



# Discussion on Framing White Paper

Under the Snowmass Tent  
25 July 2014

# The Three + 2 Rules

- No whining
- No grandstanding
- It's not about me
- Try to be both interesting AND useful
- No badmouthing our colleagues
- (unless they're really asking for it?)

# The Challenge

- Bob Vallario said earlier in the week that this community seemed to be standing on the cusp of greatness...
- So, will we fall off the cliff?
- Or march into glory?
- I have no prediction about which we will choose
- I do, however, have several reasonable scenarios to which I refuse to attach any probability of occurrence

# The Challenge

- But I can assert that we are more likely to have a good outcome – defined as
  - more productive collaborations,
  - more interesting results,
  - more useful results, and
  - better understanding of both the decisions that are available to be made about climate adaptation and mitigation, and
  - better understanding about how to analyze them
- If we are able to be clear about what we are trying to do

# The Question Space has Evolved Substantially

- Very clear from this meeting that there is much more productive discussion among the various IA modeling communities and impacts and adaptation researchers than there was even a few years ago
- I think the climate discussion is also changing
- Now moving into a discussion about development pathways and the degree to which climate affects them, and is no longer just a discussion about the energy system's GHG emissions
- And how to inform a new set of decisions about adaptation and development, and the degree to which the climate system and climate policy affects them

# Re-Interpreting the Week

- On Wednesday, Karen offered a very good synthesis of where we had got so far
- Bryan did a similarly interesting synthesis yesterday about the morning's discussion
- So we might also think about what are the kinds of questions that now are beginning to motivate us, and the degree to which they might then be used to transition into a more specific agenda for research.

# Potential Formulation

- *How well are we currently adapted to environmental stresses like sea-level for fixed infrastructure? What strategies are available to reduce harm, increase resilience, and how might we represent them in models of different scales?*
- *What are the relative contributions of changes in demand and changes in the physical climate system for impacts in sectors that we care about (e.g. agriculture, water resources, energy)?*
- *What levels of adaptation would be necessary to offset agricultural and/or energy impacts? How might this vary depending on investment in either mitigation or adaptation policies? How might this vary depending on the underlying sensitivities of either the impact sectors? or climate sensitivity?*
- *What are potential interactions between adaptation and mitigation policies for sectors already included in the IAMs?*
- *Are there significant differences between private adaptation (aka autonomous) and public policy meant to stimulate adaptation, and when do those differences matter?*
- *What are the costs and effectiveness of private and public adaptation?*

# Or, from a modeling standpoint

- *In sectors that the IAMs already include (e.g. energy, agriculture), what insights into both private and public decision making about adaptation, its cost and effectiveness, do we have, and could we have from empirical studies? How could we accelerate the investment in such studies?*
- *In sectors that the IAMs already include, how can they better capture the insights from empirical and theoretical (process-modeling) adaptation studies? What are the major aggregation challenges? What are better methods for aggregation?*
- *In sectors that are not currently included (e.g. urban concentrations, representation of infrastructure, tourism), or for processes that are difficult to represent (e.g. institutional strengths and weaknesses, corruption, enforcement), are there experimental strategies that could shed light on their relative importance? What kind of additional model development would make sense to take infrastructure and urban situations into account, at least so that impacts and adaptation in sectors for which these are important features could be represented?*

# Discussion

- Have envisioned a white paper similar to several that Snowmass has produced before
- With a focus on a research agenda, not necessarily specific current results
- Illustrated with current capabilities and challenges
  - Framing questions
  - Specific goals
  - Tangible actions towards those goals
  - Needs for those actions

# A Simple Plan for Moving Forward

- Feedback on framing questions – now and ongoing
- Steering Committee has already signed up to work on a white paper
- But we don't want to do it alone – so would like to get some volunteers to help
- Notion is that we would come forward with a draft to share roughly in the Thanksgiving time frame