FGDC.GOV
FEDERAL GEOGRAPHIC DATA COMMITTEE

Geospatial Shared Services/Climate Mapping

Summary of NGAC Feedback

NGAC Meeting
April 28-28, 2021

Overview

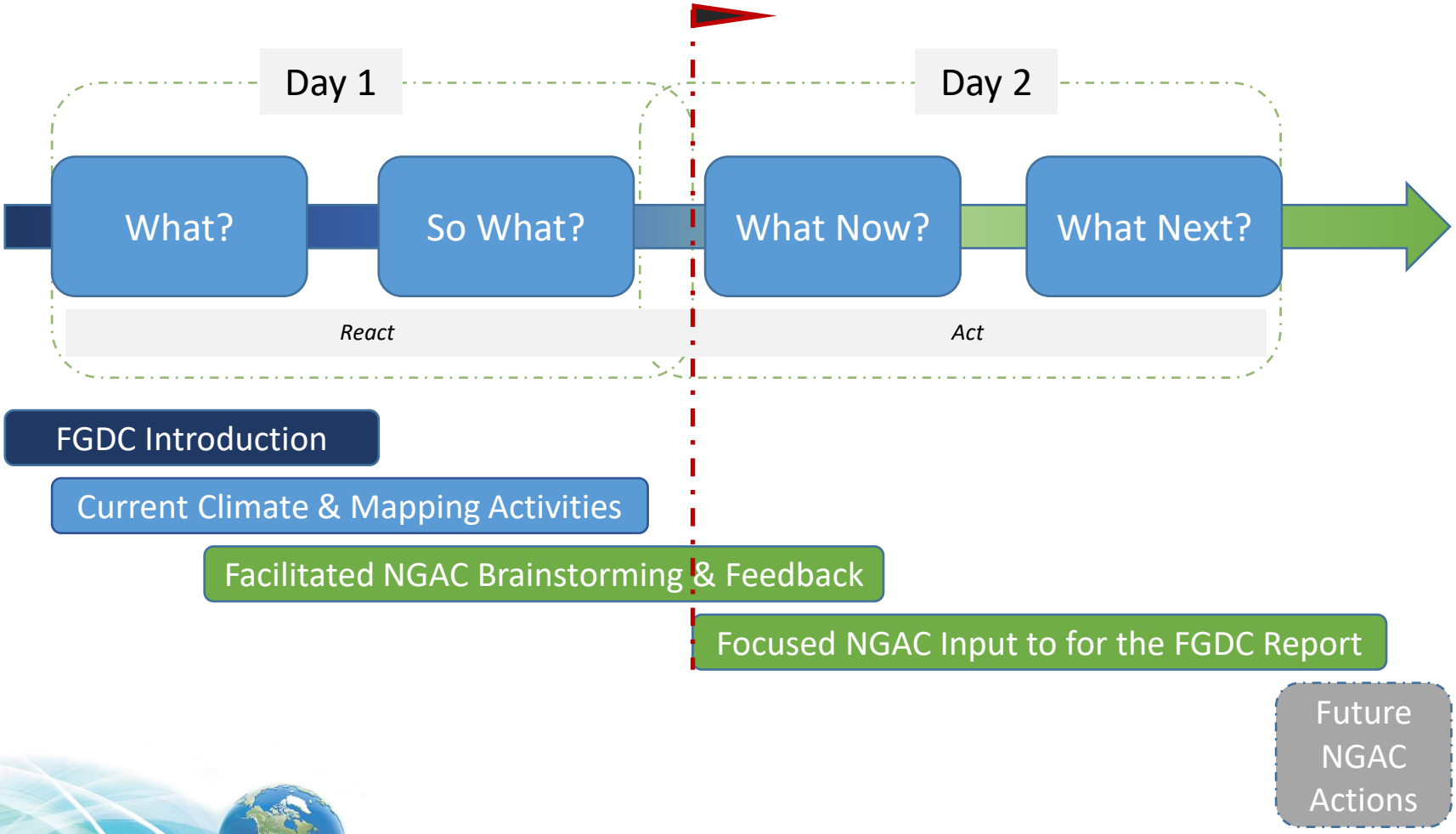
The NGAC held an extended session on shared services and climate mapping during the April 2021 NGAC meeting. The Administration's recent Climate Executive Order (EO 14008: Tackling the Climate Crisis at Home and Abroad) directs FGDC to develop a report "*on the potential development of a consolidated Federal geographic mapping service that can facilitate public access to climate-related information that will assist Federal, State, local, and Tribal governments in climate planning and resilience activities*."

The NGAC session included an overview of current climate data/mapping activities and a facilitated discussion exploring the following points:

- NGAC feedback/comments on climate user community needs and data requirements (addressing FGDC requirements in Climate Executive Order).
- Appropriate roles of FGDC, the GeoPlatform, and other shared services resources in facilitating/providing shared services to meet multiple needs (addressing climate data, infrastructure, healthcare, racial equity, etc.).

This document summarizes the NGAC's feedback and comments during the session.

Our Journey to Support the Climate Task Force



FGDC.GOV
FEDERAL GEOGRAPHIC DATA COMMITTEE

Themes from Day 1 Discussion

Enormous & Complex Challenge – Difficult to convey climate science to state, local, tribal, and municipal analysts as well as the varied private sector planners and related stakeholders in ways that are useful, accurate, timely, and actionable to properly drive the solutions needed to address the climate risks and issues we face.

Data

- Need to be **Findable Accessible Interoperable & Reusable (FAIR)**
- **Authoritative:** Data should be tagged/described to easily aid users' understanding for fitness of use.
- **"Raw vs Actionable"** – Some users will look for raw data for analysis while others will be looking for actionable data.
- **All data is local –** Federal climate data can be too coarse or inconsistently maintained, and scattered across varied Departments/Agencies. A global → local data paradigm is needed if supported by the science.

Platform(s) & Compute Infrastructure(s)

- **'Permeable Silos" –** Technical system of systems approach (Federated, Scalable, Interoperable, Cloud-based)
    - Culturally permeable to support necessary interdisciplinary data sharing and knowledge sharing.
- Many existing shared services today both within and outside government. Need a 'finding aid' which would help users discover the right service, tool, app, etc. that is a best fit for their use.
- **"No wrong door approach"** to finding and contributing data. Fewer RFPs and more APIs to enable open contribution of data, tools, models, especially those originating from local geographies.
- **"Built for Builders"** – any new ecosystem of shared services should be constructed in such a way that it meets the needs of organizations that are contributing data, models, and science.

Themes from Day 1, Continued

People & Partnerships

- **"Who you going to call?" –** Science translators being at the ready to answer engaged communities questions regarding data, patterns, practices, models, results, etc.
- **Communication –** Essential to stimulate initial and ongoing buy in on partnership models. Need to articulate success stories or case studies to attract and onboard more users and providers through partnerships.
- **Collaboration –** Through deeply committed Public-Private Partnerships (P3s) and other innovative relationships is critical.
- **Varied Constituents –** There is a wide variety of public and private stakeholders and their technical capabilities. Consistent engagement and communication with these stakeholders at a variety of technical and non-technical levels will be needed. Harnessing the pace of technology change in the private sector and interplays with academia are key elements of success.
- **"Haves & the Have Nots" –** Organizations/Localities with resourcing and capability will likely do their own thing and participate only if they see benefit. Organizations/Localities with little to no capability should very much be considered in the creation of any publicly funded shared service.

Governance & Acquisition Models

- An opportunity exists to revaluate existing governance and acquisition models to co-create the needed consolidated Federal mapping service.
- How can the Chief Data Officer (CDO) Council and FGDC work in coordination to not only create but maintain in the long term needed data and shared services.

What Now & What Next?

- From the NGAC's perspective - what are critical needed elements of the report to the Climate Task Force?
  - Some good 'raw materials' already exist within many of the NGAC's recent products.
  - Example: P3 paper/recommendations include a specific focus on a new level of national governance for the NSDI that could align with this effort.
- FGDC Consolidated Federal Mapping Service Report leads could share existing report outline as currently drafted to seek NGAC feedback, inputs, and identify possible gaps.
  - What's the appropriate framework or approach to crafting this report?
  - Which additional participants should be involved or consulted with?
  - How would further topical workshops inform the report's creation?
- Are there initiatives within the CDO Council that FGDC staff and member organizations can support and bolster?
  - How might a CDOC + FGDC collaboration yield greater likelihood of success?
- Others…?

Summary from Day 2 Discussion

- **Ease of Use** – Services must be provided in an easy-to-use manner. Consumers of these data should be able to understand the intent and use the data without have a “PhD in climatology”
- **Fit for Use** – In making these data available to users, “fit for use” and “intended use” must be communicated clearly in a way that prevents users from applying the data in an inappropriate or unintended way.
    - The “portal” environment enables potential users to understand how the data is intended to be used if communicated succinctly.
- **Specificity** – Define what information should be served as services. Define the information products that will be useful to the geospatial community
    - Provide both raw data and actionable data.
- **Provide a “recipe book”** – Provide recipes based on incident/issue type. For example, if the user’s issue is flooding, what are the data layers that will prove useful to the user’s mission? Sharing the methodology and lessons learned from one municipality, city, state, region with others can be used to create a “recipe book” for success.
- **Define the technological approach** – To improve the user experience, each federated agency should consider registering their services into a common portal. This increases visibility and provides a ”one-stop shop” for critical climate data.