NCAR

Atmospheric Chemistry Observations & Modeling Laboratory

Joint EOL and ACOM Seminar

Quantifying interactions between technologies, behaviors, air quality, and climate: A case study in West Africa

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REACCTING (Research of Emissions, Air Quality, Climate, and Cooking Technologies In Northern Ghana) is a cross-disciplinary study designed to assess the emissions, behaviors, exposures and regional impacts associated with different stove technologies. Multiple improved cooking technologies were introduced to 200 randomly selected households in a region of northern Ghana in November 2013. Stove adoption and uptake were measured by multiple measures over a 2-year period. Pollutant emissions from all stoves, as well as other pollutant sources, were measured in the field. Personal exposures of CO and $PM_{2.5}$ of study participants were measured regularly and the source contributions to personal exposures assessed. Information gathered in the field is being used to inform emission inventories for the African continent, and applied at larger scales to evaluate source contributions to air quality and health outcomes. This presentation will include an overview of the project, how it came about, what we learned, and where we are going.

Dr. Christine Wiedinmyer is formerly a Scientist III at the National Center for Atmospheric Research in Boulder, Colorado. In 2017, she became Associate Director for Science at the Cooperative Institute for Research in Environmental Sciences at the University of Colorado Boulder. Her training is in the areas of chemical engineering and atmospheric chemistry, and her research for NCAR's Atmospheric Chemistry Observations & Modeling Laboratory focused on identifying the impacts of pollutants in the atmosphere. She is also a longtime member of the Earth Science Women's Network (ESWN), and currently serves on the organization's Leadership Board. Dr. Wiedinmyer holds a Bachelor of Science in Chemical Engineering from Tulane University and a PhD in Chemical Engineering from the University of Texas at Austin.

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NCAR Foothills Laboratory

3450 Mitchell Lane, Boulder, CO 80301

FL2-1022, Large Auditorium

Live webcast: http://ucarconnect.ucar.edu/live

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