

Joint GEO Working Groups Evaluation Survey: Analysis and Recommendations

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

1 INTRODUCTION

The Programme Board at its 25th meeting requested the GEO Secretariat to work with the [Climate Change Working Group \(CC-WG\)](#), the [Disaster Risk Reduction Working Group \(DRR-WG\)](#), the Resilient Cities and Human Settlements Working Group (RCHS-WG), the [Capacity Development Working Group \(CD-WG\)](#) and the [Data Working Group \(Data-WG\)](#) to launch a survey to assess the impact and usefulness of the Working Groups (WGs) as part of the Foundational Tasks review process.

The survey was jointly developed by the GEO Secretariat WG coordinators and reviewed by WG Co-chairs and Programme Board members. It was launched online on 27 March and run until 17 April 2023. It was disseminated to key stakeholders including WG members, Programme Board members, and Work Programme activity leads.

This report presents the summary of survey outcomes and recommendations on the future direction of the GEO WGs, followed by the detailed analysis of the survey outcomes for each category of respondents.

2 SUMMARY AND RECOMMENDATIONS

The following recommendations are presented for adoption by the Programme Board, based on the analysis of the survey outcomes which are summarised for each section.

2.1 General summary and recommendations

Overall, the survey feedback on the performance of GEO WGs was mixed, although there was a recognition of the critical role that WGs play, and could play, in supporting the GEO Work Programme. Nonetheless, collaboration needs to be improved, both among WGs based on natural synergies, and between the WGs and Programme Board and GEO Work Programme.

Generally, Programme Board members are more satisfied than the GEO Work Programme representatives about their communication and interaction with the WGs. It should be noted that WGs report regularly to Programme Board and there is a mechanism (via the Programme Board Engagement Teams) by which interested Programme Board members can also engage with the relevant WGs.

On the other hand, Work Programme activity leads and members are less engaged, and most stated that they have not made use of deliverables or guidance issued by the WGs. However, it should be noted that the WGs, except the Data-WG and CD-WG, are not meant to provide deliverables for the use of GEO Work Programme itself, rather they promote the Earth observation-based tools and solutions generated by the GEO Work Programme activities for uptake by policy makers in the context of international agendas. This is a crucial point and must be addressed in the future work of the WGs, which serve as foundational tasks of the GEO Work Programme.

There is also a recognition that the structure of the WGs should be made more flexible. Given the many demands on the GEO Work Programme activities and the GEO Secretariat, the WG activities can be better aligned with the efforts taking place on GEO Work Programme coordination and integration, including via the post-2025 incubators.

While the CC-WG, DRR-WG and Data-WG broadly received positive feedback, the CD-WG is perceived to be behind in development, and the RCHS-WG is too early to rate. Challenges with leadership, membership and participation are highlighted. Feedback consistently reveals a good level of satisfaction with Secretariat support; it should be noted that the Data-WG is the only WG that has two Secretariat staff assigned to manage its coordination.

Overall, respondents feel there should be more focus on delivering activities, sharing progress, aligning objectives across the WGs. Proposed ways for the WGs to better support GEO Work Programme activities include organizing online and in-person events, disseminating reports, and sharing the WG workplans. GEO Work Programme representatives should be involved in WGs, which could serve as an umbrella for boosting less mature initiatives and supporting other groups.

Based on this assessment, it is recommended that:

- **The GEO WGs consider more flexible structures and modes of operation that are based on the needs of the GEO Work Programme activities and the broader policy landscape within which they operate.**
- **The GEO WGs' activities align with the efforts taking place under the Programme Board on GEO Work Programme engagement, coordination and integration, including via the post-2025 incubators.**
- **The GEO WGs revise their Terms of Reference (ToR) to align with the post-2025 GEO strategy, once approved.**
- **The GEO WGs membership be reviewed and differentiated between active members and observers, with active members being able to contribute to deliverables and regularly participate in WG meetings.**
- **The GEO WGs membership include nominations from GEO Work Programme leads, in addition to nominations from GEO Members, Participating Organizations, and Associates.**

- **The GEO WGs establish and coordinate annual workplans, identifying concrete outputs, as well as resource implications and leads among Co-Chairs and active members.**
- **The GEO WGs hold a standing joint WG meeting and/or session, with a theme to be determined, at the annual GEO Symposium.**

Furthermore, respondents to the survey requested travel support for active members, more regular meetings, online and in-person events, language resources, and enhanced communication support to promote events and deliverables.

In order to be able to meet these needs, the GEO Secretariat will require additional resources to be provided by the GEO membership. One possible cost-effective option could be intern support to WG coordinators.

2.2 Summary and recommendations for the CC-WG

The performance of the CC-WG in terms of usefulness and impact over the period 2020-2022 has been assessed positively by the survey respondents. The interaction with the Programme Board appears strong, while the links with the GEO Work Programme can be improved similarly to other WGs.

The CC-WG appears to have mostly active members, though some challenges exist about participation, and there is a call for more communication and engagement to keep members informed and motivated.

The CC-WG also shows to have fully or at least partially achieved its set objectives, with the most effective deliverables being those around developing knowledge products on climate adaptation, mapping the GEO Work Programme for relevant EO tools/solutions for climate action, and organising events related to EO and climate policy.

While generally pleased with the CC-WG work and the support by the Secretariat, some shortcomings emerged especially regarding the role of Deputy Chairs, subgroups structure/operations, and cadence/format of meetings. Agreed options to overcome such limitations include revising the subgroups' topics and simplify their structure; co-creating deliverables/tasks with stronger links to the GEO Work Programme; and adopting a flexible membership system. Notably, there is a call for more in-person meetings within the WG.

Several suggestions for priority activities to be implemented in the next phase of the CC-WG point at delivering tangible outcomes and operational tools, particularly for supporting climate adaptation, while also working to align GEO activities with the broader global climate change community.

Based on this assessment, and subject to additional resources allocated to the GEO Secretariat by GEO membership, it is recommended that:

- **The CC-WG continue its activities with the support of GEO Secretariat Climate and Biodiversity Coordinator.**

The following improvements should be considered by the CC-WG:

- The role of Deputy Chairs is removed.
- The subgroups' topics and structure are revised based on the WG priorities in the next phase.
- The WG roadmap and related deliverables/tasks are designed in collaboration with other WGs, Participating Organizations, the GEO Work Programme leads including Regional GEOs.
- A flexible membership system based on actual engagement distinguishing “active” members and “observers” is implemented.
- An introductory meeting is to be held especially for new members to better familiarize themselves with GEO as an organization, WGs and subgroups.
- A regular schedule of outcome-oriented meetings is proposed, and one physical WG meeting is organized in the context of other GEO events every year.
- Content for the GEO website on the CC-WG is maintained up to date.

2.3 Summary and recommendations for the DRR-WG

The performance of the DRR-WG in terms of usefulness and impact over the period 2020-2022 has been assessed generally positively by the survey respondents. The interaction with some of the POs such as UNDRR appears strong, while the links with the GEO Work Programme including Regional GEOs and other WGs can be enhanced further.

The DRR-WG appears to have largely occasionally active members, largely due to common challenges in participation, such as language barriers, time zones and limited time availability. There is a call for more communication to keep members informed and engaged through increased coordination and synergies with their expertise and other commitments, including their involvement in GEO Work Programme activities as well as Regional and National GEOs.

The DRR-WG also shows to have fully or at least partially achieved its set objectives, with the most effective deliverables being those involving collaboration with GEO Work Programme activities, GEO members and POs such as UNDRR on joint events and joint publications and communications that raises visibility of EO activities for increasing policy and programmatic contributions.

The respondents are generally pleased with the overall DRR-WG work including the leadership by Co-Chairs, support by the Secretariat and cadence/format of meetings. Meanwhile, some shortcomings emerged regarding some of the subgroups structure/operations and leaderships by some of the Deputy Co-Chairs. Agreed options to overcome such limitations include revising the subgroups' topics and simplify their structure to reflect actual operations and leadership demonstrated by the deputies; co-

creating deliverables/tasks with stronger links to the GEO Work Programme, Regional and National GEOs, facilitating more exchange of practices and communicating collective knowledge including in Spanish; and adopting a flexible membership system. There is a request to have an introductory meeting for new members to better familiarize themselves with GEO as an organization, WGs and subgroups.

Several suggestions for priority activities to be implemented in the next phase of the DRR-WG point at delivering tangible outcomes and contribute to initiation of new activities, pilots, case studies, EO solution developments and policy and programmatic support, especially at country level. Increased coordination and collaboration with other WGs, GEO Work Programme activities and GEO community as a whole.

Based on this assessment, and subject to additional resources allocated to the GEO Secretariat by GEO membership, it is recommended that:

- **The DRR-WG continue its activities with the support of GEO Secretariat DRR Coordinator.**

The following improvements should be considered by the DRR-WG:

- The subgroups topics and deliverable are revised, simplified and targeted based on the WG priorities in the next phase.
- The subgroups structures are updated to reflect actual operations of the groups and leadership demonstrated by deputies.
- The WG roadmap and related deliverables/tasks are designed in collaboration with other WGs, Participating Organizations, the GEO Work Programme leads including Regional GEOs.
- New deliverables/tasks may consider tasks to collect national examples and other use cases beyond the current GEO Work Programme activities on the use of EO to facilitate enhanced coordination/collaboration including in Spanish-speaking countries.
- Deliverables/tasks may include joint publications, new pilots, case studies, EO solution developments and policy and programmatic support, especially at country level.
- A flexible membership system based on actual engagement distinguishing “active” members and “observers” is implemented.
- An introductory meeting is to be held especially for new members to better familiarize themselves with GEO as an organization, WGs and subgroups.
- A regular schedule of outcome-oriented meetings is proposed, and one physical WG meeting is organized in the context of other GEO events every year.
- Content for the GEO website on the DRR-WG is maintained up to date.

2.4 Summary and recommendations for the CD-WG

The performance of the CD-WG in terms of usefulness and impact over the period 2020-2022 has been assessed positively by the survey respondents. The interaction with the

Programme Board appears strong, while the links with the GEO Work Programme can be improved similarly to other WGs.

The CD-WG appears to have partially active members in terms of participation in meetings and contribution to deliverables owing to several challenges including, conflicting work schedules, time zone differences, multiple engagements in GEO, limited capabilities, and language barriers, among others. Nonetheless, there is a call for more communication and engagement to keep members informed and motivated.

The CD-WG also shows to have partially achieved its set objectives, with key deliverables on joint GEO Work Programme engagement mapping, capacity development strategy and guide for GEO Work Programme, and mapping GEO Work Programme activities linked to capacity development.

While pleased with the CD-WG work and the support by the Secretariat, some shortcomings emerged especially regarding the clarity of assigned tasks and deliverables, limited expertise in subject areas, the role of the subgroup co-leads/subgroup structure, and the current meeting format. Agreed options to overcome such limitations include defining tasks and deliverables that reflect the strengths and expertise of group members; having structure that allows members to innovate and deliver to support GEO's mission and objectives and adopting a flexible membership system. There is also a call for more in-person meetings within the WG.

Overall, there is a positive feeling about creating a more functioning group with open platform for improved communication and engagement as well as defining clear priorities that are tailored to the capacity development needs of GEO. Such a group will also need to have activities with co-benefits and tangible outcomes that would encourage active participation.

Based on this assessment, and subject to additional resources allocated to the GEO Secretariat by GEO membership, it is recommended that:

- **In line with GEO's future direction to support capacity development-oriented engagements with relevant user communities in GEO members, the CD-WG be transformed into a Community of Practice (CoP) with the support of the Capacity Development Coordinator.**

The following elements should be considered by the CoP:

- A flexible structure is put in place that highlights the CoP members' individual expertise and collective experience to support GEO's effort as well as their active role in leading the group.
- As a cross-cutting network, the ToR clearly defines purpose, goals, activities, and deliverables and align with the wider GEO agenda not just the GEO Work Programme activities. This helps members understand the value of participation and provides a shared direction for collaboration and knowledge sharing. Highly vital to the success of the CoP is the coordination role of GEO Secretariat in providing insights, context, and direction.

- Learning opportunities are provided by organising learning events, workshops, webinars, or guest speaker sessions within the CoP. These events can focus on topics of interest to the members and provide opportunities for continuous learning and professional development.
- A regular schedule of outcome-oriented meetings is proposed, and one physical CoP meeting is organized in the context of other GEO events every year.
- Content for the GEO website on the CoP is developed and maintained up to date.

2.5 Summary and recommendations for the RCHS-WG

As the RCHS-WG has yet to have been formally activated the comments reflect the evolution of a task force and then Programme Board Sub-Group on Urban Resilience, which paves the way for a more formal engagement Working Group. Participation then has been limited to date, though several useful interactions have taken place to help shape the future direction of a RCHS-WG. In line with the experience in other GEO WGs, commentators felt that the future RCHS-WG should follow a simple structure, feature flexible membership that respond to user-needs / specific causes, and look to activate partnerships with cities and their networks.

Based on this assessment, and subject to additional resources allocated to the GEO Secretariat by GEO membership, it is recommended that:

- **The formation and direction of a future RCHS-WG be supported by the GEO Secretariat Urban Resilience Coordinator.**

The following elements should be considered by the RCHS-WG:

- The proposed RCHS-WG ToR are reviewed and revised ensuring these are practical and fit-for-purpose and create the right incentives to ensure active participation and impact.
- Potential membership, including cities and their networks, is mapped and a call for membership is developed that ensures relevant partners are given the opportunity to be involved whilst ensuring the WG is of a size so as to remain effective.
- A flexible membership system based on actual engagement distinguishing “active” members and “observers” is implemented.
- A suitable structure for the WG to deliver against ToR is defined and agreed upon.
- A WG roadmap and related deliverables/tasks are designed in collaboration with other WGs, Participating Organizations, the GEO Work Programme activity leads including Regional GEOs.
- Content for the GEO website on the RCHS-WG and Urban Resilience Engagement Priority is developed and maintained up to date.

2.6 Summary and recommendations for the Data-WG

The performance of the Data-WG in terms of usefulness and impact over the period 2020-2022 has been assessed positively by the survey respondents. The interaction with the Programme Board appears strong, while the links with the GEO Work Programme can be improved, similarly to other WGs.

The participation of the Data-WG is seen as satisfactory although improvements in terms of diversity could be made, as well as having more representatives from the GEO Work Programme to enhance the usefulness and adoption of the many deliverables (existing or future).

Structure-wise, Data-WG members are satisfied with the working arrangements and the leadership (Co-Chairs and Subgroup Co-Leads) and wish to continue working the same way. Flexibility in terms of subgroups modification already exists and allows restructuring when needed. Secretariat support is highlighted as key to drive the WG efforts.

In terms of future priorities, continuity is privileged by the Data-WG members with focusing on interoperability of data (technical and legal), transition from open data to open knowledge principles and promotion of practical approaches to advance the use, sharing and management of data, especially in situ.

Based on this assessment, and subject to additional resource support to the GEO Secretariat by GEO membership, it is recommended that:

- **The Data-WG continue its activities with the support of GEO Secretariat GEOSS Coordinator and In Situ Data Specialist.**

The following improvements should be considered by the Data-WG:

- The WG roadmap and related deliverables/tasks are designed in collaboration with other WGs, Participating Organizations, the GEO Work Programme leads including Regional GEOs.
- A flexible membership system based on actual engagement distinguishing “active” members and “observers” is implemented.
- One physical WG meeting is organized in the context of other GEO events every year.
- An annual in-person technical event to support the Foundational Task “Data and Knowledge Management” is organized, in collaboration with relevant GEO bodies, and hosted by a GEO Member or Participating Organization.
- Content for the GEO website on the Data-WG is maintained up to date.

3 ANALYSIS OF SURVEY OUTCOMES

This section presents the analysis of the survey outcomes, where feedback on the WGs is presented by respondents’ role. Graphical representations are provided for multiple-

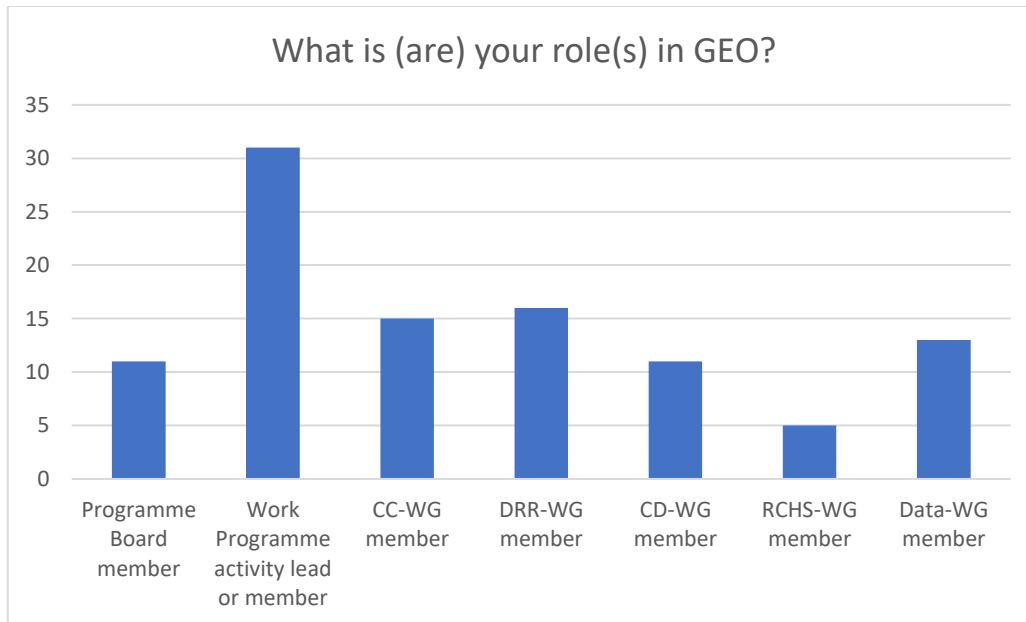
choice answers, while a summary of the overall sentiment and suggestions of the respondents is provided for open answers.

3.1 Respondents

A total of 70 respondents completed the survey in different capacities, generating the following responses according to the various roles:

- 11 GEO Programme Board members,
- 31 GEO Work Programme Activity leads or members,
- 15 CC-WG members,
- 16 DRR-WG members,
- 11 CD-WG members,
- 5 RCHS-WG members,
- 13 Data-WG members.

Overall, the responses are statistically meaningful and show that there are overlapping roles across the GEO bodies. However, individual WG responses may not be fully representative given the low numbers (only roughly 15 respondents out of 100 members per WG, or less). Also, a self-selection bias should be acknowledged, whereby those who responded to the survey are likely to be the most active members of the community.

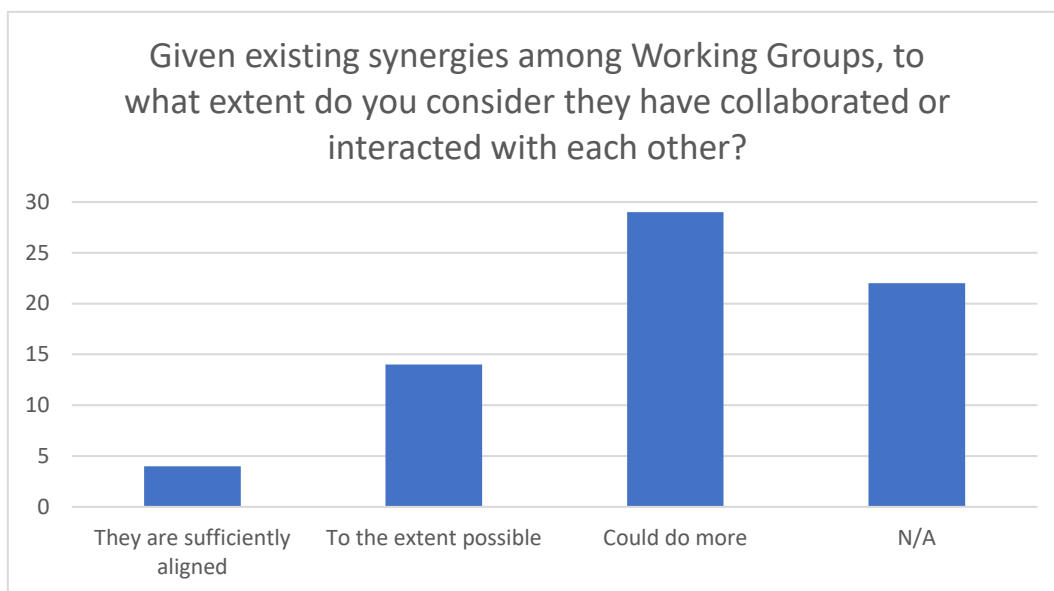


3.2 General feedback

- ***Given existing synergies among WGs, to what extent do you consider they have collaborated or interacted with each other?***

Most respondents concur that the WGs could do more (29) to collaborate or interact with each other, while many are not in the position to answer this question (22). On the

flip side, several think that the WGs are already collaborating to the extent possible (14) and are sufficiently aligned (4).



- ***Provide examples of successful collaborations among WGs or existing limitations.***

The sentiment about the ongoing collaboration among GEO WGs is mixed. Some comments suggest that there are clear barriers and overlaps between the WGs that need to be recognized and addressed through different approaches or separation of relevant actions per WG. However, others mention that there are already some synergies in the mechanisms of different WGs and collaboration happening (such as the cross-WG mapping of the GEO Work Programme, or promotion of GEO tools that support both climate change and DRR response strategies).

The lack of dedicated funding, time constraints, and the broad focus of the WGs are also identified as limiting factors.

Many comments suggest that there are natural synergies between different WGs, especially on issues like climate change, disaster risks, and urban resilience. However, some commenters have limited knowledge or experience of collaboration among different WGs, and language barriers can also be a limitation.

Overall, there seems to be a recognition that more efforts are needed to improve collaboration among different WGs within GEO. Some suggest that there is a need to better link the broad focus of WGs with the work of GEO Work Programme activities. Other suggestions include improving communications between WGs, integrating the achieved results of different WGs into one GEO infrastructure to be re-used by all others.

- ***What do you feel have been the most useful and positive aspects, as well as the least useful or negative aspects, of having the GEO WGs?***

Positive aspects mentioned by the respondents can be summarised as follows:

- GEO WGs are important for cross-Work Programme operation and for experts to exchange views and ideas on areas of mutual interest.
- Having the GEO WGs provides an umbrella for relevant GEO Work Programme activities and support to GEO engagement priorities for international positioning.
- Having experts on a specific topic is helpful, especially for onboarding of new members, and the WGs provide an avenue to concentrate on specific activities.
- Working on important global challenges and contributing to finding solutions via EO.
- Meeting people from other countries, networking, sharing opinions, and enriching knowledge, gathering expertise from different communities, particularly through the events organised.
- The DRR-WG greatly improved collective awareness of DRR activities across GEO and re-established a close working relationship with UNDRR.
- The CC-WG is critical for GEO and EO support to climate solutions.
- The Data-WG has served as a key coordinating activity within GEO for data related issues that are transversal to many other activities, specially the GEO Work Programme.

Negative aspects mentioned by the respondents can be summarised as follows:

- The GEO WGs add further complexity to an already extensive array of Flagships, Initiatives, Regional GEOs, etc.
- It is not well-determined if the activities of the WGs have any direct impact on Work Programme activities.
- The broad area of competence of WGs may have favoured the fragmentation of specific themes addressed by GEO Work Programme activities.
- There are duplicate activities by some WGs, which can be overcome by joint actions.
- There is inadequate engagement of members, perhaps due to the lack of clear tasks, lack of leadership by Co-chairs and changes in GEO Secretariat coordinators, on whom generally the bulk of this work falls.
- The language and timing of some WG activities can be a limitation for effective participation.
- There is a lack of dedicated funding and resources for WG activities.
- The WGs were established by top-down appointments which produced large groups, but not very effective day-to-day engagement.
- The membership of some WGs appears biased towards government, research, and NGOs, which may not represent a cross-section of the wider society.

3.3 Feedback by Programme Board members

- **How satisfied are you with the overall interaction between Programme Board and the GEO WGs?**

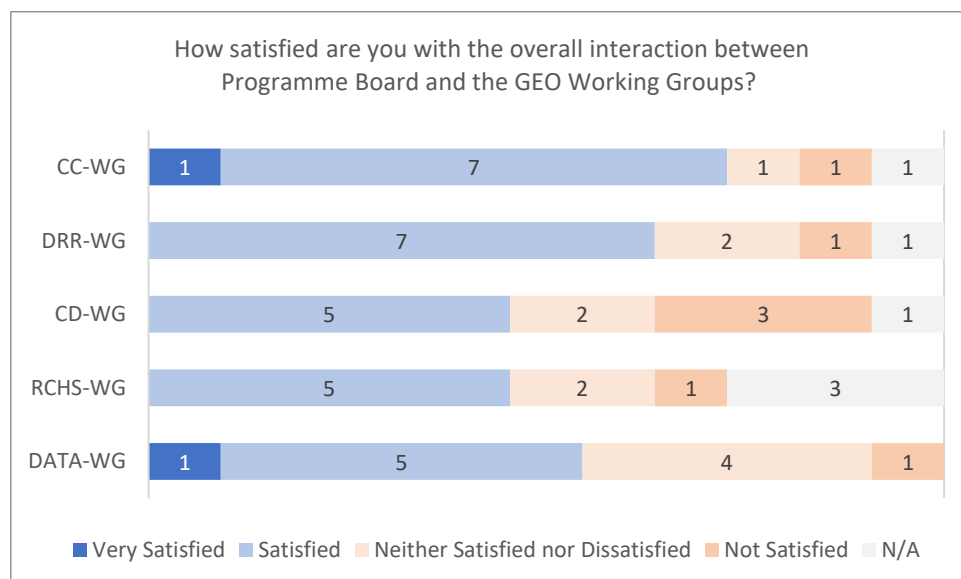
The Programme Board members who responded to the survey are generally satisfied (7) and in one case very satisfied (1) with the interaction with the CC-WG, with a couple of individuals neither satisfied nor dissatisfied (1) or not satisfied (1).

They are also generally satisfied (7) with the DRR-WG, with a few members neither satisfied nor dissatisfied (2) or not satisfied (1).

They seem to have mixed impressions about the CD-WG, with some members being satisfied (5) and a similar number being neither satisfied nor dissatisfied (2) or not satisfied (3).

They seem to have also mixed impressions about the RCHS-WG, with some members being satisfied (5) and others being neither satisfied nor dissatisfied (2) or not satisfied (1), though in this case more were not in the position to answer (3).

Similarly, they are generally satisfied (5) and in one case very satisfied (1) with the Data-WG, however several members are neither satisfied nor dissatisfied (4) or not satisfied (1).



- **Explain your rating.**

The reported satisfaction level of Programme Board members regarding their interaction with GEO WGs is mixed. On one hand some Programme Board members feel that they are not having enough interaction with the WGs, on the other hand, a member commented that fewer emails/requests for input would be appreciated.

The CD-WG is perceived to be behind in development, and the RCHS-WG is too early to rate. At the same time, the CC-WG, DRR-WG and Data-WG coordinators are

commended for providing useful updates during Programme Board meetings. The CC-WG is seen as more structured and with clear targets around policy processes, while this is less obvious for other WGs. There is a desire for more lively discussions to guide the work and priorities of the WGs, especially for the Data-WG, which is sensitive in nature.

Overall, the WGs are performing well according to Programme Board members, while there is room for improvement in interaction and communication with the Programme Board.

3.4 Feedback by Work Programme leads and members

- ***Representation of GEO Work Programme activities.***

The following GEO Work Programme activities were represented in the survey, showing a high level of participation (26 activities out of 48):

1. African Group on Earth Observations (AFRIGEO)
2. Americas Group on Earth Observations (AMERIGEO)
3. Antarctic Ice Sheet Monitoring (AIS-MONITORING)
4. AquaWatch (AQUAWATCH)
5. Asia-Oceania Group on Earth Observations (AOGEO)
6. Data Integration and Analysis System (DIAS)
7. Earth Observations for Global Typical Karst (EO₄KARST)
8. Earth Observations for Health (EO₄HEALTH)
9. Forest Biomass Reference System from Tree-by-Tree Inventory Data (GEO-TREES)
10. GEO Blue Planet (GEO-BLUE-PLANET)
11. GEO Citizen Science (GEO-CITSCI)
12. GEO Cold Regions Initiative (GEOCRI)
13. GEO Global Water Sustainability (GEOGLOWS)
14. GEO Human Planet (HUMAN-PLANET)
15. GEO Land Degradation Neutrality (GEO-LDN)
16. GEO Vision for Energy (GEO-VENER)
17. Geohazard Supersites and Natural Laboratories (GSNL)
18. Global Ecosystems and Environment Observation Analysis Research Cooperation (GEOARC)
19. Global Network for Observations and Information in Mountain Environments (GEO-MOUNTAINS)
20. Global Observation System for Persistent Organic Pollutants (GOS₄POPS)
21. Global Urban Observation and Information (GUOI)
22. Global Vegetation Pest and Disease Dynamic Remote Sensing Monitoring and Forecasting (GEO-PDRS)
23. In-Situ Observations and Applications for Ecosystem Status of China and Central Asia (IN-SITU-ESC)

- 24. Night-Time Light Remote Sensing for Sustainable Development Goals (NIGHT-LIGHT)
- 25. Space and Security (SPACE-SECURITY)
- 26. Urban Heritage Climate Observatory (UHCO)

- ***How satisfied are you with the overall engagement with and input of the GEO WGs to GEO Work Programme activities?***

The GEO Work Programme leads and members who responded to the survey are very satisfied (6) or at least satisfied (6) with the overall engagement with and input of the CC-WG to their activities, with several members being neither satisfied nor dissatisfied (8) and only a few not satisfied (3).

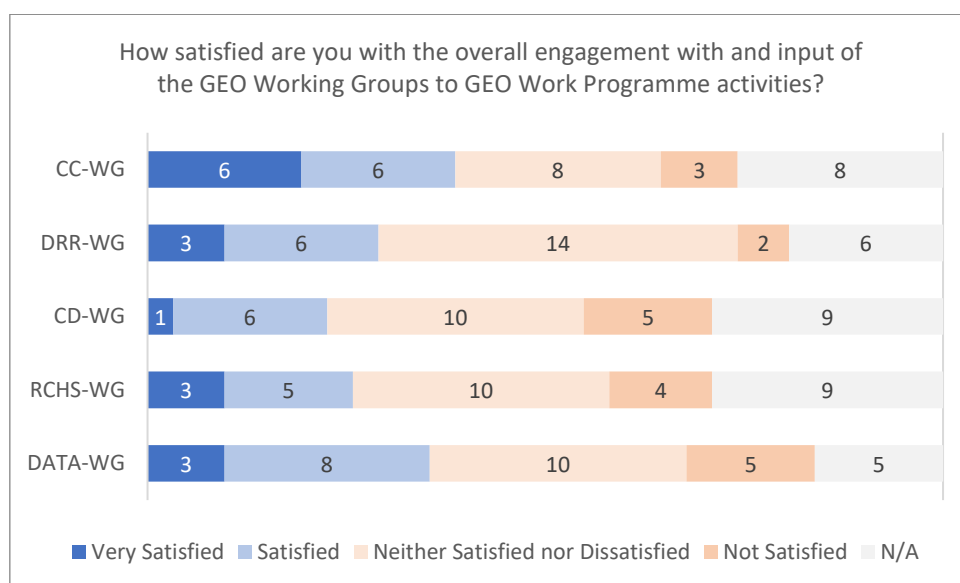
They are also generally satisfied (6) and very satisfied (3) with the DRR-WG, however most members are neither satisfied nor dissatisfied (14), while only a couple are not satisfied (2).

They have mixed impressions about the CD-WG, with several members being satisfied (6) and very satisfied (1) and a similar number being not satisfied (5) as well as many neither satisfied nor dissatisfied (10).

They are generally satisfied (5) and some very satisfied (3) with the RCHS-WG, while many are neither satisfied nor dissatisfied (10) and some are not satisfied (4).

Similarly, they are generally satisfied (8) and some very satisfied (3) of the Data-WG, while many are neither satisfied nor dissatisfied (10) and some are not satisfied (5).

It should be noted that a relatively high number of GEO Work Programme members were not in the position to answer the question possibly due to lack of involvement in the WGs.



- ***Explain your rating.***

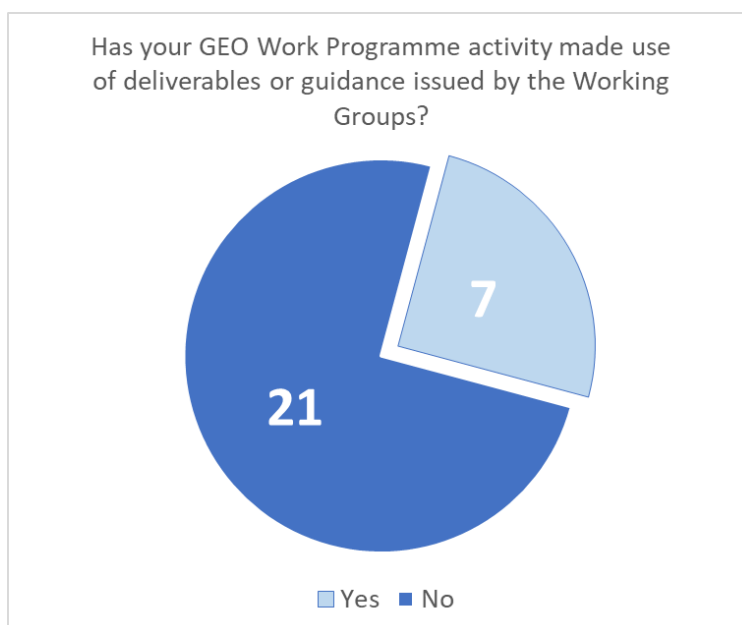
The comments provide mixed feedback on the WGs and their relationship with the GEO Work Programme. The GEO Work Programme members suggest that there is some confusion around the relationship between the WGs and the GEO Engagement Priorities, and how they intersect, integrate or coordinate activities with Regional GEOs. Some members feel that the existence of the WGs adds another layer of complexity to the GEO priorities and programmes, and in general there is little engagement between the WGs and the Work Programme.

Nevertheless, others are satisfied with the work of specific WGs such as the CC-WG and DRR-WG. Some members feel that the WG coordinators are doing their job to promote Work Programme activities and connect the dots or find opportunities for uptake and scaling-up, but they miss engagement with the whole WG to advise, help, or even be involved, when interested.

Overall, there is a need for better coordination and more communication among the WGs and GEO flagships and initiatives.

- ***Has your GEO Work Programme activity made use of deliverables or guidance issued by the WGs?***

The majority of GEO Work Programme leads and members who responded stated that they have not made use of deliverables or guidance issued by the WGs so far (21), with only a few answering positively (7).



- ***If yes, explain what and how.***

The deliverables or guidance that are being used by GEO Work Programme activity leads or members include the GEO Knowledge Hub and the Data Management and Data

Sharing Principles and Implementation Guidelines offered under the Data-WG, as well as capacity development materials for courses offered under the CD-WG.

It should be noted that the other WGs generally do not provide deliverables for the use of GEO Work Programme itself, rather they promote the EO-based tools and solutions generated by the GEO Work Programme activities for uptake by policy makers in the context of international agendas.

- ***How can the WGs better support your specific GEO Work Programme activity going forward?***

The suggestions for WGs to better support GEO Work Programme activities going forward include the organization of online events, dissemination of short reports, and promotion of plans or achievements through the WG to the Programme Board, the GEO Work Programme, the whole GEO community, and outside GEO.

It is suggested that the WGs serve as an umbrella, especially for less mature initiatives, for boosting or realigning activities. Specific WGs can provide support to other groups by sharing their progress and techniques, notably training and workshops. More GEO initiatives should be promoted for better visibility, and opportunities for collaborative GEO blog articles and social media campaigns should be explored to increase visibility.

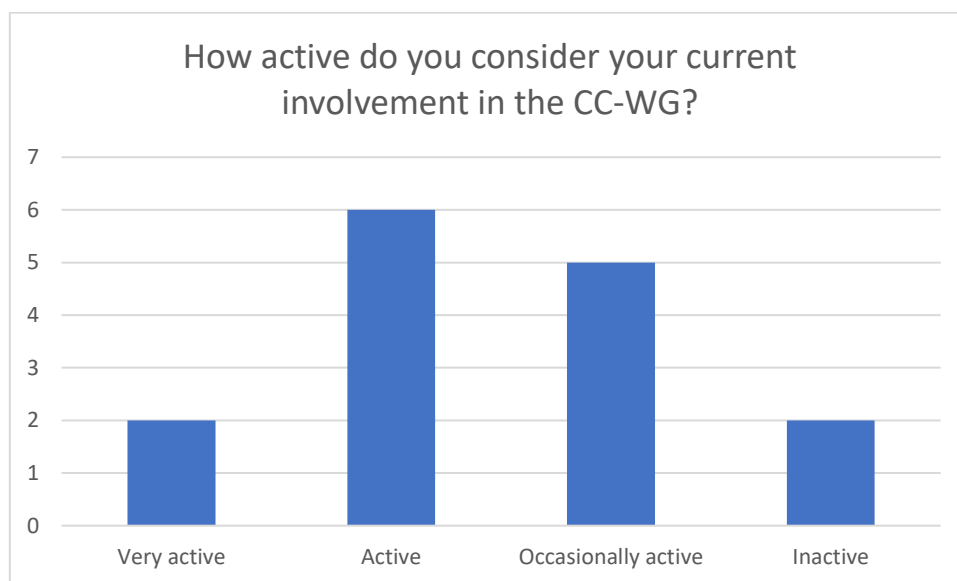
Overall, there should be more focus on delivering activities, more direct sharing of results and tools, more frequent exchange of progress, and better alignment of general objectives between Work Programme activities and the WGs.

One way to do this is to consider having the GEO Work Programme representatives as members or as observers engaged in the WG. However, due to resource limitations and numerous demands on GEO Work Programme activities, it would be important to hold relevant results-oriented and potentially joint WG meetings.

3.5 Feedback by CC-WG members

- ***How active do you consider your current involvement in the CC-WG?***

Most CC-WG members who responded to the survey define themselves as active (6), participating in most WG meetings and having contributed to one deliverable or none, or occasionally active (5), occasionally participating in WG meetings without contributing to specific deliverables.



- ***Explain how you are active or which obstacles are preventing you from increasing your engagement with the CC-WG.***

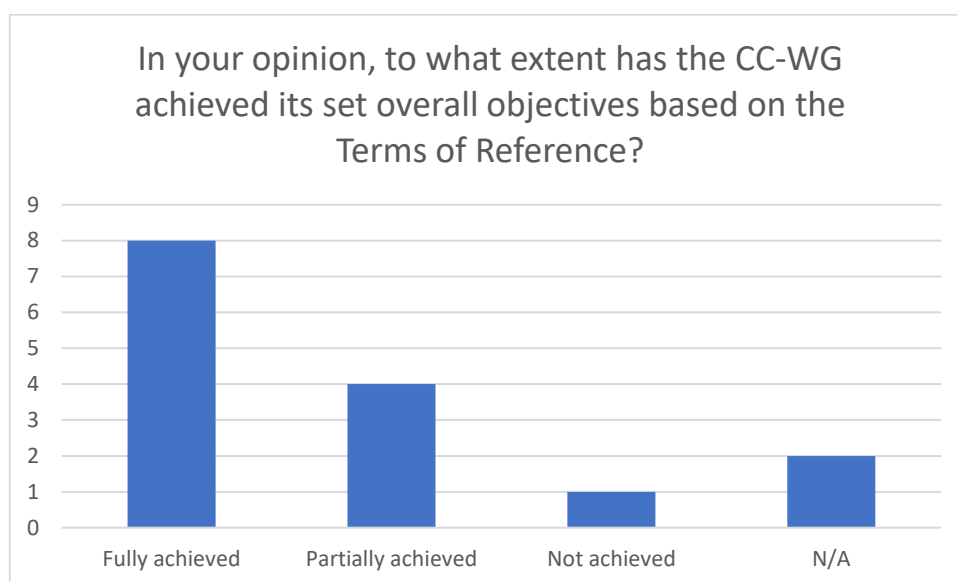
There are reportedly varying levels of engagement among members of the CC-WG. Some members are actively participating in meetings and contributing to the development of deliverables, for instance the technical guidance for National Adaptation Plans (NAPs). Others are new to the group and are still trying to understand the evolution of the work.

Some members are constrained by slow or no internet services, time zone differences, or time availability due to involvement in other GEO processes and other competing work obligations, especially involving online meetings. Limited communication or limited consideration of key topics of interest (for instance, renewable energy and Loss and Damage) within the CC-WG are cited as obstacles preventing some members from being active. One member suggests that the WG should be less bureaucratic and have fewer but well-structured and outcome-oriented meetings to focus attention and purpose, while another suggests that regular overviews for newcomers should be provided. There are also suggestions to reformulate the CC-WG's structure and operation to incentivize greater participation.

Overall, there seems to be a call for more communication and engagement to keep members informed and motivated.

- ***In your opinion, to what extent has the CC-WG achieved its set overall objectives based on the Terms of Reference?***

Most CC-WG members consider that the WG has fully achieved (8) or at least partially achieved (4) its objectives based on its Terms of Reference.



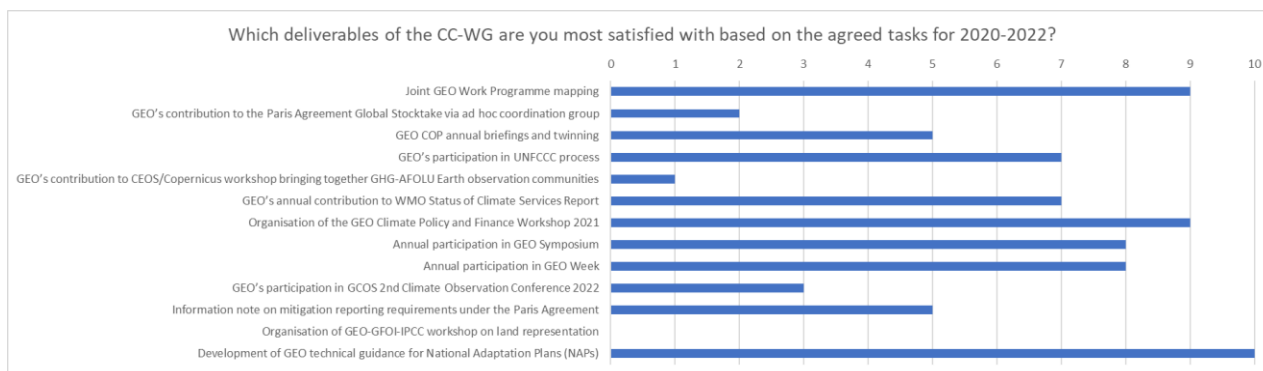
- **Which deliverables of the CC-WG are you most satisfied with based on the agreed tasks for 2020-2022?**

The CC-WG members are most satisfied with the following deliverables:

- 1) Development of the GEO technical guidance for NAPs (10)
- 2) Joint GEO Work Programme mapping (9), and
- 3) Organisation of the GEO Climate Policy and Finance Workshop 2021 (9).

Also, the members are appreciative of the WG’s annual participation in the GEO Symposium (8) and in the GEO Week (8). As well as the efforts of the WG in promoting GEO’s participation in the UNFCCC process (7) and GEO’s contribution to the annual WMO Status of Climate Services Report (7).

It should be noted that the deliverables that scored better are the ones that also received most visibility as they addressed general themes. Thematically, the deliverables involving climate adaptation and NAP seem to be of interest to a broader group compared to those involving Agriculture, Forestry, and Other Land Use (AFOLU).



- ***In your opinion, do you think the current CC-WG governance and working arrangements are satisfactory in terms of effectiveness and sustainability?***

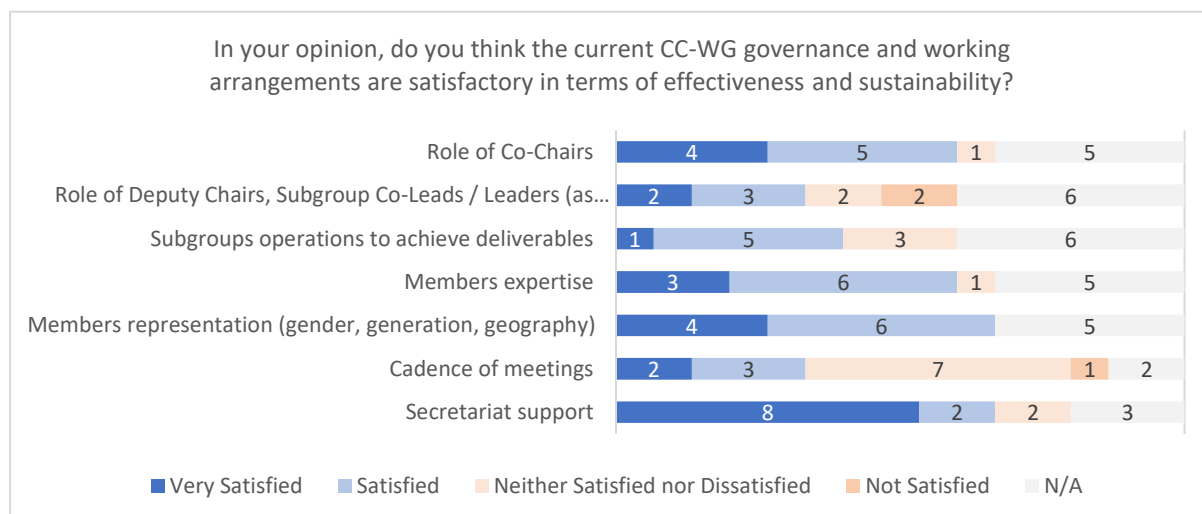
The CC-WG members are very satisfied (5) or at least generally satisfied (4) with the role of the four Co-Chairs, while they do not know (6) or have less positive feedback about the role of Deputy Chairs as this position has not been implemented in the day-to-day operations of this WG, despite being originally proposed as supporting role.

Most members do not have an opinion on subgroups’ operations (6), possibly because they have not been involved in developing specific deliverables, though several members are generally satisfied (5) with the current subgroups’ work.

Most respondents are also quite happy with the overall expertise of the WG’s members (6) as well as their representation across gender, generation, and geography (6), though some do not know how to answer these questions (5).

There are mixed feelings about the cadence of meetings, which is currently about three times a year for the full CC-WG and on an ad hoc basis for the individual subgroups, with most members being neither satisfied nor dissatisfied (7), though some are very satisfied (2) and some not satisfied at all (1).

Most CC-WG members are very satisfied with the Secretariat support (8).



- ***Explain your rating.***

Overall, the CC-WG has made significant progress and achievements according to its members, such as establishing strong connections with UNFCCC and IPCC, identifying climate change-related work packages, and delivering the first GEO technical guidance for NAPs with broad impacts. However, there are still some perceived areas of improvement, such as bridging the gap between climate change science/policy and EO communities and encouraging more engagement from WG members to make even broader impacts. Some members have expressed concerns about a disconnect between the process and individual involvement and awareness, irregular meetings, and

difficulty engaging members within the current structure. It is suggested that some aspects of the work plan require more regular, and in-person interactions or breakout brainstorming sessions to streamline and carry all members along. Nevertheless, the CC-WG has reportedly received excellent Secretariat support, and some members have had strong engagement in specific tasks.

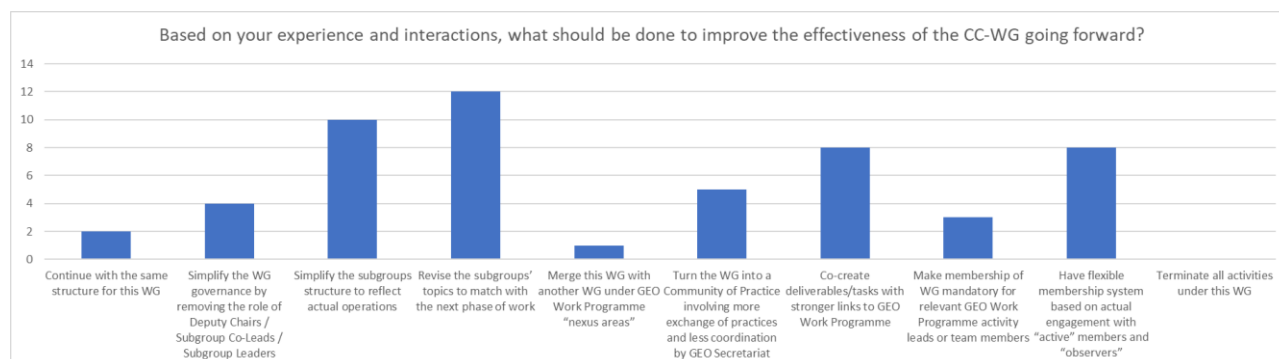
- **Based on your experience and interactions, what should be done to improve the effectiveness of the CC-WG going forward?**

The CC-WG members strongly agree that it is necessary to revise the subgroups’ topics to match with the next phase of work (12) and simplify the subgroups’ structure to reflect actual operations (10).

Other preferred options to improve the effectiveness of the CC-WG include co-creating deliverables/tasks with stronger links to the GEO Work Programme (8) and turn the WG into a Community of Practice involving more exchange of practices and less coordination by the GEO Secretariat (5).

In terms of membership, most would like to have a flexible membership system based on actual engagement distinguishing “active” members and “observers” (8).

Significantly, no one wishes to terminate the activities under this WG.



- **Provide details.**

The CC-WG members suggest implementing the options proposed above. Notably, refining the scope and priorities for the WG and each subgroup, aligning with “nexus areas”, and increasing participation from key organizations. They also recommend a smaller operational scheme with active members meeting more frequently than observers, having relevant GEO Work Programme representatives take an active role on specific topics, and providing horizontal mandates to GEO activities for alignment within the Work Programme.

Additionally, they suggest evaluating how GEO can add value to NAPs and other UNFCCC processes, which could lead to the formation of new subgroups and products in collaboration with the UNFCCC.

The overall sentiment is to encourage and strengthen participation and collaboration for meaningful and impactful results while developing the next phase of the WG roadmap and subgroup work plans. It is recommended to ensure an official formal physical meeting of the CC-WG at any of the in-person meetings of GEO, such as the GEO Week, with possible travel support for active members to attend.

- ***In your opinion, what should be the priority activity of the CC-WG going forward, in line with its Terms of Reference?***

The CC-WG members suggest that the CC-WG prioritizes actions that deliver tangible outcomes and operational tools, particularly for supporting climate adaptation, while also working to align GEO activities with the broader global climate change community.

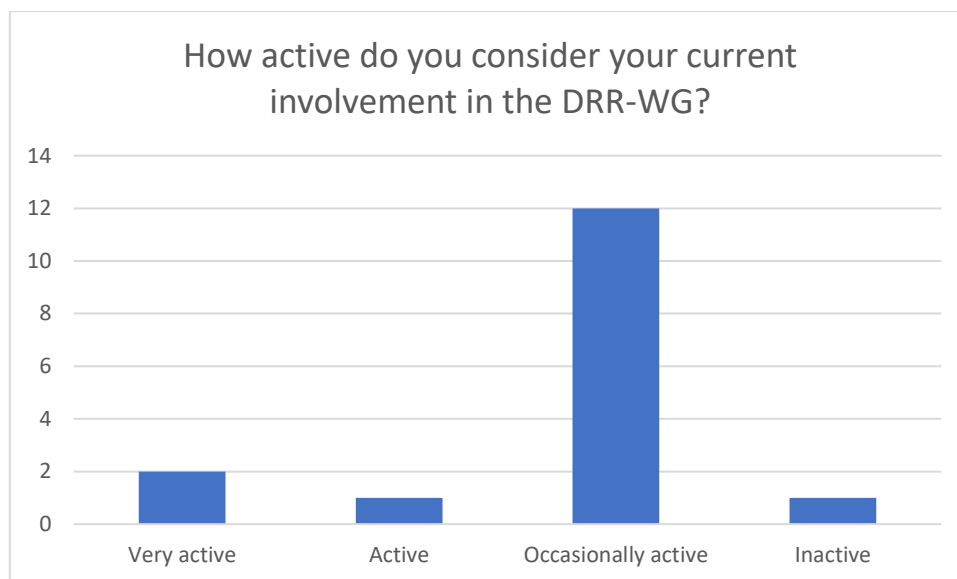
Proposed priority activities of the CC-WG include:

- 1) Continuing the positioning of GEO in the global climate change agenda, including the UNFCCC and IPCC.
- 2) Continue mapping climate change solutions in current GEO Work Programme and connecting or integrating these efforts to enhance GEO impacts in climate actions.
- 3) Promoting the use of EO for GHGs sources and sinks assessment, loss and damage monitoring, and climate change adaptation potential and options.
- 4) Integrating GEO Work Programme activities to support climate change mitigation and adaptation, including developing tools focused on climate-related disaster risk reduction, delivering EO data for climate risk assessments, and providing capacity development and guidance for using EO in monitoring climate change adaptation.
- 5) Evaluating how GEO can support countries in their NAP processes and approaches to avoid, minimize, and address losses and damages, including developing complementary guidance on using EO to monitor and evaluate the impacts of climate change, vulnerability, risks, and adaptation responses in multiple sectors and scales. Additionally, linking EO with nature-based mitigation, ecosystem management, and biodiversity.
- 6) Working with member countries and cities/regions to advance the collection and use of EO, particularly in situ, to support countries' and international organizations' work on climate science and assessments and enhance societal response strategies.
- 7) Delivering operational tools based on EO to support future political choices, with less focus on representation and more on actions.
- 8) Targeting support for climate action by communities in Africa most affected by climate change.

3.6 Feedback by DRR-WG members

- ***How active do you consider your current involvement in the DRR-WG?***

Most DRR-WG members who responded to the survey define themselves as occasionally active (12), occasionally participating in WG meetings without contributing to specific deliverables. There are a few very active members (2) who attend most meetings and have contributed to more than 1 deliverable, an active (1) member who attend most meetings and have contributed to 1 deliverable or one and one (1) respondent with inactive participation.



- ***Explain how you are active or which obstacles are preventing you from increasing your engagement with the DRR-WG.***

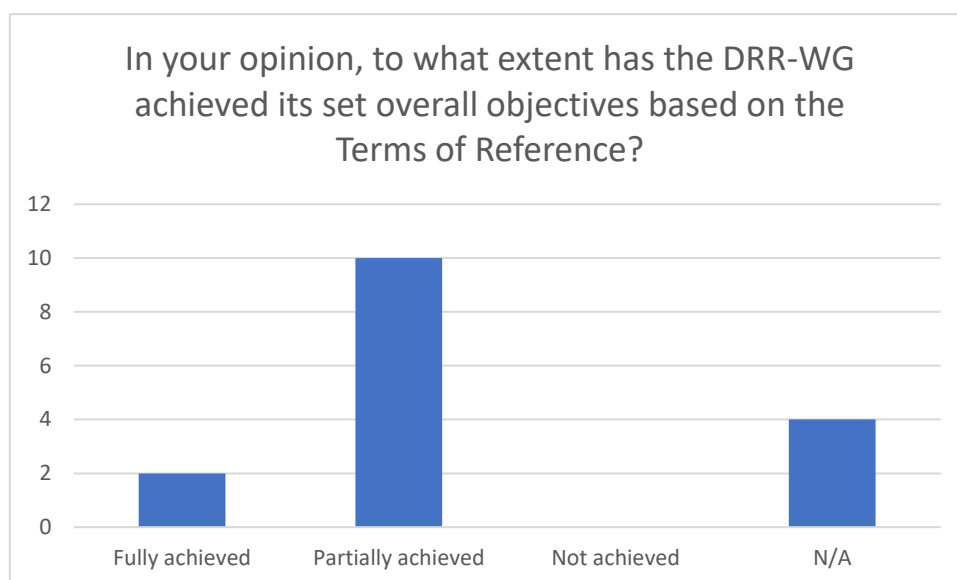
There are varying levels of engagement among members of the DRR-WG. Some members have played leadership role as a Co-Chair or actively participating in meetings and contributing to the development of deliverables, such as jointly working on scientific publications and supporting the update of EO for systemic risk in Jamaica. Others are new to the group and are still trying to understand the evolution of the work.

Many comments from the DRR-WG members are about obstacles that have prevented them from increasing their engagement with the WG. There are four members who raised the issue of language barrier, time zone differences, time availability due to involvement in other competing work obligations or lack of opportunity to start new WG activities. There are 2 comments on the lack of connectivity with their activities by the GEO Work Programme activities, including regional and National GEOs. Focus on policy discussions rather than more specific technical discussions or activities of their interests and expertise within the DRR-WG are also cited as obstacles preventing some members from being active. The members expressed their willingness in increasing their contributions to the WG as they stated that they follow the WG meeting outcome documents, looking out for new opportunities. One member is constrained by slow or no internet services. Another member suggests that that working group makes periodic reminders on the evolution of the work for the new members.

Overall, the members called for new DRR-WG activities to better leverage their technical and scientific expertise as well as their ongoing commitments and engagements within GEO Work Programme activities, regional and national GEO, or any other by the GEO community. Increased coordination and synergies are needed to keep them interested and motivated to work on activities of the GEO DRR-WG.

- ***In your opinion, to what extent has the DRR-WG achieved its set overall objectives based on the Terms of Reference?***

Most DRR-WG members consider that the WG has fully achieved (2) or at least partially achieved (10) its objectives based on its Terms of Reference. The several (4) members chose “don’t know/ not applicable.”



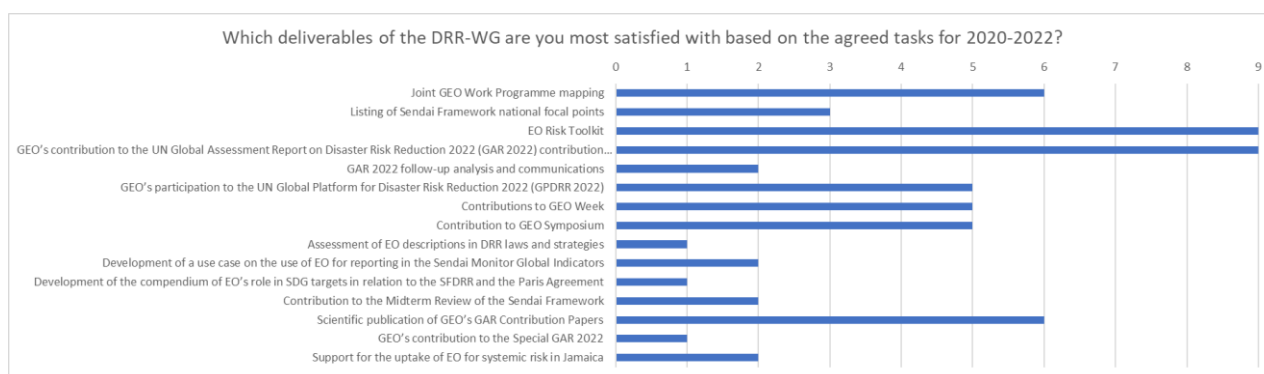
- ***Which deliverables of the DRR-WG are you most satisfied with based on the agreed tasks for 2020-2022?***

The DRR-WG members are most satisfied with the following deliverables:

- 1) EO Risk Toolkit (9);
- 2) GEO’s contribution to the UN Global Assessment Report on Disaster Risk Reduction 2022 (GAR 2022) contribution paper (9);
- 3) Joint GEO Work Programme mapping (6); and
- 4) Scientific publication of GEO’s GAR Contribution Papers (6).

Also, the members are appreciative of the WG’s annual participation in the UN Global Platform for Disaster Risk Reduction 2022 (GPDRR 2022) (5), GEO Week (5) and GEO Symposium (5). Others have valued the efforts of the WG in Listing of Sendai Framework national focal points (3) and other activities related to GEO’s contribution to UNDRR GAR follow-up analysis, reporting the Sendai Monitor Global indicators, midterm review, and uptake of EO for systemic risk (2 for each).

It should be noted that the deliverables that scored better are collaboration with UNDRR, GEO Work Programme activities, POs and members on joint events and joint publications and communications that raises visibility of EO activities for increasing policy and programmatic contributions.

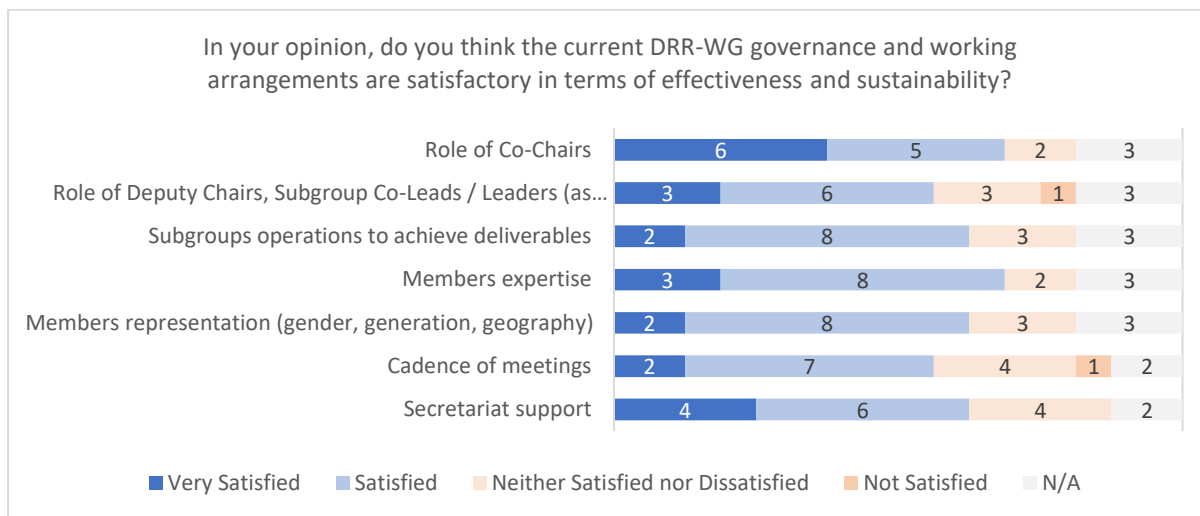


- ***In your opinion, do you think the current DRR-WG governance and working arrangements are satisfactory in terms of effectiveness and sustainability?***

The DRR-WG members are very satisfied (6) or at least generally satisfied (5) with the role of the three Co-Chairs. The view on the role of Deputy Chairs is generally good with very satisfied (3), satisfied (6) answers. Similarly, most respondents are very satisfied (2) or satisfied (8) about subgroups' operations. However, there is a strong dissatisfaction expressed about the lack of contributions made by some deputies.

Most respondents are also quite happy with the overall expertise of the WG's members (11) as well as their representation across gender, generation, and geography (11), though a few do not know how to answer these questions (3).

Generally well-received is the cadence of meetings which is currently about three times a year for the full DRR-WG and on an ad hoc basis for the individual subgroups, with most members being very satisfied (2) or satisfied (7), though one member is not satisfied at all.



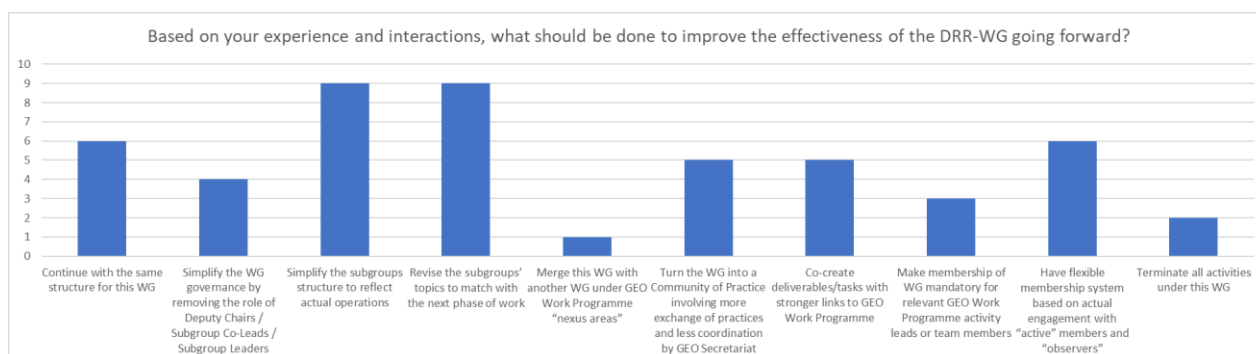
- **Explain your rating.**

Overall sentiment of the DRR-WG indicates room for improvement. Some comments noted the progress and achievements as well as the value of showcasing the working group deliverables through the websites and events and appreciating the Secretariat’s support. Some subgroup activities, such as collaboration with Jamaica, have succeeded in securing leaderships and commitments (time and resources) from Co-Chairs, deputy Co-Chairs as well as members. But not all activities are well-supported and more leadership are sought out as roles played by some of deputy Co-Chairs are “essentially non-existent.” It is suggested that working group develops more targeted yet flexible approach in implementing the work plans with a simpler organizational and leadership structure that enables the WG to have more sustainable governance with enhanced leadership, especially by deputies, and therefore to make more progress.

- **Based on your experience and interactions, what should be done to improve the effectiveness of the DRR-WG going forward?**

While six people are content about the way it has been, more DRR-WG members demand some adjustments, especially about its subgroups. The most popular suggestion is revising the subgroup’s topics to match with the next phase of work (9). Equally supported (9) is simplifying the subgroups structure to reflect actual operations (9). Although 4 members are against removing the role of deputy chairs, a response points out a discrepancy of some deputies’ actual leadership, suggesting a review of their leadership. Also popular is the idea of having flexible membership system based on actual engagement on actual engagement with “active” members and “observers” (6).

Other preferred options to improve the effectiveness of the DRR-WG include co-creating deliverables/tasks with stronger links to the GEO Work Programme (5) and turn the WG into a Community of Practice involving more exchange of practices and less coordination by the GEO Secretariat (5). Less number (3) of support was given to the option of making membership of WG mandatory for relevant GEO Work Programme activities. Two respondents wish to terminate the activities under this WG.



- **Provide details.**

Other suggestions from the DRR-WG members are to facilitate more involvement and support for Spanish speaking-members in order to promote sharing of regional and national experiences. There is a request to have an introductory meeting for new members to better familiarize themselves with GEO as an organization, WGs and subgroups. Also, there is a suggestion to involve relevant Communities of Practice. Another member suggested an increased efficiency and flexibility to adjust the meeting topics of discussion ahead of time.

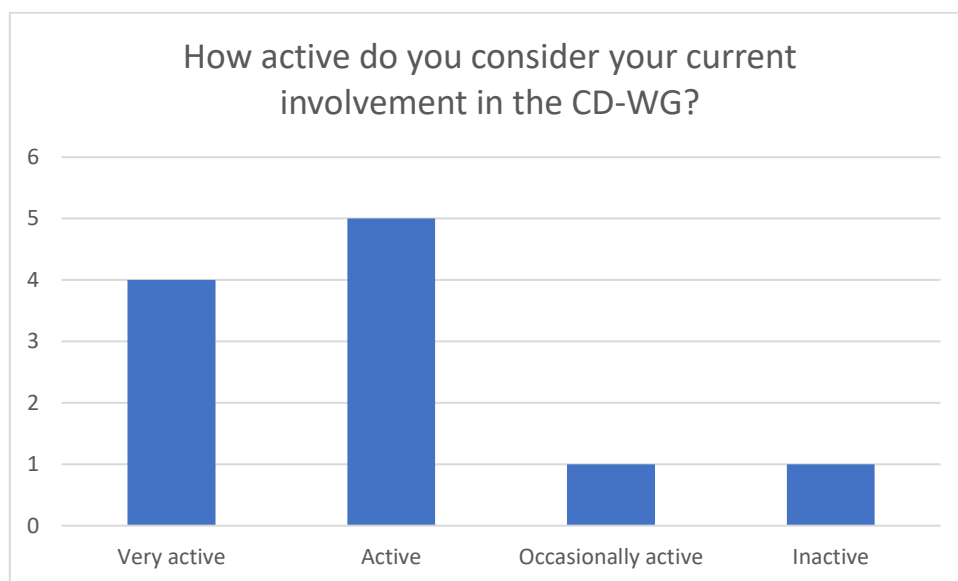
- ***In your opinion, what should be the priority activity of the DRR-WG going forward, in line with its Terms of Reference?***

The DRR-WG members suggest that the DRR-WG prioritizes actions that deliver tangible outcomes and contribute to initiation of new activities, pilots, case studies, EO solution developments and policy and programmatic support, especially at country level. In doing so, they emphasized the importance of co-creation with stakeholders leveraging GEO’s vast network. The responses support increased coordination and collaboration with other WGs, such as capacity building while building stronger linkages with GEO Work Programme activities. Also identified is the collection of national examples beyond the current GEO Work Programme activities on the use of EO to support country programmes. Generally, the recent coordination workshop on DRR/multihazard is the kind of approach that DRR-WG members are asking for.

3.7 Feedback by CD-WG members

- ***How active do you consider your current involvement in the CD-WG (from 2020-2021)?***

Most CD-WG members who responded to the survey described themselves as active (5), participating in WG meetings and contributing to one deliverable or none. This is closely followed by CD-WG members who described themselves as very active (4), participating in most WG meetings and contributing to several deliverables.

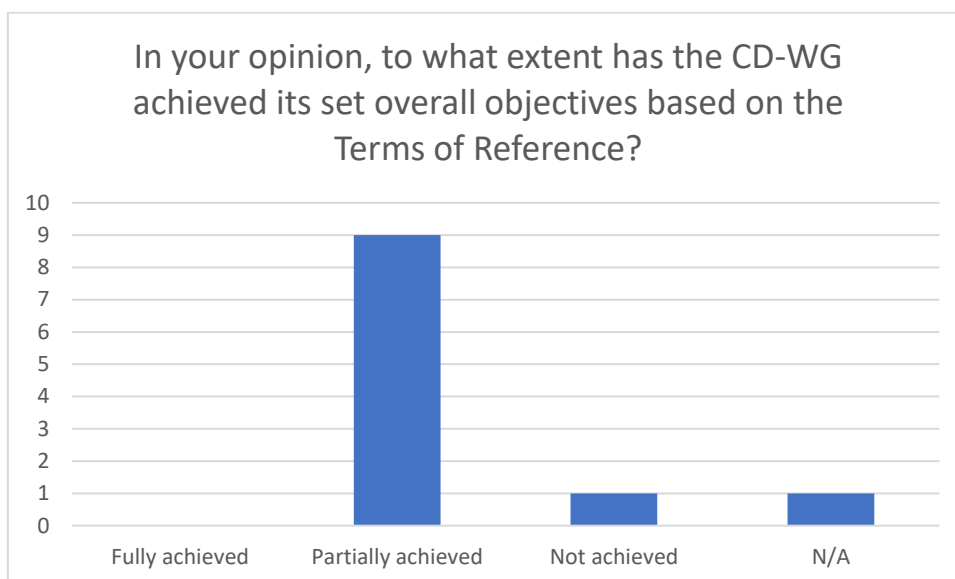


- ***Explain how you are active or which obstacles are preventing you from increasing your engagement with the CD-WG.***

Based on the feedback from CD-WG members, there are varied levels of engagement due to several reasons. Some members who were active in the WG activities stated that they were co-chairs or actively engaged in the GEO community through the GEO Work Programme or other engagements within GEO such as the Open Knowledge Principles, and AmeriGEO. On the other side, some members stated that their heavy involvement in several GEO meetings makes it a challenge to be active in the CD-WG. Other members who were not active indicated stated multiple factors including conflicting busy work schedules and official travel obligations, time zone differences, and language barriers. Other members indicated that their capacity development expertise and focus areas of work (e.g., meteorological measurements in mountain environment) were not entirely aligned with defined tasks in the WG and thus made it difficult to fully contribute. For some members with French or Spanish as their main language, communication was a major barrier to their active participation in the WG. Other communication barriers stated by some WG members included unreliable internet and not receiving emails from the WG.

- ***In your opinion, to what extent has the CD-WG achieved its set overall objectives based on the Terms of Reference?***

Most CD-WG members who responded to the survey indicated that the WG partially achieved (9) its objectives based on the Terms of Reference.

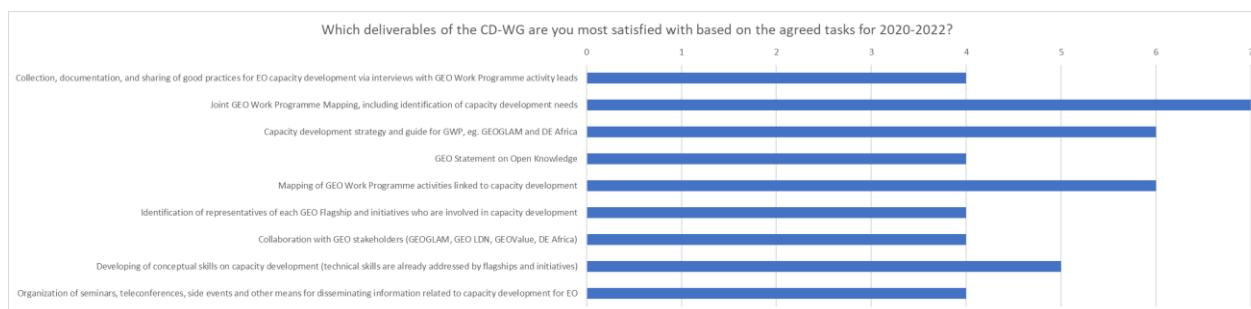


- **Which deliverables of the CD-WG are you most satisfied with based on the agreed tasks for 2020-2022?**

The CD-WG members are most satisfied with the following deliverables:

- 1) Joint GEO Work Programme Mapping (7)
- 2) Capacity Development Strategy and guide for GEO Work Programme (6)
- 3) Mapping GEO Work Programme activities linked to capacity development (6)

Some CD-WG members are appreciative (5) of the deliverable on developing conceptual skills in capacity development. Other members are appreciative of WG’s work on the - collection, documentation and sharing of good practices for EO capacity development via interviews with GEO Work Programme activity leads (4), GEO Statement on Open Knowledge (4), identification of representative of each GEO flagship and initiatives involved in capacity development (4), collaboration with GEO stakeholders (GEOGLAM, GEO-LDN, GEOValue, DE Africa) (4), and organization of seminars, teleconferences, side events and other means of disseminating information on capacity development for EO (4).



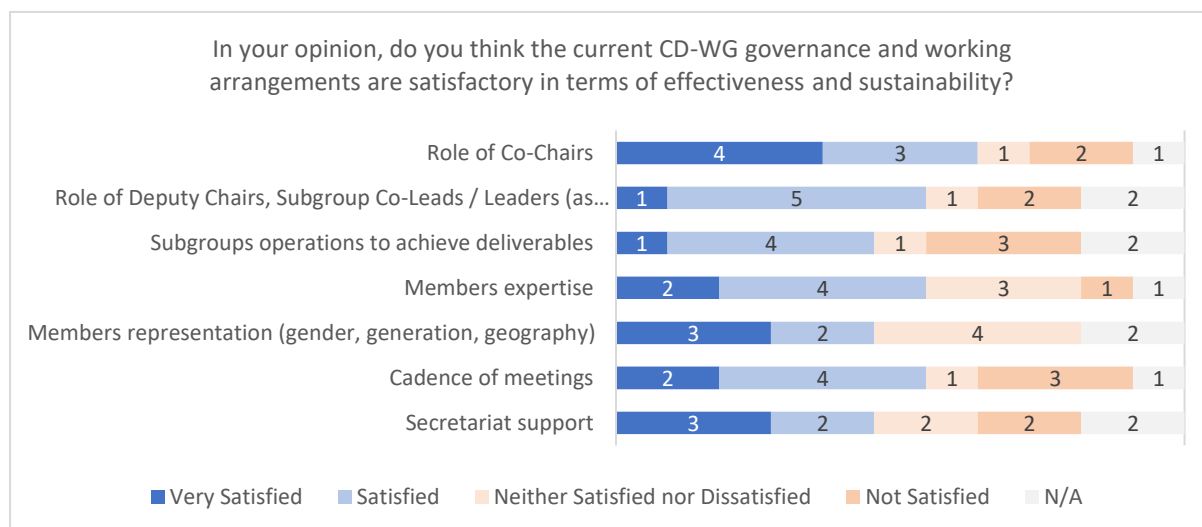
- **In your opinion, do you think the current CD-WG governance and working arrangements are satisfactory in terms of effectiveness and sustainability?**

The CD-WG members are very satisfied (5) or satisfied (3) with the role of the two Co-chairs while some members have less positive feedback (3) and or do not know (1) the role of the two Co-chairs.

CD-WG members are very satisfied (1) or satisfied with the roles of the deputy chairs, sub-groups co-leads/ leaders.

CD-WG members are very satisfied (1) or satisfied (4) with the role of the subgroup operations to achieve deliverables while other members are less satisfied (4) or do not know the role of the subgroups’ work.

The CD-WG members are very satisfied (2) or very satisfied (4) with the overall expertise of the WG members while some members are less satisfied (4) or do not know (1). Some CD-WG members were very satisfied (3) or satisfied (2) with the representation of members on gender, generation, and geography while other members are less satisfied (4) or did not know (1). Most CD-WG members are very satisfied (2) or satisfied (4) with the cadence of meetings while others are less satisfied (4) or do not know (1). Some CD-WG members are very satisfied (3) or satisfied (2) with the Secretariat support while others are less satisfied (4) or do not know (2).



- ***Explain your rating.***

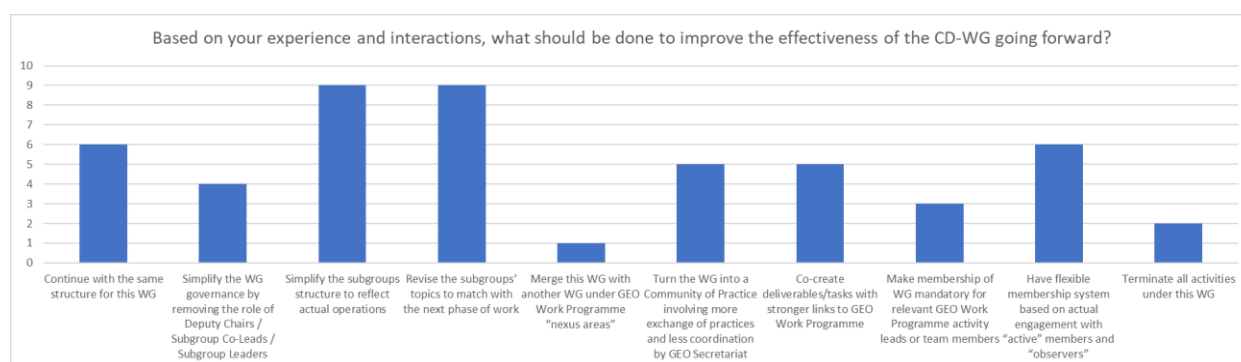
In general, the CD-WG met their expectations for the group's overall goals. However, a small core group of active members have successfully contributed to the deliverables. Some members also mentioned that the WG has not been able to organize concrete CD activities around the GEO Work Programme activities. Over the period, the WG has not met regularly, and this has created inactivity among the groups. Some members are also of the view that there is a lack of clarity regarding the roles of co-chairs and Secretariat coordinators.

- ***Based on your experience and interactions, what should be done to improve the effectiveness of the CD-WG going forward?***

Most CD-WG members strongly agreed that it will be necessary to revise the subgroups’ topics to match the next phase of work (9) and simplify the WG structure to reflect actual operations (9). Other options preferred by CD-WG are to continue with the same structure for this WG (6), turn the WG into a Community of Practice involving more exchanges of practices and less coordination by GEO Secretariat (5), co-create deliverables/ tasks with strong links to GEO Work Programme (5), and simplify the WG governance by removing the role of the deputy chairs/ subgroup co-leads/ subgroup leaders (4).

Regarding membership, some CD-WG members would like to have a flexible membership system based on actual engagement with “active” members and “observers” (6) while others to see membership of WG mandatory for relevant GEO Work Programme leads or team members (3).

Very few CD-WG members wish to terminate all activities under this WG (2) while a member wishes to merge the WG with another WG under the GEO Work Programme “nexus areas”.



- **Provide details.**

Some CD-WG members suggest evolving into a Community of Practice (CoP) in the activities of the WG. This position reflects discussions on CoP held with the WG Co-chairs and members on having a flexible structure that amplifies the active role of members and taps into the members’ individual expertise and collective experience to support GEO’s effort. However, the role of the GEO Secretariat in providing coordination support is vital to establishing a CoP that can meaningfully contribute to GEO’s mandate.

Some members suggest the TOR for the WG be aligned with a broader agenda and not just the GEO Work Programme, such as supporting the acceleration of the green and digital transition, as well as sustainable growth and improving skills and capacity development actions.

Others suggest clarity in the expected deliverables, milestones, and tasks to focus on. This is because some deliverables were not clear to all members, making it difficult to contribute in a coordinated manner.

Other members stated that the role of the GEO Secretariat Coordinator for the WG should be clarified. Other members indicated the lack of resources is a barrier to their ability to co-create deliverables/tasks to advise the GEO Work Programme to undertake capacity development. Some members highlighted the importance for the CD-WG to have leadership tenure renewed on time.

An issue raised is the language barrier for non-English speakers. For some members, the opportunity to express themselves in Spanish could improve participation from Latin American countries.

- ***In your opinion, what should be the priority activity of the CD-WG going forward, in line with its Terms of Reference?***

The CD-WG members suggest that the WG identify common needs and priorities for the common users in alignment with the GEO Work Programme activities.

This will be in alignment with the support of GEO Flagships, Initiatives and Regional GEOs and help to improve and provide capacity development tools for use by the GEO community.

The CD-WG members highlight the need to act on the three recommendations in the GEO Work Programme Mapping with the CC-WG and DRR-WG:

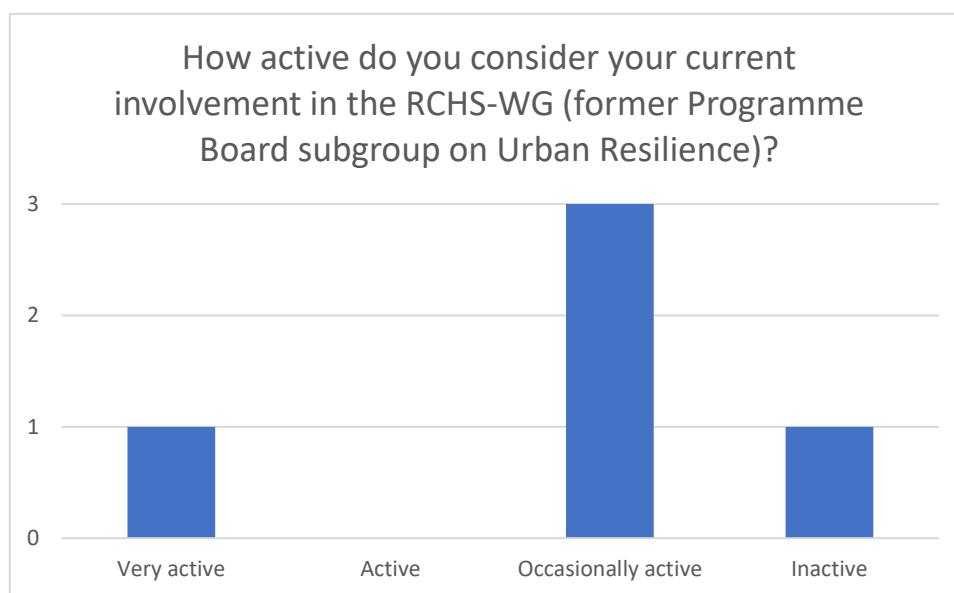
- The concept of “capacity sharing” and other more inclusive and culturally sensitive terminology and practices should be considered in recognition of the diversity of the GEO community. The CD-WG should support events and other initiatives for sharing of current resources and good practices, as well as fostering diverse and inclusive engagement with under-represented user groups, such as Indigenous communities.
- Existing and future GEO Work Programme activities should tailor tools and resources to their current target users and consider strategies for including and engaging with less targeted user groups, alongside strategies for strengthening effective dissemination and delivery. This includes clarifying and systematizing the resources’ purpose and the users, with plans, templates, and good practice examples, and making use of existing GEO dissemination channels and targeted community sharing opportunities.
- The GEO Secretariat should work with the CD-WG to make available an inventory of capacity development resources, potentially as a function of the GEO Knowledge Hub, whereby existing resources can either be modified or repurposed or serve as an example of good practices.

The CD-WG members suggest the need to implement concrete activities such as providing capacity development to developing countries, while only doing paperwork does not make any sense.

3.8 Feedback by RCHS-WG members

- ***How active do you consider your current involvement in the RCHS-WG (former Programme Board subgroup on Urban Resilience)?***

Of the five people that responded to the survey only one was ‘very active’ with the other four being either ‘occasionally active’ or ‘inactive’. This reflects the nascent stage of the RCHS-WG which has yet to be formally convened / activated.



- ***Explain how you are active or which obstacles are preventing you from increasing your engagement with the RCHS-WG.***

There is a general level of interest in participating in RCHS-WG, though noting that to date there have not been many opportunities to participate on concrete activities. One commentator recommends the need to convene meetings to drive engagement, but recognize the need to meet with purpose.

- ***Based on your experience and interactions to date, what would an effective RCHS-WG look like going forward?***

There is a general feeling that the future RCHS-WG should be simple, with sub-groups and deliverables to reflect operations and clearly link to GEO WP activities.



- **Provide details.**

There is a desire to ensure a simple structure, flexible membership, to what will become the RCHS working group. Sub-groups should be formed where necessary and structured 'per-cause' – to ensure they are action-orientated and can effectively respond to user needs. Contributions from GEO Sec (Urban Resilience Coordinator) welcomed/required to shape future scope, composition, relevance and impact.

- ***In your opinion, what should be the priority activity of the RCHS-WG going forward, in line with its Terms of Reference?***

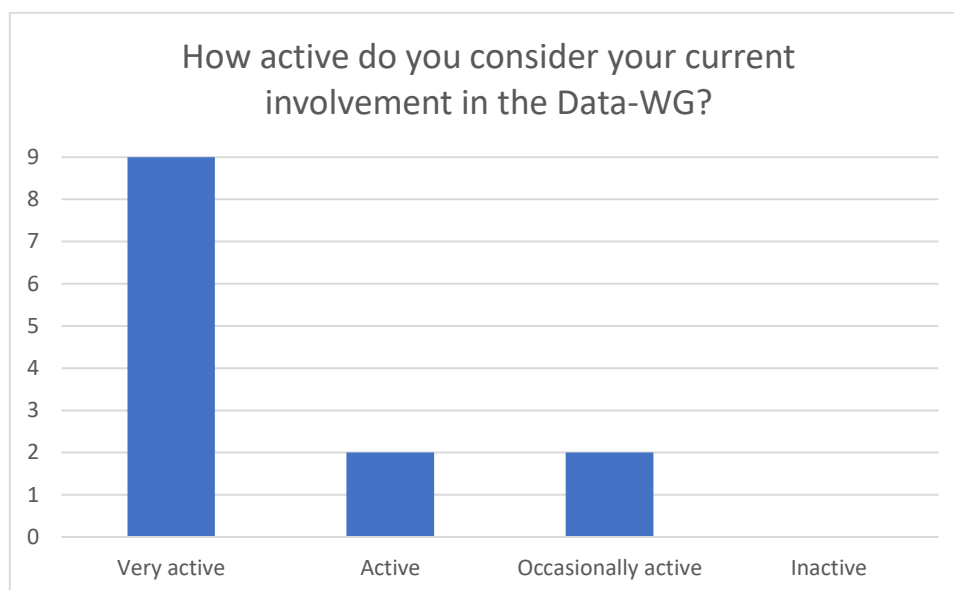
There is a real need and desire to activate city-level partners / users both through existing work programme activities. Improved coordination between / across different work programme activities should be facilitated to ensure GEO captures value and synergy in relation to the use and uptake of EO in relation to urban resilience.

In addition, in general terms the RCHS-WG should prioritise engagement at appropriate processes and events (reads: important global and regional events that relate to matters of urban resilience, urbanisation, sustainable urban development etc.).

3.9 Feedback by Data-WG members

- ***How active do you consider your current involvement in the Data-WG?***

Most responses indicate either a very active (9) or active (2) involvement in the Data-WG activities, while other (2) indicate an occasional involvement. Some respondents either participate in deliverables development, some only act as reviewers or only participate in WG and subgroup meetings. No answers indicate an inactive role in the WG.



- ***Explain how you are active or which obstacles are preventing you from increasing your engagement with the Data-WG.***

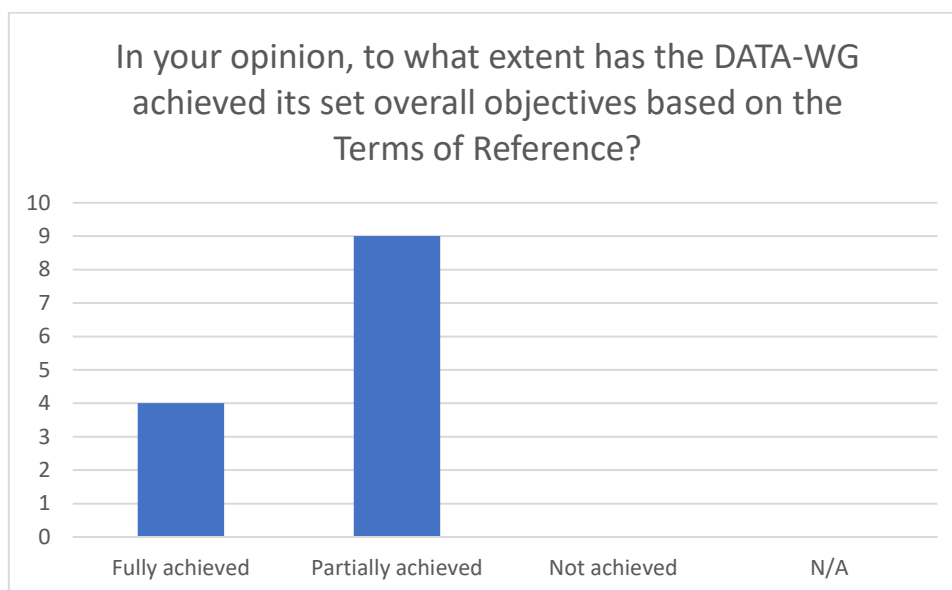
Many members indicate limitations on their participation as it adds to other commitments but appreciate joining the meetings and the technical discussions that take place during these.

The Data-WG subgroup structure allows for flexible participation and many members indicate that they are participating where objectives align with their institution’s mandate and where synergies are also found.

- ***In your opinion, to what extent has the Data-WG achieved its set overall objectives based on the Terms of Reference?***

Most data-WG members consider that overall objectives have been either fully achieved (4) or partially achieved (9), based on the WG Terms of Reference. No member stated that the WG objectives have not been fulfilled.

The large proportion of responses indicating a “partially achieved” may be explained by the complexity of the objectives and the evolving requirements of the community since the Terms of Reference were drafted. Another reason for this rating might be explained by the long-term nature of these objectives.



- ***Which deliverables of the Data-WG are you most satisfied with based on the agreed tasks for 2020-2022?***

Among the 12 Data-WG deliverables listed below, 8 deliverables get at least 7 satisfactory mentions. The Data-WG members are mostly satisfied with the following deliverables:

- 1) Annual participation in the GEO Symposium (9)
- 2) Annual participation in GEO Week and side events (9)
- 3) Organization of the dialogue series (9)
- 4) Development DMP self-assessment tool for GEO and FAIR principles (8)
- 5) Development of the first step towards an in situ data strategy for GEO (8)
- 6) Revision of the GEO Data Management Principles Implementation Guidelines document (8)
- 7) Engagement calls with GEO WORK PROGRAMME activities (7)
- 8) Development of the Data Licensing Guidance document (6)

Among the deliverables with which the Data-WG members are the least satisfied with, are the survey and the report summarizing the survey & engagement calls (respectively 4 and 2). This might be explained by the length of the process needed for these deliverables (over one year) and the structure of the report with a lot of annexes and supplementary material. However, Data-WG members are satisfied with deliverables that were created based on the survey results or that were highlighted during the engagement calls.

Finally, Data-WG members indicate little satisfaction with participation in other events, which could be improved by better long-term coordination between GEO and its Regional Nodes or with relevant agencies organizing these events.



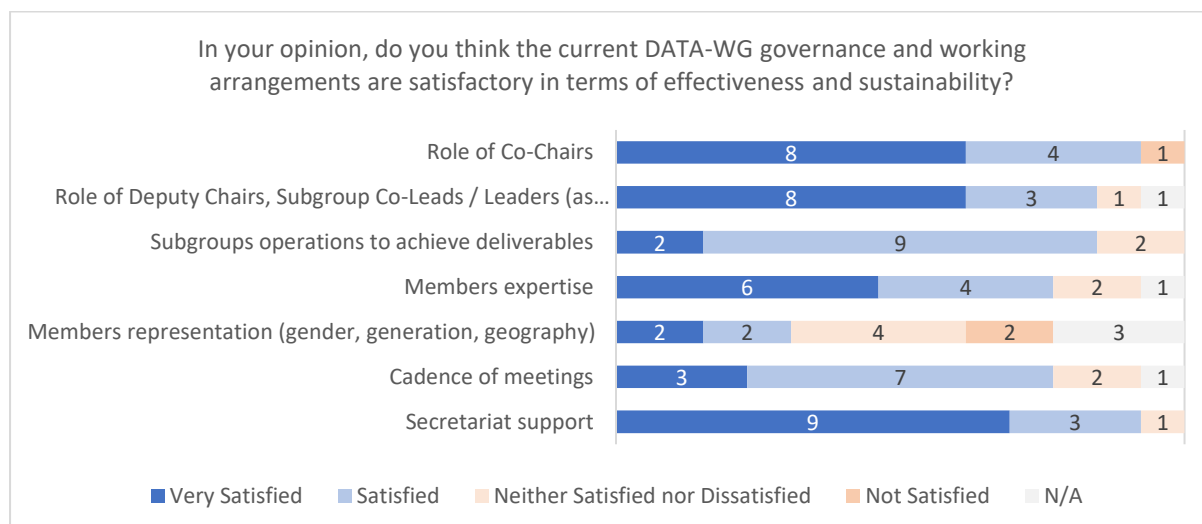
- ***In your opinion, do you think the current Data-WG governance and working arrangements are satisfactory in terms of effectiveness and sustainability?***

Overall, most members are very satisfied with the Data-WG leadership, both concerning Co-Chairs (8 very satisfied, 4 satisfied and 1 not satisfied) and Subgroup Co-Leads (8 very satisfied, 3 satisfied, 1 neither satisfied nor dissatisfied and 1 no answer given).

The Secretariat support to the Data-WG is seen as very satisfactory (9) or satisfactory (3) with comments from members highlighting this support as being crucial for the WG operations.

The different subgroup operations to achieve deliverables are seen as very satisfying (2) to satisfying (9) with some neither satisfied nor dissatisfied (2). The cadence of meetings is seen as satisfying (3) to satisfying (7).

The members representation in the Data-WG (gender, generation, geography) is more contrasted, with less very satisfied (2) to satisfied (2), than neither satisfied nor dissatisfied (4) and not satisfied (2) answers given.



- ***Explain your rating.***

Comments from Data-WG members point out an efficient structure and well-organized meetings thanks to the efforts of Co-Chairs, Subgroup Co-Leads and the Secretariat. The

continuity of leadership allowed to balance efforts and achieve deliverables, even with a high number of other commitments from the Data-WG members.

Progress is still needed to advance the representativity of some regions, as currently most members are from the global north, which could also be the opportunity to broaden the range of expertise among Data-WG members. More active members in each subgroup could also strengthen their activities.

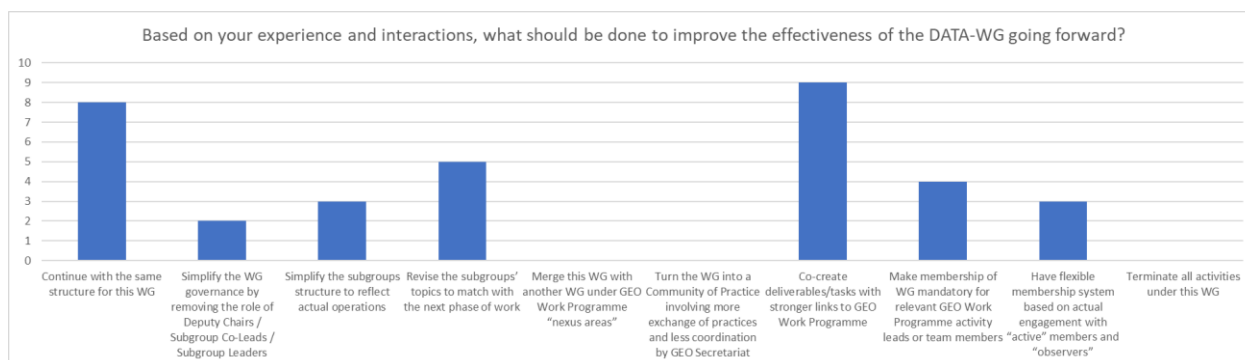
- ***Based on your experience and interactions, what should be done to improve the effectiveness of the Data-WG going forward?***

The Data-WG members strongly agree to continue with the same structure for this WG (8) and co-create deliverables/tasks with stronger links to GEO Work Programme (9).

Some (5) members propose to revise the subgroup’s topics to match with the next phase of work or to simplify the structure of the subgroups to reflect actual operations (3). Little support is found to simplify the WG overall structure by removing the Subgroup Co-Leads (2).

On the membership aspects, some members agree to make membership of the WG mandatory for relevant GEO Work Programme activity leads or team members (4) and have flexible membership system based on actual engagement with active members (3).

No support is found to merge this WG with another WG, or to turn it into a Community of Practice, nor to terminate all activities under this WG.



- ***Provide details.***

Data-WG members suggest continuing with the same structure, which is decentralized and driven by the three current subgroups. The level of flexibility under which the subgroups operate allow to split when necessary (this happened with the division of the law, policy and ethics subgroup into two distinct subgroups, one on law and policy and one on ethics, which was later terminated) to reflect actual operations.

On the possible enhancements, stronger links with the GEO Work Programme is clearly called for by Data-WG members, although many deliverables were developed based on interactions with activities (including flagships, initiatives and community activities).

Many events organized by the Data-WG also involved the GEO Work Programme activities.

Although mandatory membership is supported by some members, it might prove too restrictive and would not necessarily secure actual participation, whereas a voluntary membership would prove useful and lead to more co-developed deliverables that would support the community.

- ***In your opinion, what should be the priority activity of the Data-WG going forward, in line with its Terms of Reference?***

Use notes below to form a concise summary of overall sentiment and suggestions.

Some propositions by the Data-WG for the way forward include:

- 1) Connecting more with the GEO Work Programme activities, as they are the most immediate consumers of the Data-WG outputs.
- 2) Continuing to promote the GEO Data Management and Data Sharing Principles adoption and open data licenses to advance towards open knowledge.
- 3) Documenting the impact and the value of open data and open knowledge.
- 4) Recommending ways to advance interoperability of EO, including in situ and complementary data.
- 5) Promoting practical approaches for use, management and sharing of data, especially in situ.

4 CONCLUSIONS

Recommendations on the future direction of the WGs are presented for adoption by the Programme Board, based on the analysis of the survey outcomes (see section 2. Summary and Recommendations).