GROUP ON EARTH OBSERVATIONS

GEO Disaster Risk Reduction WG

CEOS WGDisasters-15 Meeting

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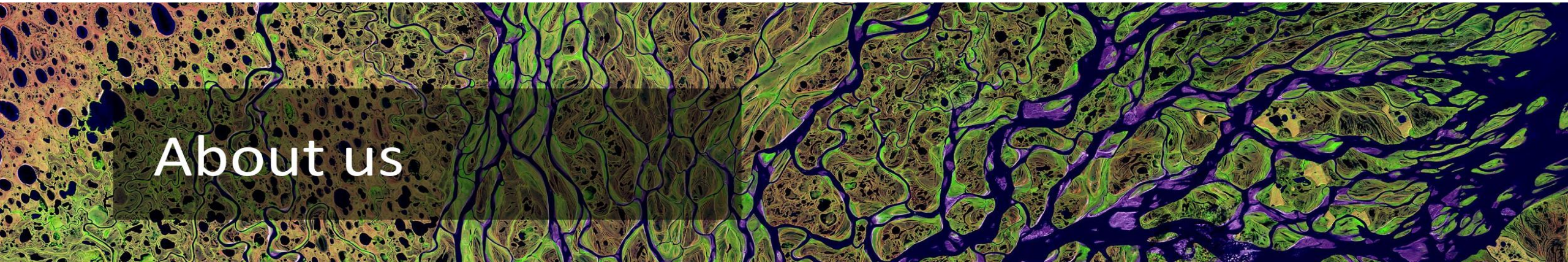
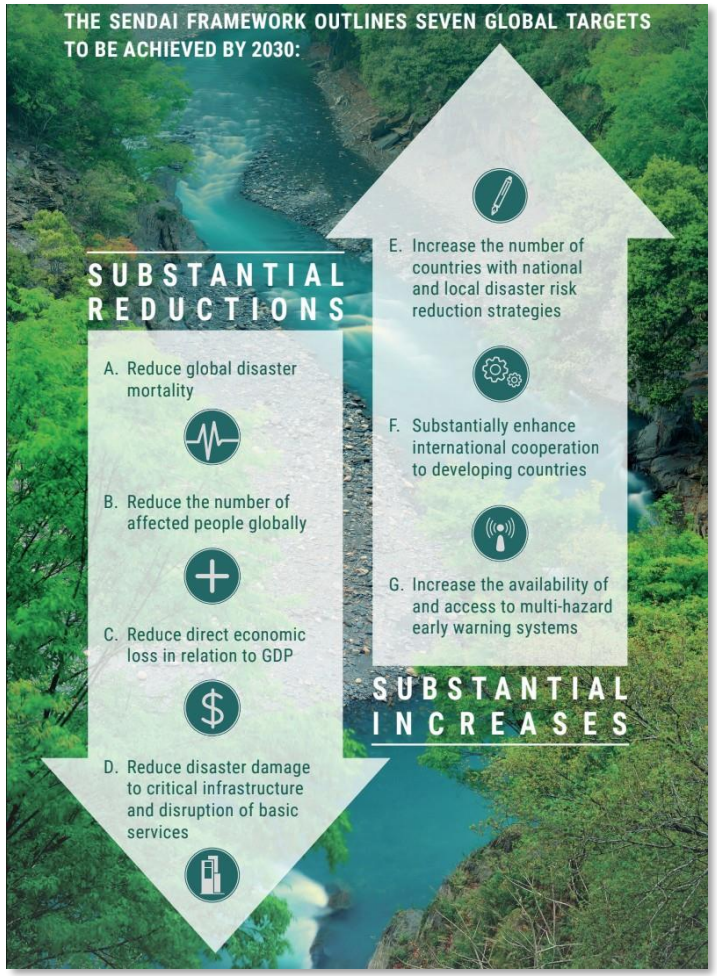
Group on Earth Observations (GEO)

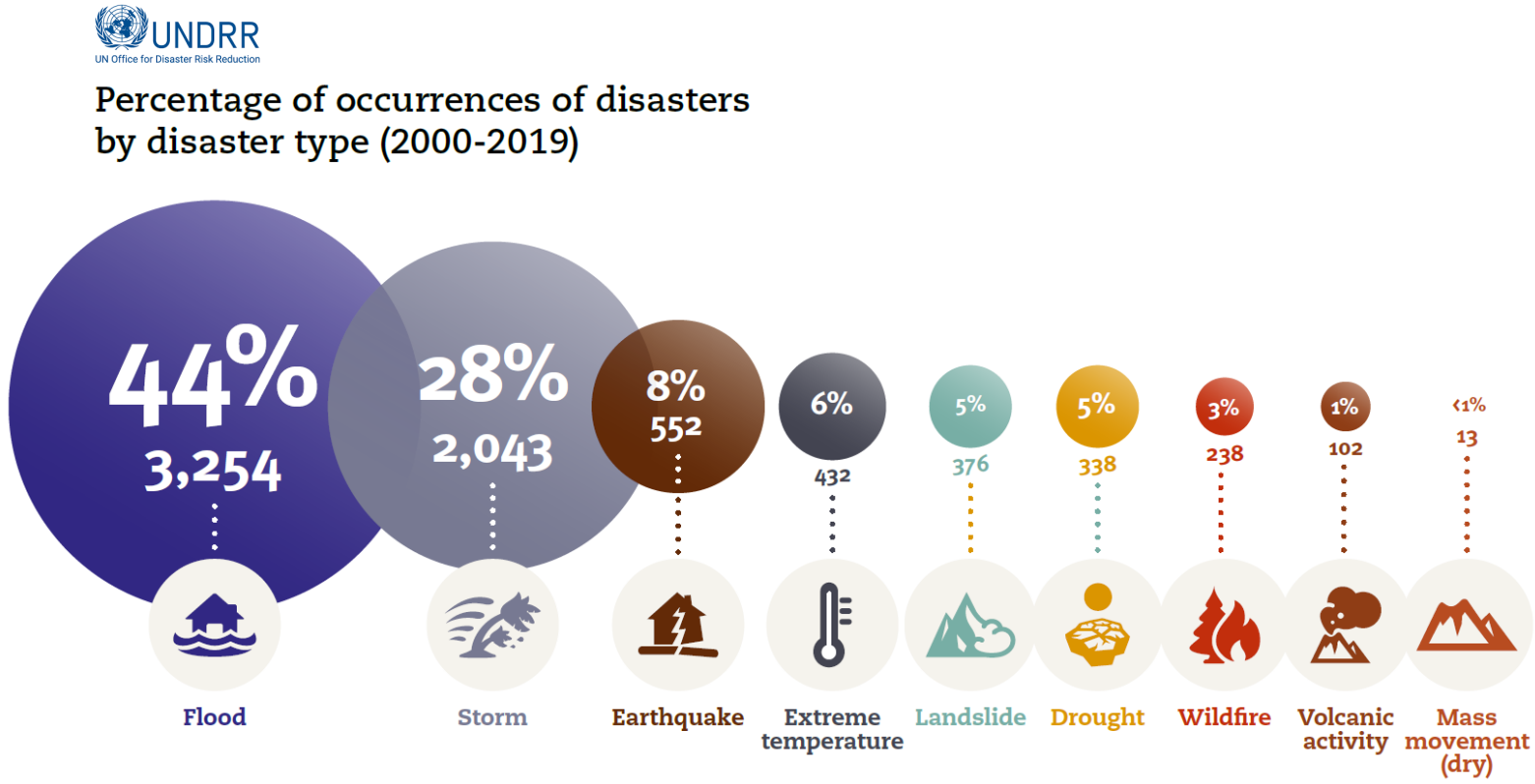
GEO is an international partnership of more than 100 national governments and in excess of 100 Participating Organizations working towards a future where decisions and actions for the benefit of humankind are informed by coordinated, comprehensive and sustained Earth observations.



UNDRR Sendai Framework for Disaster Risk Reduction 2015-2030



Promote and increase use of Earth observations to address disaster risk reduction efforts and achieve Global Targets.



Credit: Human Cost of Disasters, UNDRR

2020 – 2022 GEO Work Programme

GEO Flagships

GEO Biodiversity Observation Network GEO BON	GEO Global Agricultural Monitoring GEOGLAM	Global Forest Observation Initiative GFOI	Global Observation System for Mercury GOS4M

GEO Initiatives

AquaWatch AQUAWATCH	Data Access for Risk Management GEO-DARMA	Data Integration and Analysis System DIAS	Earth Observations for Ecosystem Accounting EO4EA	Earth Observations for Health EO4HEALTH	Earth Observations for the Sustainable Development Goals EO4SDG
GEO Capacity Building in North Africa, Middle East, Balkans and Black Sea Region GEO-CRADLE	GEO Global Water Sustainability GEOGLOWS	GEO Human Planet HUMAN-PLANET	GEO Land Degradation Neutrality GEO-LDN	GEO Vision for Energy GEO-VENER	GEO Wetlands GEO-WETLANDS
Geohazard Supersites and Natural Laboratories GSNL	Global Drought Information System GDIS	Global Network for Observations and Information in Mountain Environments GEO-MOUNTAINS	Global Observation System for Persistent Organic Pollutants GOS4POPS	Global Urban Observation and Information GUOI	Global Wildfire Information System GWIS
Oceans and Society: Blue Planet BLUE-PLANET					

GEO Community Activities

Advancing Communication Infrastructure and Services ACIS	Arctic GEOSS ARCTIC-GEOSS	Chinese High-resolution Satellite Data Resources CSDR	Climate Observation, Simulation and Impacts CLIMATE-OBS	Copernicus Atmosphere Monitoring Service CAMS	Copernicus Climate Change Service C3S
Digital Earth Africa DE-AFRICA	Earth Observation and Copernicus in support of Sendai Monitoring EO4SENDAI-MONITORING	Earth Observation Industrial Innovation Platform for Sustainable Development EO-IIP	Earth Observations for Disaster Risk Management EO4DRM	Earth Observations for Managing Mineral and Non-Renewable Energy Resources EO4MIN	Earth Observations for the Atlantic Region ATLANTIC-EO
Earth Observations for the Water-Energy-Food Nexus EO4WEF	Enhancing Food Security in African Agricultural Systems with the Support of Remote Sensing AFRICULTURES	GEO Citizen Science GEO-CITSCI	GEO Essential Variables GEO-EV	GEO Global Ecosystems GEO-ECO	Geodesy for the Sendai Framework GEODESY4SENDAI
Global Agricultural Drought Monitoring AGRI-DROUGHT	Global Crop Pest and Disease Habitat Monitoring and Risk Forecasting CROP-PEST-MONITORING	Global Ecosystems and Environment Observation Analysis Research Cooperation GEOARC	Global Flood Awareness System GLOFAS	Global Flood Risk Monitoring GFRM	Global Land Cover LAND-COVER
Global Observation of Deltas and Estuaries DELTA-ESTUARY	In-Situ Observations and Applications for Ecosystem Status of China and Central Asia IN-SITU-ESC	Multi-source Synergized Quantitative Remote Sensing Products and Services MUSYQ	Next Generation Earth Observation Services NEXT-EOS	Night-Time Light Remote Sensing for Sustainable Development Goals NIGHT-LIGHT	Open Earth Alliance OEA
Space and Security SPACE-SECURITY	Space Climate Observatory SCO	The International Grand Global Ensemble TIGGE	Understanding the Impacts and Value of Earth Observations GEO-VALUE		

Regional GEOs

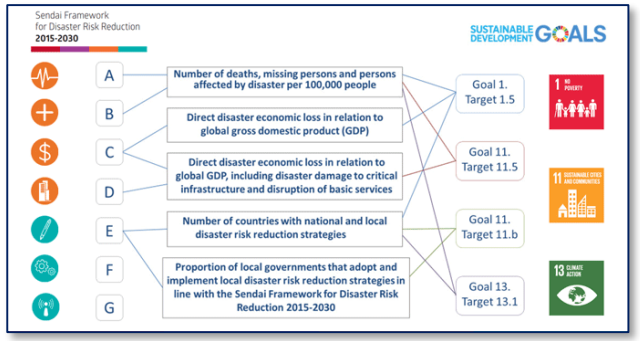
African Group on Earth Observations AFRIGEO	Americas Group on Earth Observations AMERIGEO	Asia-Oceania Group on Earth Observations AOGEO	European Group on Earth Observations EUROGEO

Foundational Tasks

GEO Engagement Priorities Coordination	GEOSS Data, Information and Knowledge Resources	GEOSS Infrastructure Development	GEO Work Programme Support	GEO Secretariat Operations

GEO Disaster Risk Reduction WG

- Purpose
  - Develop and implement a coherent and crosscutting approach within GEO to advance the use of Earth observations in support of countries' disaster risk reduction and resilience efforts.
- Serve as primary GEO liaison to UNDRR
  - Promote the dissemination and use of Earth observations to strengthen capabilities to reduce disaster risk according to the needs of countries as identified by UNDRR
- Determine links and actionable opportunities between disaster risk reduction, climate change, SDGs and urban activities
- Promote awareness of relevant global policy frameworks across the WP, such as UN-GGIM WG-Disasters Strategic Framework on Geospatial Information and Services for Disasters



GEO DRR WG Governance

Subgroup 1: Coordination across the GEO Work Programme

Co-Chair: David Borges (NASA, United States)

Deputy Chairs: Godstime James (Africa), Fernando Belda (Spain), Tatiya Chuentragun (Thailand)

Subgroup 2: UNDRR Coordination (Sendai Framework Monitoring & Global Assessments)

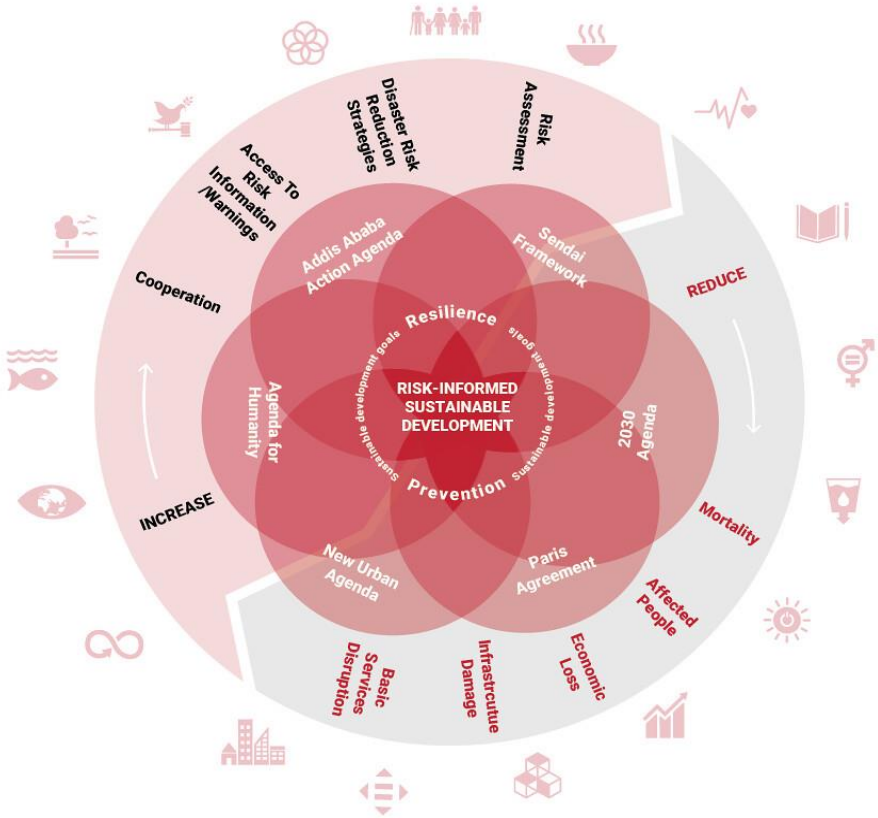
Co-Chair: Janet Edwards (MSB, Sweden)

Deputy Chairs: John LaBrecque (United States), Aliyu Abdullahi (Africa)

Subgroup 3: Climate Change, SDG, Urban Activities Coordination

Co-Chair: Kene Onukwube (DEAR Africa, Nigeria)

Deputy Chairs: Cheila Cullen (United States), Ramesh Singh (United States), Chulam Rhasul (Nepal)



DRR WG Subgroup 1 Work Plan Highlights

- Purpose
  - Develop and implement a coherent and crosscutting approach within GEO to advance the use of Earth observations in support of countries' disaster risk reduction and resilience efforts.
- Highlight aspects of the Work Programme that are DRR related, and describe key elements and locations of each activity.
- Promote, including through good practices and impact, sharing of data and knowledge to improve DRR.
- Work with SG2 and SG3 to understand real requirements at national levels and communicate these requirements to relevant activities within GEO WP.
- Promote awareness of relevant global policy frameworks across the WP, such as *UN-GGIM WG-Disasters Strategic Framework on Geospatial Information and Services*.

SG1 Activities Underway

UN Global Assessment Report on Disaster Risk Reduction (GAR) 2022 Contributing Paper

- *Earth Observations into Action: Systemic Integration of Earth Observation Applications into National Risk Reduction Decision Structures*

Earth Observations into Action: Systemic Integration of Earth Observation Applications into National Risk Reduction Decision Structures

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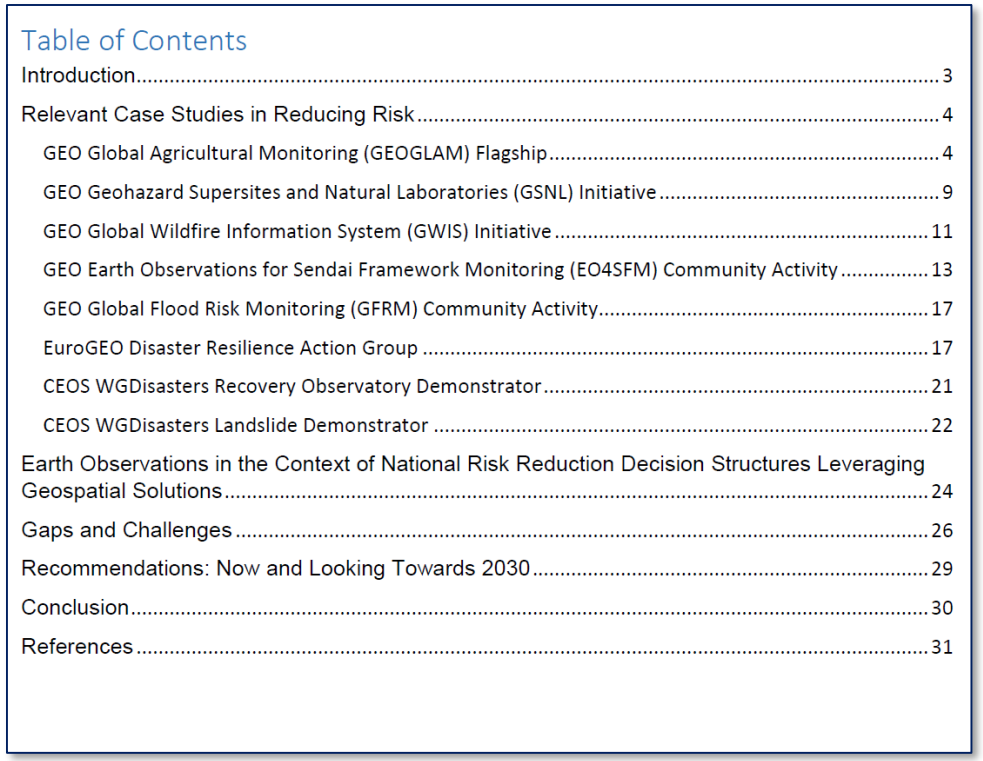
Keywords: Earth observations, Sendai Framework, disaster risk reduction, open science, geospatial



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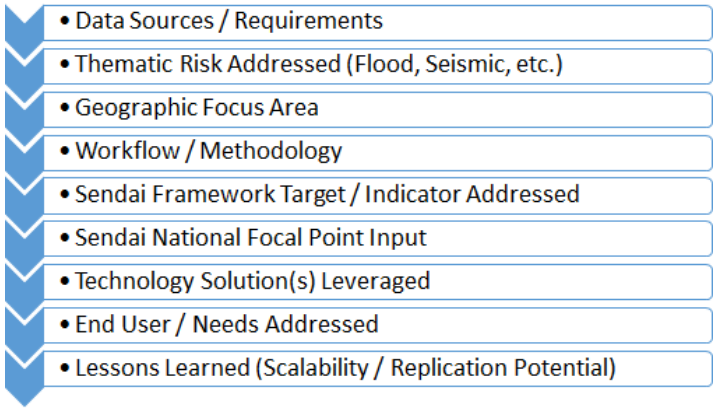
SG1 Activities Underway

- Joint GEO DRR, Climate Change, Capacity Building WGs Thematic Survey in development
  - Target: GEO Work Programme Activity Leads
  - Establish comprehensive DRR subset of GEO WP to include
    - Thematic DRR focus areas
    - National level involvement of GEO WP Activities (Sendai Framework Indicator E-1)

- GEO Sendai Toolkit Concept Paper in development
  - Intended to be consolidated knowledge resource for UNDRR and GEO member countries to advance integration of EO into national risk reduction strategies.



DRR WG Subgroup 2 Work Plan Highlights

- Purpose
  - Leverage SG1 efforts and use combined resources of SG2 to promote the dissemination and use of Earth observations to strengthen capabilities to reduce disaster risk according to the needs of countries as identified by UNDRR.
- Serve as primary GEO liaison to UNDRR
- Increase the use of Earth observation data for achieving the Sendai Framework's Global Target E, that is to substantially increase number of countries with national and local disaster risk reduction strategies.
- Showcase how Earth observation data can complement data governments already have to assess risk and risk trends over time.
- Showcase how Earth observations can be used to describe and visualize vulnerability and exposure.

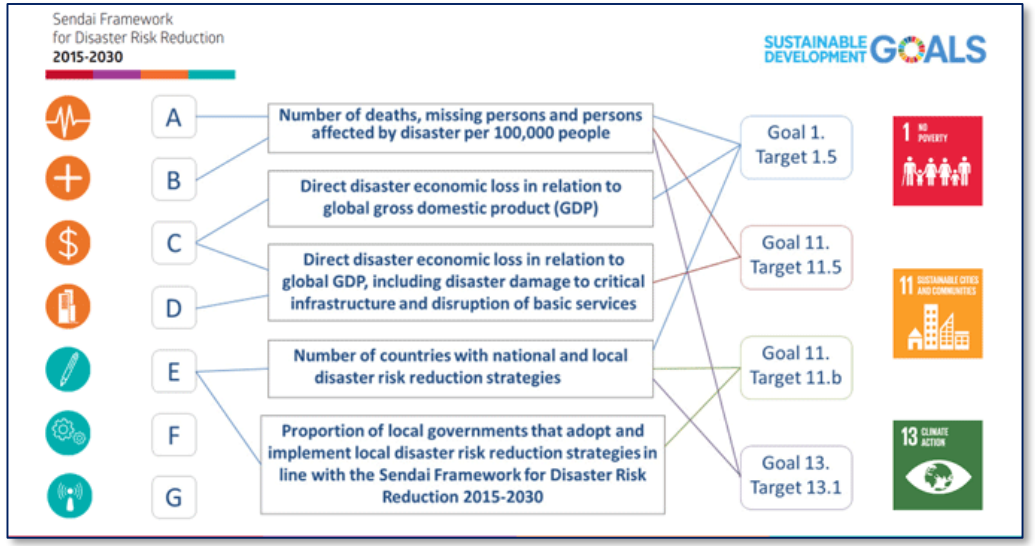
UNDRR
UN Office for Disaster Risk Reduction

SG2 Activities Underway

- Review of current Earth observation data usage in DRR strategies by national level GEO members, in coordination with UNDRR. Develop assessment incorporating findings with status of GEO members actively working towards Sendai Target E to inform how GEO should promote and support increasing usage of Earth observations in national DRR strategies.
- Explore ways of using EO to represent and define vulnerability and exposure, taking into consideration different stakeholders' / users' perspectives including the importance of social, economic, environmental interactions. Consider data and model uncertainties as well as decision-making needs.
- Showcase how earth observation data can complement the data that governments already have to assess risk and risk trends over time, monitor implementation and progress towards achieving the global Sendai Framework targets and plan for implementation.

DRR WG Subgroup 3 Work Plan Highlights

- Purpose
  - Leverage SG1 efforts to provide an overview of links, and actionable opportunities, between disaster risk reduction, climate change, SDGs and urban activities.
- Serve as primary link to Climate WG, SDG and Urban related activities.
- Document an end-to-end approach of the impacts and linkages of climate change on disaster risk reduction and the SDGs.



Current Opportunities

Short term consultancies

The Group on Earth observations Secretariat is seeking a short term **Disaster Risk Reduction (DRR) Consultant** to work with the DRR Coordinator in the GEO Secretariat on GEO's DRR engagement priority and dedicated deliverables and events throughout 2021.

- DRR Consultant TOR

To apply for the DRR short term consultancy, please send your CV and a motivation letter to secretariat@geosec.org mentioning the reference GEO2021/2. The deadline for application is **19 March 2021**.

https://www.earthobservations.org/opportunities.php

Contact

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www.earthobservations.org
www.ceos.org
https://appliedsciences.nasa.gov/what-we-do/disasters

Credit: UNDRR