Climate Risk Management in a Changing Environment

15th March 2022

UNDRR
UN Office for Disaster Risk Reduction

SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

Snapshot of climate- and weather-related disasters and their impacts.

- In the past ten years, **83% of all disasters triggered by natural hazards were caused by extreme weather**- and climate-related events, such as floods, storms and heatwaves.
- The **number of climate- and weather-related disasters** has been increasing since the 1960s, and has risen almost **35%** since the 1990s.
- The proportion of all disasters attributable to climate and extreme weather events has also increased significantly during this time, from **76% of all disasters during the 2000s to 83% in the 2010s.**
- These extreme weather- and climate-related disasters have **killed more than 410,000 people in the past ten years**, the vast majority in low and lower middle-income countries. **Heatwaves, then storms**, have been the biggest killers.
- A further **1.7 billion people** around the world have been affected by climate and
- weather-related disasters during the past decade.

World Disaster Report. IRFC. 2020.

IPCC report – impacts in Asia

Asia

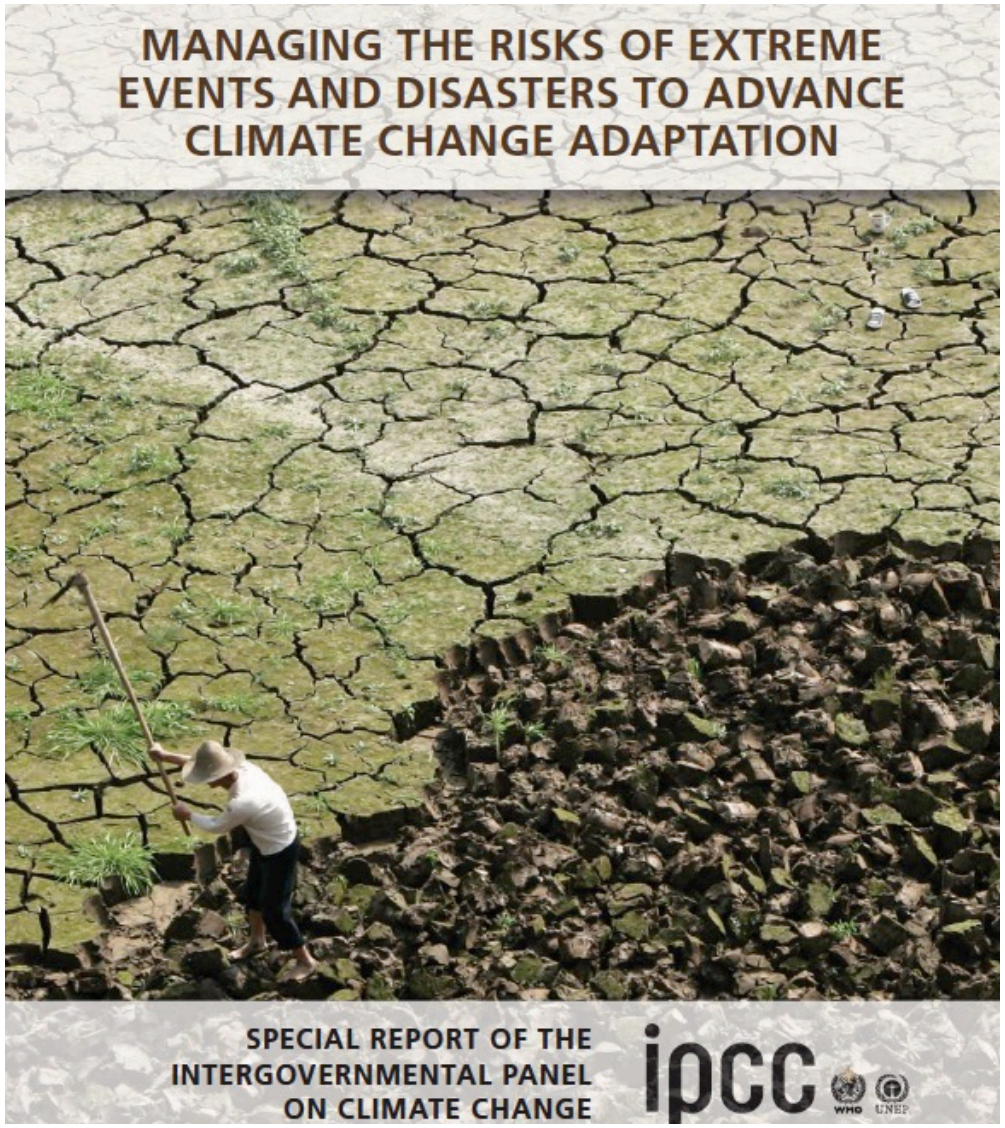
- Urban infrastructure damage and impacts on human well-being and health due to flooding, especially in coastal cities and settlements
- Biodiversity loss and habitat shifts as well as associated disruptions in dependent human systems across freshwater, land, and ocean ecosystems
- More frequent, extensive coral bleaching and subsequent coral mortality induced by ocean warming and acidification, sea level rise, marine heat waves and resource extraction
- Decline in coastal fishery resources due to sea level rise, decrease in precipitation in some parts and increase in temperature
- Risk to food and water security due to increased temperature extremes, rainfall variability and drought

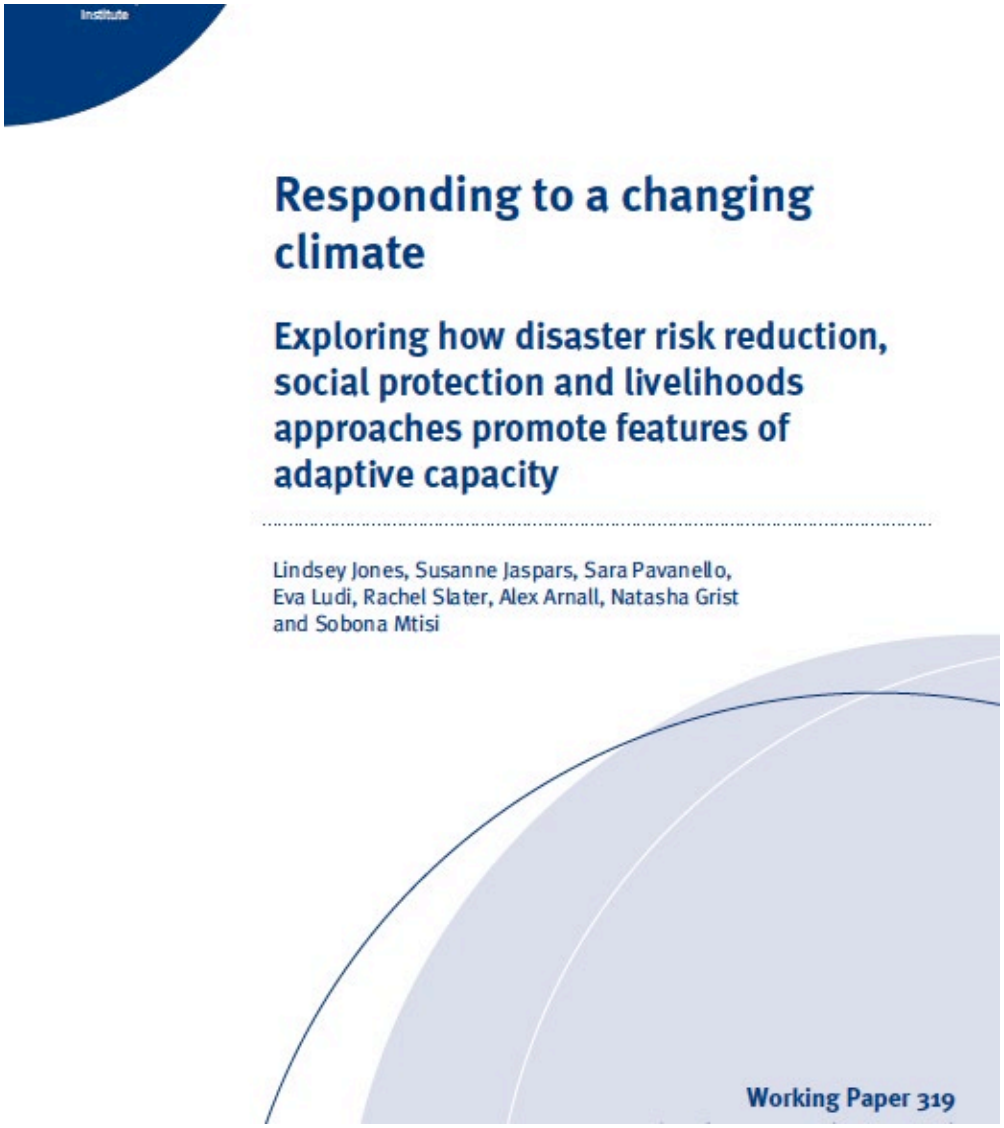
From: IPCC

5 reasons to aim for more coherent CCA and DRR approaches

1. Climate change is driving increasing disaster impacts, and smart adaptation as a CC risk management strategy can strengthen resilience to disasters (hence in Sendai Framework)
2. Disasters undermine CC adaptive capacity, and managing disaster risk can support it (hence in Paris Agreement) and increase vulnerability
3. Both CCA and DRR support achievement of SDGs – and indeed share targets/ indicators
4. Better use of resources: data, expertise and financing
5. **NOT striving for coherence presents massive RISK in both DRR and CCA**

Disasters reduce adaptive capacity to climate change





How can we promote synergy between NAPs, National DRR Strategies and SDGs?

An approach that puts risk to human and ecological systems at the centre, fully accounts for the context of climate change, recognises the complex and systemic nature of climate risks and integrates risks across sectors and levels.

In the context of climate change and disasters, **risk** can be defined as 'the potential for adverse consequences for human or ecological systems [...]' (IPCC, 2019)

The Sendai Framework and climate change

Priority 1 on Understanding Disaster Risk calls for global and regional actions to promote the conduct of comprehensive surveys on multi-hazard disaster risks and the development of regional disaster risk assessments and maps, including **climate change scenarios**.

Priority 2 on strengthening disaster risk governance to manage disaster risk calls for regional and global actions to foster collaboration across global and regional mechanisms and institutions for the implementation and coherence of instruments and tools relevant to DRR, such as for **climate change**, biodiversity, sustainable development, poverty eradication, environment, agriculture, health, food and nutrition and others, as appropriate.

Priority 4 on enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction calls for national and local actions to consider for national and local actions to prepare or review and periodically update disaster preparedness and contingency policies, plans and programmes with the involvement of the relevant institutions, considering **climate change scenarios** and their impact on disaster

What is ‘risk-informed planning and decision-making?

The process of incorporating cross-cutting issues or topics such as climate change and disaster risk reduction into the design of policies, plans, programmes or instruments, across sectors (horizontally) and between administrative or government levels (vertically).

CRM Ten Principles

1. Putting risk to human and ecological systems at the centre

2. Fully accounting for the context of climate change

3. Recognising the complex and systemic nature of risks

4. Applying inclusive risk governance

5. Using multidisciplinary approaches to identify and select measures

6.Using the concept of risk tolerance

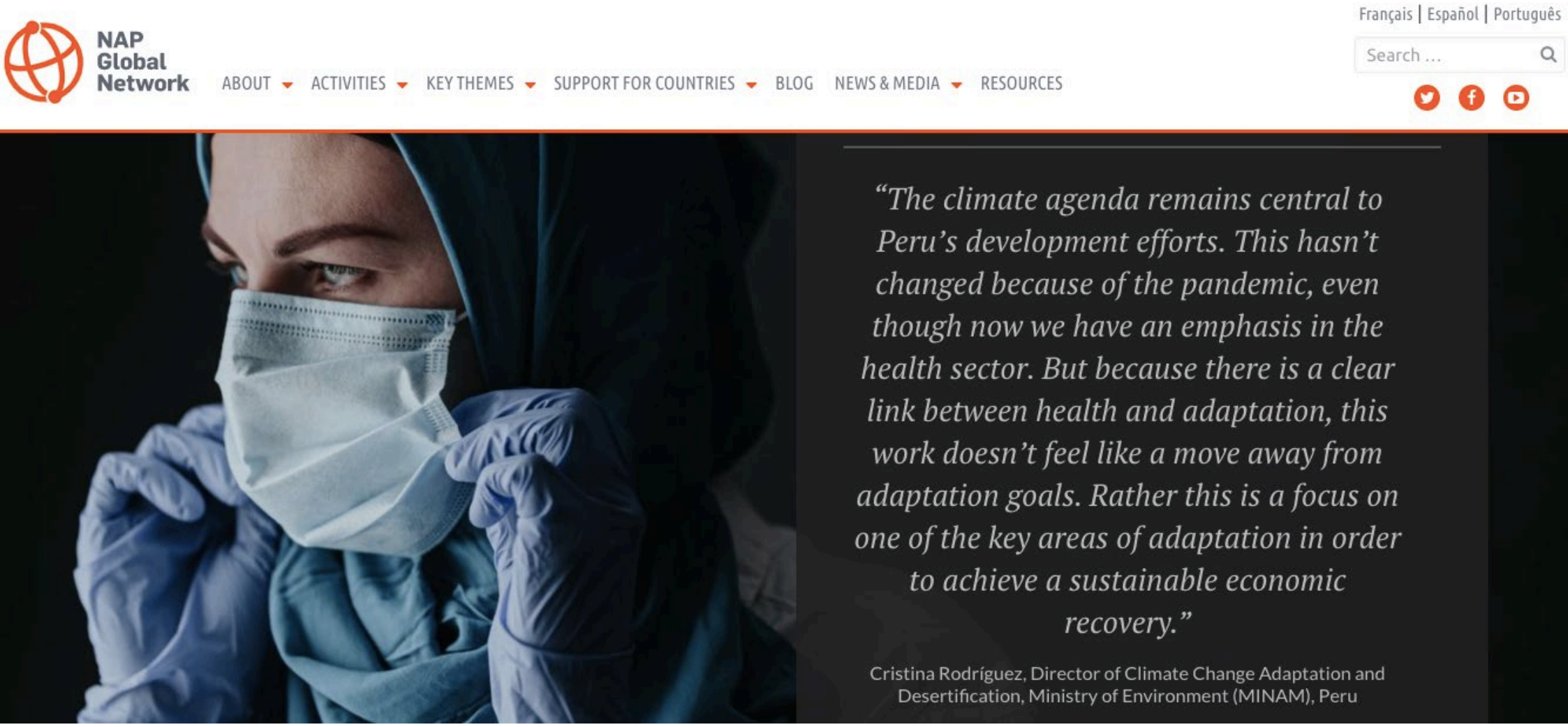
7. Addressing, minimising, and averting risks through nature-based solutions

8. Integrating risks across sectors and levels

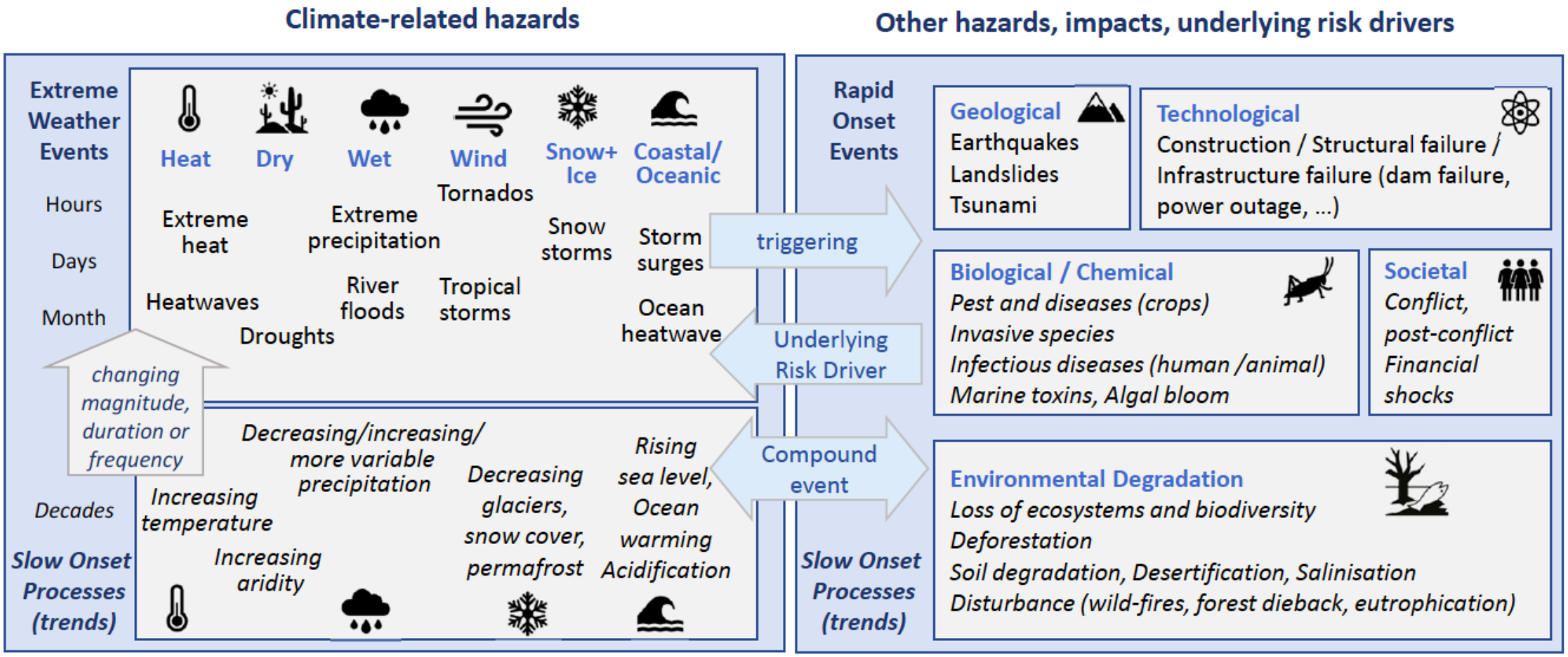
9. Strengthening risk communication, information & knowledge sources

10. Using iterative and flexible processes

Effective disaster risk management can contribute to climate change adaptation goals

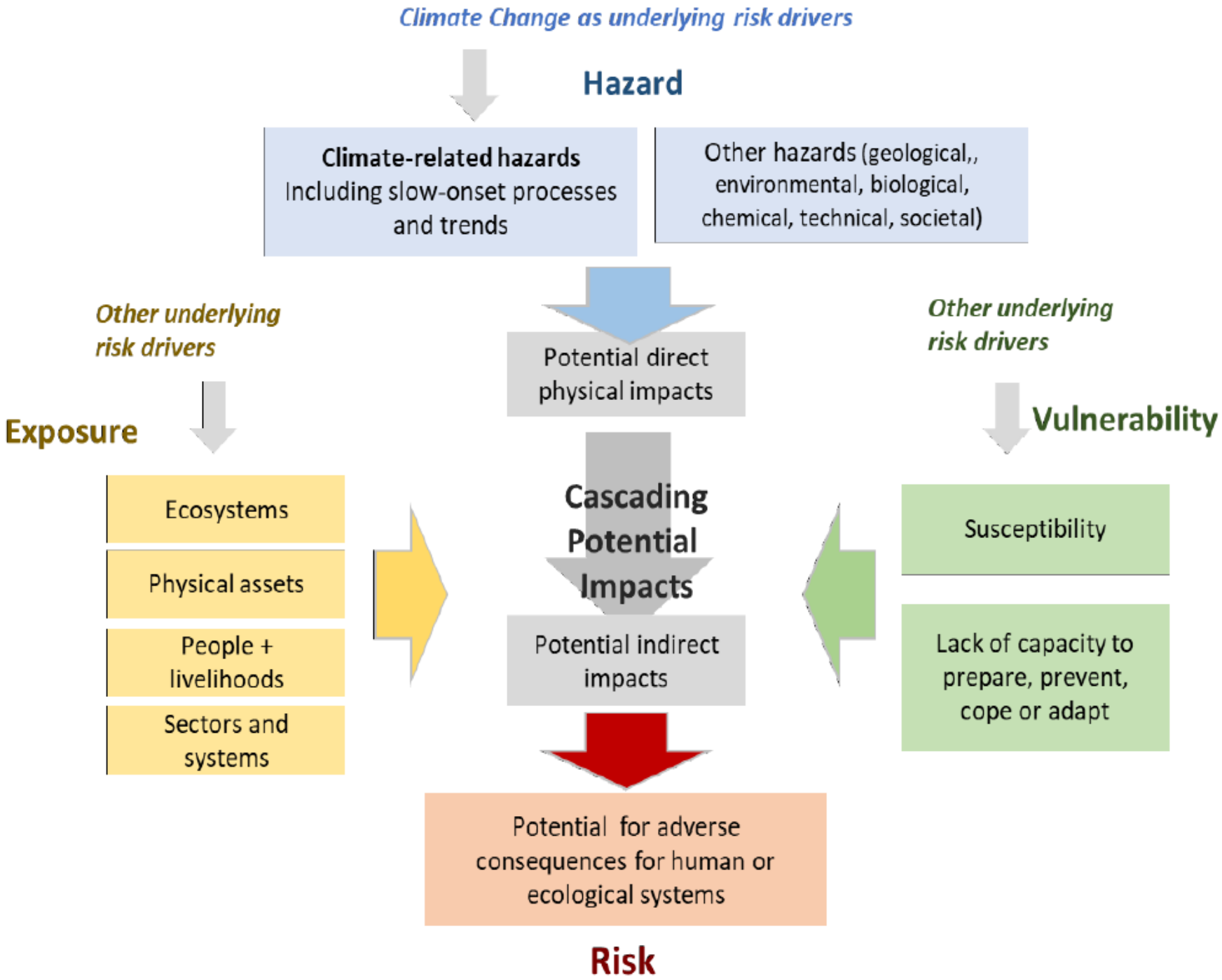


Full spectrum of hazards for consideration in CRM approach

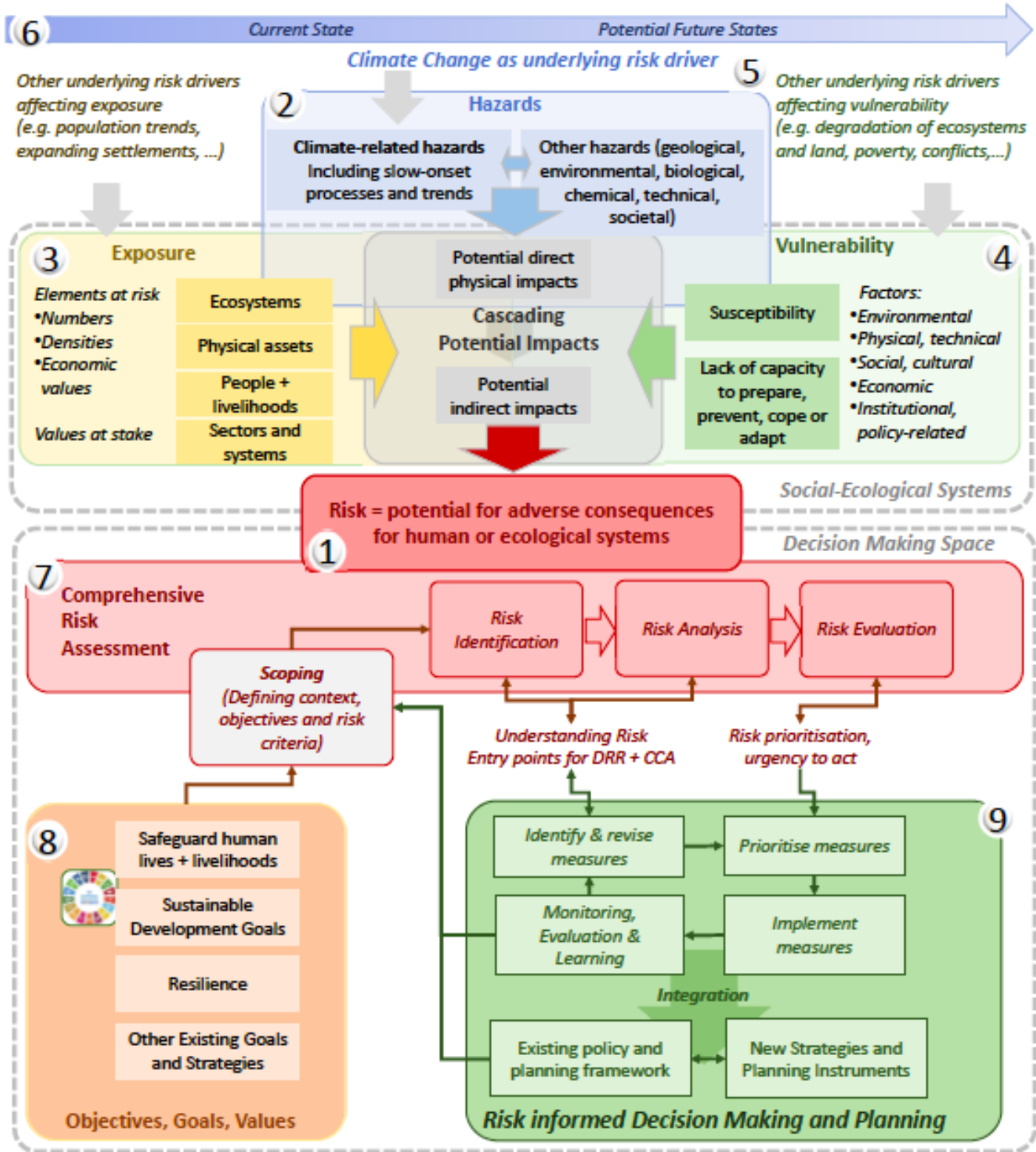


Climate Change as underlying risk driver

Impact chains: a good tool to map interlinkages of risk factors

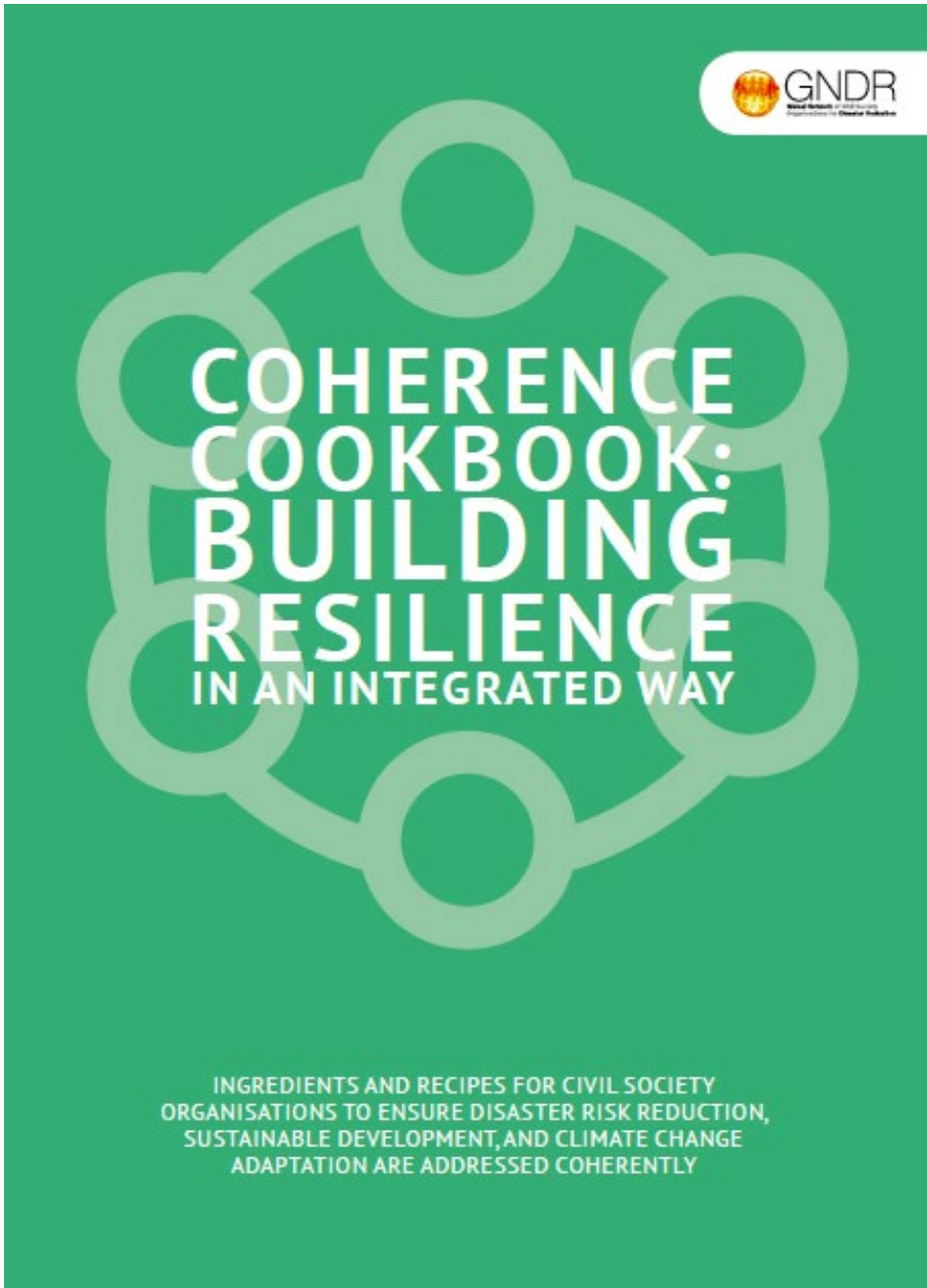


A CRM framework



Coherence cookbook building resilience in an integrated way. GNDR. 2019.

- Case studies on CCA-DRR coherence from around the world from a CSO perspective
- Contains coherence 'key ingredients' are close to the 6 principles for national DRR strategy development, the 6 pathways for NAP development and also CRM ten Principles.



Moving towards resilience

Organizing and Preparing for Disaster Risk Reduction
Raise awareness, plan the process, convene multi- and diverse stakeholders and relevant actors

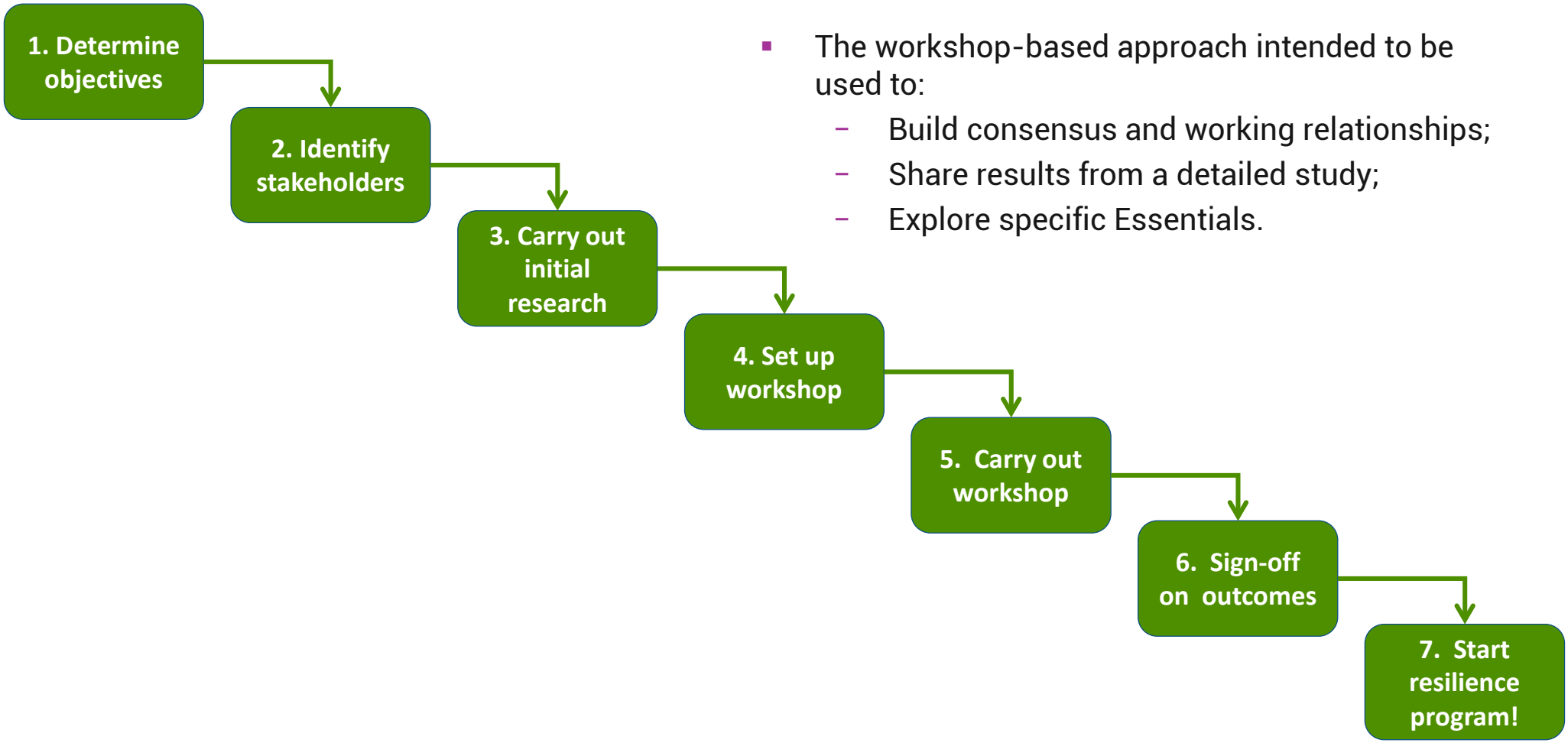
Disaster Risk & Resilience Assessment
Conduct risk assessment, understand localized risks, identify vulnerabilities, assess gaps and possible actions to respond to disaster risks

Development DRR Strategies and Action Plans
Develop and prioritize possible interventions, identify responsible parties & time frame, establish M&E indicators, obtain political ratification, identify funding options

Implementation of DRR Strategies
Mobilize resources, implement DRR actions, ensure ownership and participation

DRR Monitoring, Evaluation and Follow up
Monitor, evaluate and report of achievements, document lessons learned

Workshop-based approach - the core process

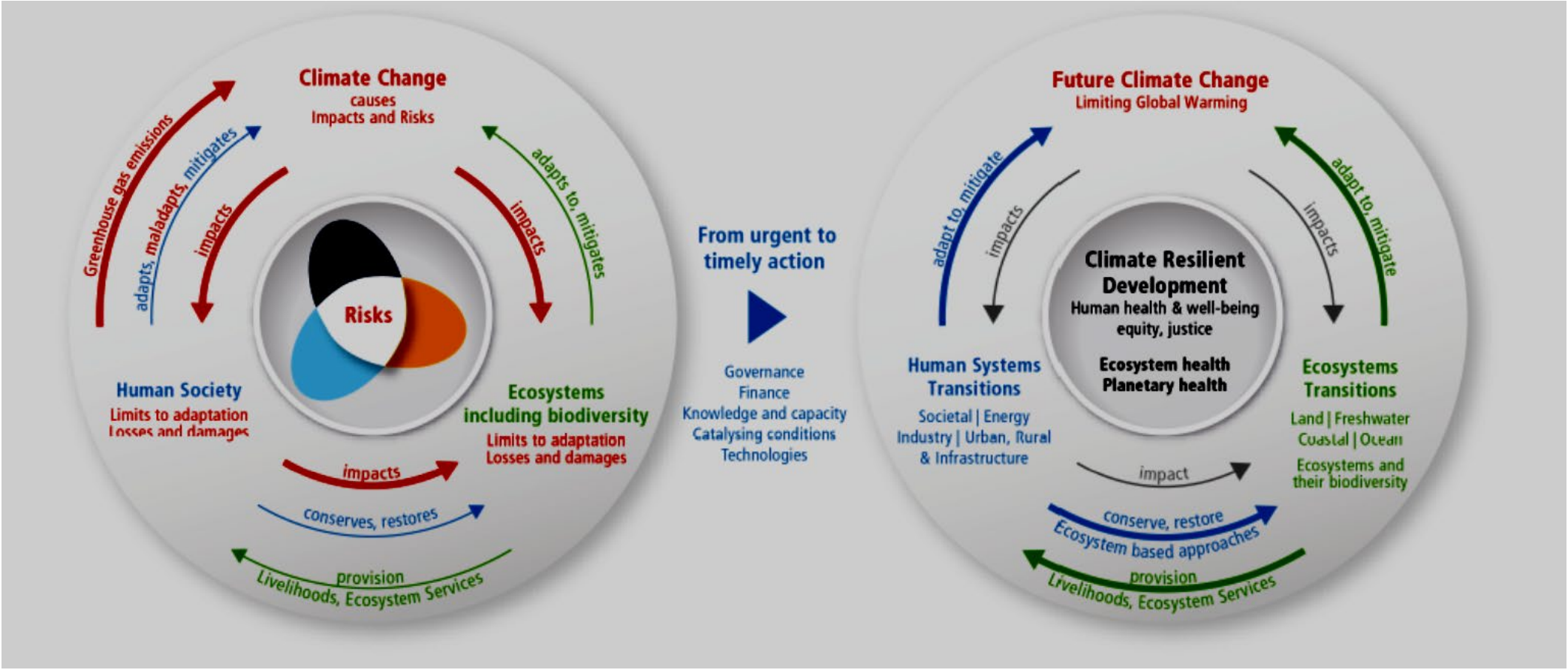


- The workshop-based approach intended to be used to:
  - Build consensus and working relationships;
  - Share results from a detailed study;
  - Explore specific Essentials.

Example: Namibia

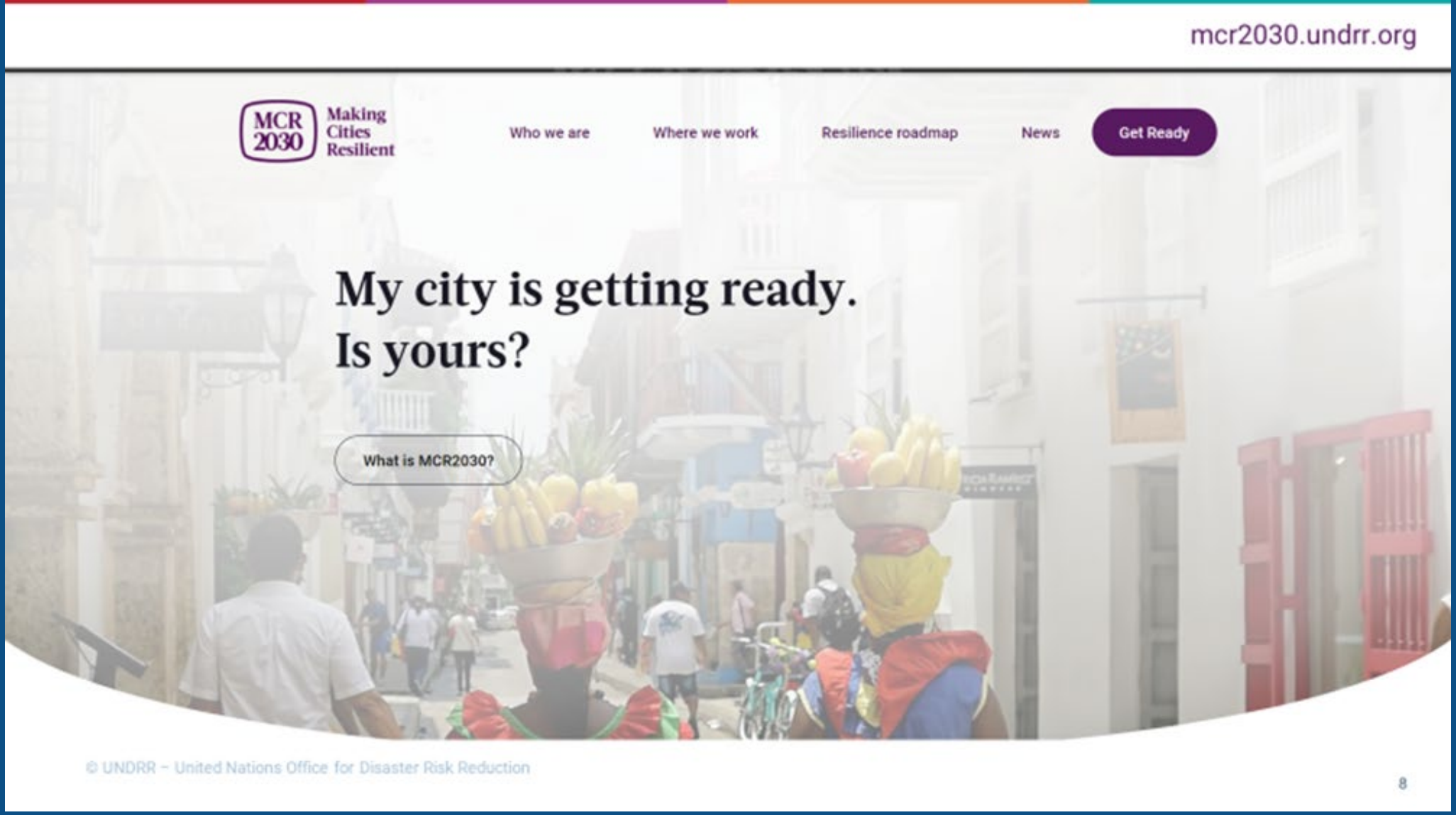
- Single strategy for mainstreaming DRR and CCA into Development Planning
- Two separate coordination mechanisms, the Climate Change Committee and the DRM Committee
- Two ministries: Ministry of the Interior responsible for disaster management and Ministry of Environment responsible for CCA

From today to Tomorrow



From: IPCC

841 cities and 180 partners



SUSTAINABLE DEVELOPMENT GOALS

Thank you

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