

Nature-based Solutions for Disaster Risk Reduction

Kristin Meyer, Programme Management Officer, UNDRR

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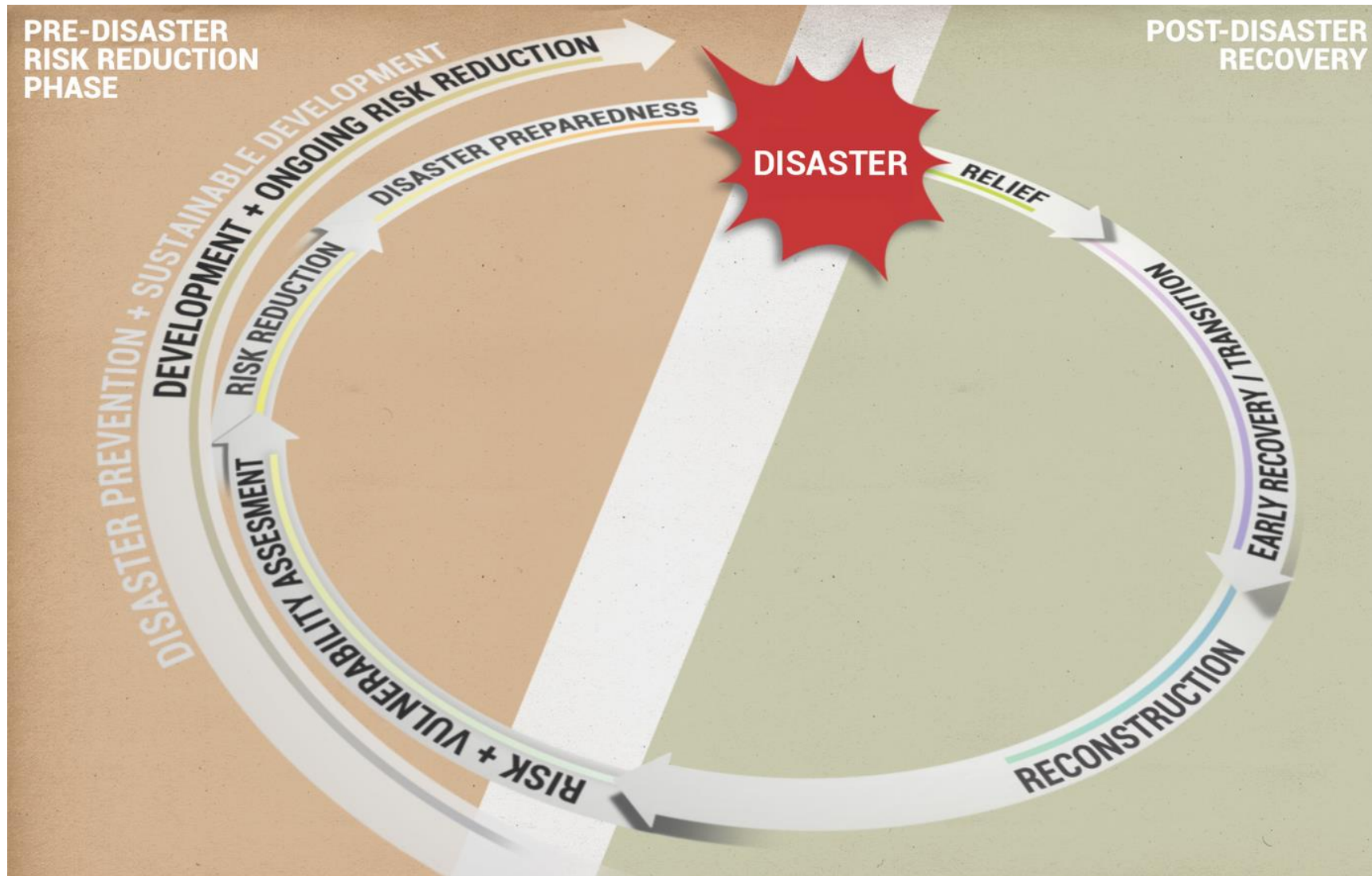
UNDRR

UN Office for Disaster Risk Reduction



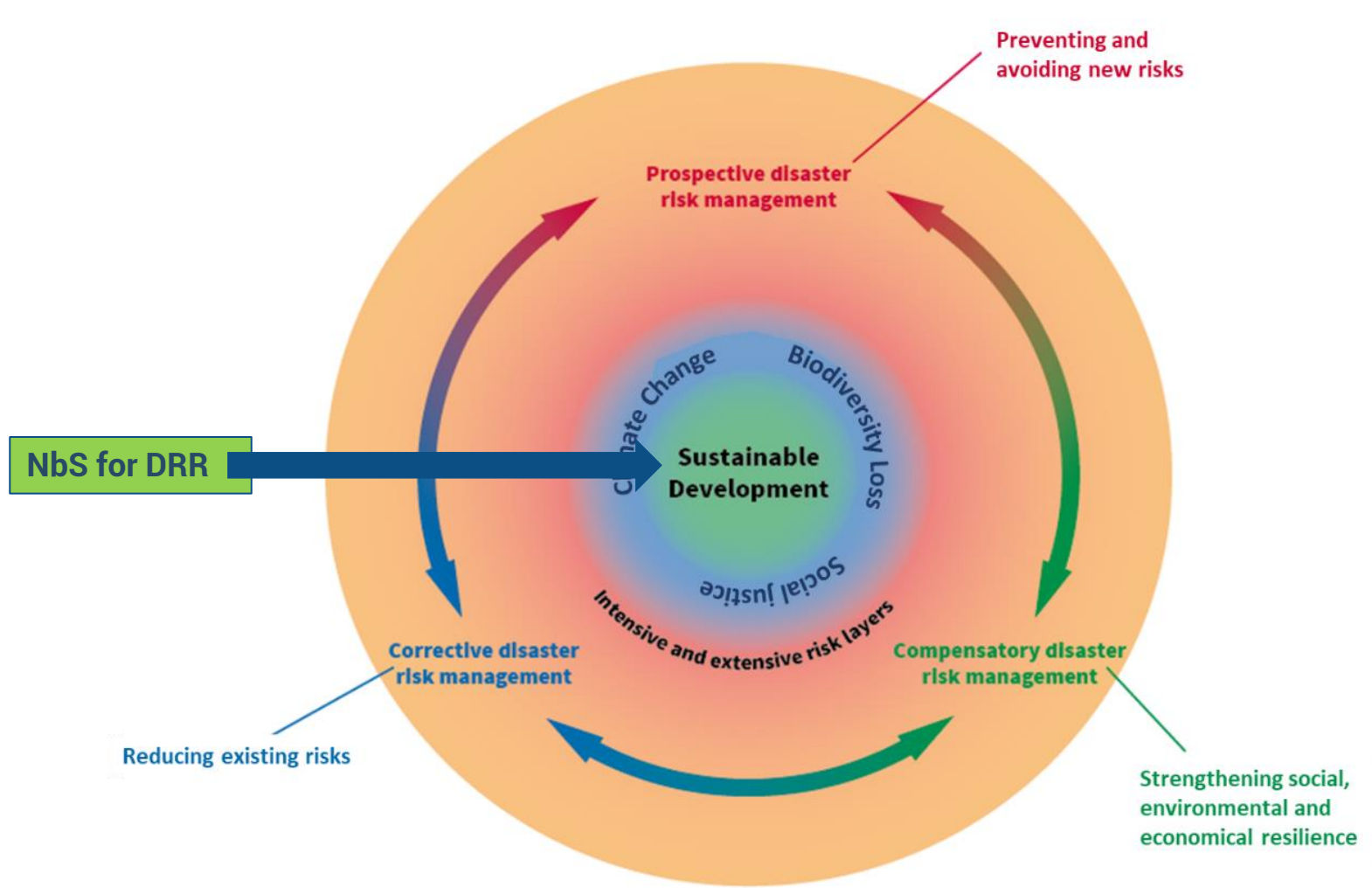
SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

The disaster spiral



disaster
↓
response
↓
recovery
↓
repeat

Breaking the disaster spiral



Where we want to go:

- **Reducing risks** and building resilience
- Move towards **pro-active action** and a more equitable future
- The norm → **risk-informed planning and investments**

Defining Nature-based Solutions

“[...] actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, **resilience** and biodiversity benefits and recognizes that nature-based solutions: [...]

[...] (c) Are among the actions that play an essential role in the overall global effort to achieve the Sustainable Development Goals, including by effectively and efficiently addressing major social, economic and environmental challenges, such as biodiversity loss, climate change, land degradation, desertification, food security, **disaster risks**, urban development, water availability, poverty eradication, inequality and unemployment, as well as social development, sustainable economic development, human health and a broad range of ecosystem services; [...]”

*UN Environment Assembly resolution on
Nature-based solutions for supporting sustainable development*

SENDAI FRAMEWORK

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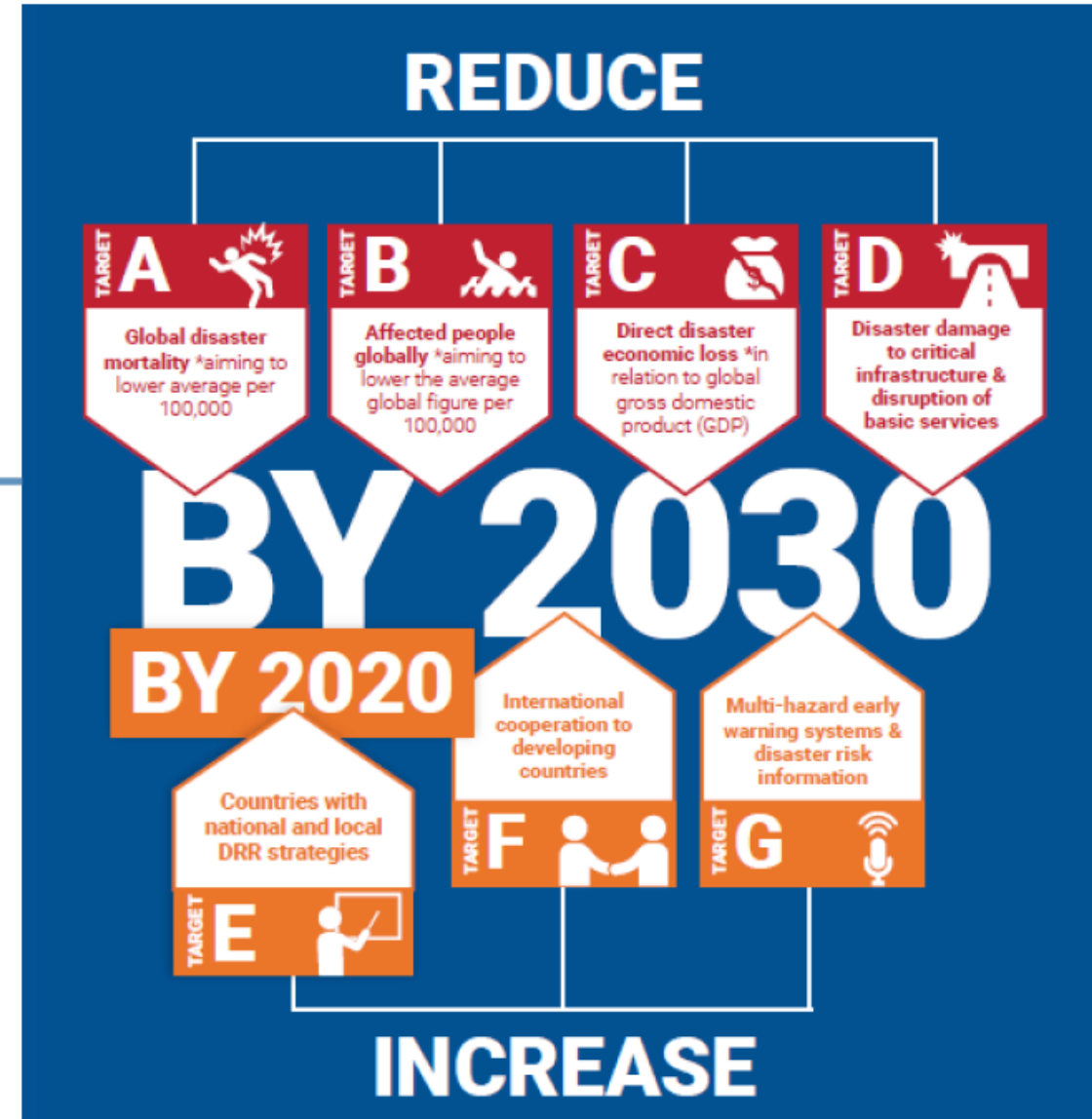
1 GOAL



4 PRIORITIES FOR ACTION



7 TARGETS



Water risks and resilience

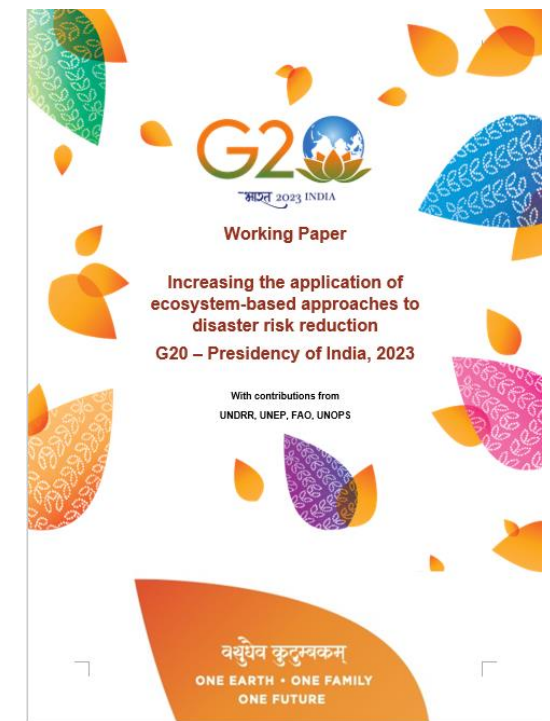
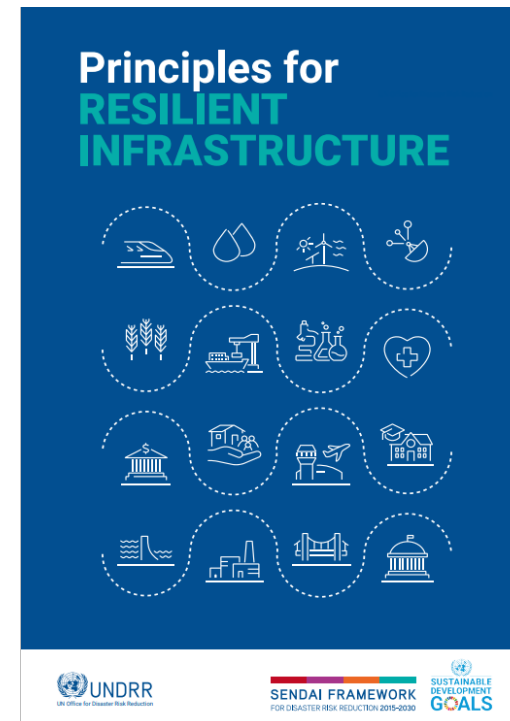
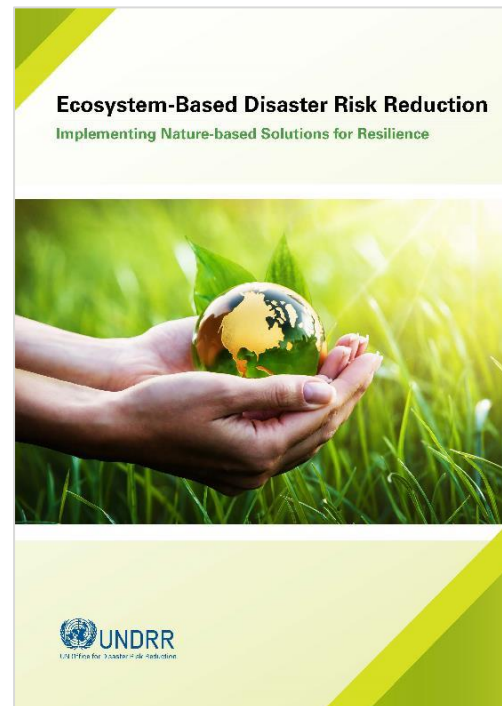
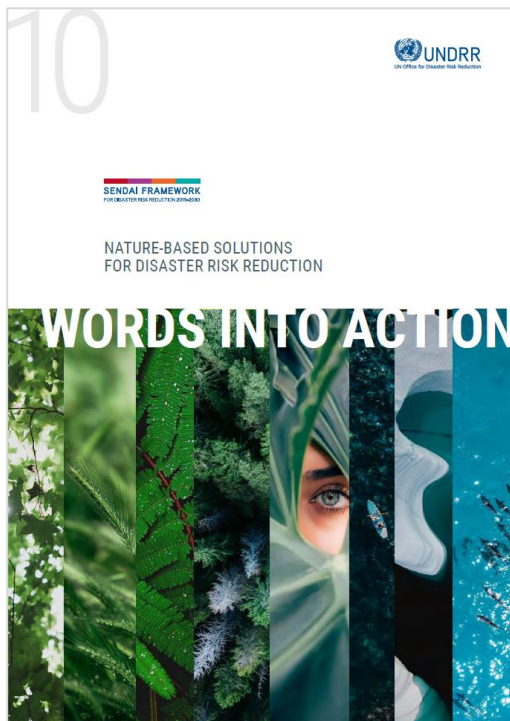


Water-related hazards have increased in frequency leading to major human and economic losses:

- At least 1.4 billion people have been affected by droughts and 1.6 billion by floods between 2000 and 2019.
- Freshwater biodiversity and species populations have been lost at a rate of 83% since the 1970s, faster than any other ecosystem being monitored.
- Water-related disaster deaths have more than doubled in the last 10 years and nearly 95% of infrastructure loss and damage reported between 2010 to 2019 were due to water-related disasters.
- In the last 50 years, floods led to economic losses of US\$ 115 billion, while droughts led to the largest human losses causing 650 000 deaths.

Promoting integrated risk-informed policymaking and water governance

- DRR community **has decades of experience** in managing extreme events and reducing risk related to potential climate-, weather- and water-related disasters
- **Comprehensive disaster risk governance** as the key to more integrated planning



Creating pathways for increased investments in Nature-based Solutions



Example: Natural Infrastructure Fund in Canada

- Combined losses from extreme weather and related disasters have **increased by more than 1000%** in the last 50 years – mostly floods and wildfires
- **Damage to infrastructure** and disruptions of its services one of the largest contributors to disaster economic losses
- How to make built and natural infrastructure systems climate-resilient?
- Increased investments in natural infrastructure solutions through a **dedicated CA\$ 200 million Natural Infrastructure Fund**
- Creation and conservation of **wetlands**, enhanced **urban drainage systems**, and restoration of **beaches and dunes**
- Learning and experience exchange, and **inclusive approaches**



<https://www.undrr.org/news/canadas-success-harnessing-nature-infrastructure-resilience>

Thank you for your attention

kristin.meyer@un.org