**Goals:**
- Design compelling visions
- Identify gaps
- Develop a research agenda

**Participants** (Data-driven FEW & Data Sciences)

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**Finding 1:** Data & Data Science are crucial!
- Understand problems, connections, impacts
- Monitor FEW resources, and trends to detect risks
- Support decision and policy making
- Communicate with public and stakeholders

**Finding 2:** However, there are show-stopper gaps.
1. **Data Gaps:** No global water & energy census, heterogeneous data formats & collection protocols
2. **Data Science (DS) Gaps:** Current DS methods are inadequate for spatio-temporal-network FEW data. Strong assumptions in DS need examination for better coupling with mechanistic models (e.g., Physics)

**Potentially Transformative Research Agenda:**
- National FEW Nexus Observatory & Dashboard for chokepoint monitoring, alerts, warnings (See Figure above)
- Novel Physics-aware Data Science for mining nexus patterns in multi-scale spatio-temporal-network data despite non-stationarity, auto-correlation, uncertainty, etc.
- Scalable tools for consensus Geo-design via participative planning with nexus observations and policy projections
- An INFEWS data science community to address crucial gaps, and shape next-generation Data Science

**Next:**
(a) Workshop report in Jan. 2016. (b) Symposium at NCSE National Conf. on Science, Policy & Env. (2pm-3:30pm, Th. 1/21/16, Crystal City, Washington D.C.)