

Minutes IGWCO CoP meeting 12 January 2022

Attendants

Name	Affiliation
Bente Lilja Bye	Bente Lilja Bye (BLB) research and consulting company
Wolfgang Grabs	Co-Chair IGWCO CoP
Eva Haas	EOMap
Tiit Kutser	Estonian Marine Institute, University of Tartu
Richard Lawford	Morgan State University and former IGWCO Co-Chair
Peter van Oevelen	IGPO and Co-Chair IGWCO CoP
Suxia Liu	Chinese Academy of Sciences
Stephan Dietrich	International Centre for Water Resources and Global Change (UNESCO)
Ulrich Looser	Global Runoff Data Centre (GRDC)
Tunde Olarinoye	International Centre for Water Resources and Global Change (UNESCO)
Douglas Cripe	GEO Secretariat

Agenda

1. Brief information about ongoing activities
2. Status of the review of the GEOSS Water Strategy
3. Update of the IGWCO workplan
4. Establishment of a IGWCO website
5. New developments in the GEO Secretariat
6. Any other business

Minutes

Introduction of Tunde Olarinoye

Currently, the operational part of the International Soil Moisture Network (ISMN) group is transferred from TU Vienna to the Federal Institute of Hydrology in Germany and will become a full operational service for the future. The ISMN scientific team at TU Wien with Prof. Wouter Dorigo as chair will continue with their research and development of algorithms. The German Federal Institute of Hydrology will focus more on mesoscale. The link between in-situ observations and large-scale remote sensing data to close the gap. Additionally, the plan is to set up a scientific advisory board with members from relevant parties, such as WMO, FAO and users and providers of key data.

Dr. Olarinoye is a new colleague at the International Centre for Water Resources and Global Change (UNESCO) and will operate as an intermediary between data providers and data users. He is at the stage of getting to know the important communities in the field such as GEWEX and IGWCO CoP.

Ad 1. Brief information about ongoing activities

There are no important updates to report from the various projects, etc. since the last teleconference in December 2021.

Ad 2. Status of the review of the GEOSS Water Strategy

Prof. Lawford has sent the latest GEOSS Water Strategy report. The report will be circulated to the IGWCO CoP members together with the minutes of this meeting. Keep in mind that this report is a living document and will be updated on a regular basis. The aim is to update the report on actions in the next two months to have a current report on March 31, 2022. Items that need attention are:

- a. Global Terrestrial Network – Hydrology (GTN-H) activities that support GCOS. The German side of GEO with a drive of the Center has shown an interest in several data issues of the report. Unfortunately, the last video conference between GEO and Dr. Grabs on this matter was in May 2021. Dr. Grabs is looking forward to restarting these meetings and pursue this matter in order to find a suitable candidate to work and report on these issues in the GEOSS Water Strategy.
- b. Links between Essential Water Variables and Essential Climate Variables. Information is mainly U.S.-centered. The report lacks sufficient input and information from ESA (Europe), JAXA (Japan) or from CNSA (China). For the next update, Dr. Bye and Dr. Cripe are asked to contribute on the ESA perspective. Colleagues from Japan and China are asked to contribute on the JAXA and CNSA perspective respectively.

Another matter at hand is the way forward of the GEOSS Water Strategy. The current strategy report dates from 2014 and there have been changes in the environment, perceptions and players. As discussed in the videoconference with Dr. Cripe in December 2021, developments in the past half decade and the current decade should be reflected in the GEOSS Water Strategy report. The review of the GEOSS Water Strategy report can be at the center of the discussion with interested parties to adapt the GEOSS Water Strategy to current developments and situations. This should be followed by the formation of a team that will do the actual rewrite of the GEOSS Water Strategy, showing a path into the next decade, including the positioning of the GEOSS Water Strategy in the U.N. water architecture at the larger scale.

A timeline of at least three years is estimated for a couple of lead authors and a few contributing authors to complete the rewriting of the water strategy document. During the writing of the first GEOSS Water strategy document workshops were organized in Tokyo, New Delhi, Geneva and in the U.S. It is important to involve people from all around the world. If people feel ownership of the document, this can help with the implementation of the strategy afterwards. Dr. Cripe, on behalf of the GEO Secretariat, is willing to play a major role with formulating boundaries, key interests, collaboration with other U.N. agencies and space agencies.

The timing of the rewrite is about perfect as it means the new water strategy is ready to go when GEO is restructured in 2025 and could inform GEO activities for the decade to follow. Some of the suggestions made during the videoconference in December 2021, can be incorporated in the rewrite. Other suggestions can't wait that long and should happen in parallel, such as the idea of Dr. Koike to promote GEO Water at high level meetings.

Participants are asked to respond to the executive summary of the Water Strategy and current review with a few pointers on where they think the new priorities should lie. The aim is to have a team ready within six months to start rewriting (part of) the Water Strategy document. Following this timeline will fit the new GEO strategy. In addition, by following this timeline, IGWCO can influence what the U.N. Water thinks on water issues, leading to influencing the programming of the agencies themselves. Apart from developing sustainable development, Dr. Bye suggests linking the rewrite of the Water Strategy document to the Ocean Decade, taking into account the activities the Blue Planet Initiative is already undertaking in this area. Note that the original GEOSS Water Strategy focused on freshwater only. If the rewritten document considers the global water strategy, it should include oceans as well. It would require more integration between the Blue Planet and IGWCO. Observational problems are generally different over the oceans from those over land. The idea is to be inclusive as far as our expertise goes and then invite others to go beyond that point, involving centers of excellence who can contribute to the GEO water strategy.

Last year's [GCOS status report](#), an overview of observations of the global water cycle, mentions planning to reassess the global water cycle observational capabilities every four years. This intention will also be part of the implementation report that is now being written. A link between GCOS, UN and GEO water strategy should be developed to prevent duplication.

On another topic, now that monitoring capabilities have improved over the years, the old idea of a global water security monitoring system was revisited during the meeting in December 2021. The feasibility of linking monitoring capabilities of WMO, GEO and others to a global monitoring system for flood risk management or sustainability is being examined. The aim is to use what technology and information is available, bring them together under one roof and provide a service to the community.

Dr. Dominique Bérod, Head of the Earth System Monitoring Division of WMO, informed Dr. Grabs that WMO is interested in assisting IGWCO. Water security systems (warning & forecasting) and now also water availability (required & consumed) are points of attention of many programs in WMO and are in line with the interest of IGWCO and its Sustainable Development Goals. Of interest in this context is the work from the [Global Water Futures](#) (GWF) and Prof. John Pomeroy on these topics. Similarly, the project [Destination Earth](#) from [European Centre for Medium-Range Weather Forecasts](#) (ECMWF) and the European Union's Earth observation program, [Copernicus](#), is going to look at water in various ways. Although its focus will be on forecasting, given the ambition of Destination Earth project and the advancement in technology, it's easy to collect a lot of data and produce something. The hard part will be to produce something worthwhile and sustainable. The water strategy document could be updated in this area, including the formulation of IGWCO's role in it. It's important to find the right people to provide the perspectives that help find the niche for GEO on water. There is a project in Copernicus with the task of bringing order to their water services and will be able to share the Copernicus perspective in this group.

Dr. Cripe will contact Dr. Bérod and Dr. Bob Stefanski (drought). Additionally, it's suggested to strengthen the link with GCOS through Simon Eggleston.

Regarding the action point from the last IGWCO meeting on the GEO Data Working Group, you can find more information [here](#).

Dr. Gutiérrez is requested to give her thoughts on possible areas of collaboration between GEO GLOWS and IGWCO. Currently, there is not enough feedback from GEOGLOWS, especially now that they have taken up the in-situ work Dr. Grabs has done previously before his retirement.

The GTN-H system becomes an increasingly important issue, whether it concerns the formulation or implementation of the GEOSS Water Strategy, or the influence of the strategy will have in the future development of GTN-H.

Related to the data issue are ideas on how to develop products and which types are available, bringing research and science more into the work of IGWCO, especially with respect to results from GEWEX and WCRP. Applied research and products will also add to capacity building of the different GEO knowledge hubs.

A lot of effort has been put in finding the right format for the information in the GEO knowledge hubs.

The information the GEO knowledge hubs provide range from the data, algorithm and methodology used to the results, all done in an open science with the kind of computing environment that is needed to solve a particular problem with Earth observations. It is suggested to engage with GEO knowledge hubs and develop a knowledge hub specifically oriented towards water, gathering and bringing together knowledge that is already available.

Ad 3. Update of the IGWCO workplan

The IGWCO Workplan is two years old and should be updated. The current document will be distributed to the members of this group, together with the minutes. Each member is asked to make a couple of suggestions on what could be added, changed or deleted and how she/he could contribute to the implementation of the workplan.

Ad 4. Establishment of a IGWCO website

To increase its visibility, IGWCO wants to develop its own website. Currently, GEO doesn't have the capacity to develop webpages for its partners. Content for this IGWCO website is available, although some information is outdated. The introductory text should include what IGWCO does, its mission, vision and objectives. Additional topics that are suggested to add to the website are: membership overview, IGWCO meeting minutes and other documents, such as the IGWCO workplan and summary of the GEO Water Strategy. Additionally, information material about the database and GTN-H and specific text on member contributions could also be added. Each member is asked to send suggestions to Dr. van Oevelen at gewex@gewex.org. Once the IGWCO website is live it can be linked to the GEO website. Dr. Cripe will look into the standards GEO uses for a logo and if there any requirements on the look and feel of the website. Dr. Bente will send information about the color scheme GEO uses and links to a popular webinar series on the water cycle on YouTube to Dr. Van Oevelen in cc. to Dr. Grabs. The aim is to have at least on webpage online by springtime. Once IGWCO has sufficient material and contributors, and the confidence it can be maintained, it will consider publishing a newsletter on a regular basis. It's also suggested to use input from GEO Aqua Watch and GEOGLOWS on the various water activities and publish it on the IGWCO website. Dr. Cripe will look into this.

Ad 5. New developments in the GEO Secretariat

Future updates and meeting minutes from the GEO Secretariat will be send in an email.

A midterm evaluation was done in GEO recently. One of the recommendations concerned the Global Earth Observation System of Systems (GEOSS), which needs to be re-thought. An expert advisory group is being set to rethink about GEOSS from the ground up. The members in this advisory group are from across the spectrum and are nominated by the executive committee. An external consultant has been hired to support this project.

Dr. Cripe will send in a short summary of the GEO Week and the outcome of the GEO review relevant to IGWCO.

Ad 6. Any other business

- If IGWCO members are interested, a short in-person meeting could be organized coinciding with the 3rd Pan-GASS Meeting and the Pan-GEWEX meeting held in Monterey, CA, USA, from 25-29 July 2022.
- A short overview of upcoming meetings will be added to the minutes of the IGWCO meeting.
- It is suggested to schedule an IGWCO meeting every month and limit it to 1 hour. This would mean an agenda with less items and enough time to discuss each item in depth.
- The next EOS Community activity from the GEO work program is a session at the EGU 2022, held from 3-8 April. Submission of success stories on fast uptake of first observations for servicing the geo-sciences are invited.
- IGWCO is asked to submit a contribution to The XIth Scientific Assembly of the International Association of Hydrological Sciences (IAHS 2022), held in Montpellier, France, from 29 May—3 June 2022. It will also celebrate its 100th anniversary and an important conference on water science. Dr. Liu will also convene a session at IAHS 2022.
- Members are asked to provide input, changes and/or updates on the review of the GEOSS Water Strategy. The latest review will circulated by February 14th.
- IGWCO needs to formulate a strategy on how to handle the category C (outside IGWCO remit) recommendations of the Water Strategy. Dr. Cripe will help talk to WCRP and other organizations about taking the lead in some projects where IGWCO doesn't feel capable of doing so.

- Reconnection with CEOS is advised. Dr. Cripe is the contact between CEOS and GEO. A bilateral meeting is planned on 8–9 February. Dr. Lawford and Dr. Cripe will discuss items on water that could be put on the agenda.
- The project on user interaction and the requirements for Earth observations of Dr. Kutser is preparing its first report. User analysis should be ready in March 2022. Data draft of the workplan should be ready by Spring 2023. Copernicus is planning to create a water portal where all Copernicus’s water services will be clustered. There is no room for new water services as it would mean getting approval from all European member states. Dr. Kutser is asked to provide a couple of lines on this project for the minutes of this meeting.
- Dr. Nick van der Giessen’s team has connected to a network of observations in Africa and have taken on some kind of stewardship. They are willing to link up with IGWCO. Dr. Van Giessen can hopefully join the next IGWCO meeting.
- EOMap is planning to organize a webinar ‘Earth observations in practice - next level Earth observation water monitoring for Governmental agencies’ in May 2022. Members are invited to bring in real world use cases. More information will follow once the agenda is ready.

Thank you all for joining and participating and stay safe!

Wolfgang Grabs and Peter van Oevelen

Action items

- Dr. Bye and Dr. Cripe provide information on the ESA perspective for the GEOSS Water Strategy Report
- Colleges from Japan and China provide information on the JAXA and CSNA perspective respectively for the GEO Water Strategy Report
- All members: send feedback on the executive summary of the Water Strategy and current review to gewex@gwex.org
- Dr. Cripe meet with Dr. Bérod and Dr. Bob Stefanski about areas of collaboration between WMO and IGWCO and additionally, with Dr. Eggleston to strengthen the link with GCOS
- Dr. Gutiérrez provide feedback on possible areas of collaboration between GEO GLOWS and IGWCO
- Information on the GEO Data Working Group can be found [here](#).
- All members provide feedback on the IGWCO Workplan to gewex@gewex.org
- All members: send content the development of an IGWCO web pages to gewex@gewex.org.
- Dr. Cripe provide GEO-standards for a logo and requirements on the look and feel of the website.
- Dr. Bente provide the GEO color scheme and links to a popular webinar series on the water cycle on YouTube to Dr. Van Oevelen in cc. to Dr. Grabs
- Dr. Cripe provide news items and events on the various water activities from GEO Aqua Watch and GEO GLOWS
- Dr. Cripe provide a short summary of GEO Week and the outcome of the GEO review relevant to IGWCO.
- All members send a message to gewex@gewex.org if you’re interest in a short in-person meeting coinciding with the 3rd Pan-GASS Meeting and the Pan-GEWEX meeting held in Monterey, CA, USA, from 25-29 July 2022.
- IGPA add a short overview of upcoming meetings to the minutes of the IGWCO meeting.
- All members provide feedback on the review of the GEOSS Water Strategy by 10 February at the latest
- Dr. Lawford and Dr. Cripe will discuss items on water suitable for the agenda of the February-meeting between CEOS and GEO
- Dr. Kutser provides information on his project on user interaction and the requirements for Earth observations

Overview of Meetings

- [United Nations/Ghana/PSIPW - 5th International conference on the use of space technology for water resources management](#), Accra, Ghana, 10-13 May 2022, abstract submission deadline 25 February 2022
- [9th International Conference on Flood Management](#) (ICFM9), Tsukuba, Japan, February 18-22, 2023, abstract submission deadline 28 February 2022
- [3rd Pan-GASS Meeting, Understanding and Modeling Atmospheric Processes](#) (UMAP 2022), Monterey, CA, USA, 25-29 July 2022, abstract submission deadline 1 March 2022
- EOS Community activity from the GEO work program is a session at the [EGU 2022](#), Vienna, Austria, 3-8 April 2022
- The [XIth Scientific Assembly of the International Association of Hydrological Sciences](#) (IAHS 2022), Montpellier, France, 29 May—3 June 2022
- EOMap is planning to organize a webinar ‘Earth observations in practice - next level Earth observation water monitoring for Governmental agencies’ in May 2022

For additional relevant meetings visit the [GEWEX calendar](#) .