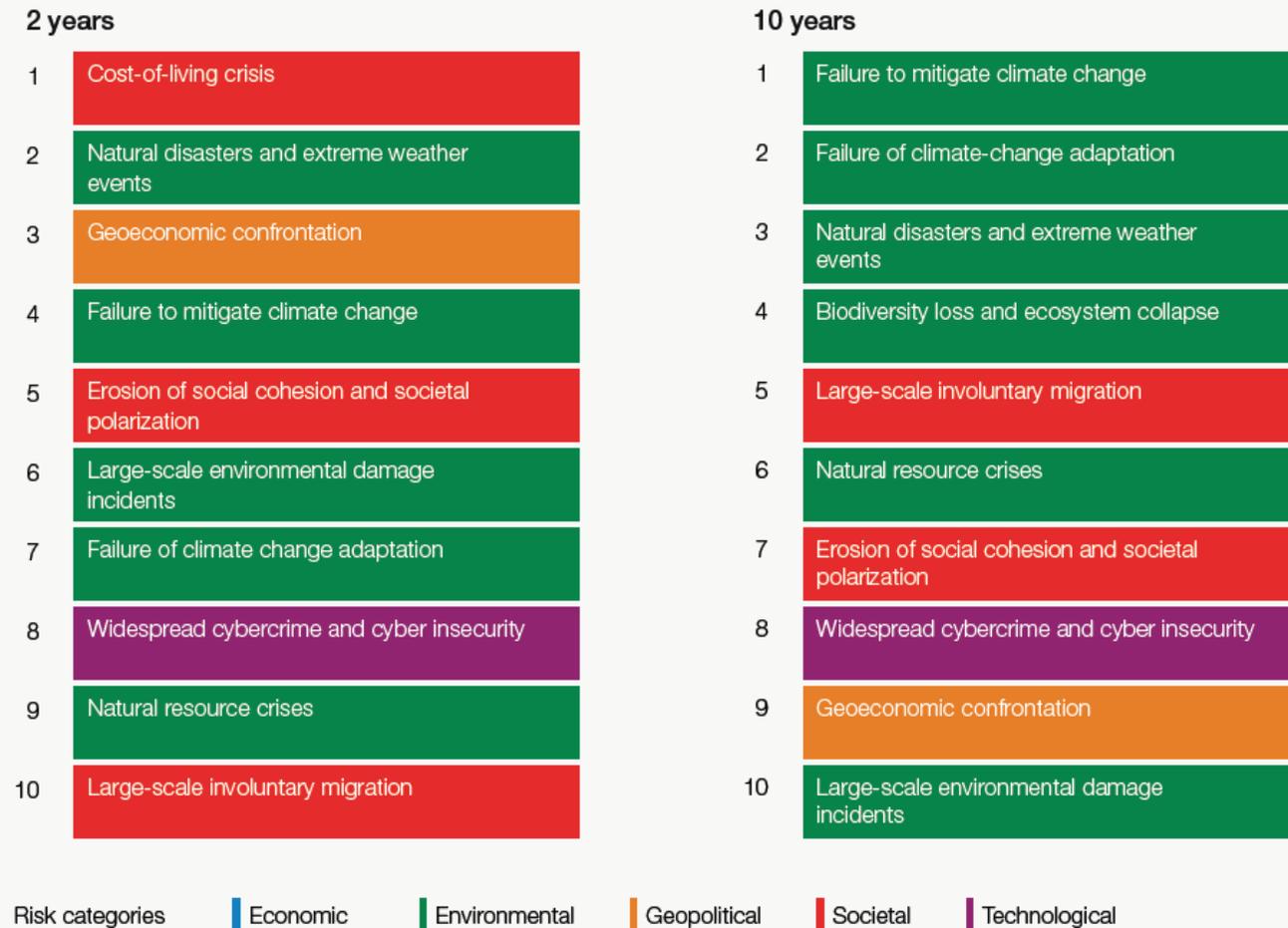


WEF Global Risk Report 2023 – Top 10 Risks

FIGURE A

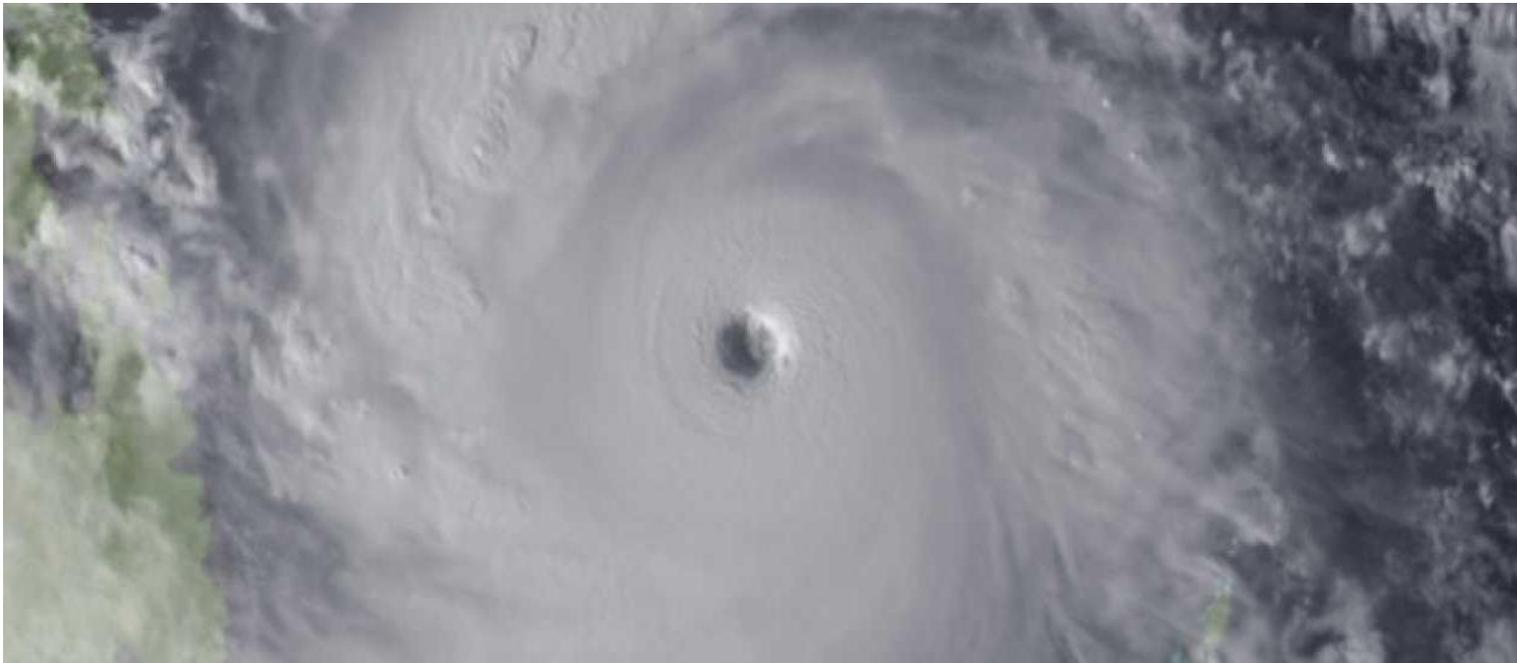
Global risks ranked by severity over the short and long term

"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period"



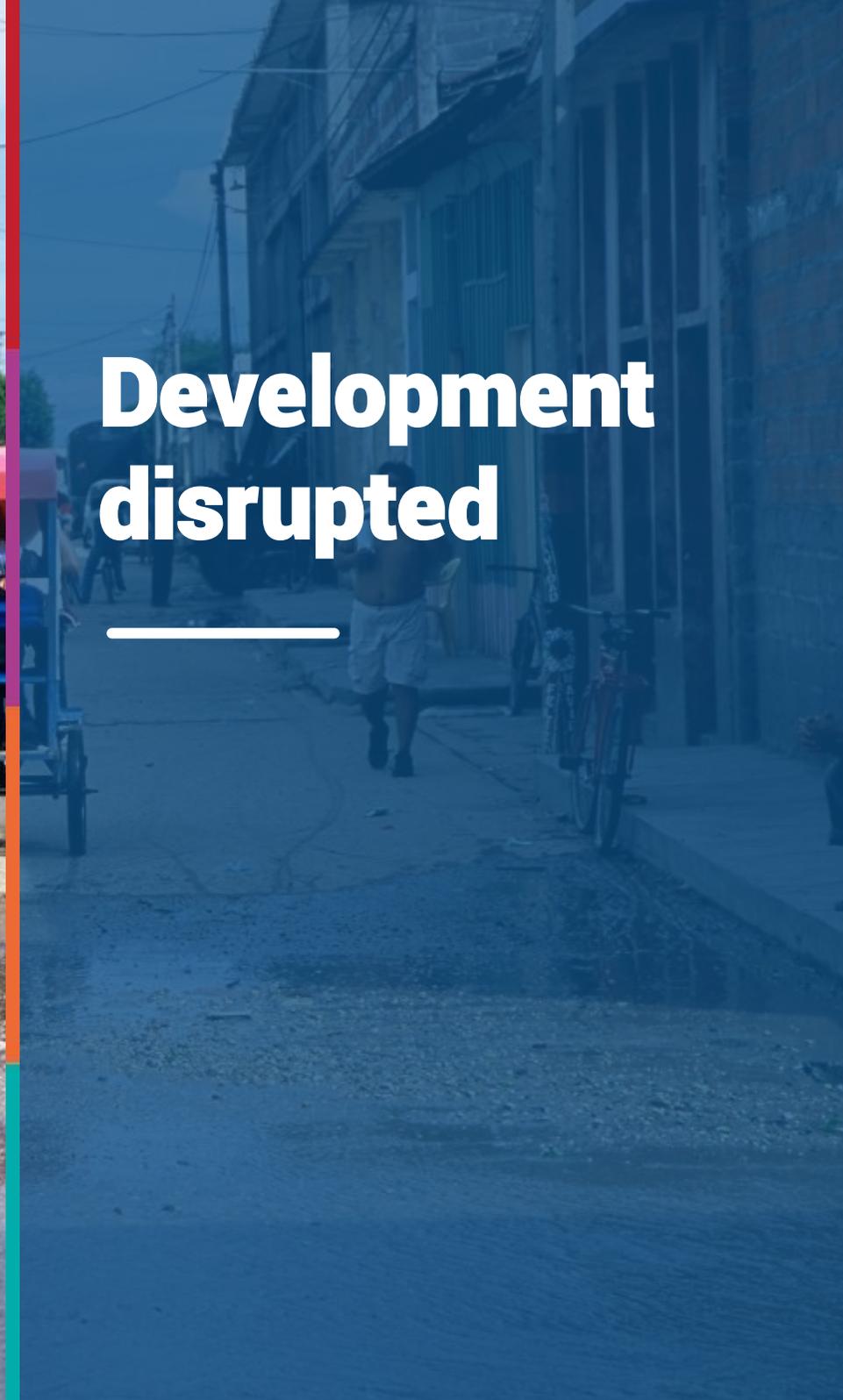
Put your answer in the chat

How does climate change affect your community?





Development disrupted



A Changing Environment – Growing Complexity

- **Intensifying disaster trends & more frequent events**
- **Resource scarcity** and degradation (land, water, food, energy, biodiversity)
- Increasing risk of “unchecked” **urbanization** coupled with **high exposure** of population and assets in high-risk areas.
- Increasing **governance challenges**, coordination, accountability, legislations, institutional mechanisms, migration, conflict, all affecting human security
- **Equity, poverty, inclusion** – all being fundamental development challenges contributing to vulnerability
- **Climate change** [extreme events, slow onset disasters (drought)]
- **COVID-19**
- Inter-dependency and **complexity of risk drivers**

Systemic Risk - Multiple Breadbasket Failure

CURRENT CONTEXT

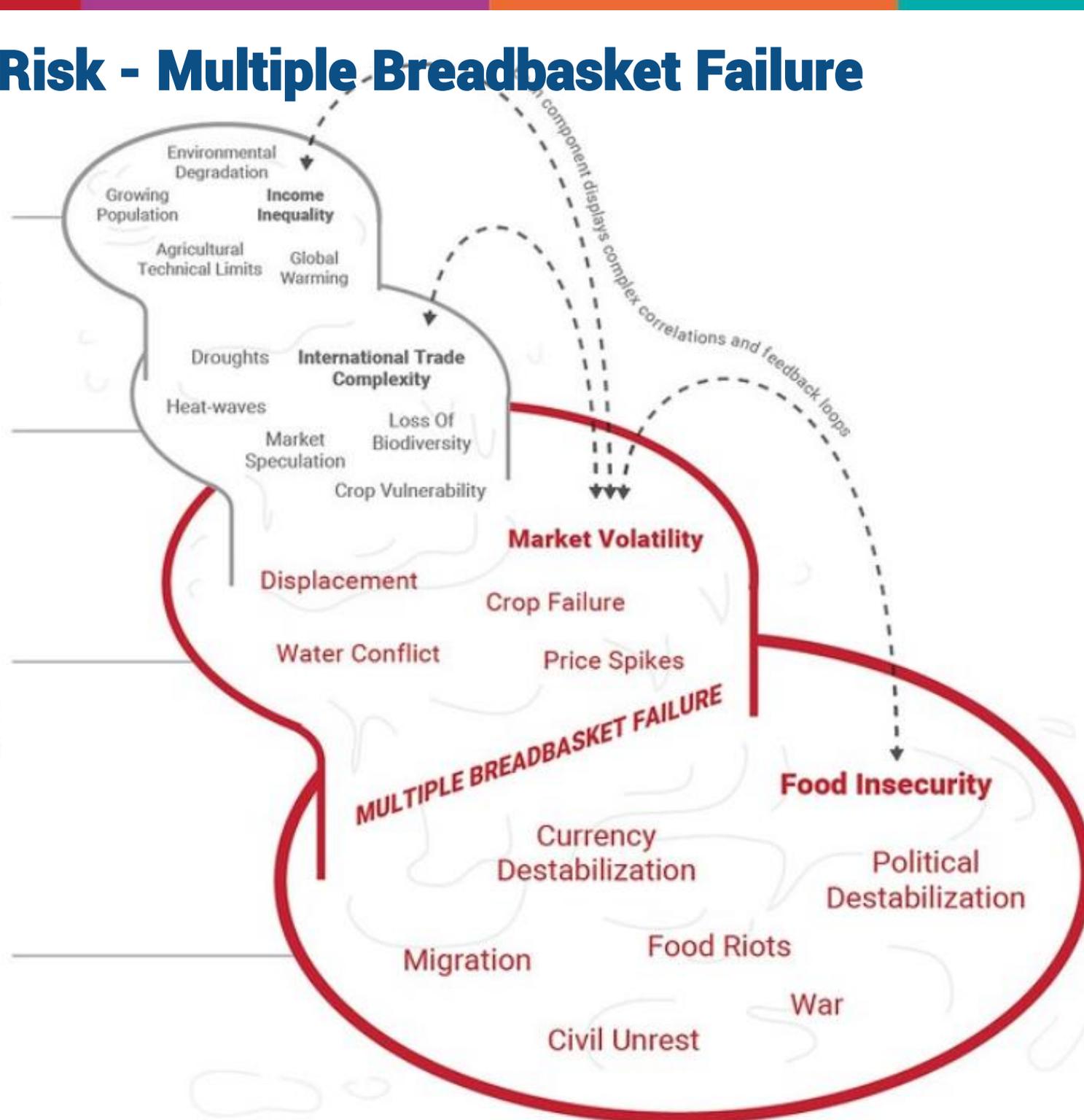
Capacity to absorb negative events is being reduced slowly (e.g. population growth pushing the limits of agricultural technology)

BUILDING STRESSORS

SUDDEN AND GRADUAL TIPPING POINTS

An event of great magnitude or multiple failures at the same time could suddenly exceed all remaining capacity

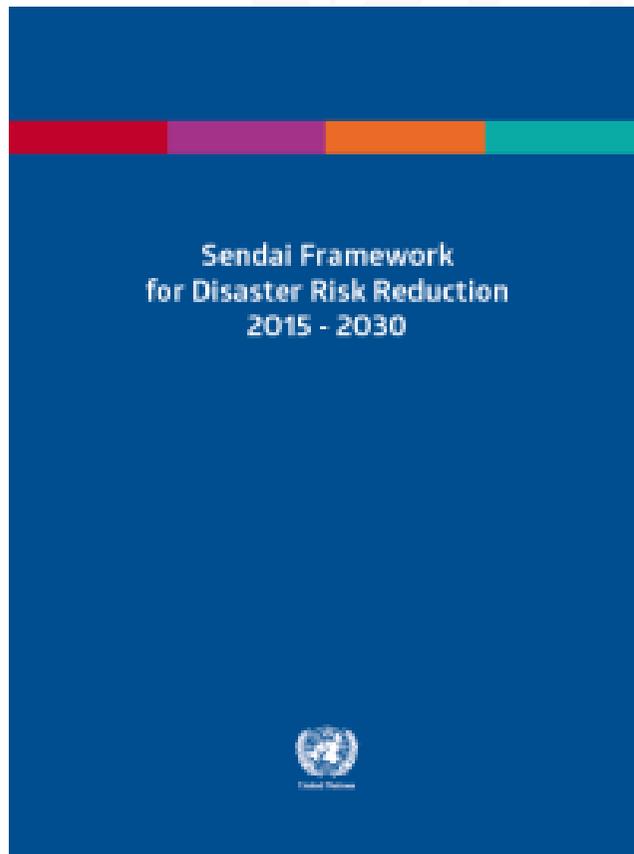
SYSTEMIC FAILURE



The Sendai Framework for Disaster Risk Reduction 2015-2030

Intended outcome:

*The substantial **reduction of disaster risk and losses** in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries.*



- **Adopted at the Third UN World Conference on Disaster Risk Reduction** on March 18, 2015
- **Endorsed by the UN General Assembly** on May 15, 2015.
- **15-year, voluntary, non-binding agreement with 4 Priorities for Action and 7 Global Targets**
- Recognizes that the **State has the primary role** to reduce disaster risk but that responsibilities are to be **shared with other stakeholders including local government and the private sector.**

7 GLOBAL TARGETS

Reduce

a

Mortality/
global population

2020-2030 Average << 2005-2015 Average

b

Affected people/
global population

2020-2030 Average << 2005-2015 Average

c

Economic loss/
global GDP

2030 Ratio << 2015 Ratio

d

**Damage to critical infrastructure
& disruption of basic services**

2030 Values << 2015 Values

Increase

e

**Countries with national
& local DRR strategies**

2020 Value >> 2015 Value

f

**International
cooperation
to developing countries**

2030 Value >> 2015 Value

g

**Availability and access
to multi-hazard early warning
systems & disaster risk
information and assessments**

2030 Values >> 2015 Values

4 PRIORITIES FOR ACTION

Priority 1 Understanding disaster risk

Policies and practices for DRR should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.

Priority 2 Strengthening disaster risk governance to manage disaster risk

Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk.

Priority 3 Investing in disaster risk reduction for resilience

Public and private investment in DRR are essential to enhance the economic, social, health & cultural resilience of persons, communities, countries, their assets, as well as environment

Priority 4 Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction

Strengthened disaster preparedness for response, recovery, rehabilitation and reconstruction are critical to build back better

National and local dimensions

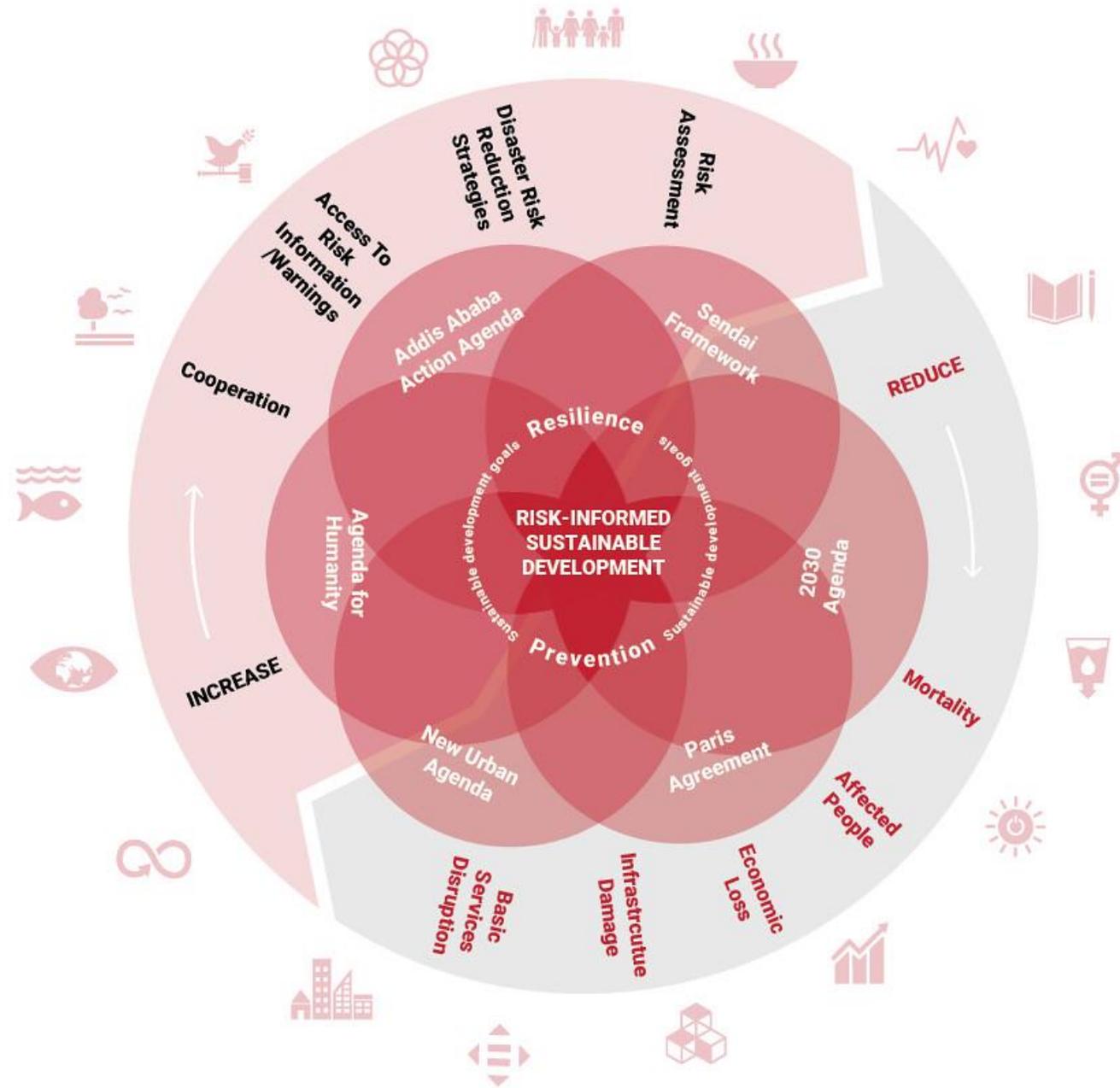
Regional and global dimensions

Towards System Risk Governance

“Innovation curve” – from destructive to regenerative approaches



Risk-informed Sustainable Development: Integrated Risk Governance



Key Resources

Disaster Risk Reduction Terminology <https://www.undrr.org/terminology>

Sendai Framework for Disaster Risk Reduction 2015-2030, UN
<https://www.undrr.org/implementing-sendai-framework/what-sf>

The Global Assessment Report
<https://gar.undrr.org>

Understanding Disaster Risk <https://www.preventionweb.net/understanding-disaster-risk>

The Global Risks Report 2023, 18th Edition, World Economic Forum
<https://www.weforum.org/reports/the-global-risks-report-2023>

Unbreakable, GFDRR, World Bank
https://www.gfdr.org/sites/default/files/publication/Unbreakable_FullBook_Web-3.pdf

Words Into Action, including National and Local DRR Strategies, Disaster Displacement and Nature-based Solutions <http://www.preventionweb.net/sendai-framework/words-into-action>

View all UNDRR GETI National Workshop Recommended Reading and Sources on PreventionWeb:
<https://www.preventionweb.net/collections/geti-national>

Thank You

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Global Education and Training Institute (GETI)

4F Songdo G-Tower,
175 Art Center-daero,
Yeonsu-gu, Incheon
Republic of Korea