

## Summary Report of the GEO Symposium 2023 Hybrid Event, 13-14 May 2023

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

### 1. INTRODUCTION

The GEO Symposium 2023, organised by the GEO Secretariat under the guidance of the Programme Board, took place in Geneva from 13-14 May 2023.

Under the theme ‘Stand out in the crowd: GEO for People, Nature and Planet’, the GEO Symposium 2023 explored how the GEO Work Programme (GWP) community is and can continue to develop integrated and co-designed products and services in the run-up to GEO Week 2023, as well as the revision and subsequent release of the GEO Post-2025 Strategy.

The Symposium event attracted 150 in-person participants, showcasing the enthusiasm and interest among the GEO community to engage in a face-to-face setting. Additionally, 50 participants joined the conference online. Overall, 24 GWP activities attended the Symposium out of a total of 48 and all National GEOs were represented.

The Symposium continued the journey of strengthening synergies across the GWP and exploring collaborative and integrative approaches. Participants representing local, national and global level initiatives were invited to identify fit-for-purpose solutions based on Earth Observation (EO) data and information that support decision making. This is particularly important as GEO currently finds itself at a strategic inflection point.

The conference features a total of 61 speakers who brought their expertise from various regions. This included 10 speakers from Africa, 10 from the Americas, 12 from Asia-Oceania, 14 from Europe and 15 representing the international community. Their diverse perspectives contributed to a vibrant and global exchange of ideas.

The three main objectives of the Symposium 2023 were: to support the development of the Ministerial Declaration and Post-2025 Strategy; to advance collaboration within the GWP, driving impactful change; and to provide a platform for the GWP community to showcase their work and foster meaningful connections.

The Symposium was comprised of 11 sessions, including sessions that covered both thematic and operational aspects of the GWP. This document provides a summary of outcomes and actions from each session.

## 2. SUMMARY OUTCOMES

### SESSION 1: OPENING SESSION

The opening remarks of the GEO Symposium 2023 highlighted the importance of reconnecting with the GEO community after the COVID-19 pandemic. An emphasis was placed on GEO's efforts in driving partnerships and creating synergies within the community. The Post-2025 Strategy was outlined as a vision and mission for GEO, urging participants to adopt a growth mindset to address the challenges and opportunities of the triple planetary crisis. The invited keynote speech on Artificial Intelligence for Good offered valuable insights into integrating cutting-edge technologies into GEO's Post-2025 Strategy.

The reoccurring themes revolved around the importance of promoting efforts of collaboration amongst the GWP activities. Overall, the opening session touched upon topics such as artificial intelligence for societal good, the upcoming Open Data Open Knowledge (ODOK) workshop, and the importance of evidence-based information for Members and Participating Organisations.

#### Speakers and Panellists

Evangelos Gerasopoulos (Programme Board), Yana Gevorgyan (GEO Secretariat), Reinhard School (ITU), Helen Glaves (British Geological Society)

### SESSION 2: INTERACTIVE DIALOGUE 1 ON POST 2025

#### Overview and Objective

The second session unpacked the issues of “equity” and “Earth intelligence” as is presented in the Post-2025 Strategy. Participants and audience discussed ways to promote equity in EO, and how their work can drive greater fairness of open access to and use of EO moving forward into the Post-2025 GEO era.

The objective of session 2 was to assess the potential of the new GEO Post-2025 Strategy for the future of the GWP and for achieving the vision and mission of GEO.

#### Moderators, Speakers and Panellists

**Phoebe Oduor (AfriGEO)**, Yuqi Bai (Programme Board and Post-2025 Working Group), Carolina Adler (GEO-Mountains), Tinyiko Ntshongwana (South Africa), Diana Mastracci (GEO Indigenous Alliance)

#### Key Outcomes

Factors that contribute to equity for GEO Post-2025:

- Political will, global thinking, a user-based approach and connecting with the United Nations system as necessary.

- The integration and synthesis of data from all knowledge bases (scientific, social, economic, indigenous and citizen science) are crucial for effective program development and effective decision making.
- Manage expectations of what is achievable with Earth intelligence, our “niche” and value proposition for GEO needs to be very clear and complementary.
- Acknowledge and support the people behind the GWP activities, empower their agency and capabilities to see equity values enacted and embodied in the GWP.
- Engagement and utilisation of youth as catalysts for transformative impact and economic transformation, especially in regions with growing young populations, while considering mechanisms to engage them in dialogues and decision-making processes.
- Recognition and respect for indigenous data sovereignty and the GEO Indigenous Alliance, as well as a dedicated funding mechanism for the GEO Indigenous Alliance to ensure meaningful collaboration and benefit sharing; whilst considering their knowledge inputs, protecting their interests, culture, and environment.
- Enable meaningful private sector/ small business involvement.
- Capacity building, knowledge retention and knowledge exchange are essential to access and utilise EO data.

### **SESSION 3: GEO WEEK AND MINISTERIAL UPDATE**

#### **Overview and Objectives**

The third session provided Symposium attendees with the latest information on plans for the Ministerial Summit, including a request to the GEO community for support in making the Summit and GEO Week 2023 a success.

The objectives of Session 3 were to increase the visibility of GEO Week and secure and showcase commitments, both financial and political, for the implementation of GEO’s Post-2025 direction from GEO partners.

#### **Moderators, Speakers, and Panellists**

**Lawrence Friedl (United States/MWG Co-Chair)**, **Humbulani Mudau (South Africa/MWG Co-Chair)**, **Nicoleta Panta (Geo Secretariat)**, **Tumisang Modiole (South Africa)**

#### **Key Outcomes**

The GEO Secretariat presented the progress made so far relating to GEO Week and the Ministerial Summit in Cape Town.

- The Ministerial Working Group have demonstrated commendable productivity.
- The primary objective of the Summit includes enhancing the visibility of EO and the GEO partnership; obtaining ministerial validation for the Post-2025 Strategy; showcasing commitments from financial and political partners and facilitating opportunities for individuals to present their work and engage in networking activities.

- Feedback from GEO Week 2022 shed light on the lack of representation of certain communities (e.g., youth and women in GIS). As a result, there will be an emphasis placed on the incorporation of events (e.g., flash talks, showcase sessions), run by underrepresented communities.
- The plenary sessions will centre around thematic discussions pertaining to biodiversity, climate, heat, health, and disaster risk reduction, with sessions open to all participants.

## **SESSION 4: THEMATIC SESSION 1 – BIODIVERSITY AND CLIMATE**

### **Overview and Objectives**

The fourth session addressed GEO's efforts to promote improved reporting and managing of natural resources through the emerging Global Ecosystems Atlas project. Discussions were had by the panellists, about how this effort builds on the existing GWP initiatives, and the necessary collaborative process to make the Atlas a useful tool which is customisable for a wide range of users, especially national and local governments, and communities. Panellists shared complementary initiatives, and discussed necessary partnerships, technical challenges, and opportunities, that enable resources to realise the ambitions of the Atlas.

The objective of session four was to explore GEO's incubator, the Global Ecosystems Atlas, to gain feedback from GWP initiatives on the collaborative process needed to make the Atlas a valuable resource.

### **Moderators, Speakers and Panellists**

**Sara Venturini (GEO Secretariat)**, James Thornton (GEO Mountains), Gensuo Jia (Climate Change WG), Hiroyuki Muraoka (AOGEO), Aditya Agrawal (DE-Pacific), Jillian Campbell (CBD), Roger Sayre (United States)

### **Key Outcomes**

- Ecosystem Intelligence as a subset of Earth intelligence: Global Ecosystem Atlas incubator is an early demonstrator of the Post-2025 GEO integration approach and the use of technology for good.
- Atlas has been endorsed by CBD, UNCCD, UNFCCC; the GEO community offered critical reflections about possible redundancies, technical feasibility, and approaches.
- The importance of GEO's convening power: the benefit of the Atlas lies in the process and not just the product, to compile different ecosystem atlases is a monumental effort for tracking ecosystems.
- The importance of user engagement and technical needs assessment building on GWP activities' experience: the users and uses of the Atlas will drive its design.
- The Atlas needs to leverage existing initiatives, create innovative collaborations, and be an inclusive effort considering marginalised communities such as Indigenous peoples, the global south, and other communities on the ground.

- The process, mechanics and communications around the Atlas need to be given more consideration.

## **SESSION 5: THEMATIC SESSION 2 – OPERATIONAL SERVICES VIA THE GEO WORK PROGRAMME**

### **Overview and Objectives**

During the session, the focus was on examining the fundamental attributes of operational services that are successful, as well as attributes that need to be improved. Examples of existing operational services provided by GEO Members were showcased, highlighting their role in enabling GWP activities. The discussion with panellist's, explored strategies for scaling up these operational services to benefit the broader GWP community and to achieve a more global impact as a result.

The session aimed to identify the challenges and opportunities associated with transitioning GWP activities from research entities to operational services.

### **Moderators, Speakers, and Panellists**

**Franz Immler (European Commission)**, Fabio Venuti (ECMWF), Phillip Harwood (Evenflow), Audrey Hasson (GEO Blue Planet), Tidiane Ouattara (African Union), Osamu Ochiai (GFOI), Andrew Eddy (EO4DRM).

### **Key outcomes**

- Key features of an efficient operational service include relevancy, accessibility, and reliability.
- User driven operational services can be achieved through focus group intermediaries, and more broadly through understanding user needs through effective service stakeholder engagement.
- Prioritising user engagement at the beginning stages of development through workshops and requirement management is a key aspect of a successful operational service.
- A large proportion of user engagement and the interoperability of service outputs relate to the dissemination and communication of information.
- Long term sustainability is important regarding the transition from research to operations.
- Challenges are present relating to the difference in operationalisation capacity of countries when a bottom-up approach is used by organisations and initiatives.
- Resource mobilisation is a major challenging factor in trying to develop an efficient operational system, particularly in the case of multi organisation collaboration.
- Within operational activities, science remains a key component. For science-driven activities, a research cycle will consistently be involved.

## **SESSION 6: FLASH TALKS – ENABLERS FOR SCALING THE IMPACT OF THE GEO WORK PROGRAMME**

### **Overview and Objectives**

This session showcased 4 GWP activities about the existing/emerging/intended impacts on end users and their respective enablers that lead to success, followed by a presentation on the e-shape co-design methodology. A facilitated discussion was had on the tools and support needed to enable GWP activities to further scale their impact. This session also intended to launch GEOGLAM's guidance document for capacity development.

The objective of session 6 was to present selected GWP activities and the impact of their work on end users, highlighting enablers of their success. It aimed to facilitate a discussion on tools and support necessary to scale GWP activities.

### **Moderators, Speakers, and Panellists**

**Joost Teuben (GEO Secretariat)**, Esther Makabe (GEOGLAM), Professor Xi Li (GEO-NIGHT-LIGHT), Joy Chakrabarty (GEO Blue Planet), Alexia Tsouni Research Associate (GEO-CRADLE), Professor Thierry Ranchin (E-Shape).

### **Key outcomes**

- Six Flash talks on GWP impact was presented, impact design focuses on long-term achievements (societal changes) instead of short-term actions and deliverables.
- The Capacity Development Toolkit will support GEO's impact-driven way of working.
- A focus on designing, achieving, and demonstrating impact is key for reporting, accountability and resource mobilisation.
- Co-design, end-user needs assessment and stakeholder engagement are crucial for defining the long-term impact of GWP activities.
- Time allocation and resource availabilities to achieve and measure the impact of GWP activities is challenging due to voluntary work of the GWP participants.
- There is a need to showcase the socio-economic and/or environmental impact of the GWP activities during the Ministerial.

## **SESSION 7: THEMATIC SESSION 3 – EARLY WARNING FOR ALL**

### **Overview and Objectives**

The session started with an overview of the new global effort presented by the United Nations Office for Disaster Risk Reduction (UNDRR) and the World Meteorological Organisation

(WMO), who each lead a pillar of the Early Warning for All (EW4ALL) initiative, to which GEO is supporting. There were four flash talks by GWP activities to present their latest work.

To explore why, where, and how GEO is best positioned to deliver impact for national and local governments, as well as communities through enhanced coordination and collaboration with partners.

### **Moderators, Speakers, and Panellists**

**Gavin White (REAP)**, Cyrille Honoré (WMO), Angelica Gutierrez (GEO-GLOWS), Masaki Yasukawa (DIAS), Mandira Shrestha (ICIMOD), Justin Ginnett (IFRC), Mira Markova (UNDRR).

### **Key outcomes**

- There is a large political momentum for the new global initiative launched by UNSG at COP27.
- GEO is an important supporting implementing partner of the EEW4ALL supporting Pillar 1 and 2.
- Lead agencies rely on GEO to help achieve their ambitious goal within the tight timeframe available.
- There is already a lot of great work by the GWP activities (GEOGLAM; DIAS; GEOGLOWS; Cloud Credit Programme, POs, HPI) in the 30 initial focus countries to be leveraged and scaled up.
- WGs and CoP (Data WG, CapD WG/National GEOs, Indigenous GEO) and the Heat and Health incubator also have a lot to offer.
- There is a need to create synergies and complementarities between the GWP activities and other EEW4ALL implementing partners.

## **SESSION 8: THEMATIC SESSION 4 – HEAT AND HEALTH**

### **Overview and Objectives**

During this session, GEO presented its plan to develop an integrated heat and health service that utilizes state-of-the-art EO to enhance urban resilience against climate change. The GEO Secretariat emphasized the importance of creating a global service that provides accessible, timely, and spatially relevant EO-powered data, information, and insights on health-related risks associated with urban heat exposure. The session highlighted the necessity of this service in addressing the challenges posed by rising temperatures in urban environments.

The objective of this session was to strengthen the collective understanding of the needs, opportunities, and challenges of developing such a technical service to inform policies, plans, and investments related to building urban resilience to heat (and other climate-related hazards).

### **Moderators, Speakers, and Panellists**

Martyn Clark (**GEO Secretariat**), Joy Shumake-Guillemot (WMO), John Nairn (WMO), Robert Chen (CIESIN), Grazia Fiore (Eurisy), Zhongchang Sun (CBAS), Emma Goddard (C4o), Hesham El-Askary (Egyptian National Space Agency), Evangelos Gerasopoulos (Greece).

### **Key outcomes**

- This was the first opportunity to present the Global Heat Resilience incubator concept to the wider GEO community.
- The audience provided useful reflections around the need to demonstrate the added value of this initiative, working with partners to establish demand for the services, linking with existing services i.e., Copernicus Climate Hub.
- GEO and WMO co-presented the incubator highlighting the commitment to date in advancing the project concept, and alignment with the EW4ALL global initiative.
- Next steps were set out including identifying partners, developing the technical concept, further socialising the concept at relevant events, working towards a convening meeting in Q1 of 2024.
- Six flash-talks were given to elaborate on various design considerations, existing initiatives.

## **SESSION 9: INTERACTIVE DIALOGUE 2 ON POST-2025 OPERATING MODEL**

### **Overview and Objectives**

Session 9 focused on the requirements for an enhanced ‘operating model’ - the way in which the GEO community works together to achieve its vision – that is fit for purpose for the GEO Post-2025 Strategy. Panellists discussed their experience with the way in which GEO currently works to draw lessons for future implementations of the GEO Post-2025 Strategy, related to effective delivery of the GWP.

The dialogue addressed the opportunities that a GEO Post-2025 Strategy provides for inspiring activities to evolve the way in which their work is organised and delivered, as well as what other enabling support activities will be needed for delivering on their objectives and the vision and mission of GEO.

The objective was to explore how to make best use of the new GEO Post-2025 Strategy for a renewed fit for purpose operating model of GEO.

### **Moderators, Speakers, and Panellists**

**Justyna Nicinska (Programme Board, United States)**, Bernd Eversmann (GEO-LDN), Thembi Xaba (DE-Africa), Allison Craddock (GEODESY4SENDAI), Xingfa Gu (AOGEO), Franz Immler (European Commission), Thierry Ranchin (France), Angelica Gutierrez (AmeriGEO)

### **Key outcomes**

How can the operating model of GEO be made fit-for-purpose?



- GEO must ensure quality and standards, for example on interoperability (standards for data sharing). GEO must become the benchmark-setter for EO, akin to IPCC and IPBES.
- The five points on the operating model in the draft GEO Post-2025 Strategy are all important and interconnected.
- Monitoring and evaluation of GEO's work: Working towards tangible measures of success to increase accountability with a combination of voluntary approaches and framework metrics is necessary.
- Building GEO as a brand requires good products and communication (increased visibility). Prioritising the GWP will help to focus on and improve demonstrating impact.
- Opportunities for overcoming barriers are multilingualism, funding, better cooperation/partnership, and integration; GEO needs to evolve the current operating model and build on current strengths.

## **SESSION 10: FLASH TALKS – RESOURCE MOBILISATION FOR THE GEO WORK PROGRAMME**

### **Overview and Objectives**

Session 10 showcased GWP activities, who shared both their successes and challenges/lessons learnt in raising resources to advance their work. This was followed by insights from a successful external GEO Programme regarding resource mobilisation, in addition to a donor perspective. The GEO Secretariat presented an outline of current resource mobilisation (RM) approaches. By bringing together various perspectives, the session provided a platform to identify best practices, strategies, and approaches for resource mobilisation within the GEO framework.

The objective of session 10 was to gather valuable insights on the essential requirements for successful resource mobilisation from GWP activities, external initiatives, and donors.

### **Moderators, Speakers, and Panellists**

**Amos Kabo-Bah** (GEO-LDN), **Thembi Xaba** (DE-AFRICA), **Stefano Salvi** (GSNL), **Ghada El-Serafy** (AquaWatch), **Wenjiang Huang** (GEO-PDRS), **Markus Repnik** (WMO), **Nicoleta Panta** (GEO Secretariat).

### **Key outcomes**

- Success stories and challenges of RM were presented by four GWP activities in addition to RM approaches presented by the GEO Secretariat.
- The kinds of resources needed by the GWP (such as: funding, data funding, data and mentorship) were explored.
- The uses of these resources (such as: operationalisation, user engagement, diversity and inclusion, basic infrastructures, scientific capacity, multilingualism, opportunities for participation) were explored.

- How will these resources be collected?
  - Necessary to ask the GEO principles to identify national funding lines targeted to the GEO initiatives, either acting in their country or elsewhere.
  - Establish a funding platform to match possible donors with the needs from the GEO initiatives, at different levels, from institutional to crowd funding.
  - Streamline a procedure for GEO initiatives to submit funding requests to international donors.
  - Connect the initiatives with regional GEOs to identify additional in-kind resources at the regional scale.
  - Consider different models, such as the one used by organizations in the US by setting up a separate non-profit that can do fundraising and receive funds on behalf of the main organization.
- A debate was had around whether the GWP is well resourced. Is GEO well positioned to mobilise resources?

## **SESSION 11: CLOSING SESSION**

The Symposium was concluded with a discussion on its main successes. The session provided an opportunity to reflect on the active participation throughout the event, with 160 attendees present in person and a maximum of 50 participants joining online. The impressive engagement extended to 26 GWP activities and the representation of all national GEOs. Moreover, attendees were encouraged to provide their input on both the Post-2025 Strategy and the symposium event itself. This inclusive and collaborative approach ensured that the voices and perspectives of the attendees were valued and considered in shaping the future strategy and enhancing future symposium experiences.

When the attendees were asked about their thoughts on the Post-2025 Strategy, attendees expressed excitement about various aspects, including youth engagement, equity, earth intelligence, impact, and agency. In terms of their experience at the GEO Symposium 2023, attendees summarized it using words such as connection, networking, GEO family, community, engagement, passion, and collaboration. These responses reflect attendees' enthusiasm for active participation, fostering relationships, and their dedication to collective efforts for change.

### **Moderators, Speakers, and Panellists**

Yana Gevorgyan (GEO Secretariat), Madeeha Bajwa (GEO Secretariat), Anthony Milne (Programme Board, Australia)