Workshop on Quantitative Evaluation of Downscaling
August 12-16, 2013

http://earthsystemcog.org/projects/downscaling-2013/

NCPP Core, Technical and CSAT teams
Galia Guentchev
MAPP webinar, November 15, 2013
Objectives of Workshop

- Bring different **communities** together
- Present and discuss elements of a Quantitative **Evaluation** framework of downscaled climate data
  - From framework to standard
- Discuss the needs and types of supporting information needed to **translate** digital climate data for use in applications
- Establish applications **working groups**
  - Water resources, Agriculture, Human Health, Ecological impacts
Workshop Organization

Day 1

- Introduction of NCPP framework and capabilities
  - Evaluation framework – Protocols and Metrics
  - Evaluation infrastructure – Earth System Grid node stored comparisons, Metadata capabilities, Climate Translator and OCGIS, CoG environment
- Observational data – inter-comparisons discussion

Available through CoG Advanced search

ESG stored downscaled data comparisons

Regional and local data provision available through Climate Translator + Open Climate GIS

Monday

Tuesday

Wednesday

Thursday

Friday
Workshop organization

**Days 2 and 3 – Downscaling evaluation**

- Downscaling – methods and evaluations; **Perfect model experiments**
- Applications working groups – Experiences, challenges in use of climate data

**Types of protocols**

- **Observational**
  - Validation by comparison to observed data
- **Perfect model**
  - Comparison to a high-resolution GCM; allows evaluation of nonstationarity
- **Idealized scenarios**
  - Comparison to synthetic data with known properties

http://earthsystemcog.org/projects/downscaling-2013/protocols
Workshop Organization

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Days 4 and 5 – Translation for Applications**

- Applications working groups – gaps and needs for translation and guidance
- Wrap up and next steps – audience, activities, needs and gaps
The participants identified the “target audience” for NCPP efforts

- The sophisticated users and early adopters from boundary organizations such as RISAs, CSCs, USDA hubs, extension agents, NGOs
- “Do not do this alone - Find partners!”
How good are the data for my region and application? What are the best choices of downscaled data for my application?

What can NCPP do for you?

**Full product stream**

- Observed, GCMs, and downscaled climate model data and indices – access, metadata, historical evaluations and inter-comparisons
- Ensembles of downscaled future projections
- Uncertainty descriptions
Structured guidance on downscaled data with highest credibility for an application and area - Practitioner’s guide

- How to choose a stable ensemble?
- “Nutrition label” summaries

Tiers of translational information for various users
Workshop website

http://earthsystemcog.org/projects/downscaling-2013/

Agenda
Evaluation of workshop
Workshop tools
Working groups outcomes

Advanced search of evaluations