

## Joint Report of the Climate Change, Disaster Risk Reduction and Capacity Development Working Groups

*This document is submitted by the Secretariat to the Programme Board for information.*

### 1 INTRODUCTION

The [Climate Change Working Group \(CC-WG\)](#), the [Disaster Risk Reduction Working Group \(DRR-WG\)](#), and the [Capacity Development Working Group \(CD-WG\)](#) continue to deliver on their planned activities. This report covers the period between September 2021 and September 2022.<sup>1</sup>

### 2 JOINT EFFORT: MAPPING THE ENGAGEMENT OF THE 2020-2022 GEO WORK PROGRAMME IN CLIMATE ACTION, DISASTER RISK REDUCTION AND CAPACITY DEVELOPMENT

The CC-WG, DRR-WG and CD-WG collaborated on a joint deliverable to assess the 2020-2022 GEO Work Programme (GWP) across key policy areas and cross-cutting issues. Designed and undertaken over 2020-2022, the assessment or “mapping” of the existing GEO Flagships, Initiatives, Community Activities and Regional GEOs aimed to identify the engagement of the GWP activities with users and decision makers in two of the four GEO engagement priorities and one cross-cutting area. The mapping also identified related needs, gaps or synergies in delivery workflows, as well as technical capacity and resources.

To support this exercise, an online mapping interface was designed by the cross-WG task team, with technical support from the United States Geological Survey (USGS) and Esri. The online mapping interface was structured into 6 sections with 45 qualitative and quantitative questions.

The GWP mapping was officially launched on 31 August 2021 through individual invitations to GWP leads. A first deadline was set on 10 September 2021 to allow early analysis of results in view of the GEO Climate Policy and Finance workshop taking place at the end September. The cross-WG task team made itself available for on-demand consultations to walk respondents through the mapping. Initial results of the mapping were presented at various GEO meetings and in publications during the course of 2021. The final deadline to provide input to the GWP mapping was set on 31 January 2022 to enable the WGs to collect and analyze the results.

The analysis of the mapping outcomes is contained in the report [Mapping the Engagement of the 2020-2022 GEO Work Programme in Climate Action, Disaster Risk Reduction and Capacity Development](#) published in May 2022. The report identifies related needs, gaps and synergies in delivery workflows, as well as technical capacity and resources required to successfully deliver Earth observation data and products.

---

<sup>1</sup> Previous reports of the WGs are available here: [Capacity Development Working Group Report](#), [Disaster Risk Reduction Working Group Report](#), [Climate Change Working Group Report](#)

The report makes a series of recommendations, including on prioritizing thematic domains and geographies, delivering Earth observation data that directly support global policy agendas and collaborating with national focal point agencies and stakeholders working on climate and disaster risk reduction. It also makes recommendations on collaboration in nexus areas, inclusive and culturally sensitive language for “capacity sharing” and improving communication, as well as mapping GEO’s portfolio in future GWP cycles.

The full set of recommendations is intended to inform the effective development of the 2023-2025 GWP, through inclusion of considerations and relevant targets in Implementation Plans (IPs) submissions by GWP leads, as well as through potential improvements to the GWP structure and processes by GEO governing bodies and the GEO Secretariat.

The highlights and recommendations of the report were officially presented during the session “Improving Policy Relevance and Delivery of the Next GWP” at the GEO Virtual Symposium 2022, organised by the GEO Secretariat. The proposed recommendations received strong endorsement by the GEO community who participated in the session and sparked a constructive discussion on the way forward.

Following the report finalization, the outcomes of the GWP mapping will feed into the GWP 2023-2025 online information collection process. Notably, an online module that ties into the relevant mapping questions gathering baseline data of GWP activities is being developed and will be integrated into the GWP 2023-2025 online IP form. When submitting their IPs for the period 2023-2025, GWP activity proponents will be able to update their answers to the mapping or answer for the first time in the case of new activities.

### **3 CLIMATE CHANGE WORKING GROUP**

#### **3.1 Introduction**

At the end of 2020, the CC-WG has approved a [Roadmap](#) to guide the work of the CC-WG and prioritize action based on the approved [Terms of Reference](#). The Roadmap also outlines the way members engage and contribute to the objectives of the CC-WG. It contains priority deliverables, milestones and the working timeline, as well as the work plan of each subgroup. While the CC-WG activities are outlined for the 2020-2022 period, some have an ongoing nature and are intended to be continued beyond the first term.

#### **3.2 Achievements**

##### **3.2.1 *Organization of the GEO Climate Policy and Finance Workshop***

The 2021 [GEO Climate Policy and Finance Workshop](#) was held as a virtual event from 21 to 23 September 2021. The three-day event included two days dedicated to EO in support of climate policy on national and global scale, and a third day dedicated to EO as a basis for climate finance decisions.

The main objective of the workshop was to present the results of ongoing activities of the GEO CC-WG and to foster collaboration with key EO and climate partners. The workshop also aimed to explore the role of EO to support investment decisions for climate resilience, measure the level of readiness in the GEO community and expand relevant collaborations with the sustainable finance sector.

A [workshop report](#) was made available to capture the key outcomes. Notably, the workshop brought clarity on the unique contribution and role of GEO especially with regard to the support to climate adaptation which appears to be the main focus of the current GWP. The process to seek a mandate under the United Nations Framework Convention on Climate Change (UNFCCC) for GEO to deliver on this area of support has been initiated at COP26 and will be further pursued.

Furthermore, the workshop officially launched a new Climate Finance workstream within GEO to be implemented in 2022-23 with hands-on activities, which will involve opportunities to apply EO as a critical tool to unlock finance for climate projects in developing countries funded by public funds. As well as opportunities to use EO to support private investment decisions, asset-level management and risk assessments by corporates and banks, pension funds, and insurance companies.

### **3.2.2 *Twinning of GEO and UNFCCC delegations, and GEO COP briefing***

In preparation for the 26th Conference of the Parties (COP26) to the UNFCCC, the CC-WG provided a briefing to the GEO Principals to be shared with UNFCCC delegations, which illustrated the value of EO and activities of GEO and partners that support the implementation of the Paris Agreement. The GEO COP briefing also contained an invitation to delegations to endorse a prospective mandate of GEO under the UNFCCC.

For COP27, the CC-WG is expected to prepare targeted policy briefs to address the relevant agenda items under the UNFCCC Subsidiary Bodies (SBs), to be submitted to GEO Principals and key UNFCCC delegates identified.

### **3.2.3 *Participation in UNFCCC SBs, COP26, SBSTA Earth Information Day, and organization of side events***

The 2021 United Nations Climate Change Conference, also known as COP26 took place in Glasgow, Scotland, from 31 October to 12 November 2021, under the presidency of the United Kingdom.

The GEO community was present through the negotiations, side events and engagements outside the official COP26 events over the two weeks to promote the role of Earth observations in providing actionable information for climate adaptation and mitigation. The GEO Secretariat in collaboration with CC-WG members co-organised and participated in over 15 events and engaged in bilateral meetings with governments and partners, promoting GEO activities across key areas of Paris Agreement.

Notably the Earth Information Day, held on 3 November 2021 during COP26, as a mandated event under the Subsidiary Body for Scientific and Technical Advice (SBSTA), saw the participation of numerous representatives of the GEO community with presentations and posters. Key messages are included in the Earth Information Day 2021 Summary Report. They highlight the importance of Earth observation to understand and provide solutions to climate change.

At COP26, GEO was acknowledged in the conclusions of the Research and Systematic Observation (RSO) technical negotiations for the first time since 2007, thanks to the support of Parties. RSO conclusions speak to the value of partnerships, biosphere observations, and Earth observation-related products, indicators and applications, representing a step towards an invite from the UNFCCC to GEO to deliver its mandate.

Before and during COP26, the GEO Secretariat was also involved in other workstreams under the Subsidiary Body for Implementation (SBI), including the NAP technical working group supporting matters related to Least Developed Countries; as well as part of the invited experts looking into climate futures via Resilience Frontiers, a UNFCCC Secretariat-led think tank initiative.

COP27 will be hosted by Egypt in November 2022 where focus will be on priorities for Africa including climate adaptation. In light of this, the CC-WG aims to deliver further knowledge products in 2022 to get recognition by UNFCCC Parties at COP27.

#### **3.2.4 Greenhouse Gas (GHG) Monitoring from Space Report**

At COP26, the GEO Secretariat also presented the joint report [“GHG Monitoring from Space: A mapping of capabilities across public, private and hybrid satellite missions”](#) on behalf of GEO, the Climate TRACE consortium, and the World Geospatial Industry Council (WGIC). The report was officially launched during the Earth Information Day on 3 November 2021.

The report and the database that underpins it represent the first joint systematic effort by data providers from the public and private sectors to map the current and upcoming satellite missions that monitor GHGs. It builds on the CEOS Missions, Instruments, Measurements (MIM) database for government space agencies mission data.

Seven policy-relevant key messages are identified in the report. This effort is ultimately aimed to raise awareness among decision makers of the existing and emerging capabilities to track GHGs in the lead up to the first Global Stocktake of the Paris Agreement in 2023. More accurate monitoring will lead to more reliable reporting by governments and companies, and stronger mitigation policies at all levels.

The report should be updated as new information about GHG missions becomes available and additional feedback from CEOS and the international community is provided.

#### **3.2.5 Contribution to a planned workshop bringing together GHG and AFOLU EO Communities, and workshop report**

The CC-WG contributed to a workshop on synergies and opportunities between the GHG and Agriculture Forestry and Other Land Use (AFOLU) communities. The workshop was led by the Joint Research Centre of the European Commission and it was held virtually on 15-18-19 November 2021.

The workshop was co-organized, based on an identified gap, both at the European level through discussions in Copernicus as well as at the international level by Committee on Earth Observation Satellites (CEOS) and GEO, to address:

- the "soft" coordination and stakeholder engagement aspects of the interface with the Convention, the UNFCCC Secretariat, and Parties (including through their inventory agencies/compiler);
- more technical aspects of reporting, outputs datasets, formats, avoiding "double-accounting" and the longer-term ambition of using diverse Earth observation datasets in the modelling and data integration systems being developed.

Over the three days, the workshop offered the opportunity to these communities to exchange their experience, tools and plans and explore how they can respond to existing needs and requirements. Also, in the longer-term, to understand how to enhance the use of diverse Earth observation datasets in the modelling and data integration systems being developed in the scientific as well as political context. Participants included experts from different space

agencies, as well as from the Copernicus programme and representatives of several EU-funded research projects working in the field of Earth observation and GHG monitoring and verification systems (COCO2, VERIFY).

### **3.2.6 Preparation of GEO's contribution to the Global Stocktake**

At the end of February 2022, the *Ad Hoc Coordination Group for the Systematic Observation Community's Contribution to the Global Stocktake* submitted the joint report [The Role of Systematic Earth Observations in the Global Stocktake](#). This group represent organizations from across the systematic observation community, including GEO, CEOS, the World Meteorological Organization (WMO), the Global Climate Observing System (GCOS), and the European programme Copernicus. GEO is represented by the GEO Secretariat Climate Coordinator and one CC-WG Co-chair.

The group's submission focuses on current capabilities and near-term plans for data products and services that represent the best available science to support the Paris Agreement goals. Notably, the submission:

- Identifies datasets from high-resolution space-based observations of the Earth's surface that can be used to facilitate the development and validation of bottom-up GHG inventories.
- Emphasizes the role of systematic observations and modelling of weather, climate, and the biosphere in predicting and adapting to the adverse effects of climate change, which promotes climate resilience and the capacity for sustainable development.
- Promotes the role of systematic monitoring in improving developing countries' access to climate finance.
- Shows how the systematic observations community has been working with global technology providers to enhance access to state-of-the-art cloud services including cloud computing, and building capacity to implement and use Earth observation data systems and applications to enhance adaptive capacity and support sustainable development in the developing world.
- Highlights several capacity building initiatives, both for adaptation and mitigation, including support for local data processing, forecast, climate risk, early warnings and advisories; capacity building to encourage the use of space-based data for national GHG reporting; as well as collaborations with National GHG Inventory teams and experts in the Agriculture, Forestry and Other Land Use (AFOLU) sector.
- Describes how systematic observations support Parties in developing their NDCs and National Adaptation Plans (NAPs) and contribute to Monitoring and Verification Support for GHGs.

The submission was captured in the UNFCCC Secretariat's synthesis reports that informed the first technical dialogue of the Global Stocktake during the [Subsidiary Bodies' meeting in Bonn from 6 to 16 June 2022](#). It was also presented during a dedicated side event organised by members of the Ad Hoc Coordination Group at the conference.

### **3.2.7 Participation in and organization of GEO Week 2021 including Plenary session and side events**

The CC-WG contributed to the virtual GEO Week 2021 with several sessions. CC-WG co-chairs participated in the Plenary Session on Engaging the GEO Community (24 November) and reported on the preliminary analysis of the GWP mapping results as well as on the outcomes of the GEO Climate Policy and Finance Workshop and other deliverables.

Furthermore, the GEO Week included two Anchor sessions, one on Climate Action (23 November) and one on Climate and Oceans (24 November) supported by the GEO Climate Coordinator. The GEO Climate Coordinator oversaw the organization of side events around relevant climate topics.

### **3.2.8 Participation in and organisation of dedicated session in GEO Symposium 2022**

The CC-WG co-run a dedicated session on “Improving Policy Relevance and Delivery of the Next GWP” that presented the outcomes of the GWP mapping at the GEO Virtual Symposium 2022. The proposed recommendations received strong endorsement by the GEO community who participated in the session and sparked a constructive discussion on the way forward.

### **3.2.9 Contribution to the WMO GFCS process**

GEO submitted its contribution to the 2022 State of Climate Services Report by the WMO Global Framework for Climate Services (GFCS), which this year has a focus on the Energy sector. Two case studies were submitted including “A Solar Atlas to guide energy management and planning in Egypt” and “Earth observation-based services in support of operation and long-term planning for the benefits of energy producers, distribution and transmission systems operators” illustrating the tools and services provided through the work of GEO CRADLE, GEO VENER, EuroGEO and e-shape. This included coordinating interviews with experts from GWP activities and the New and Renewable Energy Authority in Egypt to explore the socio-economic benefits of Earth observation applications.

This is the third consecutive year GEO has contributed case studies to this critical report that in previous editions was focused on water resources (2021) and early warning systems (2020). The 2022 State of Climate Services Report will be launched by WMO with a dedicated event in the fall and presented at COP27.

## **3.3 Work in progress**

### **3.3.1 Development of supplementary technical guidance for integrating EO into NAP**

The CC-WG was tasked to develop supplementary technical guidance for integrating EO into National Adaptation Plans (NAPs). It was decided that this first GEO technical guidance will focus on the agriculture sector, and take advantage of work of the GEO Global Agricultural Monitoring (GEOGLAM) flagship initiative, to highlight the potential of countries to incorporate EO-based crop monitoring as part of their NAP efforts and provide a roadmap to adoption, based on the UNFCCC initial guidelines for developing countries.

This is being done with the idea that the NAP technical guidance should become a series of guidance documents based on GWP activities that are supporting adaptation at the national level with operational products, covering multiple sectors. For instance, a similar technical guidance could be developed with GEO Blue Planet, GEOGLoWS, and other GWP activities to be identified.

Since January 2021, a task team was established to develop the rationale and outline of a guidance document. In February 2021 the task team met with the UNFCCC secretariat team supporting the Least Developed Countries Expert Group (LEG) to discuss the first draft outline. The UNFCCC secretariat advised to focus on providing a template for countries to integrate EO into NAPs starting from a real case study in GEOGLAM.

As of September 2021, the task team has developed a draft guidance document, which was first presented at the GEO Climate Policy and Finance Workshop for general feedback.

Currently, the work is going ahead with targeted resources made available by the UK government to GEOGLAM. This grant has allowed GEOGLAM to start building a dedicated team, including hiring a project coordination consultant who joined the Secretariat in April 2022 for a one-year assignment. The funding will also cover the subsequent implementation phase involving in-country workshops targeting Least Developed Countries in Africa.

In May 2022, the Secretariat facilitated a joint discussion between the GEOGLAM and Blue Planet teams to share lessons and best practices in the development of the technical NAP guidance, with a view to develop a series of guidance documents across different sectors whereby GEO initiatives can offer relevant operational support.

The advanced GEO NAP guidance draft has been shared with CC-WG co-chairs and GWP leads for feedback. Its finalization is expected by October 2022, with a soft launch at GEO Week 2022 and an official launch at COP27.

The GEO Secretariat will convene a joint GEO session at the NAP Expo taking place on 22-26 August 2022 in Gaborone, Botswana, the annual outreach event organized by the LEG under the UNFCCC. The GEO session will showcase relevant work across multiple GEO initiatives, including GEOGLAM, Blue Planet, GEOGLOWS, and Digital Earth Africa (DE-AFRICA), that contribute to advance the implementation of NAPs.

Additionally, the GEO Climate Coordinator has continued engaging with the NAP Technical Working Group under the LEG of the UNFCCC, in order to promote relevant GEO initiatives that are ready to contribute to adaptation planning. This included several online meetings during the first term, as well as in-person meetings at the UNFCCC Bonn conference in June 2022.

### **3.3.2 *Information note on reporting requirements under the Paris Agreement – mitigation***

The CC-WG was tasked to identify Earth observation needs for GHG inventories and Monitoring Reporting and Verification (MRV) of mitigation actions considering the emerging obligations under the UNFCCC/Paris Agreement frameworks involving relevant stakeholder groups and IPCC Task Force on National GHG Inventories (TFI).

A draft information note was developed and distributed for consideration and comments in September 2021. Following multiple rounds of comments, its finalization is planned for September 2022. The information note reports data requirements (e.g. resolution, format and spatial characteristics) for GHG inventories development, and underlines how EO data, and in particular remote sensing data, can contribute to build a complete and transparent national GHG inventory, taking into account the 2006 IPCC guidelines and their 2019 Refinement. A similar information note could be developed on adaptation reporting requirements under the UNFCCC/Paris Agreement.

### **3.3.3 *GEO's participation in GCOS 2nd Climate Observation Conference***

The GEO Secretariat has become a member of the scientific committee of the [2<sup>nd</sup> Climate Observation Conference](#) hosted by GCOS and supported by EUMETSAT, to be held in Darmstadt, Germany, from 17 to 19 October 2022.

As part of this engagement, since February 2022 the Secretariat Director and the Climate Coordinator have participated in several committee meetings to design the conference's structure and objectives. The Secretariat took on the responsibility for the organisation of the

climate policy session and has encouraged the CC-WG and the whole GEO community to submit abstracts and contribute to the conference.

### **3.3.4 *Participation in UNFCCC SBs, COP27, SBSTA Earth Information Day, and organization of side events***

The 27<sup>th</sup> Conference of the Parties (COP27) to the UNFCCC will take place in Sharm El-Sheikh, Egypt, from 6 to 18 November 2022. In preparation for this key event, the GEO Secretariat has started engaging with the incoming COP27 Presidency as it did previously with the COP26 Presidency.

Opportunities for the CC-WG and the whole GEO community to support the COP27 process are being explored. These include:

- Providing input to the Presidency’s high-level initiatives on water and agriculture to be launched at COP27, namely the Action for Water Adaptation and Resilience (AWARE) Initiative, and the Food and Agriculture for Sustainable Transformation (FAST) Initiative;
- Supporting the Presidency’s thematic Science Day at COP27;
- Co-organizing side events with GEO Members and partners;
- Support regular UNFCCC events, such as the Earth Information Day, and relevant negotiation tracks with input from the GEO community.

### **3.3.5 *Twinning of GEO and UNFCCC delegations, and GEO COP briefing***

For COP27, the CC-WG is expected to prepare targeted policy briefs to address the relevant agenda items under the UNFCCC Subsidiary Bodies (SBs), to be submitted to GEO Principals and key UNFCCC delegates identified, ahead of the meeting.

## **4 DISASTER RISK REDUCTION WORKING GROUP**

### **4.1 Introduction**

Since September 2021, DRR-WG had three working group meetings to manage its planned tasks while deepening its partnership with the [United Nations Disaster Risk Reduction \(UNDRR\)](#) and the [United Nations Global Geospatial Information Management Working Group on Geospatial Information and Services for Disasters \(UNGGIM-WG5\)](#).

Under the following [three subgroups \(SG\)](#), each led by three co-chairs, the total of ten tasks have been run as described below:

- SG1: GWP Coordination
- SG2: UNDRR Coordination for Sendai Framework Priorities
- SG3: Climate Change and SDG Coordination

### **4.2 Achievements**

#### **4.2.1 *Joint Engagement Mapping Report***

As described above on the first page on this report on section 1, DRR-WG SG1 worked with other two WGs and conducted the Joint Engagement Mapping Exercise. In doing so, DRR-WG highlighted aspects of the GWP related to DRR. The task has completed in May as the joint team published the [final report](#) with recommendations for GWP activities. For an example, the report encourages the activities to develop or improve tools, services and methodologies that



contribute to specific Sendai Framework Targets and Indicators, notably on Early Warning (Target G) as well as the common indicators of the Sendai Framework and SDGs.

#### **4.2.2 EO Risk Toolkit**

GEO DRR-WG successfully launched EO Risk Toolkit on 25 May in collaboration with UNDRR (GEO participating organization) and Esri (GEO associate). The initial contents feature four GWP activities: GEOGloWS, GEOGLAM, EO4DRM and EO4Sendai-Monitoring with their use case stories and user guidance of their EO solutions for DRR. (See more details in [PB-23.09 Report on the EO Toolkit](#))

#### **4.2.3 Outreach and Events**

In terms of outreach & events, GEO DRR-WG was particularly actively at GEO Week 2021 (22-26 November 2021), GEO Virtual Symposium (2-5 May 2022) and the 7th Session of the [Global Platform for Disaster Risk Reduction](#) (GPDRR) (23-28 May 2022). In all of these events, DRR WG co-chairs and members worked together to showcase the WG tasks. For example, during the [GEO Virtual Symposium 2022](#), DRR WG had a session called “Addressing Systemic Risk in Jamaica” (4 May). During the session, a co-chair and GEO DRR-WG co-chair and members together with UNGGIM WGG5 co-chairs and two GWP activity leads took stock of progress on collaboration among them and discussed way forward in advancing the use of EO/Geospatial, Statistical, Science and other data for addressing disasters in Jamaica. During GPDRR, a DRR-WG co-chair had a ted-talk styled presentation to launch EO Risk Toolkit at [Ignite Stage](#) on 25 May. Then two WG co-chairs provided more detailed explanation about the Toolkit at two sessions of GPDRR’s [Learning Labs: “Opportunities for shared risk analysis.”](#) which are capacity building workshops organized by UNDRR on 26 and 27 May. Meanwhile, a GEO booth was set up and attended by two DRR-WG members.

#### **4.2.4 Assessment of EO descriptions in DRR law and strategy**

An assessment of EO descriptions in DRR law and strategy of Japan was presented at the DRR-WG meeting on 27 June 2022 to be shared with other WG members as well as UNGGIM WG-5 partners from Jamaica. This was the first policy input from DRR-WG to support EO uptake in Jamaica.

#### **4.2.5 Development of a use case on the use of EO for reporting on the Sendai Monitor Global Indicators**

One of the four original contents of EO Risk Toolkit was a deliverable of this task: development of a use case on the use EO to create disaster loss data for reporting on the Sendai Monitor Global Indicators in collaboration with EO4SendaiMonitoring. A complementing content was also published in the GEO Knowledge Hub.

#### **4.2.6 Contribution to the GAR2022**

The task team members successfully published three Contributing papers in the UNDRR’s flagship report called the [Global Assessment Report on Disaster Risk Reduction 2022](#) (GAR2022): 1) [EO into DRR actions](#); 2) [Global Navigation Satellite System for hazards](#); and 3) [indigenous knowledge for DRR](#).

#### **4.2.7 Compendium on EO’s role in SDG targets in relation to the SFDRR and the Paris Agreement**

A few task members put together a compendium with collection of texts and references on EO’s role in SDG targets and indicators in relation to the SFDRR and the Paris Agreement. The output was used as a reference for the Anchor Session One of GEO Week 2021: “Integrated

implementation of GWO work programme activities” held on Tuesday 23 November. The work also provided a basis for the work of the Task 1.1 on GWP activity mapping exercise.

### **4.3 Work in progress**

#### **4.3.1 Further development of EO Risk Toolkit**

Further development of EO Risk Toolkit has been planned in collaboration with UNDRR. The plan includes, 1) relevant data input to UNDRR’s Risk Information Exchange ([RiX](#)) and 2) development of new contents (use cases and user guidance) from GWP activities such as DE Africa, GWIS, GSNL and DIAS.

#### **4.3.2 Outreach and Events**

DRR-WG has begun planning for outreach & event activities during [GEO Week 2022](#). In particular, the task team will have a side event on EO Risk Toolkit to report the progress and collect feedbacks from the GEO Community.

#### **4.3.3 Analysis on Jamaica’s use of EO for DRR**

In collaboration with UNGGIM-WG5, the task team has been preparing for a SWOT (strengths, weaknesses, opportunities, and threats) analysis on Jamaica’s use of EO for DRR and plans to develop suggested languages for the country’s new DRR strategy. Together with other Tasks such as 2.1, 2.4 and 3.1, this task will promote uptake of EO/Geospatial, Statistical, Science and other data for addressing disasters in Jamaica.

#### **4.3.4 GSNL use case**

As a new content of EO Risk Toolkit, members have been working on developing a use case on GSNL to show trends over time and hot spots while predicting and analyzing future risks in terms of volcano eruptions in Ecuador.

#### **4.3.5 Policy briefs for the uptake of EO in Jamaica**

Based on discussion with the UNGGIM-WG5 co-chair team, the task team has started to work on a series of policy briefs to foster EO uptake in Jamaica for DRR. The target audience of the policy briefs are top technocrats in the Jamaican office of Disaster Preparedness and Emergency Management as well as geospatial agency. They are likely be thematically organized: i.e. hurricanes (GEOGloWS flood prediction tool), human exposure (HPI data), tsunamis (GEODESY4SENDAI) and landslides (EO4DRM). The policy briefs may be accompanied by scientific commentaries.

#### **4.3.6 Other tasks**

DRR WG members have begun discussing about the following new tasks to support GWP activities in line with the recommendations of the GWP mapping report as well as the new strategy for the development of the post-2025 GWP:

- Reviving “EO4SendaiMonitoring” (EO for SFDRR reporting) by building on Tasks 2.2 and 2.3;
- Incubating EO for Water Hygiene and Sanitation activity in EO4Health under the nexus area of “One Health”; and
- Incubating DRR elements for Renewed “GEO Wetlands”/Nature-based Solutions (NbS), leveraging work done by Task 3.2

As some of the tasks have completed and new ones are emerging, DRR WG is likely to update its task lists while revising its management structure in upcoming WG meetings.

## **5 CAPACITY DEVELOPMENT WORKING GROUP**

### **5.1 Introduction**

The Capacity Development Working Group (CD-WG) facilitates GEO's efforts on capacity development, promoting the principle of co-creation and providing conceptual support to the design, development, implementation, and evaluation of capacity development activities at various levels of intervention.

The CD-WG has found the most effective way for this group to contribute is to call for members to join specific tasks, e.g., the 18-month effort to map the engagement of the 2020-2022 GEO Work Programme in Climate Action, Disaster Risk Reduction, and Capacity Development. The group is pleased to welcome a full-time GEO Capacity Development Coordinator in the GEO Secretariat; this is a significant increase in dedicated Capacity Development support, which was previously only at a 20% level of effort.

### **5.2 Achievements**

#### **5.2.1 *Webinar: Transforming Earth Observations to Knowledge through Inclusive Participation***

In February 2022, the CD-WG organized a webinar, Transforming Earth observations to knowledge through inclusive participation, highlighting the principles of co-design, co-creation, and co-development to share use cases and good practices.

#### **5.2.2 *Joint Engagement Mapping Report***

The CD-WG actively contributed to the 18-month effort to map the engagement of the 2020-2022 GEO Work Programme in Climate Action, Disaster Risk Reduction, and Capacity Development, including the presentation of the Capacity Development results at the May 2022 GEO Virtual Symposium.

#### **5.2.3 *GEO Virtual Symposium 2022***

The CD-WG organized a session on “From Global Action to Local Impact; how do we do that?” at the GEO Virtual Symposium in May 2022. The session focused on creating more awareness of the relevance of an impact approach for GWP activities, sharing best practices on impact design and monitoring and exploring opportunities to strengthen and maximize the impact approach within GEO.

### **5.3 Work in progress**

#### **5.3.1 *Future trajectory of the working group***

A meeting was held with the Co-Chairs of the CD-WG and the GEO Secretariat to discuss the future trajectory of the working group vis-à-vis the implementation of the GEO Work Programme 2023-2025 in August 2022. GEO's capacity development effort is included within the work programme activities that have included a focus on capacity development. Here, the focus is on how CD is designed as an integral part of the WP activities – supporting GEO flagships and initiatives to co-design capacity development activities based on available outputs, methods, and tools, identified needs of members and suitable approaches to address them. The Regional GEOs and National GEOs will be instrumental in defining regional and national needs as well as communication outreach and delivery of capacity development activities in member countries.

The proposed next step is to organize a meeting for members of the CD-WG to reflect on the recommendations on Capacity Development provided by the report on Mapping the Engagement of the 2020-2022 GEO Work Programme. The meeting will further deliberate how best the community can contribute to knowledge sharing. This meeting will also discuss how to strengthen the internalization of capacity development within the GEO Work Programme activities.

The CD-WG will also consider the option of transitioning into a Community of Practice (COP) that is open to GEO experts to communicate findings, share good practices from the GWP and beyond and deepen their knowledge through engagement and interactions with members within the GEO community regularly. This community can grow into a broader critical mass of experts within the GEO community who can understand capacity development and its effective and sustainable delivery. The modalities for engagement and functioning of the COP are yet to be defined and will be deliberated upon by the CD-WG.