

Safe Ocean Laboratory Satellite Activity

Further Challenges for Warnings of Tsunamis

**UN Decade of Ocean Science for Sustainable
Development 2021-2030**



UNDRR

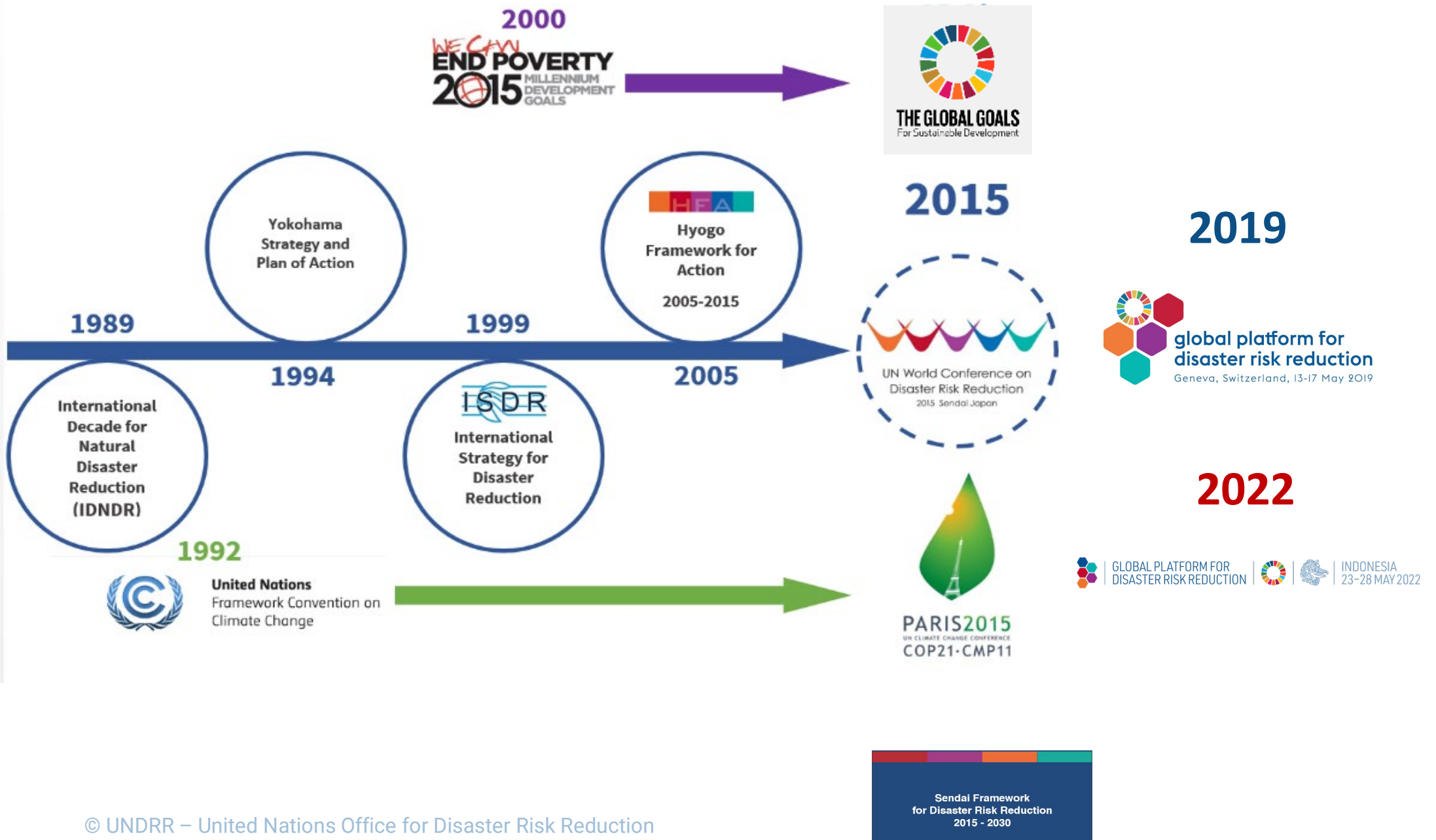
UN Office for Disaster Risk Reduction



SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

What are the international framework drivers for reducing the risk of tsunamis?

30 years of international commitment to DRR



30 years of progress and achievements

- A structured dialogue on disaster risk reduction: From global to local
 - Institutional structures on disaster risk management –Dedicated government institution and identified Focal Points
 - DRM policies, strategies and plans, and legislation
 - Officialization of data (Sendai Framework / SDG reporting)
 - New actors and stakeholders
 - Guidance for implementation, innovative tools and instruments
- High progress in **governance and preparedness** mechanisms
- Low progress in addressing **underlying risks**

Sendai Framework for Disaster Risk Reduction 2015-2030

The logo for the Sendai Framework for Disaster Risk Reduction 2015-2030. It features a dark blue rectangular background with a horizontal bar at the top divided into four colored segments: red, purple, orange, and teal. The text "Sendai Framework for Disaster Risk Reduction 2015 - 2030" is centered in white.

Sendai Framework
for Disaster Risk Reduction
2015 - 2030

Expected 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 by all UN member States in March 2015**

Sendai Framework for Disaster Risk Reduction 2015-2030



Priorities of the Sendai Framework

4 PRIORITIES FOR ACTION	Priority 1 Understanding disaster risk <i>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.</i>	National and local dimensions	Regional and global dimensions
	Priority 2 Strengthening disaster risk governance to manage disaster risk <i>Disaster risk governance at the national, regional and global levels is of great importance for an effective and efficient management of disaster risk.</i>		
	Priority 3 Investing in disaster risk reduction for resilience <i>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</i>		
	Priority 4 Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction <i>Strengthened disaster preparedness for response, recovery, rehabilitation and reconstruction are critical to build back better</i>		

Priority 1. Understanding risk

- Significant advances in hazard assessment and systems for tsunami detection and warning, including real time estimation of earthquake source parameters, paleosismological studies and studies of probable maximum size
- Tsunami Hazard Assessment and Tsunami Hazard Maps
- The Global Tsunami Model (GTM) was established in 2015, similar to the previously established Global Earthquake Model (GEM) and the Global Volcano Model (GVM)

→ More research is still needed on some topics, such as the **understanding of non-seismic** tsunamis

Priority 2. Governance

- **Global coordination** through ICGs, which as subsidiary bodies of the IOC of UNESCO, the ICG meets to promote, organize, and coordinate regional tsunami mitigation activities, including the issuance of timely tsunami warnings (PTWS, CARIBE EWS, NEAMTWS, IOTWS)
- **Tsunami Service Providers (TSP)**, whose main mission is to evaluate at basin level (Oceans, Seas) the risk of an impending tsunami, and issue information for Member States to take actions to protect life.
- **National focal points** and inter-institutional coordination at national and subnational level

Priority 3. Investment

- Increase in **investments in EWS** in the last years, after 2004 tsunami
 - **Investments in structural mitigation measures** (e.g. coastal defences)
- Need of investment to reinforce national structures and address **underlying factors of risk**



Priority 4. Preparedness, response and BBB

- Tsunami ready programme
- Wave exercises
- Community-based preparedness, public education and awareness (including the WTAD)
- Tsunami Information Centers
- Post events EWS performance and post-tsunami assessments



Global targets of the Sendai Framework

- (a) Substantially reduce **global disaster mortality** by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.
- (b) Substantially reduce the **number of affected people** globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020-2030 compared to the period 2005-2015.
- (c) Reduce **direct disaster economic** loss in relation to global gross domestic product (GDP) by 2030.
- (d) Substantially **reduce disaster damage to critical infrastructure and disruption of basic services**, among them health and educational facilities, including through developing their resilience by 2030.

Global targets of the Sendai Framework

- (e) Substantially increase the number of countries with **national and local disaster risk reduction strategies** by 2020.
- (f) Substantially enhance **international cooperation to developing countries** through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.
- (g) Substantially increase the availability of and access to **multi-hazard early warning systems and disaster risk information** and assessments to the people by 2030

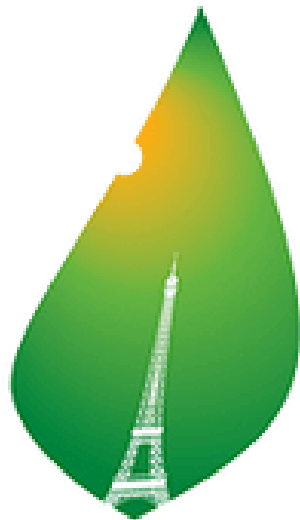
From treating symptom to cause



Coordinated implementation for resilience

Sendai Framework
for Disaster Risk Reduction
2015 - 2030

SUSTAINABLE DEVELOPMENT GOALS



PARIS2015
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TIME FOR GLOBAL ACTION
2-12 JULY 2012 · ADDIS ABABA · ETHIOPIA
DEVELOPMENT
FINANCING FOR

Key messages

- **Disaster risk reduction as a transformative agenda - how ?**
- **Intensive risk: a single event can erode years of development efforts**
- **Appreciate the risk complexity and renew efforts to adopt a systems approach its understanding**
- **Apply the most appropriate or mix of risk management strategies in specific contexts**
- **Revisit public financing mechanism to invent means for financing prevention**
- **From 'Government' to 'Governance': A whole-of-government and whole-of-society approach**