

## Revised Terms of Reference for Working Groups

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

### 1 INTRODUCTION

During the Executive Committee review of the GEO-XVI Plenary documents at its 49<sup>th</sup> meeting, some Executive Committee members stated that they had concerns with some of the terms of reference of the working groups proposed as part of the 2020-2022 GEO Work Programme. The outcome of the discussion was that the 2020-2022 GEO Work Programme would be presented to the Plenary for approval, but not including the terms of reference for the working groups. The call for members of the working groups would also be deferred until the terms of reference were approved by the Executive Committee. Two actions were also identified at the meeting, as follows:

Action 49.4: Executive Committee members to send comments on the terms of reference for all working groups. Due 15 January 2020.

Action 49.5: The Programme Board is requested to review the comments and proposed revised terms of reference. Due 51<sup>st</sup> Executive Committee meeting (19-20 March 2020).

This document describes the comments received from Executive Committee members and proposes revisions to the terms of reference of the working groups for Programme Board consideration.

### 2 BACKGROUND

The 2020-2022 GEO Work Programme included, among other new features, four working groups intended to support implementation of some of the Foundational Tasks. The overall intent of this renewal of the working groups was to update and refocus their mandates based on the experience gained during the 2017-2019 period and to renew the membership of the groups to position them to tackle the upcoming challenges.

Two of these working groups were modifications to existing working groups under the 2017-2019 GEO Work Programme. These were the Capacity Development Working Group (CD-WG), which replaced the former Capacity Building Working Group, and the Data Sharing and Data Management Working Group (DSDM-WG), which replaced the former Data Sharing Working Group as well as the data management component of the previous GEOSS Evolve Initiative. The other two working groups – the Climate Working Group (Climate WG) and the Disaster Risk Reduction Working Group (DRR-WG) – reflected an evolution of the previous Paris Agreement Subgroup and Sendai Framework Subgroup of the Programme Board.

As part of the development of the 2020-2022 GEO Work Programme, each of the existing working groups and subgroups, supported by the Secretariat, were engaged in drafting terms of reference that would guide the new working groups. It should be noted that no terms of reference were produced for the previous working groups under the 2017-2019 GEO Work

Programme, although the activities and membership of the Capacity Building Working Group and the Data Sharing Working Group were included in the Foundational Task descriptions.

Draft terms of reference for the new working groups were posted on the GEO website during the consultation period for the 2020-2022 GEO Work Programme, beginning with version 2, which was released in July 2019. At its 15<sup>th</sup> meeting in September 2019, the Programme Board approved the final draft versions of the terms of reference for the four working groups. These versions were made available to GEO Members and Participating Organizations by hyperlink as part of the GEO-XVI Plenary documents (the terms of reference were not included as part of the 2020-2022 GEO Work Programme Summary Document).

### **3 COMMENTS FROM EXECUTIVE COMMITTEE MEMBERS**

In response to Executive Committee Action 49.4, the Secretariat received comments from six GEO Members: China, United Kingdom, United States, European Commission, France, and Japan (in order of receipt). Annex A lists the comments and requested changes to the terms of reference documents and provides a brief summary of the responses by the Secretariat. The revised terms of reference with changes marked are appended to this document as Annex B and the revised unmarked versions are appended as Annex C.

In addition to the requested changes from Executive Committee members, the Secretariat has removed the Points of Contact from the terms of reference. This is to avoid the need to revise the terms of reference when there are changes in Secretariat staff assignments. A small number of other housekeeping changes were also made.

### **4 RECOMMENDATIONS**

The Secretariat requests that the Programme Board endorse the revised terms of reference for the four Working Groups for presentation to the Executive Committee at their 51<sup>st</sup> meeting.

## ANNEX A

## SECRETARIAT RESPONSES TO COMMENTS FROM EXECUTIVE COMMITTEE MEMBERS

#	Originator	Working Group	Change Requested / Comment	Secretariat Response
1	China	Climate	Change reference to “climate” in the purpose to “climate change action” and in the second paragraph under Duties to “climate change”.	Changes accepted. Focus on climate change also further reflected in “Purpose” and across “Duties”
2	China	Climate	Comment: We agree to use Climate instead of Climate Change in the WG name. However, we would like to suggest to supplement Climate Change Action in the purpose and duties of the WG, noting that UNFCCC and the Paris Agreement focuses more on Climate Change rather than Climate Status.	Working Group name changed to “Climate Change Working Group”. Although it was not considered in the first version of the ToR, this now seems a good suggestion for coherence across the various WG names.
3	United Kingdom	Climate	Provide explicit reference to the term “Paris Agreement” in the purpose, but extend the description to include “other climate policy frameworks”.	Reference to the Paris Agreement was maintained.
4	United Kingdom	Climate	The first five paragraphs under Duties should be less specific, rephrased as higher-level tasks that can encompass different policy frameworks. They could also be condensed into two or three paragraphs.	First five bullet points were slightly rephrased and moved down.
5	United Kingdom	Climate	Under Membership, change “any individual” to “nominated or representative individuals”.	Revised membership to nominations from GEO Members /POs, with the option of invitations by PB.
6	United Kingdom	Climate	Under Working Arrangements, the WG should not be accountable but will be reporting to the Programme Board. For periodic reports, these should be “developed with the support of the GEO Secretariat” and add that “Programme Board will provide specific feedback on progress that has been made by the WG”.	The recipient of the WG reports was changed from the Secretariat to the Programme Board. Secretariat support to preparation of reports was not added since the ToRs already include Secretariat support that extends beyond reporting. The final point was not included as it refers to a PB duties, which are established in the Rules of Procedure and thus should not be included in the WG ToRs.
7	United States	All	Prefer to continue the practice of membership of the WGs to come through the nominations from the GEO community. Add the option for the PB to invite qualified experts.	Revised membership to nominations from GEO Members /POs, with the option of invitations by PB.
8	United States	All	Recommend that the WGs provide periodic reports to the PB. They may also report to other bodies, as directed by the PB or the ExCom.	The provision of reports was changed to the PB. PB and ExCom can ask the WGs to report to them on specific issues, but this does not need to be in the ToR of the WGs.
9	United States	Data / DSDM	Change name to “Data Working Group”.	Change accepted.

#	Originator	Working Group	Change Requested / Comment	Secretariat Response
10	United States	Data / DSDM	Move Duties related to data sharing and data management to the Infrastructure Development Task Team (paragraphs 2, 3, 4 and 7).	Duties removed from the WG ToR. Consideration will be given to revising the Infrastructure Development TT ToR, but this is outside the scope of the present action.
11	United States	Data / DSDM	Allow for membership in the WG to be open to GEO Associates.	Change accepted.
12	United States	Data / DSDM	Reduce the number of co-chairs to two.	Change accepted.
13	United States	Climate	In the Purpose, replace “relevant planning processes” with “climate adaptation and mitigation, including as relevant and appropriate, actions related to”.	Accepted, with addition of French proposal related to other “pillars of the Paris Agreement”.
14	United States	Climate	Add as a new Duty: “Assess how GEO can work with its member nations and partners to advance the collection and use of Earth observations, particularly in situ, that are needed to support countries’ and international organizations’ work on climate science and assessments, reduce uncertainty in climate modelling, and enhance societal response strategies.”	Accepted but moved down in the list.
15	United States	Climate	Add as a new Duty: “Identify gaps (observations, etc.) that are requisite to the work of the IPCC and others conducting climate assessments and leverage GEO partnerships and resources to provide the additional observations needed to support decision making.” Move original paragraph 5 to this paragraph.	Addition accepted. Support to IPCC would entail support from the GEO community/WG to the AR6 review process. This was clarified in the text.
16	United States	Climate	Revise paragraph 1 under Duties to: “Identify how GEO / Earth observations can support countries in the submission of reports and other communications under the UNFCCC / Paris Agreement, including, as applicable, through nationally determined contributions (NDCs) national communications, adaptation communications, and biennial transparency reports (BTRs).”	Change accepted.
17	United States	Climate	Revise paragraph 2 under Duties to read “...avert, minimize and address loss and damage...”. Comment: This is unclear. Who is formulating this guidance? Is it GEO or is GEO identifying how EO can support countries in doing this?	Change accepted. GEO should be formulating this guidance. This was clarified in the text.
18	United States	Climate	Combine paragraphs 3 and 4 under Duties to “Identify how GEO / Earth observations can support countries in the improvement of national greenhouse gas inventories over time, consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.”	Change accepted.
19	United States	Climate	Remove paragraph 6 under Duties.	Change accepted.

#	Originator	Working Group	Change Requested / Comment	Secretariat Response
20	United States	Climate	Revise paragraph 7 under Duties to: "Support relevant WMO programs, including the Global Climate Observing System (GCOS) and the Global Atmosphere Watch (GAW)."	Accepted, changes made in the text based on the Japan proposal.  Regarding the question on mandates, some WMO programmes have a mandate from the UNFCCC/SBSTA (not the Paris Agreement).
21	United States	Climate	Revise paragraph 8 under Duties to "Review the Implementation Plans of all GEO Work Programme activities relevant to climate to identify potential disconnect and synergy opportunities among them."	Change accepted.
22	United States	Climate	Revise paragraph 12 under Duties to add "as appropriate" after the word "visibility".	Change accepted.
23	United States	Climate	Remove the final paragraph under Duties.	Change accepted.
24	United States	DRR	In the Purpose, add "in support of countries' disaster risk reduction and resilience efforts, including those related to the provision of multilateral environmental agreements, such as" before "the Sendai Framework for Disaster Risk Reduction".	Change accepted.
25	United States	DRR	Revise paragraph 5 under Duties to: "Monitor the uptake of GEO's activities in countries' disaster risk reduction efforts, including those related to the Sendai Framework."	Change accepted.
26	European Commission	All	The Purpose should include a statement that the WGs should support translation of the Canberra Ministerial Declaration into concrete actions within the GEO Work Programme.	Change accepted.
27	European Commission	All	Membership should be constrained by changing the reference to "any individual" to "nominated or representative individuals".	Revised membership to nominations from GEO Members, POs and Associates, with the option of invitations by PB.
28	European Commission	All	Under Working Arrangements, there should be a periodic reporting requirement to the PB. These reports should be developed with the support of the Secretariat. The PB should provide specific feedback and take follow-up actions to ExCom based on the progress that has been made by the WG.	The recipient of the WG reports was changed from the Secretariat to the Programme Board.  Secretariat support to preparation of reports was not added since the ToRs already include Secretariat support that extends beyond reporting.  The final point was not included as it refers to a PB duties, which are established in the Rules of Procedure and thus should not be included in the WG ToRs.
29	European Commission	CD	Remove paragraph 4 under Duties.	Change accepted.
30	European Commission	Climate	It is important that there is an explicit reference to the term "Paris Agreement". However it should not be exclusive and the description can be extended to include "other climate policy framework."	Reference to the Paris Agreement was maintained.

#	Originator	Working Group	Change Requested / Comment	Secretariat Response
31	European Commission	Climate	The first five paragraphs under Duties could be less specific and rephrased to higher-level tasks. Moreover, they can encompass other policy frameworks than the Paris Agreement. These could also be condensed into two or three paragraphs.	First five bullet points were slightly rephrased and moved down.
32	France	Data / DSDM	in Membership, the participation of Associates is of interest but the number of Associates in the WG should be limited to one or two.	New paragraph added to permit the PB to place limits on the number of members.
33	France	Data / DSDM	The FAIR principles should be taken into account.	This is covered by the first paragraph under Duties.  The FAIR principles are viewed by many in the GEO community as weaker than the GDSPs and GDMPs and thus their inclusion in the ToRs would be seen to push the WG in a particular direction.
34	France	Climate	The Duties should extend to all pillars of the Paris Agreement, not only adaptation / mitigation).	Change accepted and reflected in Purpose.
35	Japan	Climate	Replace the paragraph under Duties regarding support to WMO with: "Seek and identify efficient form of mutually benefitting collaboration between GEO and WMO in the areas of climate.	Change accepted, with addition of reference to GFCS, GCOS and GAW.

**ANNEX B**

**WORKING GROUP TERMS OF REFERENCE (CHANGES MARKED)**

# Capacity Development Working Group

## Terms of Reference

### Purpose

The Capacity Development Working Group (CD-WG) is convened to facilitate 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. **In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.**

### Duties

- Support GEO Flagships, Initiatives and Regional GEOs, on request, in the design, implementation, and evaluation of capacity development interventions.
- Develop, improve, and provide capacity development tools for use by the GEO community.
- Collect, document, and share good practices for capacity development related to Earth observations.
- ~~• Promote, facilitate and analyze the inclusion of capacity development data, information and knowledge through the GEO Knowledge Hub.~~
- Organize seminars, teleconferences, side-events and other means for disseminating information related to capacity development for Earth observations;
- Support the planning and implementation of impact assessments for capacity development activities within GEO.

### Membership

- Membership in the Working Group is ~~open to any individual in the GEO community~~ by nomination from GEO Members, Participating Organizations, and Associates. **As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group.**
- Participation is encouraged from individuals having training or experience in the development, delivery and/or evaluation of capacity development activities, or are past or potential future participants in capacity development activities.
- **In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.**

### Working Arrangements

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members. Preference in the selection of co-chairs will be given to representatives from the Regional GEOs.

- The Working Group will meet at such times and places as determined by its members. Most work will occur through teleconferences and e-mail.
- The Working Group will provide periodic (**at least annual**) reports on its activities to the **GEO Secretariat Programme Board** as part of GEO Work Programme monitoring. It may also bring specific issues to the **GEO**-Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

### **Duration**

These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the **GEO**-Programme Board.

### **GEO Secretariat Point of Contact**

**Joost TEUBEN** [jteuben@geosec.org](mailto:jteuben@geosec.org)

# Climate Change Working Group

## Terms of Reference

### Purpose

The Climate Change Working Group (ClimateCC-WG) is convened to develop and implement a comprehensive GEO climate change action strategy to advance the use of Earth observations in support of climate adaptation and mitigation, including as relevant and appropriate, actions related to the pillars of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (UNFCCC). In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.

### Duties

- Review the ~~Implementation~~ implementation Plans-plans of all GEO Work Programme activities relevant to ~~the Paris Agreement~~ climate change to identify potential ~~gaps and synergies~~ disconnect and synergy opportunities among them to be addressed;
- ~~Review Assess and recommend~~ from these GEO Work Programme aActivities where GEO is best placed to act and recommend actions to be taken by GEO/activity leads in relation to key issues, e.g., climate modelling/science,; mitigation, adaptation, and other relevant areas of the UNFCCC/Paris Agreement;
- Facilitate communication between the leads and participants of these GEO Work Programme activities and between them and relevant partners, including through the organization of dedicated meetings and workshops;
- Stimulate the initiation of projects and case studies involving participants from multiple GEO Work Programme activities to enhance collaboration across GEO and to address identified ~~gaps~~ disconnect, opportunities, or actions in relation to key issues;
- Assess how GEO can work with its member countries and partners to advance the collection and use of Earth observations, particularly in situ, that are needed to support countries' and international organizations' work on climate science and assessments, reduce uncertainty in climate modeling, and enhance societal response strategies;
- ~~Identify~~ Assess how GEO ~~/Earth observations~~ can support countries in ~~meeting the~~ submission of reports and other communications under the UNFCCC/Paris Agreement through the enhanced use of Earth observations, ~~their reporting obligations under the Paris Agreement~~, including, as applicable, ~~through n~~ Nationally dDetermined cContributions (NDCs), nNational cCommunications, aAdaptation cCommunications, and bBiennial tTransparency rReports (BTRs);
- ~~Identify~~ Assess how GEO ~~/Earth observations~~ can support countries in their National Adaptation Plan (NAP) process and approaches to ~~to avert, minimize and~~ address loss

and damage, including formulating supplementary guidance on the use and potential of Earth observations for the monitoring and assessment of climate change impacts, vulnerability, risks and adaptation responses over multiple sectors and scales;

- ~~Identify how GEO / Earth observations can support countries in their national reporting for mitigation, including through the development and recognition of supplementary guidance on greenhouse gas inventory in the land use, land-use change, and forestry (LULUCF) sector;~~ Assess how GEO can support countries in the improvement of national greenhouse gas inventories over time through the enhanced use of Earth observations, consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories;
- ~~Further support the Intergovernmental Panel on Climate Change (IPCC) with the implementation of the Guidelines for National Greenhouse Gas Inventories;~~
- ~~Review and internalize the IPCC and other relevant reports to identify gaps (observations, etc.) that GEO could address~~ Identify gaps in terms of Earth observations that are requisite to the work of the IPCC and others conducting climate assessments, and leverage GEO partnerships and resources to provide the additional Earth observations needed to support decision making. Support the IPCC in its Sixth Assessment Cycle, particularly in the development review of the IPCC's Sixth Assessment Report due to be published in 2021-2022;
- 
- Identify efficient forms of mutually beneficial collaboration between GEO and WMO in the areas of climate change, ~~Support WMO's mandates associated with the Paris Agreement,~~ including close interaction with the Global Framework for Climate Services (GFCS), the Global Climate Observing System (GCOS) and the Global Atmosphere Watch (GAW);
- Increase GEO's participation and visibility, as appropriate, in IPCC sessions, UNFCCC Conferences of the Parties (COPs), Subsidiary Body for Scientific and Technological Advice (SBSTA) sessions and other UNFCCC constituted bodies' meetings, as well as other relevant fora.;
- ~~Act as a focal point, when and where appropriate, for engagement with external stakeholders and international organizations and processes relevant to the Paris Agreement.~~

## Membership

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group. ~~open to any individual in the GEO community.~~
- Participation is encouraged from organizations and bodies relevant to climate change, including:
  - GEO Work Programme activities;
  - UN and other international organizations;

- National and regional stakeholders; and
- Scientific organizations.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

### **Working Arrangements**

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (at least annual) reports on its activities to the ~~GEO Secretariat~~ Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the ~~GEO~~ Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

### **Duration**

- These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. -They may be revised with the approval of the ~~GEO~~ Programme Board.

### **~~GEO Secretariat Point of Contact~~**

~~Sara VENTURINI~~ [sventurini@geosec.org](mailto:sventurini@geosec.org)

# **Data ~~Sharing and Data Management~~ Working Group**

## **Terms of Reference**

### **Purpose**

The Data ~~Sharing & Data Management~~ Working Group (DataSDM-WG) is convened to work with the GEO community and with external stakeholders, ~~including GEO Members and Participating Organizations and all GEO Work Programme activities~~, to address data policy, data ethics and data governance issues impacting the use of Earth observations, thereby improving the uptake of Earth observations for decision making. ~~enable effective uptake and implementation of the GEOSS Data Sharing and Data Management Principles.~~ In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.

### **Duties**

- Monitor trends in international open data and ~~scientific data management practices~~ data management practices, and produce trend analyses and recommendations, as appropriate, for revising the GEOSS Data Sharing Principles and the GEOSS Data Management Principles and Implementation Guidelines;
- Advance discussions of critical data-related topics with stakeholder communities;
- ~~Review, and propose revisions to, the GEOSS Data Sharing and Data Management Principles and Implementation Guidelines, as required;~~
- ~~Advise GEO Work Programme activities, in particular the GEOSS Infrastructure Development Foundational Task, with respect to the sharing and management of data, information and knowledge resources;~~
- ~~Analyze and advocate the value of open Earth observations data, products and services made available by GEO and its Members and Participating Organizations;~~
- ~~Promote national coordinating mechanisms to implement the GEOSS Data Sharing and Data Management Principles and to monitor Earth observations data sharing and data management progress by GEO Members;~~
- Recommend ways for GEO to advance the interoperability of Earth observations and complementary data, products and services; and
- Identify, analyze, and describe best practices for, legal, ethical, privacy, intellectual property, and other related concerns with respect to the sharing and management of Earth observations data, information and knowledge resources; and.
- ~~Monitor, interpret, and adjust metrics of the use of shared Earth observations resources and their value to both data providers and data users.~~

### **Membership**

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group. ~~open to any individual in the GEO community.~~

- Participation is encouraged from individuals having expertise in ~~fields relevant to the sharing, management, and interoperability of Earth observations data, information and knowledge~~ data policy, spatial law, and providers or users of data technologies.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

### Working Arrangements

- There will be at least ~~four~~ two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (~~at least annual~~) reports on its activities to the ~~GEO Secretariat~~ Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the ~~GEO~~-Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

### Duration

- These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the ~~GEO~~-Programme Board.

### ~~GEO Secretariat Point of Contact~~

~~Paola DE SALVO [pdesalvo@geosec.org](mailto:pdesalvo@geosec.org)~~

# Disaster Risk Reduction Working Group

## Terms of Reference

### Purpose

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 [countries' disaster risk reduction and resilience efforts](#). [These efforts include those related to the provisions of multilateral agreements such as the Sendai Framework for Disaster Risk Reduction](#). [In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme](#).

### Duties

- Foster support for disaster related activities between the GEO community and national, international and intergovernmental bodies, including maintaining the relationship with the United Nations Office for Disaster Risk Reduction
- Enable discussion and communication on disaster-related activities within the GEO Work Programme.
- Promote the sharing of data from different platforms, technologies, themes and domains.
- Connect different scales of activities – from local, national, regional to global.
- Monitor the uptake of GEO's activities in support of the Sendai Framework.
- Seek coherence and collaboration amongst the post-2015 development agendas and GEO's areas of focus, including the identification of common metrics and opportunities for joint reporting.
- Promote to key stakeholders and partners the value of [Earth Observations](#) and information provided by GEO.
- Act as a focal point, where appropriate, for the engagement with external stakeholders and international organizations and processes relevant to the Sendai Framework;
- Review the ~~Implementation~~ [implementation Plans](#) ~~plans~~ of all GEO Work Programme activities relevant to the Sendai Framework for disaster risk reduction, and to identify potential gaps and synergies;
- Facilitate communication between the leads and participants of these GEO Work Programme activities; and,
- 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.

## Membership

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group. ~~open to any individual in the GEO community.~~
- Participation is encouraged from organizations and bodies relevant to disaster risk reduction, including:
  - GEO Work Programme activities;
  - UN and other international organizations; ~~and~~
  - National and regional stakeholders; ~~and~~
  - Scientific organizations.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

## Working Arrangements

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (**at least annual**) reports on its activities to the ~~GEO Secretariat~~ Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the ~~GEO~~ Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

## Duration

- These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the ~~GEO~~ Programme Board.

## ~~GEO Secretariat Point of Contact~~

~~James NORRIS [jnorris@geosec.org](mailto:jnorris@geosec.org)~~

**ANNEX C**

**WORKING GROUP TERMS OF REFERENCE (PROPOSED VERSIONS)**

# **Capacity Development Working Group Terms of Reference**

## **Purpose**

The Capacity Development Working Group (CD-WG) is convened to facilitate 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. In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.

## **Duties**

- Support GEO Flagships, Initiatives and Regional GEOs, on request, in the design, implementation, and evaluation of capacity development interventions.
- Develop, improve, and provide capacity development tools for use by the GEO community.
- Collect, document, and share good practices for capacity development related to Earth observations.
- Organize seminars, teleconferences, side-events and other means for disseminating information related to capacity development for Earth observations;
- Support the planning and implementation of impact assessments for capacity development activities within GEO.

## **Membership**

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group.
- Participation is encouraged from individuals having training or experience in the development, delivery and/or evaluation of capacity development activities, or are past or potential future participants in capacity development activities.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

## **Working Arrangements**

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members. Preference in the selection of co-chairs will be given to representatives from the Regional GEOs.
- The Working Group will meet at such times and places as determined by its members. Most work will occur through teleconferences and e-mail.

- The Working Group will provide periodic (at least annual) reports on its activities to the Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

**Duration**

These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the Programme Board.

# **Climate Change Working Group Terms of Reference**

## **Purpose**

The Climate Change Working Group (CC-WG) is convened to develop and implement a comprehensive GEO climate change action strategy to advance the use of Earth observations in support of climate adaptation and mitigation, including as relevant and appropriate, actions related to the pillars of the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (UNFCCC). In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.

## **Duties**

- Review the implementation plans of all GEO Work Programme activities relevant to climate change to identify potential disconnect and synergy opportunities among them to be addressed;
- Assess from these GEO Work Programme activities where GEO is best placed to act and recommend actions to be taken by GEO/activity leads in relation to key issues, e.g., climate modelling/science, mitigation, adaptation, and other relevant areas of the UNFCCC/Paris Agreement;
- Facilitate communication between the leads and participants of these GEO Work Programme activities and between them and relevant partners, including through the organization of dedicated meetings and workshops;
- Stimulate the initiation of projects and case studies involving participants from multiple GEO Work Programme activities to enhance collaboration across GEO and to address identified disconnect, opportunities, or actions in relation to key issues;
- Assess how GEO can work with its member countries and partners to advance the collection and use of Earth observations, particularly in situ, that are needed to support countries' and international organizations' work on climate science and assessments, reduce uncertainty in climate modeling, and enhance societal response strategies;
- Assess how GEO can support countries in the submission of reports and other communications under the UNFCCC/Paris Agreement through the enhanced use of Earth observations, including, as applicable, nationally determined contributions (NDCs), national communications, adaptation communications, and biennial transparency reports (BTRs);
- Assess how GEO can support countries in their National Adaptation Plan (NAP) process and approaches to avert, minimize and address loss and damage, including formulating supplementary guidance on the use and potential of Earth observations for the monitoring and assessment of climate change impacts, vulnerability, risks and adaptation responses over multiple sectors and scales;

- Assess how GEO can support countries in the improvement of national greenhouse gas inventories over time through the enhanced use of Earth observations, consistent with the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories;
- Identify gaps in terms of Earth observations that are requisite to the work of the IPCC and others conducting climate assessments, and leverage GEO partnerships and resources to provide the additional Earth observations needed to support decision making. Support the IPCC in its Sixth Assessment Cycle, particularly in the review of the IPCC's Sixth Assessment Report due to be published in 2021-2022;
- Identify efficient forms of mutually beneficial collaboration between GEO and WMO in the areas of climate change, including the Global Framework for Climate Services (GFCS), the Global Climate Observing System (GCOS) and the Global Atmosphere Watch (GAW);
- Increase GEO's participation and visibility, as appropriate, in IPCC sessions, UNFCCC Conferences of the Parties (COPs), Subsidiary Body for Scientific and Technological Advice (SBSTA) sessions and other UNFCCC constituted bodies' meetings, as well as other relevant fora.

### **Membership**

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group.
- Participation is encouraged from organizations and bodies relevant to climate change, including:
  - GEO Work Programme activities;
  - UN and other international organizations;
  - National and regional stakeholders; and
  - Scientific organizations.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

### **Working Arrangements**

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (at least annual) reports on its activities to the Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

**Duration**

- These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the Programme Board.

# **Data Working Group Terms of Reference**

## **Purpose**

The Data Working Group (Data-WG) is convened to work with the GEO community and with external stakeholders to address data policy, data ethics and data governance issues impacting the use of Earth observations, thereby improving the uptake of Earth observations for decision making. In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.

## **Duties**

- Monitor trends in international open data and data management practices, and produce trend analyses and recommendations, as appropriate, for revising the GEOSS Data Sharing Principles and the GEOSS Data Management Principles and Implementation Guidelines;
- Advance discussions of critical data-related topics with stakeholder communities;
- Recommend ways for GEO to advance the interoperability of Earth observations and complementary data, products and services; and
- Identify, analyze, and describe best practices for, legal, ethical, privacy, intellectual property, and other related concerns with respect to the sharing and management of Earth observations data, information and knowledge resources.

## **Membership**

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group.
- Participation is encouraged from individuals having expertise in data policy, spatial law, and providers or users of data technologies.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

## **Working Arrangements**

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (at least annual) reports on its activities to the Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.

- Administrative support to the Working Group will be provided by the GEO Secretariat.

**Duration**

- These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the Programme Board.

# **Disaster Risk Reduction Working Group**

## **Terms of Reference**

### **Purpose**

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 countries' disaster risk reduction and resilience efforts. These efforts include those related to the provisions of multilateral agreements such as the Sendai Framework for Disaster Risk Reduction. In this way, the Working Group will support the translation of the Canberra Declaration into concrete actions within the GEO Work Programme.

### **Duties**

- Foster support for disaster related activities between the GEO community and national, international and intergovernmental bodies, including maintaining the relationship with the United Nations Office for Disaster Risk Reduction
- Enable discussion and communication on disaster-related activities within the GEO Work Programme.
- Promote the sharing of data from different platforms, technologies, themes and domains.
- Connect different scales of activities – from local, national, regional to global.
- Monitor the uptake of GEO's activities in support of the Sendai Framework.
- Seek coherence and collaboration amongst the post-2015 development agendas and GEO's areas of focus, including the identification of common metrics and opportunities for joint reporting.
- Promote to key stakeholders and partners the value of Earth observations and information provided by GEO.
- Act as a focal point, where appropriate, for the engagement with external stakeholders and international organizations and processes relevant to the Sendai Framework;
- Review the implementation plans of all GEO Work Programme activities relevant to the Sendai Framework for disaster risk reduction, and to identify potential gaps and synergies;
- Facilitate communication between the leads and participants of these GEO Work Programme activities; and,
- 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.

## **Membership**

- Membership in the Working Group is by nomination from GEO Members, Participating Organizations, and Associates. As appropriate, the Programme Board may also invite other qualified individuals to participate as members in the Working Group.
- Participation is encouraged from organizations and bodies relevant to disaster risk reduction, including:
  - GEO Work Programme activities;
  - UN and other international organizations;
  - National and regional stakeholders; and
  - Scientific organizations.
- In the interest of ensuring diversity and balance in the Working Group membership, the Programme Board may place limits on the number of members from individual GEO Members, Participating Organizations, or Associates or by specific categories.

## **Working Arrangements**

- There will be at least two co-chairs of the Working Group, who will be selected by and from among the Working Group members.
- The Working Group will meet at such times and places as determined by its members and will work mainly through teleconferences and e-mail.
- The Working Group will provide periodic (at least annual) reports on its activities to the Programme Board as part of GEO Work Programme monitoring. It may also bring specific issues to the Programme Board as needed.
- The Working Group may establish subgroups to assist in fulfilling its duties.
- Administrative support to the Working Group will be provided by the GEO Secretariat.

## **Duration**

- These Terms of Reference will remain in effect for the period of the 2020-2022 GEO Work Programme. They may be revised with the approval of the Programme Board.