Introduction to Federal and EPA Climate Change Web Resources

Andy Miller
Associate Director for Climate
Air, Climate, and Energy Research Program
US EPA Office of Research and Development

Major Federal and EPA sites



- Federal science and adaptation sites
 - USGCRP Website http://www.globalchange.gov/
 - US Climate Resilience Toolkit http://toolkit.climate.gov/
- EPA climate, adaptation, and science sites
 - EPA Climate Change website -http://www.epa.gov/climatechange/
 - EPA Climate Adaptation Resource Center (internal) <u>http://intranet.epa.gov/arc/</u>

Major Federal and EPA sites



- By far, most of the available information addresses preparation for, and adaptation to, the expected impacts of climate change
 - Preparation and adaptation activities tend to be more immediate and amenable to action by individuals and communities
- Information on mitigation is more limited
 - Some good information on what individuals can do
 - Mitigation actions tend to be more focused on specific sectors (e.g., transportation, electricity generation, agriculture, infrastructure)

Caveats



- Most of the available information is historical
- Growing availability of projections of future conditions and impacts
- Be careful! Projections are most certain for global/continental scale, multi-decadal averages, and large-scale parameters (e.g. temperature)
- Certainty is considerably lower for local scales, short duration (less than a decade), or local events (e.g., precipitation) – exactly the parameters needed to make decisions!



globalchange.gov

US Global Change Research Program



- USGCRP established by Global Change Research Act of 1990
- Interagency research coordination and evaluation effort
- Under Office of Science and Technology Policy (OSTP) and Committee on Environment, Natural Resources, and Sustainability (CENRS)
- 13 member agencies, including EPA
- Required to develop a quadrennial national assessment of impacts of global change

globalchange.gov



- globalchange.gov is the USGCRP website
- High level overview of agency climate research activities
- National Climate Assessments (current and past)
- Our Changing Planet (annual USGCRP report to Congress)
- Good resource for climate science, national- and regional-scale impacts

http://www.globalchange.gov



Climate Resilience Toolkit

U.S. Climate Resilience Toolkit



- Interagency development team, led by OSTP
- Developed in response to the President's Climate Action Plan and Executive Order 13653 – Preparing the US for the Impacts of Climate Change
- Guidance for communities and others on adaptation actions
- Basic summaries and guidance, case studies, and data and tools from across federal agencies

http://toolkit.climate.gov/

A Personal Choice



 An additional resource (not on the Climate Resilience Website):

US Forest Service's "Climate Projection FAQ" Provides an excellent overview of strengths, limitations, and other important background information regarding use of downscaled climate data:

www.fs.fed.us/rm/pubs/rmrs_gtr277.pdf



EPA's Climate Change Web Page(s)

EPA Climate Change Web Site



- EPA's information on climate change
 - Regulatory actions
 - EPA climate indicators
 - GHG emissions data
 - Benefits report
- Overview of climate change
 - Why is the climate changing
 - What can we do about it?
 - What are the impacts of climate change?

http://www.epa.gov/climatechange/

http://www.epa.gov/espanol/cambioclimatico/index.html



EPA Adaptation Resource Center

Adaptation Resource Center



- Developed by OP
- Intranet internal EPA use only
- Good source for background materials
 - EPA Adaptation Plan, Office-specific Adaptation Implementation Plans
 - Links to President's Climate Action Plan, OW National Water Plan Climate progress highlights
- Training modules
- Communication materials

http://intranet.epa.gov/arc/

Wrap-up



- This has been a quick overview of a few key resources on climate change information
- There is a tremendous amount of information available
- Easy to become overwhelmed don't hesitate to ask for help!
- Andy Miller, miller.andy@epa.gov, 213-244-1809

Additional internal EPA resources:

ACE@Work

ACE Research News



List of highlighted links

Links – globalchange.gov



globalchange.gov: http://www.globalchange.gov/

Understand Climate Change: http://www.globalchange.gov/climate-change

Explore Regions & Topics: http://www.globalchange.gov/explore

National Climate Assessment: http://nca2014.globalchange.gov/

Extreme Weather: http://nca2014.globalchange.gov/report/our-changing-

climate/extreme-weather

Southwest: http://nca2014.globalchange.gov/report/regions/southwest

Resources, Data, & Multimedia: http://www.globalchange.gov/browse

Indicators: http://www.globalchange.gov/browse/indicators

Multimedia Gallery: http://www.globalchange.gov/browse/multimedia

Federal Resources – Regional Information and Modeling:

http://www.globalchange.gov/browse/federal-adaptation-resources/regional-climate-information-modeling

Links – Climate Resilience Toolkit



Climate Resilience Toolkit: http://toolkit.climate.gov/

Taking Action: http://toolkit.climate.gov/taking-action

Browse Tools: http://toolkit.climate.gov/tools

Assessing Health Vulnerability: http://toolkit.climate.gov/tool/assessing-health-

vulnerability-climate-change-guide-health-departments

Climate Explorer: http://toolkit.climate.gov/tool/climate-explorer

Topics: http://toolkit.climate.gov/topics

Training Courses: http://toolkit.climate.gov/training-courses

Find Experts: http://toolkit.climate.gov/help/partners

Federal Agency Cooperation: http://toolkit.climate.gov/content/federal-agency-

coordination

Not on the Resilience website, but a good resource – US Forest Service, Climate Projections FAQ at www.fs.fed.us/rm/pubs/rmrs_gtr277.pdf

Links – EPA Climate Change



EPA Climate Change: http://www.epa.gov/climatechange/

What EPA is Doing: http://www.epa.gov/climatechange/EPAactivities.html

GHG Emissions Data:

http://www.epa.gov/ghgreporting/ghgdata/reportingdatasets.html

GHG Inventory:

http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html

Regional Impacts: Southwest: http://www.epa.gov/climatechange/impacts-

adaptation/southwest.html

Benefits of Global Actions Report: http://www2.epa.gov/cira

Climate Change Science: http://www.epa.gov/climatechange/science/

Climate Indicators Report:

http://www.epa.gov/climatechange/science/indicators/index.html

What You Can Do: http://www.epa.gov/climatechange/wycd/

Climate Change and Water: http://water.epa.gov/scitech/climatechange/

Resources and Tools: http://water.epa.gov/scitech/climatechange/Resources-and-

Tools.cfm

Climate Change and Waste: http://epa.gov/climatechange/climate-change-waste/

Climate Change Research (EPA): http://www2.epa.gov/climate-research

Links – Adaptation Resource Center



Adaptation Resource Center: http://intranet.epa.gov/arc/

Impacts to EPA Programs: http://intranet.epa.gov/arc/two.html

EPA Toolkit: http://intranet.epa.gov/arc/four.html

Adaptation Tools: http://intranet.epa.gov/arc/four_1.html

Stormwater Calculator: http://www2.epa.gov/water-research/national-

stormwater-calculator