OBSERVATIONS

Toward a first cut at summarizing....
Watching with Different Sets of Eyes

- The Meta-Perspective
- Science/Assessment eyes
- Golden State Decision-Makers eyes
- Complete outsider eyes
I. Meta-Perspective

- What was this all about?
- The terrain we’ve covered
- The territory we didn’t say much about
Drivers / Constraints of change:
1. Population
2. Economy
3. Technology
4. Policy / Institutions

Sources of vulnerability / adaptive capacity:
- RCMs (statistical - dynamic)
- GCMs

Impacts Cascade:
- Vulnerability / Adaptation

Past ➔ Present ➔ Future

Decision-Makers
Experts
Body Politic
The Public(s)
Little mention of...

- Institutions and institutional change
- Political economic and value landscape
- Other players... Change agents
- Tipping phenomena in the social world (“the other non-linearity”)
- Importance of science relative to other factors weighing in on decisions
II. Promising Steps Forward in Science/Assessment

- Decision Context and Uncertainty
  - Causality: Retrospective analyses
  - Sensitivity/Criticality: “salmon run” approach
  - Specificity: Higher/adequate temporal and spatial resolution
  - Relevance: Get the decision timeframe right
    - Timing of information supply
    - Planning timeframe
  - Contextuality: Understand DM culture, structure
  - Evaluation: Post-mortems
Moving Forward (cont.)

- Socio-Economic Futures and Uncertainty
  - Path-dependencies, emerging properties (w/ "history check")
  - Deeper understanding of underlying functional relationships in scenarios (e.g., demographics)
  - Apollo 2 and 1
  - Cost, facilitation of various mitigation options (various levels of C constraints)
    - Need multiple reference cases
  - Systematic incorporation of economic models
  - Imagine surprises
Moving Forward (cont.)

- Climate Futures and their Uncertainties
  - Climate sensitivity
    - Radiative forcing, aerosols, ocean heat uptake etc.
    - Signal : Noise ratio
  - Much progress and hope in downscaling
    - Scale-dependent parameterization
  - Joint probabilities of temp and precip changes
  - Damage functions, rather than emission drivers
  - Multi-model comparisons of abrupt climate change
Moving Forward (cont.)

- Consequences and their Uncertainties
  - Economic impacts:
    - Various models, specification and validation
    - Focus on “out-of-equilibrium” behavior, additional costs
    - Choice set of decision-makers
    - Human behavior and values – disaggregated, changing
  - Ecological impacts:
    - Compare models driven by diff. scenarios
    - Synergistic ecological impacts
    - Biotic interactions
    - Impacts of mitigation options
- Vulnerability/Adaptive Capacity
  - Vulnerability scenarios and other approaches
  - Develop policy options
Moving Forward (cont.)

- Integrated Treatment of Uncertainty
  - Systematic integration of economic, socio-economic models into IA
    - Cost of abatement methods, impacts
    - Include learning in models (adaptive, sequential decision-making)
    - Interaction among strategic actors
  - Expert solicitation – opportunities and constraints on combining EO
  - Use different approaches (AM, RS) to systematically uncover/assess uncertainties, vulnerabilities
  - Framework for defining “dangerous” climate change
Moving Forward (cont.)

- **Communicating Uncertainty**
  - Strategic communication (know the opposition; timing)
  - Courage to be “certain”: what’s known?
  - Resonance: Connect with people’s experience, mental models, become better story tellers; help solve problems
  - Evidence & Persistence: Shore up risk-taking decision-makers; keep talking
  - Message about inertia in climate and social system; what we’re already committed to
  - Rational guidance on communicating degrees of uncertainty and confidence
  - Education
III. What’s California Taking Home?

Kingdon’s Policy Windows Model

- Climate Change as aggravor
- Climate Change as accelerator
- Policy Window
- Problem Stream
- Policy Stream
- Political Stream
- Climate Change as motivator
What’s California Taking Home?

- Committed, engaged experts
- Prospect of downscaled climate projections
- Prospect of impacts studies, info on extremes
- Vulnerability/adaptive capacity/option space assessment
- Focus on synergisms
- Track impact of decisions, deliberate learning
- Confirmed: difficult decisions still to be made with great uncertainty > hedging, robust strategies, no-regrets
- Avoid lock-in; learning is possible
IV. What will you say about this when you get home?

Known  Unknown  Unknowable  Learning

MEETING!

Thanks!