Needs for RSPs/CSAs:

1. What's the goal?
2. Urbanization as a scenario element

Brian O'Neill
National Center for Atmospheric Research (NCAR)

Energy Modeling Forum, Snowmass, Colorado
July 27, 2010

Framing a Set of Scenarios

What are you trying to do?
SRES: Span the emissions scenario literature

Overall aim of scenario set

What is the strategy for getting it done?
SRES: global/regional, economy/environment orientations

Logic or organizing principle of scenario set

How do you operationalize your strategy?
SRES: A1, A2, B1, B2, etc.

Span the literature
Bounding analysis
Address specific question(s)
Large array of exploratory futures
Meaningful to participants

Individual scenario elements: narratives, quantitative/qualitative socio-economic assumptions

Is urbanization an important CSA element?

Relevance as driver of emissions and determinant of mitigation

Relevance as determinant of impacts, adaptation, and vulnerability

Relevance to wider development issues

Relatively independent of climate policy

Relatively difficult to generate by individual research groups

What's already (or becoming) available

UN urbanization projections

All countries, single scenario, 2000-2050

Lacks alternative scenarios, outcomes beyond 2050, migration, rural/urban age structure
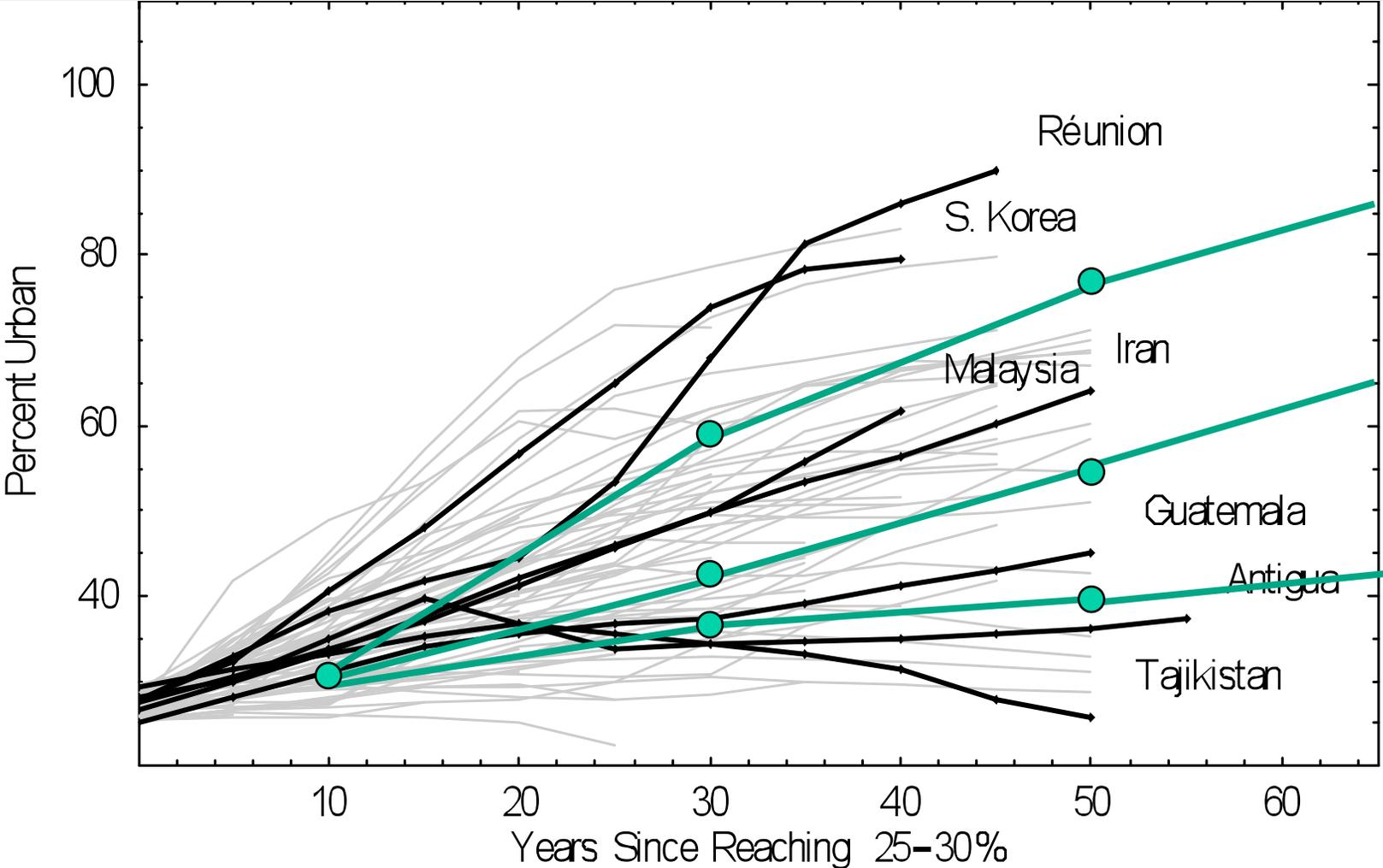
IIASA extensions of UN

All countries, A2/B1/B2 scenarios, 2000-2100

Lacks differences in outcomes over first few decades, migration, rural/urban age structure
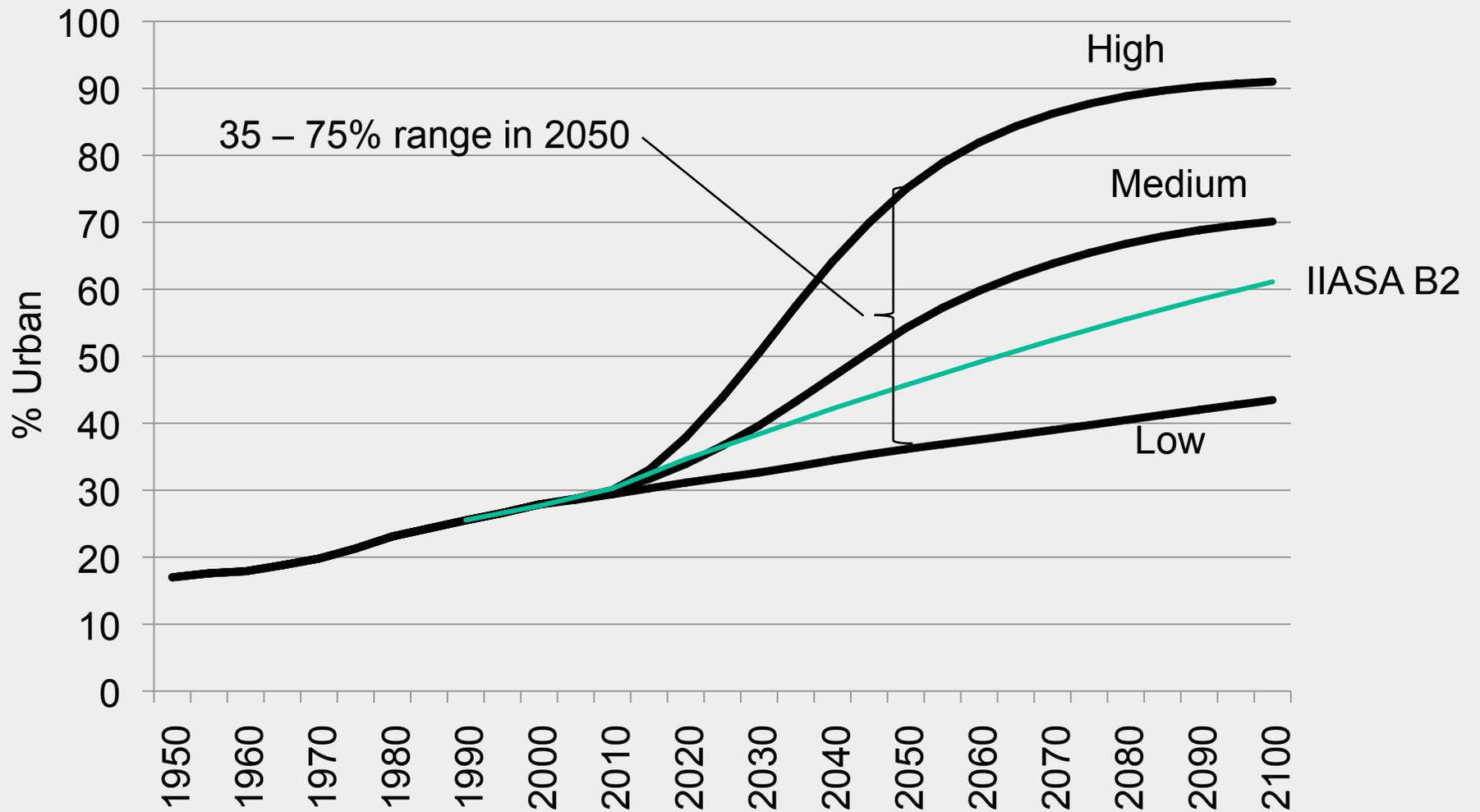
NCAR urbanization projections

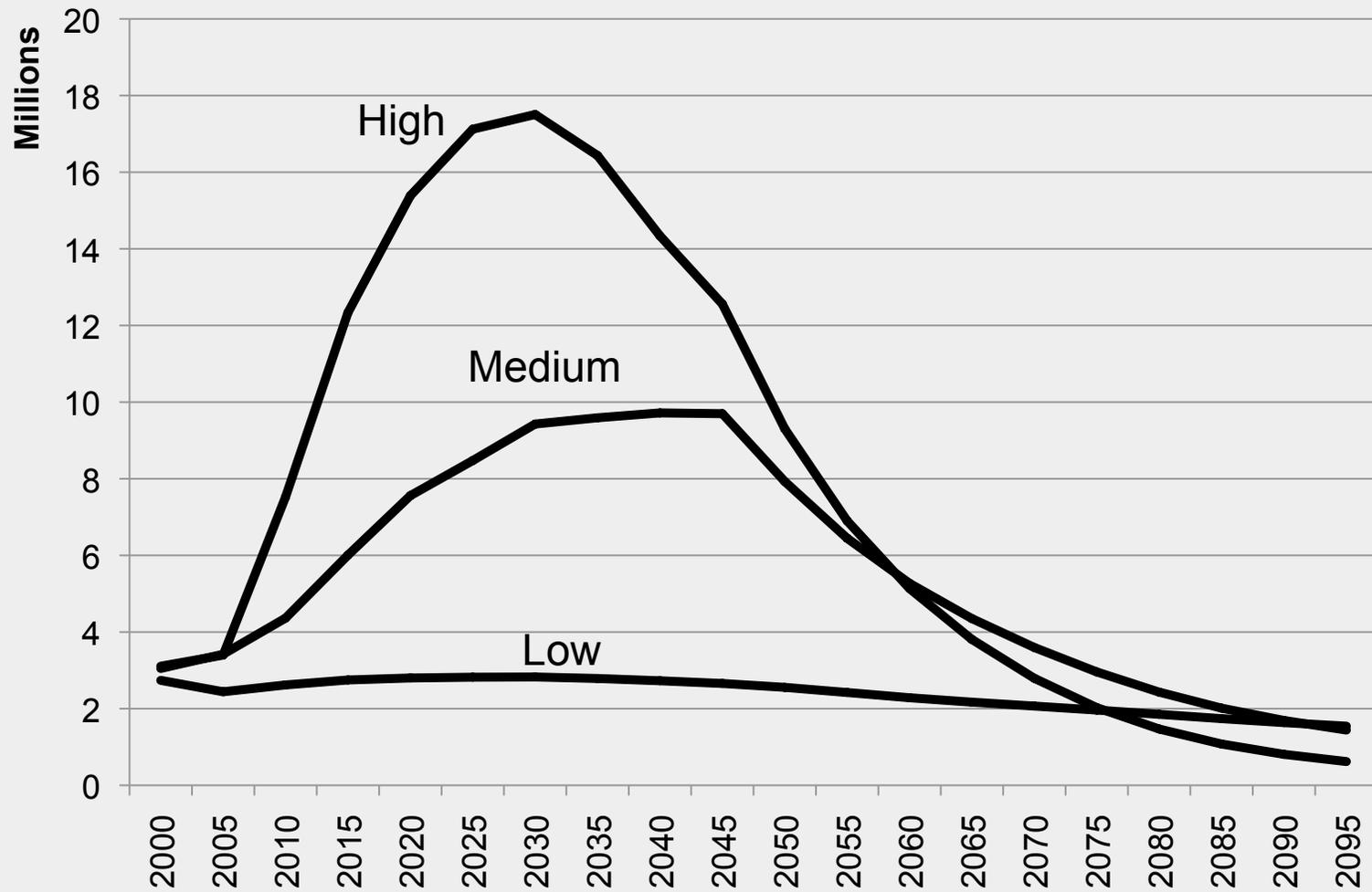**Key countries and UN sub-regions, multiple scenarios, 2000-2100**

India urbanization scenarios

Percent Urban vs. Years Since Reaching 25-30%

Réunion
S. Korea
Iran
Malaysia
Guatemala
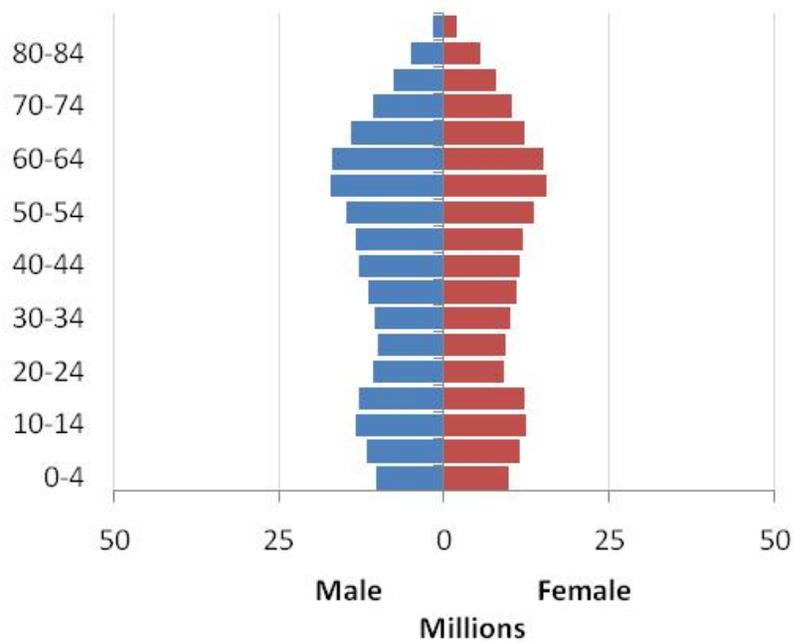Antigua
Tajikistan

Urbanization Scenarios for India

Rural-urban net migration under different urbanization scenarios, India

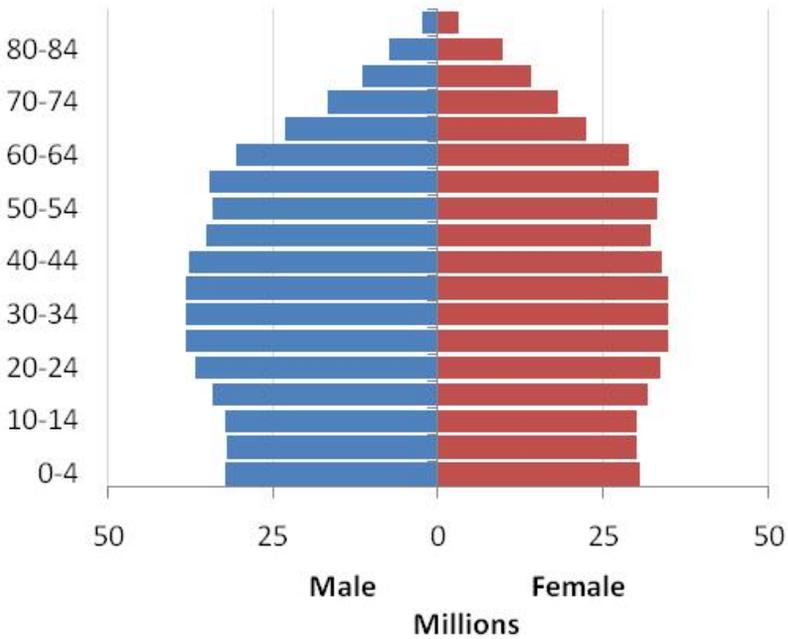# Projected Rural/Urban Age Structure, India

Projected Rural/Urban Age Structure, India