Coordinating Group on Scenarios and Interpretive Science

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Who we are

- Collection of motivated research and applied mission agencies with strongly overlapping interest and needs in this space.
- Predominantly grass roots effort and flexible operating style.
- Long history of working with each other and productivity that carries over into this space.
- Includes DOE, Forrest Service, EPA, NASA, NOAA, USGS, DOD and others.
- Building connectivity with other groups, including the Roundtable.

The “Scenarios Group” Mission

“Building the foundations for a coordinated U.S. scenario science enterprise to respond to shared agency information needs for quantitative and qualitative scenario-related products aligned around regions, sectors, systems, and topics over spatial and temporal scales of interest ”

- Advancing collaborative science on critical gaps
- Enhancing methodologies for use-inspired scenario development, risk framing, and contextual interpretation
- Developing the next generation scenario work products for model inter-comparisons, assessments, and analyses
- Improving interagency communications, coordination, and accessibility to knowledge, work products, and technical resources

Advancing collaborative science on critical gaps

- Advance the foundational science and the corresponding data products and tools for global change scenario development and use.

- Synthesize and incorporate new understanding of societal (e.g., economic development, human behavior, technology evolution, engineered systems) and broader environmental research into a more expansive set of scenarios while continuing to improve physical climate scenarios.

- Support and forge collaborations with other key USCGRP elements to improve modeling and integrated analysis, robust risk framing, and uncertainty characterization centered around scenarios and scenario development (e.g., IGIM and INCA).

Enhancing methodologies for use-inspired scenario development, risk framing, and contextual interpretation

- Improve understanding of agency and other major use-inspired needs aligned by spatial scales and geographic regions, sectors, systems, topics, and time horizons of critical interest.

- Develop and test broadly applicable scenarios methodologies for translating USGCRP research into contextually relevant scientific information, including risk framing and uncertainty characterization for agencies and other major users.

- Target methodologies and develop guidance around critical multi-scale challenges where scenario information at defined spatial and temporal scales inform and are informed by adjacent scales (e.g., nested scenarios).

- Ensure that user feedback and evaluation is continuously incorporated into improvements of the methodologies.

Developing the next generation scenario work products for model inter-comparisons, assessments, and analyses

- Develop targeted scenarios and scenario products for and influenced by major inter-agency, coordinated uses such as the NCA, IPCC, and CMIP.

- Provide broadly applicable scenario work products and capabilities that respond to ongoing agency needs and potentially broader, major uses for research, assessments, and decision support at sub-national, national, and international scales.

Improving interagency communications, coordination, and accessibility to knowledge, work products, and technical resources

- Improve and provide a forum for cross-agency sharing, learning, and advancement of scenario concepts, best practices, ongoing and planned research, and research capacity and needs.

- Leverage interagency and agency networking capacity, visualization tools, case studies and other communication mechanisms to improve information exchange and public access to scenario products, tools, data, and methodologies.

- Leverage and support external knowledge and capacity to develop and support scenario work products.

Near-Term Focus Areas

1) Human Dimensions (strong push)
   - Land use/land cover change (winter workshop)
   - Population/migration and, later (winter workshop)
   - Regional economics

2) Climate/environmental systems (coordination)
   - Regional climate outlooks
   - Regional sea level rise (DOD)

3) Scenarios for CMIP 6 and nesting/boundary issues for U.S. scenarios activities
   - RCPs and Shared Socioeconomic Pathways
   - Other issues and summer workshop series

4) Fundamental methodologies, interpretation, risk-based framing and contextual basis

Collaboration Opportunities

- Discussions surrounding the more tactical interests of two upcoming workshops
- Longer term dialog on connections beyond the workshop