

Trends in integrated global Earth observing systems

I'm pleased that a 90-minute segment at the next meeting of the PB will be devoted to a discussion of the methodology to uncover the 2007-2016 trend of observations for the global integrated Earth system. This is a daunting task, and there is little guidance on how to proceed. Last May at the 6th meeting of the PB, I mentioned a disciplinary sectoral approach of "atmosphere," "ice," "land," and "ocean." Now, I think the approach should be focused on GEO's three overarching themes of integrated in-situ and satellite observations to enable the United Nations Sustainable Development Goals (SDGs), the Paris Climate Agreement, and the Sendai Framework for Disaster Risk Reduction.

I propose the following actions for consideration by the PB at their next meeting:

- (1) Decide whether sufficient interest exists for the PB to pursue this topic. If "no," additional time will be provided for lunch. If "yes," continue with the following actions.
- (2) Decide on the elemental framework to evaluate the 2007-2016 trend of observations of the global integrated Earth system. For example, decide whether the foundational elements are air, ice, land and ocean (e.g., use the format of IGOS - <http://www.un.org/earthwatch/about/docs/igosstr.htm>) or some such sectoral components of the global integrated Earth system or decide whether the foundational elements are SDGs, climate, and disasters.
- (3) Appoint a 9-member subcommittee of three representatives each from the PB, GEO Members not on the PB, and GEO Participating Organizations not on the PB to guide the process to determine the 2007-2016 trends of global observations.
- (4) Appoint two members of the subcommittee to be co-chairs.
- (5) Establish preliminary terms of reference for the subcommittee for evaluation by the subcommittee for subsequent approval by the PB. Two examples of potential terms of reference could be to (i) define a comprehensive methodology to determine the 2007-2016 trend of global observations and (ii) evaluate the 2007-2016 trend of global observations for disaster risk reduction. I arbitrarily chose disaster risk reduction because many natural disasters are local but occur globally, which adds complexity to the challenge.
- (6) Establish a preliminary timeline of deliverables for evaluation by the subcommittee for subsequent approval by the PB.

Thank you for the opportunity to contribute some remarks.

Best regards.

...Dave

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