Topic #1: How do we translate information across communities (e.g., from impacts models to integrated assessment models to social cost of carbon models)?

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Snowmass

How do we translate information across communities?

- More than one way to interpret this question

  - A process question – How do we currently do it?
  - A critique – How well do we do it?
  - A request for an approach – How should we do it?

What information do we need to "translate?"

- Historic information (our starting points) – physical & economic, observations & estimates

- Socioeconomic trends & behavioral characterizations

- Climate variable responses

- Impacts studies

- Damage studies

- Adaptation options – costs and effectiveness

Translation challenges to integrated assessment

- Synthesis vs. select studies
- Physical vs. empirical vs. simulated results – reconciling, utilizing
- Utilizing more detailed, narrowly focused results
- Point estimates vs. functions
- Inconsistencies across studies & sectors
- Interactions between sectors & regions
- Representing variability and extremes
- Characterizing uncertainty – which uncertainties? Specification?
- Extrapolation beyond observations
- Research not designed for the purpose
- Deciding what is appropriate for IAM modeling

Processes are needed that acknowledge and addresses challenges

Discussion questions

1. Which "how do we translate" question(s) do we want to address?

   – Process – How do we currently do it?

   – Critique – How well do we do it?

   – Approach – How should we do it?

2. What are the most important translation challenges?

3. Are there community opportunities?

   – Would an initiative to define needs and initiate focused research be helpful?

   – Would an overview of translation challenges and guidance of some sort be useful?