Implementation of IGWCO Proposed Next Steps and Outlook

(This document is based on the Final Version of the "Roadmap for Next-Level Development of the Integrated Global Water Cycle Observations (IGWCO)

Community of Practice (CoP)")

Target audiences

This paragraph serves as a reminder of the target audiences identified by IGWCO-CoP

- The World Climate Research Program and its water-related activities mainly towards the WCRP Grand Challenges, and applied research such as many projects in GEWEX;
- Community activities such as the EO4WEF (Earth Observations for the Water-Energy-Food Nexus) and the EO4SDGs (Earth observations for SDGs).
- Capacity building in existing and future regional programs where IGWCO is already involved or plans to be, and future activities in other regions.
- Other target audiences including those involved in terrestrial observations as well as space-based observations. These could be accessed through active collaboration with GCOS, GTN-H and CEOS to improve observational requirements and to avoid redundant work.
- Outreach areas of strategic importance including evolving communities around the development of the GEO Knowledge Hub. These groups and individuals are likely to be connected to capacity building, research and digital information management.

Next Steps

Next steps itemized below should lead to the development of an implementation plan. The implementation plan needs to follow the strategic outline of the IGWCO in its future development as documented in the Roadmap Document. Such steps would include

- 1. Identification of relevant water issues in current GEO activities;
- 2. Development of an IGWCO Community Activity: This is the suggestion of the GEO Secretariat after consultations between GEO-Sec and IGWCO;
- 3. Clarification of specific cooperation and interaction between IGWCO and GEOGLOWS;
- 4. In order to develop capacity within the IGWCO, identification of Points of Contact for specific tasks; likewise the formation of task groups (or subgroups) needs to be attempted to achieve progress in various areas addressed in the Roadmap Document;
- 5. Development of a simple webpage with largely static pages and additional News Items that publicize progress made in different areas and also publishing

- summaries of minutes of teleconference calls and meeting outcomes. (This could support soliciting new CoP members from the target audience);
- 6. Transmission of the Review of the Water Strategy (finalized. This has been led by Rick Lawford in cooperation with partners and authors of the strategy) to GEO-Sec and its Programme Board;
- 7. Continued implementation of the Water Strategy with areas suggested by GEO and perhaps as a part of the proposed GEO IGWCO Community Activity;
- 8. Development of an overview paper of IGWCO's potential contributions to the GEO Knowledge Hub;
- 9. Provision of brief position papers to various areas of activities in a renewed/changed IGWCO program in cooperation with the GEO-Secretariat, and GEOGLOWS as well as other appropriate partners;
- 10. Organization of activities to publicize the renewed IGWCO-CoP initiative, its strategy and implementation thrust together with its partners;
- 11. Development of first draft of an IGWCO Implementation Plan as a living document.

Outlook

Basis for the outlook is again the Roadmap Document and few forward-looking activities listed in the Roadmap are compiled below under their respective headings.

Funding

- Offering support in projects under development that have areas that coincide with IGWCO competences and interests;
- Proposition of new initiatives, especially in strategic areas. This could be done by aligning observations to water, SDGs, and actions to address other public policy activities such as SDGs or climate change;
- Development of funded activities/initiatives facilitating the implementation of recommendations from a revised and updated water strategy;

Capacity building

IGWCO should connect with other GEO capacity building activities, using regional initiatives such as AmeriGEO, AfriGEO and AOGEO as entry points. To some extent this would be a continuation of the strategy that was implemented earlier in cooperation with AWCI, AfWCCI and Latin America Capacity Building that also involved JAXA and the University of Tokyo.

Capacity building tied to the GEO Knowledge Hub is a strategic opportunity for the IGWCO. IGWCO could provide a "water package" or "water interface" for the knowledge Hub by working with various GEO water-related initiatives and Community Activities.

Observations, Data Services and support to GEO Initiatives, Flagships and Community activities

- With regard to the Essential Water Variables, while implementation rests within the realm of GEOGLOWS, linkages to GEOGLOWS, GCOS and WMO and other groups should be strengthened to coordinate and harmonize the different views amongst the groups on EWV definitions, standards, associated observations and user requirements.
- IGWCO could review the status of existing research and operational satellite observing systems across water cycle components, especially those for which future continuity may be uncertain or under review.
- IGWCO could assess opportunities for using multi-sectoral and multidisciplinary data from remote sensing platforms together with in-situ water data for integration that will provide cohesive end-user applications and decision-making services.
- Observation systems would largely benefit from the satellite and in-situ communities joining forces. In that direction IGWCO could coordinate a meeting between satellite and in-situ communities.
- IGWCO's role in strategy development for in situ and satellite observational networks, data applications and research should be linked to requirements of research and society, making further development and adaptation of observational networks a necessity;
- IGWCO should explore Europe's Horizons 2020 as a source for support for in-situ data projects (See www.twiga-h2020.eu for more information).