Greenhouse Gas Inventory Tools for States

International Emission Inventory Conference

Andrea Denny
U.S. EPA State and Local Capacity Building Branch

Randall Freed, Susan Brown, Anne Choate
ICF Consulting
In conjunction with the U.S. EPA State and Local Climate Change Program (SLCCP), 38 states and Puerto Rico have developed greenhouse gas (GHG) inventories as the first step in assessing opportunities for mitigation. The Emission Inventory Improvement Program (EIIP) offers guidance on inventory preparation that is consistent with methods used at the national level. While comprehensive, this approach is resource- and data-intensive. As part of its continuing efforts to facilitate development of state inventories, the SLCCP has developed a set of spreadsheet tools. This paper describes the tools, which cover energy, landfills, industrial processes, agricultural sources, stationary and mobile sources (of methane and nitrous oxide), and forest carbon sequestration. The tools have been developed and applied in conjunction with inventory efforts in California and Texas, are being reviewed as part of inventory updates in Pennsylvania and Maryland, and will soon be available on the EPA Global Warming Web Site (www.epa.gov/globalwarming).
States typically address climate change following a three-phase approach:
- inventory development
- mitigation planning
- implementation of actions

State inventory tools aim to increase efficiency of the inventory process to reduce the time and resources required to get states to the third phase.
Tool Development - Scope

- Tools focus on the most significant emission sources:
  - energy
  - landfills
  - industrial processes
  - agricultural sources
  - stationary sources
  - mobile sources

- Tools will eventually cover forest carbon sequestration and other sources covered in the EIIP guidance
Total U.S. Emissions by Source

- Fossil fuel combustion: 81%
- Agricultural soils: 5%
- Landfills: 3%
- Enteric fermentation: 2%
- Manure management: 1%
- Other sources, not covered: 8%

Emission Sources Covered by State Inventory Tools
Tool Development: Design

- Structured as Excel® workbooks
- Prompt users to input state-specific data or select default data, where available
- Macros and user-friendly displays facilitate calculation
- Emphasize transparency in calculations, allowing modifications by states where appropriate
Sample Input Sheet: Energy Tool
Sample Output Sheet: Waste Tool
Availability

- Beta versions of the following tools are under review:
  - energy
  - agriculture
  - waste
  - industrial processes

- All tools will be available online in downloadable format later this year at: [www.epa.gov/globalwarming](http://www.epa.gov/globalwarming)

- Eventually, EPA may make CDs available with the complete set of tools
For more information

Contact:
Andrea Denny
U.S. EPA State and Local Capacity Building Branch (6205 J)
Ariel Rios Building
1200 Pennsylvania Ave, NW
Washington, DC 20460
Phone: (202) 564-3467; Fax: (202) 565-2095
Email: Denny.Andrea@epa.gov