



GEO & Disaster Risk Reduction

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GEO Secretariat

CEOS WGDisasters, 12th Meeting
24th September 2019
Reykjavík, Iceland

www.earthobservations.org
www.geoportal.org

A challenge from the SRSRG

Mami Mizutori spoke at the GEO Plenary in 2018...

There **were three specific** areas that were called into focus as being essential for UNDRR and for the reduction of disaster risk:

1. The identification of priorities for national action;
2. Integrating methods where EO can be used to monitor and implement risk reduction; and
3. That Earth observations should be part and parcel of a Global Risk Assessment Framework.



James Norris @iceiceclimber · 30 Oct 2018

Real pleasure to hear @HeadUNISDR deliver opening keynote @GEOSEC2025 Plenary. "Sendai Framework = paradigm shift towards reduction of disaster risk." "#EarthObservation is core to @unisdr Global Risk Assessment Framework" #GEOweek18



Key activities and progress

Since our last physical meeting

- UNDRR Global Platform for Disaster Risk Reduction 2019
- Science and Policy Forum
- World Reconstruction Conference 4
- The Second Multi-Hazard Early Warning Conference
- IGNITE Stage presentation

- Publication of the Global Assessment Report 2019 and the Global Assessment Framework

- ESA Living Planet Symposium

- 27th IUGG General Assembly
- Georisk Reduction: Science, Resources, and Governmental Action – Symposium on Disaster Science.
- Earth and Space Observations.

Supporting Sendai

Excerpts from GAR19



- **Invest:** Resource challenges are always the first-cited obstacle to better risk management. EO, computing power, mitigation measures, regulatory enforcement and safety nets should be invested in, as should reducing inequality and improving participation, access and education.
- **Leverage:** The movement towards open data, collaborative science and cloud computing is in a golden age. The value of information is such that impulses towards hoarding, insularity, competition and protection could come to

Supporting Sendai

Excerpts from GAR19

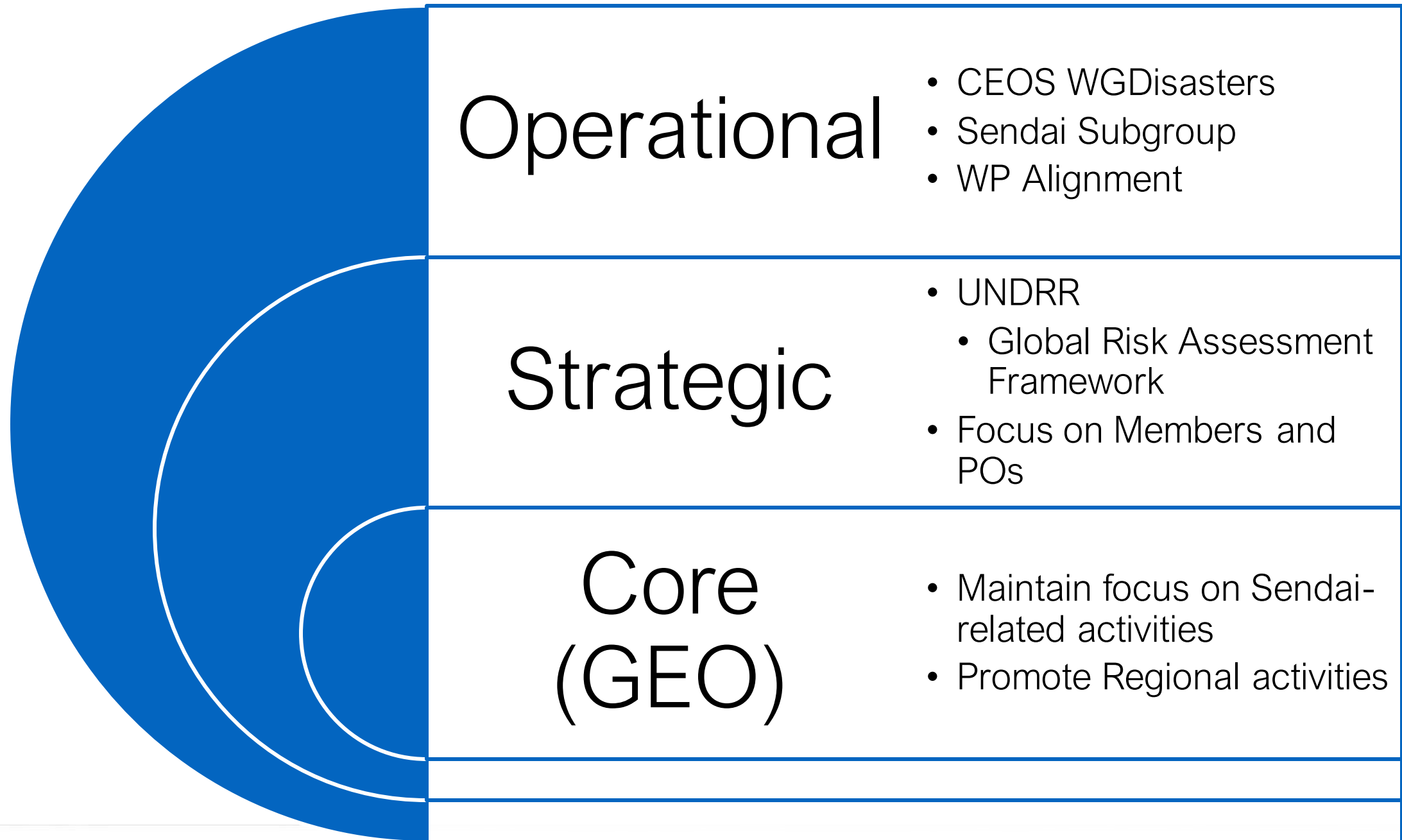
Advancements in open data provided from satellites have made more advanced models possible. Landsat and Copernicus are the two contemporary examples by the United States Geological Survey/ NASA and ESA, respectively. Landsat provides the longest temporal records of moderate resolution multispectral data of the Earth's surface, while Copernicus is providing the highest-resolution imagery available openly and globally. In 2014, the Sentinel-1 mission provided a polar-orbiting, all-weather, day and night radar imaging mission for land and ocean services. In 2015, Sentinel-2A was launched followed by Sentinel-2B in 2017, providing spatial resolutions of 10, 20 and 60 m. This has improved the resolution previously available and provides high-resolution imagery to be used in various hazard models. The fact that the data is open has resulted in a boom in scientific research based on satellite data.

Recommendations

- **Invest:** Resource challenges are always the first-cited obstacle to better risk management. EO, computing power, mitigation measures, regulatory enforcement and safety nets should be invested in, as should reducing inequality and improving participation, access and education.
- **Leverage:** The movement towards open data, collaborative science and cloud computing is in a golden age. The value of information is such that impulses towards hoarding, insularity, competition and protection could come to

GEO DRR activities

Strategic/operational activities



GEO Work Programme 2020-22

Developing a fit-for-purpose offering

The 2020-2022 GEO Work Programme is the second three-year Work Programme to be developed within the framework of the GEO Strategic Plan 2016-2025.

GEO Flagships

- Demonstrated or piloted products or services
- Have an active relationship with GEO
- Often has a policy mandate from an international body

GEO Initiatives

Community Activities

- Early stage of development
- Not necessarily delivering a product or service
- Recognised as a GEO Activity

GEO Work Programme 2020-22

Sendai/ disaster-related activities

GEO Flagships	GEO Initiatives	Community Activities
<ul style="list-style-type: none">• GFOI• GEOGLAM	<ul style="list-style-type: none">• AquaWatch• Blue Planet• DIAS• EO4Health• GDIS• GEODARMA• GEO GNOME• GEO VENER• GSNL• GWIS• Human Planet	<ul style="list-style-type: none">• Chinese Satellite• Crop Pest Monitoring• EO4DRM• EO4Minerals• EO4Sendai• Global AgriDrought• Global Flood Risk Monitoring

GEO Work Programme 2020-22

Links to the Sendai Targets

Target	Number of Activities
SF A: Substantially reduce global disaster mortality	3
SF B: Substantially reduce the number of affected people globally	3
SF C: Reduce direct disaster economic loss	4
SF D: Substantially reduce disaster damage to critical infrastructure and disruption of basic services	3
SF E: Substantially increase the number of countries with national and local disaster risk reduction strategies	2
SF F: Substantially enhance international cooperation to developing countries	6
SF G: Increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments	16

GEO Sendai Subgroup

Coordinating activities across GEO

Programme Board has set up the Sendai Subgroup to look at:

“How can GEO, through its Work Programme, support and inform the Global Assessment Report on Disaster Risk Reduction and the overarching Sendai Framework.”

Subgroup Members:

Australia, China, Ghana, Italy, Norway, United Kingdom, CEOS, COSPAR, ESA, GODAN, IAG, IUGG, OGC, MRI

Sendai Subgroup Tasks

Summary of tasks and desired outcomes

Task	Members	Desired outcomes
Identify how the GEO Work Programme can support the Sendai Framework.	COSPAR GEO Secretariat	<ul style="list-style-type: none"> Work Programme activities are focused on the needs of UNISDR and national reporting systems for Sendai Framework. Consistent reporting of Disaster Resilience SBA activities to GEO Work Group on Monitoring, including relevance to priority engagement areas.
Identification of appropriate ways to share information and successes.	IAG GEO Secretariat	<ul style="list-style-type: none"> Promotion of notable achievements and outcomes from GEO Work Programme activities. Opportunities for promotion and collaboration at national and international events. Increased awareness of Secretariat activities to Members and POs
Strengthen links with International Charter Space and Major Disasters.	Australia CEOS COSPAR ESA IAG UK GEO Secretariat	<ul style="list-style-type: none"> International Charter Space and Major Disasters becomes a GEO Partner Organisation. Develop a two-way relationship between the two organisations, including identifying the best way to support Member and Users. Identification in gaps within the uses of it Disasters Charter – and relevant recommendations.

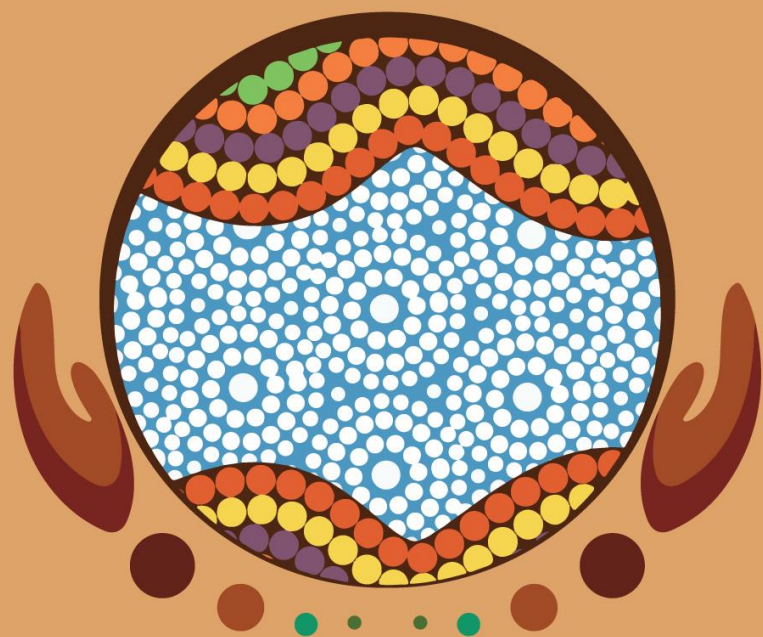
Disaster Risk Reduction Working Group

Continuing to coordinating activities across GEO

The Disaster Risk Reduction Working Group (DRR-WG) is convened to develop and implement a coherent and cross-cutting approach within GEO to advance the use of Earth observations in support of the Sendai Framework for Disaster Risk Reduction.

- Membership in the Working Group is open to any individual in the GEO Community
- Participation is encouraged from organizations and bodies relevant to disaster risk reduction.

Group will be formally launched following adoption of the GEO Work Programme at GEO Plenary.



GEO WEEK 2019

MINISTERIAL SUMMIT

4 - 9 NOVEMBER / CANBERRA, AUSTRALIA / #GEOWEEK19



Australian Government



GEO Plenary 2019

GEO WEEK 2019 EVENTS

Monday 4/11	Tuesday 5/11	Wednesday 6/11	Thursday 7/11	Friday 8/11	Saturday 9/11
Side Events		GEO-XVI Plenary		Ministerial Summit	Executive Committee Meeting
	Executive Committee Meeting	Industry Track		Press Conference	
	Exhibition				
		Gala Dinner	Ministerial Roundtable		
			Ministerial Dinner		



GEO WEEK 2019
MINISTERIAL
SUMMIT

GEO Plenary 2019

Key [side events](#):

- EO for Disaster Risk Reduction – Monday 4th 1430-1600 – NASA/Columbia University.

Targeted side events:

- Data for our planet: Increasing the use and value of global information infrastructures to support resilient cities, disaster risk reduction and infectious diseases – Monday 4th 0900-1030 – CODATA.
- The Global Drought Information System (GDIS) Global Initiative: A Global Information System for Assessing and Forecasting Drought – Monday 4th 1630-1730 – NOAA.
- Inaugural “Geodesy4Sendai” Session – Tuesday 5th 0830-1000 – IAG.

There is also the [Ideas Stage](#) where you can give a lightning talk – but spaces are filling fast.

Upcoming Events

Community events?

- Asia Pacific Science and Technology Conference for Disaster Risk Reduction – March 2020
- GFDRR Understanding Risk – May 2020
- 2020 Asia-Pacific Ministerial Conference on Disaster Risk Reduction – June
- VII Regional Platform for Disaster Risk Reduction in the Americas and the Caribbean – July 2020

GEO Events:

- GEO Data and Knowledge Week 2020 ([website](#))

Please keep in touch...



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<https://www.earthobservations.org/area.php?a=dr>

Thank You

Communicate and Collaborate with GEO:

