

Adaptation and GCOS

Are we covering enough ground?

The context

- Decision makers and the wider public are not yet aware of all the opportunities to be gained from becoming more resilient and less vulnerable to climate impacts and natural hazards;
- Governments and businesses fail to incorporate climate change risks into their social and economic development plans and investments;
- Adaptation efforts fall short of those who need them most, the world's poorest and most vulnerable people; and
- Although adaptation is a global challenge, global leadership on the issue is scarce. In short, the world is falling short of the transformation required to adapt to a changing climate.

From the GCOS strategy

- “GCOS will consider how best to support users beyond its traditional role of supporting the science and understanding of climate change to include the global climate related observation needs of **adaptation, mitigation, sustainable development, disasters and emergency response, and in responding overall to the Paris Agreement.** “
- “This will include identifying additional ECVs and developing their definitions and observational requirements, as has been done for the existing ECVs, or include these needs in existing ECVs. “
- “In addition, GCOS will identify actions that need to be implemented by the observing systems to address these additional needs. These broader demands on the observing system will require GCOS involving a wider **range of users and experts** and will extend the relevance of GCOS in wider policy, economic and social communities.”

The role of GCOS

- “GCOS should establish a specific activity to understand the needs of adaptation and how to develop their observational requirements. This will require the direct involvement of adaptation experts rather than rely solely on the observation experts traditionally associated with the GCOS Science panels, including those with financial, implementation and policy responsibilities for successful adaptation to climate change. “
- “The ability to understand and estimate risks, both current and how they change in the future, will be vital to support adaptation planning and increase the resilience of societies to climate changes. GCOS should consider the world-wide and regional observations that support or monitor adaptation, but not the detailed local observational needs, in line with its remit as a **global** observing system.”

Actions to be taken

1. Identify opportunities and user needs through consultations/workshops:
 - Review existing 12 NAPS for major sectors and concerns.
 - Utilize information from GCOS adaptation scoping and user needs workshops, including the TOPC February 2018 meeting.
2. Develop broader partnerships with adaptation experts (academic and practitioner), CEOs, GCMS, reanalysis centers, finance sector, etc. to define adaptation specifications for the ECVs

From the strategy adaptation

1. Define initial set of major sectors (e.g., agriculture, health, urban and communities, water resources, renewable energy, industry, forests, oceans and coasts, environment) based on.
2. Associate into sectors, ECVs that would support user identified needs (an ECV will likely show up in multiple sectors)
 - a. consider observation needs (incl. minimum and ideal temporal and spatial scales) in sectors identified in 2. for:
 - i. assessing vulnerability (developing NAPs),
 - ii. tracking effectiveness of NAPs,
 - iii. modifying/updating NAPs
 - b. initial objective: start with existing GCOS ECVs, and evaluate which existing ECVs in their current specifications could inform adaptation 4.a. i. – iii).
 - c. medium-term objective: evaluate where there are current observation capabilities (e.g., temporal and spatial scales) for an ECV parameter that go beyond what is specified in existing ECV suite, that could move the parameter from “not useful in specification” to minimum or ideal level for adaptation
 - d. long-term objective: consider new ECVs (parameters not in current GCOS suite), and need for promoting additional observation capabilities for adaptation that likely will be needed and that future global observations could support

Some issues for discussion

- Adaptation is not only about providing regional data and higher time resolution
- It is primarily about defining information needs: number of dry days, number of hot days, recurrence time of floods, translation into risks... that can be used in planning
- Our business is to sharpen definition of ECVs and push innovations and sustainability of observation systems
- This involves a change in perspective from generic (necessary) ECV's to (sufficient) specific products involving another set of stakeholders
- Can we provide an adaptation checklist for our ECVs?