



Forest Assessments: Use of Storylines and Scenarios

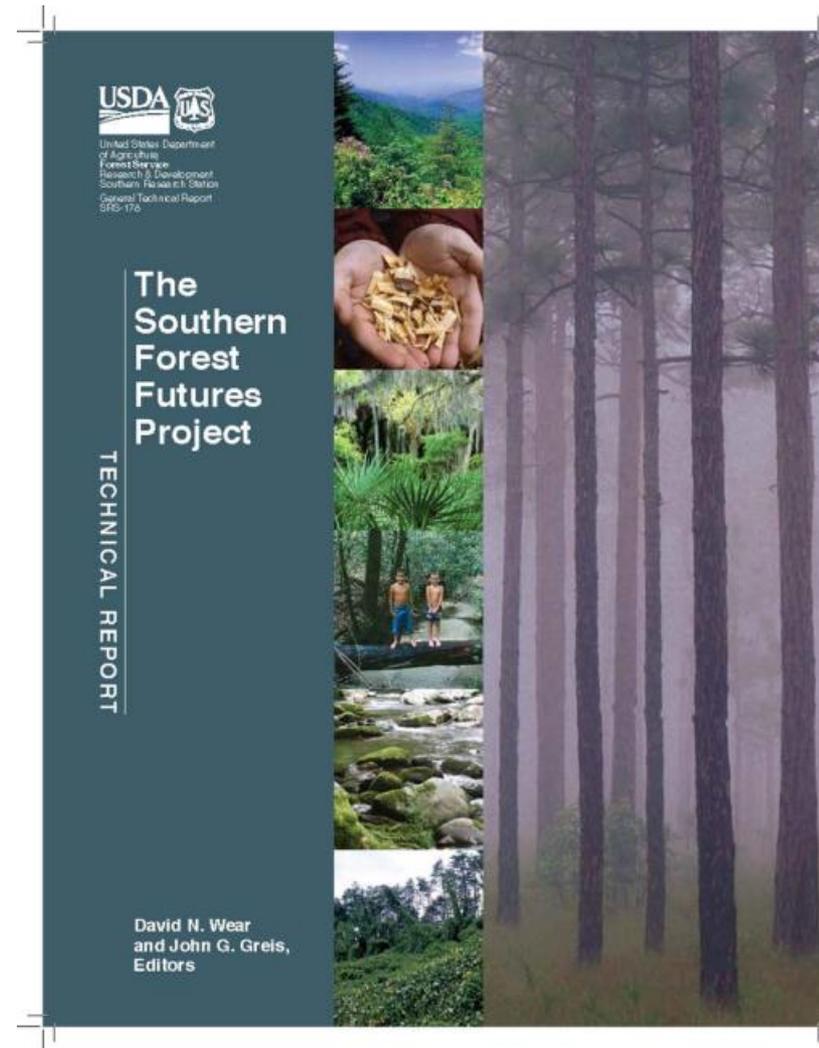
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Objective

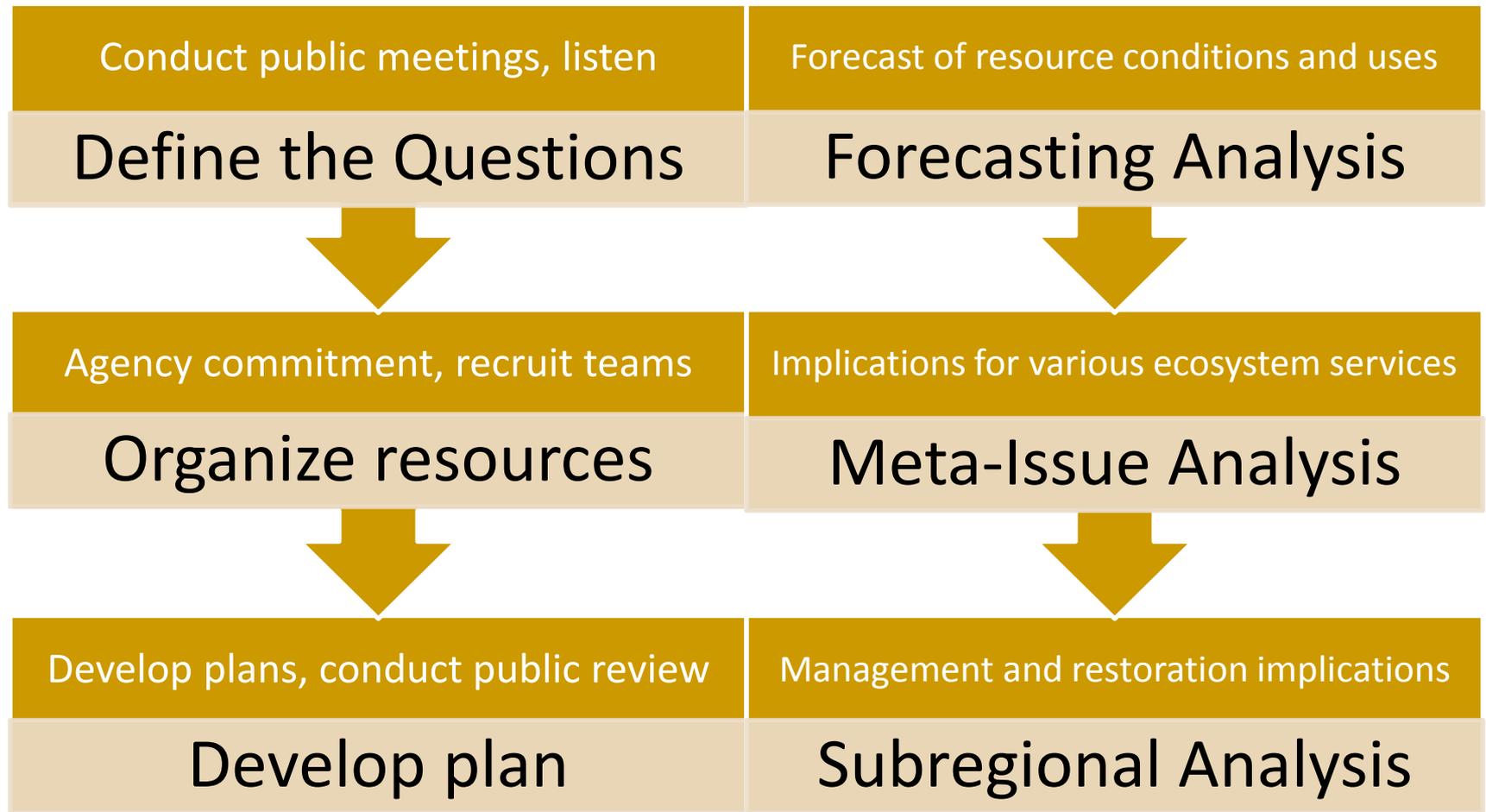
- Provide context for next session's question:
 - What is needed to construct story lines and scenarios
- Examine the use of storylines/scenarios in FS forest assessments
 - National: RPA Assessment
 - Regional:
 - Southern Forest Resource Assessment (2002)
 - Southern Forest Futures Project (2013)
 - National Forest planning

What is the SFFP?

- The Southern Forest Futures Project (SFFP) provides a science-based “futuring” analysis of the forests of the southeastern United States
 - Anticipating the future
 - Identifying concerns regarding forests and services
- The ultimate goal is to translate science findings into useable information for management planning and policy making
 - Not prescriptive
 - “information foundation” for policy



Approach



National versus regional

Southern Forest Futures Project

- Bottom-up
- Question-driven
- Episodic
- Off-the shelf
- Science synthesis
- Immediacy
- Specific questions and places
- Managers and local ngos, policy

RPA

- Top-down
- Legislative mandate
- Cyclical
- Method development
- Science program
- Long view
- Broad questions and scale
- National policy audience

...but consistency is needed

Selection of scenarios-SFFP

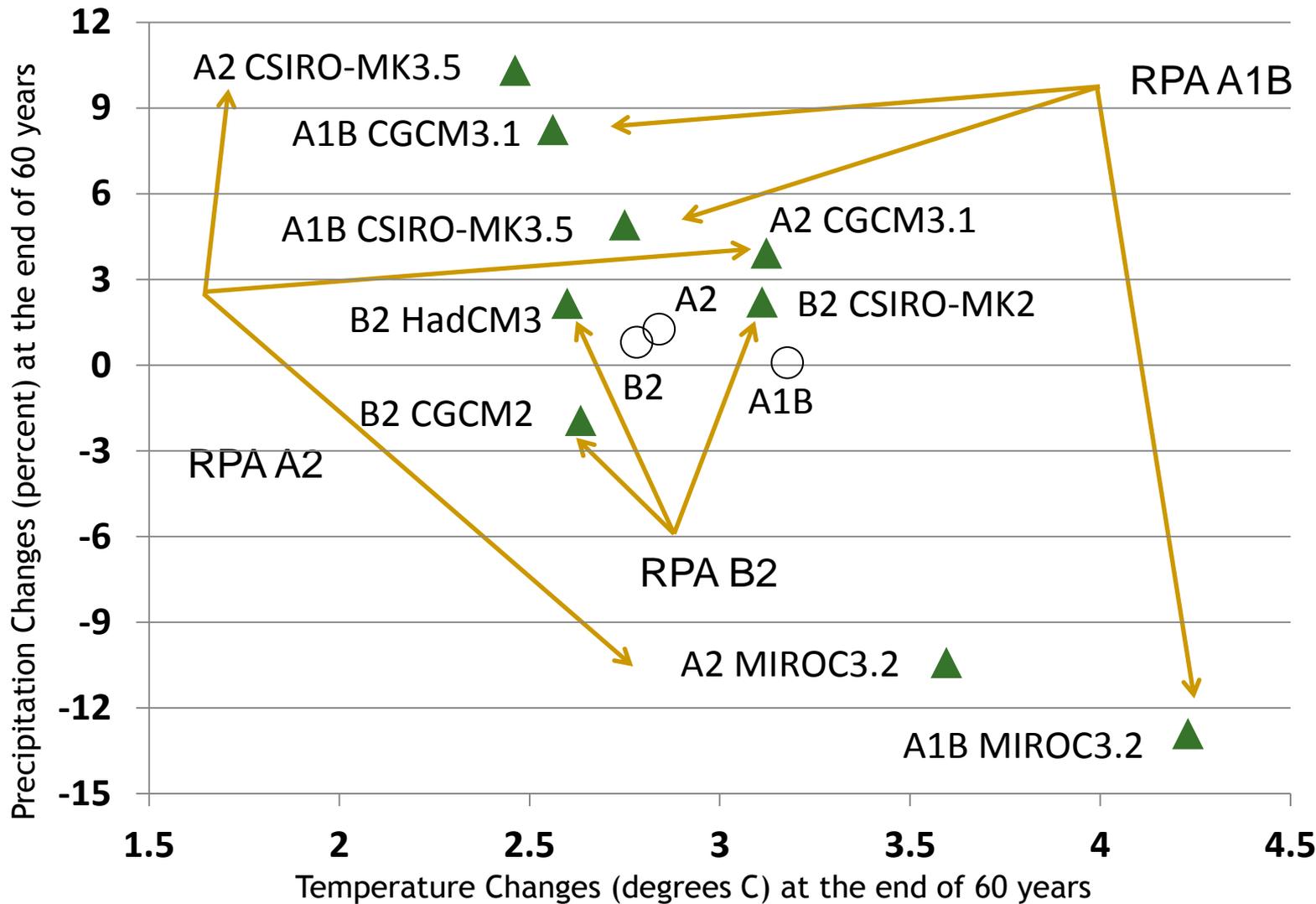
- Needed to select scenarios based on questions
 - Defining a representative span of future forest/land use conditions
 - Rather than full span of socioeconomic/climate conditions (focus wasn't on drivers per se)
 - Scenarios address an audience
 - Plausibility
 - Credibility
 - Manageability
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2010 RPA Scenarios - Socioeconomic Linkages

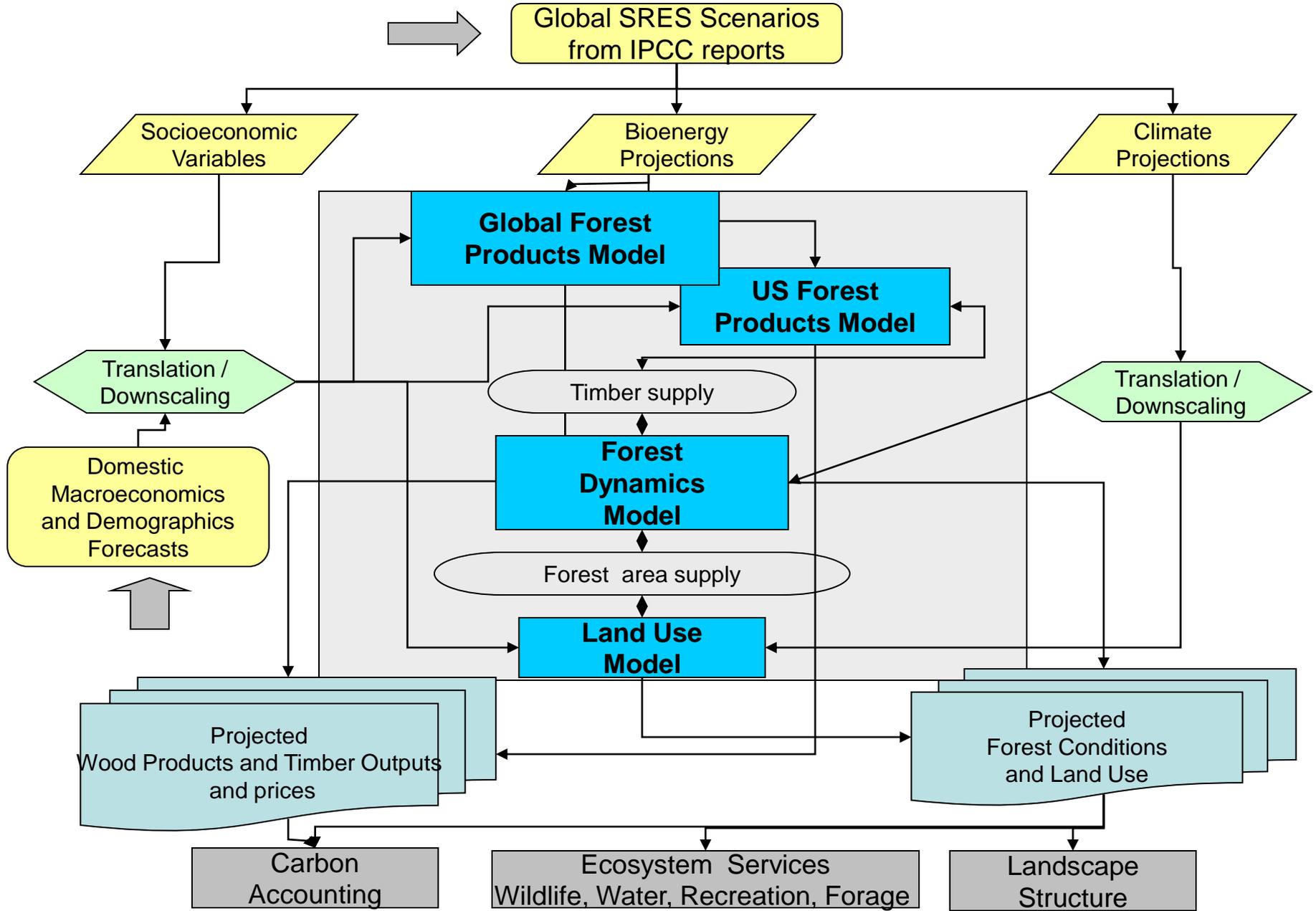


Characteristic	Scenario RPA A1B	Scenario RPA A2	Scenario RPA B2	Scenario RPA HFW
<i>Linked to International Context through IPCC SRES</i>				
Global Real GDP Growth (2010-2060)	High (6.2X)	Low (3.2X)	Medium (3.5X)	High (6.2X)
Global Population Growth (2010-2060)	Medium (1.3X)	High (1.7X)	Medium (1.4X)	Medium (1.3X)
Global Expansion of Primary Biomass Energy Production	High	Medium	Medium	Fuelwood demand follows historical trends in all countries
<i>U.S. national projections scaled to county</i>				
U.S. GDP Growth (2006-2060)	Medium (3.3X)	Low (2.6X)	Low (2.2X)	High (3.3X)
U.S. Population Growth (2006-2060)	Medium (1.5X)	High (1.7X)	Low (1.3X)	Medium (1.5X)
Expansion of U.S. Wood Fuel Feedstock (2006-2060)	High (15.7X)	Medium (9.4X)	Low (3.7X)	Historical (1.6X)

2010 RPA Climate Projections

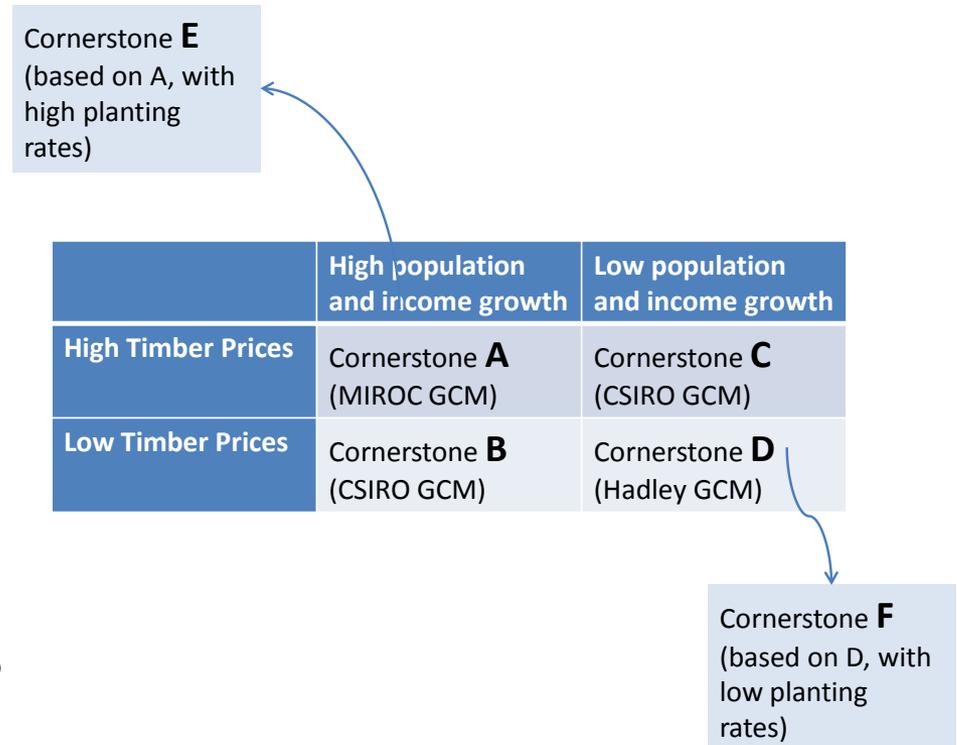


2010 RPA Models and Scenario Analysis: Forests



Cornerstone Futures

- Alternative futures defined by coherent scenarios (linked to RPA):
 - Population/income forecasts
 - Climate forecasts
 - Product market futures
 - Tree planting intensities



■ 2010 RPA Assessment

- Using IPCC linkage worked well to ensure both globally and nationally consistent assumptions that linked socioeconomic and atmospheric drivers of change on natural resources.
 - Traditional RPA audiences didn't always identify with "equally likely scenarios, as opposed to comparisons to a "business as usual" scenario.
 - Need to better communicate the use of scenarios to frame the RPA analysis, and to link more specific variations that resonate with various audiences of RPA.
 - How many scenarios?
 - Too many - difficult to deliver a take-home message
 - Too few scenarios: usually regarding the number of GCMs used
 - What's just right? - Limited time and resources, potentially escalating number of scenarios
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Lessons Learned - SFFP

- Professional/lay audiences find multiple scenarios difficult to consume.
 - Balancing comprehensive analysis against potential to inform perspectives of managers and policy makers
- Nesting a factorial approach within the SRES frame was useful
 - Addressed issues of immediate relevancy to audience
 - No unique downscaling from the SRES storylines
 - “What-if” nature resonated with audience

Future Scenario Needs for RPA

- The global linkage to both climate and socioeconomic projections is important, but it's not clear how we can make that linkage to IPCC - will SSPs provide the needed link?
 - Critical to be able to consistently aggregate across scales - from global to national and subnational scales.
 - Engagement/guidance on “what’s good enough” in the number of scenarios/climate projections used in resource analyses.
 - Recent publications suggesting “all” climate projections need to be considered in analyses.
 - Agency needs for considering other dimensions in their analyses that further complicates a determination on “what’s enough.”
 - What are “usable” climate and socioeconomic projections that result in analyses that are both scientifically credible and useful for management?
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