

Concept of Paris Agreement component in the Engagement Priorities Coordination Foundational Task

This document is submitted to the Programme Board for discussion.

1 INTRODUCTION

This concept note has been developed by the Programme Board Paris Agreement subgroup (hereafter PASG), based on its activities from late 2017 through early 2019, in consideration of the development of a coordination mechanism to support GEO efforts in support of the Paris Agreement. PASG considers this concept to be a Component of “Engagement Priorities Coordination Foundational Task” in the 2020-2022 GEO Work Programme.

2 BACKGROUND

Provision of coordinated and concerted observations of climate change and its impacts¹ as well as greenhouse gases, carbon cycle are recognized to be a crucial role of Earth observation communities in producing knowledge for sustainable development of the global society. In the *GEO Strategic Plan 2016-2025: Implementing GEOSS*, climate is clearly identified as cutting across the eight ‘application-oriented’ Societal Benefit Areas (SBAs). Support to the Paris Agreement on climate change is also identified as one of the three GEO engagement priorities, along with the Sustainable Development Goals (SDGs) and the Sendai Framework of Disaster Risk Reduction. Since the early stage of development and implementation of 2017-2019 GEO Work Programme, the Programme Board heard opinions from many communities of practice and the GEO community that there should be coordination mechanisms to enhance the cooperation among GEO Work Programme activities and to reach out to the Earth observation community, stakeholders (e.g. GCOS, WMO, CEOS/CGMS, IPCC) and decision-making processes at large (e.g. UNFCCC). To initiate these activities, the PASG was launched in 2017 with the support of the GEO Secretariat. Last year, the PASG organized a [session in the 2018 GEO Symposium](#) (12 June, Geneva), a [GEO Climate Workshop](#) (13 June, Geneva), and a [dedicated session in the GEO-XV Plenary](#) (31 October, Kyoto) to communicate with GEO community and stakeholders on climate-related observations. A fundamental aspect of the discussion so far has been to understand in which specific areas GEO could produce greatest added-value. This is also in recognition that there are already, a number of effective coordination mechanisms (e.g. GCOS, WMO, CEOS/CGMS WGClimate) for Earth observations of climate – so-called Systematic Observations in the context of the convention – but that there are remaining areas where GEO’s broad convening power could, and should, be used for added-value. Notable examples identified are in addressing the non-meteorological observing system components and application, in coordinating contributions from research-infrastructure, in addressing impacts at the national and local scale and in bringing together the GHG and AFOLU aspects of earth observations in support of the Convention).

¹ Among the impacts of climate change there are: melting of the ice sheets and permafrost, sea level rise, devastating weather extremes/storms, floods, droughts, forest fires, etc., which threaten human populations, biodiversity, infrastructure and economic activities (e.g., transportation) in coastal and other regions around the world.

In advancing this discussion, a dedicated mapping exercise of current GEO Work Programme activities with respect to elements of the Paris Agreement was undertaken and provided to the GEO Climate Workshop 2018. From these activities, the PASG was able to address:

- Programmatic, thematic, and domain gaps between climate, its impacts and observations;
- Opportunities for GEO to progress and deliver its observation data and knowledge; and
- The needs for coordination mechanisms to connect the activities within the GEO community and with the stakeholders outside GEO.

Based on the above outcomes from the activities in 2018, the PASG considered the need to establish a dedicated component in “Engagement Priorities Coordination Foundational Task” in 2020-2022 GEO Work Programme and a Working Group.

3 DRAFT TERMS OF REFERENCE OF THE GEO CLIMATE WORKING GROUP

Purpose

Ensure a coherent and cross-cutting GEO approach to advance the use of Earth observations in support of the Paris Agreement on climate change.

Duties

- Review the Implementation Plans of all GEO Work Programme activities relevant to the Paris Agreement to identify potential gaps and synergies.
- Facilitate communication between the leads and participants of these GEO Work Programme activities.
- Stimulate the initiation of projects, case studies or pilots involving participants from multiple GEO Work Programme activities to enhance collaboration across GEO and to address identified gaps.
- Where appropriate, act as a focal point for engagement with external stakeholders and international organizations and processes relevant to the Paris Agreement.

Membership

- Membership in the Working Group is open to any representative of a GEO Member or Participating Organization.
- Participation by individuals involved in related GEO Work Programme activities is encouraged.
- Each GEO Work Programme activity with deliverable addressing the Paris Agreement should identify a liaison member to the Working Group.
- Representatives of key UN and international organizations (UNFCCC, IPCC, WMO, GCOS, UNEP, CEOS, CGMS, etc)
- Representatives of national and regional stakeholders
- Representatives of key science bodies (GCP, IUGG, etc)
- Secretariat staff will provide support to the activities of the Working Group, as allocated to the Engagement Priorities Coordination Foundational Staff.

Operating Procedures

- The Working Group will operate by consensus.
- The Working Group will select two or more co-chairs.
- Meetings will generally be held as teleconferences unless there is agreement from Working Group members to hold an in-person meeting.

4 OBJECTIVES AND ACTIVITIES

Provide a coordination platform to ensure communication on climate-related activities in the GEO Work Programme. This activity may include identifying what would be the best coordination option(s) to find synergies of observations, data sharing and applications across domains (atmosphere, hydrosphere, cryosphere, biosphere) and themes (climate and weather, trace gases, ecosystems, health, hazards, etc.). Activities may be developed through dialogue at GEO Symposia, Climate Workshops as well as GEO summit and other international symposia as relevant. A survey based on the mapping exercise conducted in 2018 and the presentations/outcomes of GEO Symposium 2018, Climate Workshop 2018, and GEO-XV Plenary could be planned.

Support science/policy communication between GEO Work Programme Framework of Flagships, Initiatives, Community Activities, as well as between GEO and national, international, and intergovernmental bodies such as IPCC, UNFCCC COP, SBSTA, WCRP, national ministries and user organizations. This activity may seek to help bridge science-policy communication gap by providing guidance on how EO data is/ can be further used to support achievement of the Paris Agreement climate pillars, e.g., use of EO in national NDC/INDC assessments and NAPs process.

Advocate for sustained high-accuracy and high-precision climate observations: in collaboration with WMO encourage GEO members to support the longer-term sustained provision of climate observations. In particular, through GEO, for those network and observations not covered by the national meteorological and hydrological services (e.g. research-infrastructure, environmental and other ministries/agencies).

Data sharing: This activity may promote GEO activities-related observations collected from different platforms or technologies (satellite, airborne, ship, in-situ sensors, in situ field survey, etc.), and themes and domains, in particular GEOSS Data Portal (<http://www.geoportal.org>); and may help support user needs and access to data through the development of information systems and knowledge hub (cf. proposed GEO Knowledge Hub).

Connecting the different scales of activities – from local, national, regional to global, and over different temporal scales which cover both various components involved in Earth system and human activities. Collaboration with Regional GEOs will be a key to address the scale issue.

Monitoring the uptake of GEO's activities in support of the Paris Agreement: the focus should be on understanding where and to what extent these efforts have been successful and/or how the activities should be revised.

Seek integrated approach with SDGs, Sendai Framework and other Conventions.

Outreach: Promote to key stakeholders and partners (UNFCCC, GCOS, Decision makers at national, international and intergovernmental levels, etc.) the value of EO and information provided by GEO. For example: GEO-GNOME Climate Atlas. Identify uptake of EO data in IPCC climate impact assessments (e.g., upcoming AR6 and Special Reports on ocean and cryosphere SROCC, land SRCCL, and recent Special Report on Global warming of 1.5degC); and national climate change risk assessment reports (e.g., UK Committee on Climate Change; France High Council for Climate Actio).

5 EXPECTED OUTPUTS

Some potential outputs from the Foundational Task or Working Group could include:

- Case studies/pilots showcasing cross-cutting GEO capability, as well as tasks, initiatives and flagships, in addressing climate issues and impacts, particularly addressing the needs of the Paris Agreement;

- Supplementary NAP guidance on Earth observations. (Some countries have already formulated NAPs. A review of Emerging Practices in Monitoring and Evaluation for NAPs has been produced by [OECD](#).)
- Recommendations on how Earth observations data could be used in the NAPs to support and implementation and achievement of the Paris Agreement (Articles/ Key pillars on adaptation, mitigation, loss & damages, capacity building...), SDGs (targets/indicators), and Sendai Framework.

6 ABOUT THIS CONCEPT NOTE

This Concept Note was developed by Paris Agreement Subgroup of GEO Programme Board, with support from the GEO Secretariat.

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