

CO₂ Urban Synthesis and Analysis ("CO₂-USA") Network

J. Lin¹, L. Hutyra², C. Loughner³, A. Stein⁴, K. Lusk², L. Mitchell¹, C. Gately² and S. Wofsy⁵

¹University of Utah, Salt Lake City, UT 84112; 801-581-7530, E-mail: John.Lin@utah.edu

²Boston University, Department of Earth & Environment, Boston, MA 02215

³University of Maryland, College Park, MD 20742

⁴NOAA Air Resources Laboratory (ARL), Silver Spring, MD 20910

⁵Harvard University, Cambridge, MA 02138

Emissions of carbon associated with cities comprise a large component of the anthropogenic source. A number of cities have announced plans to reduce greenhouse gas emissions, but the scientific knowledge to quantitatively track emissions and assess the efficacy of mitigation is lacking. As the global population increasingly resides in urban regions, scientific knowledge about how much, where, and why a particular city emits carbon becomes increasingly important. To address this gap, researchers have initiated studies of carbon emissions and cycling in several U.S. cities, making it timely to develop a collaborative network to exchange information on community standards and common measurements, facilitate data sharing, and create analysis frameworks and cross-city syntheses to catalyze a new generation of researchers and enable new collaborations tackling important objectives that are difficult to address in isolation.

We describe initial results from an incipient network focusing initially on cities in the U.S. with low barriers of entry that entrains a cross-section of U.S. urban centers with varying characteristics: size, population density, vegetation, urban form, infrastructure, development rates, climate, and meteorological patterns. Results will be reported that emerged from the initial workshop covering data harmonization & integration, inventory comparison, stakeholder outreach, network design, inverse modeling, and collaboration. More information can be found on the project web site: <http://sites.bu.edu/co2usa/>

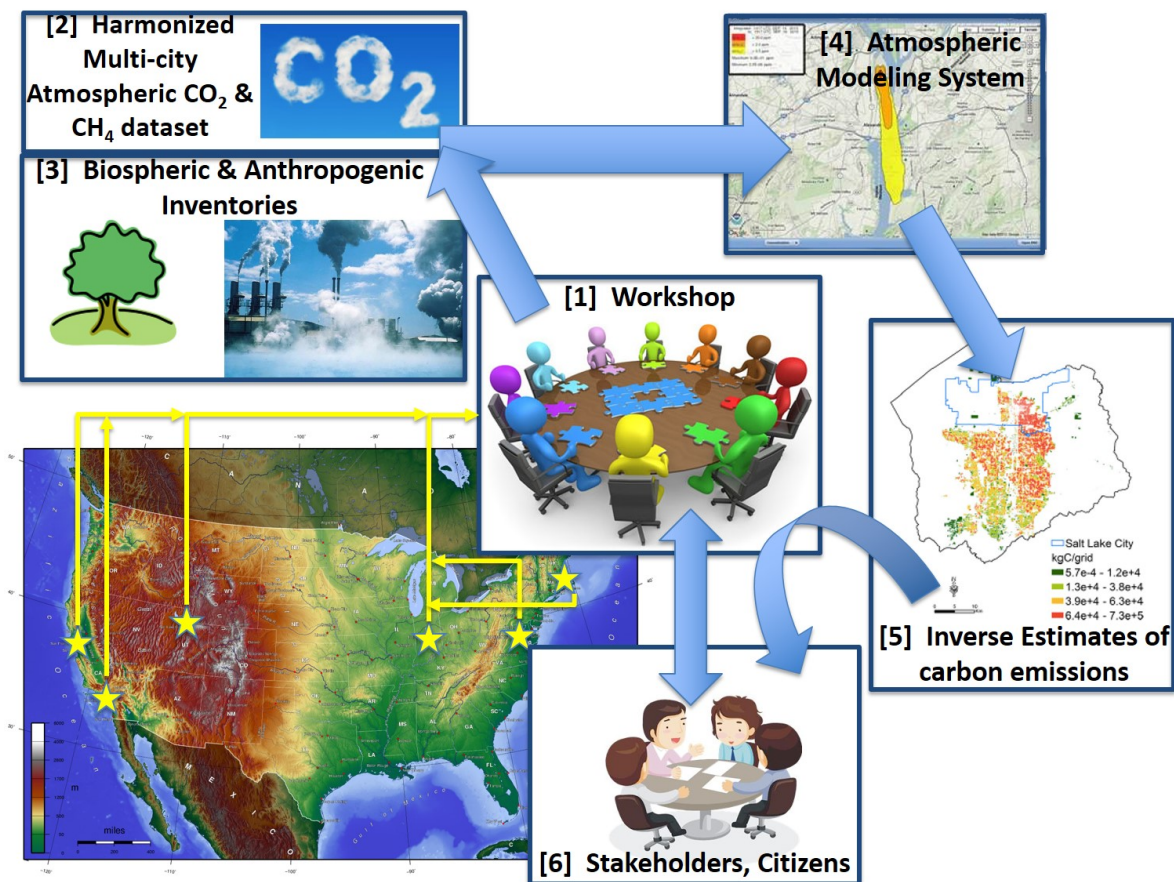


Figure 1. CO₂-USA project overview.