

Understanding Tipping points and observation needs?

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Objectives:

This World Café station (table) provides an opportunity to actively engage with stakeholders on progress, needs and opportunities around the themes introduced at Earth Information Day 2023, specifically as they relate to climate tipping points and observational needs to detect those. The table discussion seeks to contribute to the following expected outcomes:

- Raise awareness with about tipping points, why they can be critical elements of climate change, and discuss observational needs.
- Allow for stakeholders (delegates and NPS) to express their ideas, concerns, and needs.
- Build on engagement with stakeholders through four rounds of discussions.
- Result in several key recommendations to improve access, understandability, and uptake of information from systematic observation by decision-makers and organizations in support of climate actions.

Scenario

Research and systematic observation (RSO) play a key role in detecting and tracking climate change in general. Specifically, RSO play a critical role in monitoring, understanding, and predicting climate tipping points. This knowledge is helping society derive information to respond and plan to address associated risks. Although situ monitoring infrastructure and remotely sensed data volumes are increasing, the sustainability and long-term security of the in-situ observing system is particularly at risk. RSO for understanding tipping points may need special consideration and additional elements.

In view of what is now known, this World Café will initiative discussions particularly on priorities that need attention to help close the observation gaps to monitor climate tipping points, including climate-related services that respond to the risks.

This is a World Café station on a topic that allows for a dialogue at the science-policy nexus and serves as a starting point for boarder discussion. In the context of monitoring climate change from a global perspective, challenges of transferring knowledge from science to policy are often raised, and hence we aim to orient the discussion on the current perception, information transfer and future opportunities to further evolve the dialogue at the science policy nexus.

Question for Scene-setting:

- a. What is climate tipping points?
- b. What is the relevance of climate tipping points?
- c. What are the improvements needed in research and sustained observations for climate tipping points?