

# THOMAS C. WIRTH

3450 Rose Lane,  
Falls Church, VA 22042  
USA

Daytime Phone: (202) 343-9313  
Fax Number: (202) 343-2359  
e-Mail Address: wirth.tom@epa.gov

## WORK EXPERIENCE

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08/2006 – Present

US Environmental Protection Agency

Washington, DC

Title: Environmental Protection Specialist

Member of the greenhouse gas inventory team in the Climate Change Division, Climate Policy Branch. Responsible for coordinating the Agriculture and LULUCF chapters of the annual *Inventory of U.S. Greenhouse Gas Emissions and Sinks*. Author on multiple IPCC guidance documents. Assist the US and numerous developing countries to improve their GHG inventories and identify cost-effective mitigation options.

- Oversee the development of the Agriculture and LULUCF chapters (AFOLU) of the annual *Inventory of U.S. Greenhouse Gas Emissions and Sinks* in preparation for submission to the UNFCCC. Coordinate with multiple US Government agencies, universities and consultants in preparing the annual submission. Respond to UNFCCC Expert Review Team comments on the Agriculture and LULUCF chapters.
- Coordinating Lead Author on Chapter 1 of the *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands*.
- Lead Author on the Agricultural Soil Management section of the *2006 IPCC Guidelines*.
- Member of the IPCC Emission Factor Database (EFDB) Editorial Board since 2011.
- Participated as a member of UNFCCC Expert Review Teams on both centralized and in-country reviews.
- In coordination with the UNFCCC, manage multiple capacity building projects to improve the GHG inventories of non-Annex I countries.
- Oversee project to develop a GHG inventory software tool (Agriculture and Land Use (ALU) tool), designed to assist inventory compilers generate GHG inventories for the AFOLU sector that are consistent with the IPCC 2000/2003 GPG and 2006 Guidelines as well as UNFCCC reporting requirements.

07/2004 – 07/2006

US Environmental Protection Agency

Barrigada, Guam

Title: EPA Consultant

Consultant with EPA's Climate Change Division, Program Integration Branch. Work on domestic and international greenhouse gas inventories and mitigation analyses with a focus on the Agricultural and Land Use, Land-Use Change and Forestry (LULUCF) sectors.

- Developed greenhouse gas emission estimates and supporting documentation for eight source/sink categories in the Agriculture and LULUCF chapters of the 2005 and 2006 *Inventory of U.S. Greenhouse Gas Emissions and Sinks* submitted as part of the US commitment to the UNFCCC. Specific duties include improving existing methodologies used for developing the emission estimates based on a review of the latest guidance from the IPCC and consultation with other scientific experts. Assemble the necessary activity data, including field data, remote sensing data and agricultural statistics and document the results in a transparent manner in the inventory

report. Also participate in the annual review of the US Inventory by the UNFCCC and respond to questions posed on the methods and data used in the emission estimates.

- Served as Lead Author on the development of the Agriculture, Forestry and Other Land Uses (AFOLU) Volume of the *2006 Intergovernmental Panel on Climate Change Guidelines*. Participated over a two-year period in the development of the new *Guidelines*. Duties included attending international meetings to integrate the Agriculture and LULUCF sectors into a single volume (i.e., AFOLU) and ensure consistency in the methods across all sources and sinks. Also participated in a sub-group with the goal of improving the methodology for estimating nitrous oxide emissions from agricultural/managed soils.
- Participated in the emissions inventory component of a project targeting seven Central American countries with the goal of improving greenhouse gas inventory submissions in the agriculture and forestry sectors. Work with a multi-disciplinary team from the US that collaborates with inventory experts from the seven Central American countries to identify areas for improvement in their agriculture and forestry inventories. In collaboration with the in-country experts, the team identified the most appropriate inventory methodologies to be used in each country, assisted in collection of new activity data and is currently developing implementation strategies for each of the countries. A key component of the effort has been introducing the use of remote sensing and geographic information systems (GIS) data for identifying land use types (e.g., forest land, grassland, and cropland), soil types and climate regions.
- Participated in a multi-year analysis to identify cost-effective greenhouse gas mitigation options from the US and international agriculture sectors with a focus on methane, nitrous oxide and soil carbon. Provided input on the inventory methodologies most appropriate for use in making the emission estimates focusing on methods that could be used equitably in all the countries involved in the analysis. Also assisted in identifying and collecting data and emission factors vital to the preparation of the emission estimates for each of the countries.

01/1995 - 07/2004

US Environmental Protection Agency

Washington, DC

Title: Environmental Protection Specialist

Member of the greenhouse gas inventory team at US EPA in the Climate Protection Partnerships Division, Non-CO<sub>2</sub> Gases and Sequestration Branch. Responsible for overseeing development of the Agriculture and Forestry chapters in the *Inventory of U.S. Greenhouse Gas Emissions and Sinks*. Assisted the US and numerous developing countries to improve Greenhouse Gas (GHG) inventories and identify/implement cost-effective mitigation options. Collaborated with other EPA staff and government agencies on projects such as emissions projections and economic modeling. Program manager for a four-year period on two voluntary partnership programs with the goal of mitigating greenhouse gas emissions from the agriculture sector.

- Lead Author on the development of the *2006 Intergovernmental Panel on Climate Change Guidelines*. Major responsibility was the drafting of the Agriculture, Forestry and Other Land Uses (AFOLU) Volume of the new *Guidelines*. Attended international meetings to integrate the Agriculture and LULUCF sectors into a single volume (i.e., AFOLU) and ensure consistency in the methods across all sources and sinks. Also participated in a sub-group with the goal of improving the methodology for estimating nitrous oxide emissions from managed soils and wrote the first draft of the new chapter for review by the sub-group.
- Review Editor for the *2003 IPCC Land Use, Land-Use Change and Forestry Good Practice Guidance* report. Worked closely with authors at international meetings to review the Cross-Cutting chapter of the report and ensure that all comments from various reviewers were addressed in the final version.

- Lead Author for the Agriculture chapter of the *2000 IPCC Good Practice Guidance* report. Participated in three international meetings to develop recommendations for improvements to the Agriculture chapter of the *1996 IPCC Guidelines*. Drafted initial recommendations for improvements to the *Guidance* in collaboration with other international experts covering the following sources: enteric fermentation, manure management and agricultural soil management. Lead the effort to develop final versions for publication.
- Responsible over a six-year period for developing greenhouse gas emission estimates and supporting documentation for the following source/sink categories: nitrous oxide emissions from agricultural soil management, methane from enteric fermentation, methane and nitrous oxide from manure management, methane from rice culture, nitrous oxide and methane from agricultural residue burning, agricultural soil carbon, soil liming, forest carbon, urban forests and landfilled yard trimmings. The emission estimates and supporting documentation were included within the annual submissions of the *Inventory of U.S. Greenhouse Gas Emissions and Sinks* from 1999-2004 as part of the US commitment to the UNFCCC. Major accomplishments included development and application of higher tier methodologies for estimating methane from enteric fermentation, methane and nitrous oxide from manure management and nitrous oxide from agricultural soils. Regularly reviewed the latest guidance from the Intergovernmental Panel on Climate Change and consulted with experts in the appropriate scientific, government and industry sectors to ensure the methodologies used were optimal for the US. Other responsibilities included collection of the required activity data, including field data, remote sensing data and agricultural statistics, and documenting the results in a transparent manner in the inventory report. Responded to questions posed on the methods and data used in the emission estimates as part of the annual review of the US Inventory by the UNFCCC. Briefed senior management on the results and sought out opportunities to present the annual results to agricultural industry groups or government agencies.
- Initiated a multi-year project to improve the GHG inventory estimates from agriculture and forestry for seven Central American countries. Identified appropriate emission estimation methodologies, assisted with data collection including use of field measurements, agricultural statistics and remote sensing data.
- Participated in numerous agricultural GHG mitigation projects throughout Central America, Brazil, Uruguay, India, West Africa and Ethiopia. Also worked with the UN National Communications Support Program to assist 14 West African countries to improve their agricultural GHG emissions inventories.
- Program manager over a four-year period for two voluntary partnership programs: AgSTAR and RLEP. The programs were designed to reduce net GHGs from manure management and ruminant livestock. Worked with the public, industry and government agencies. Encouraged the adoption of economically viable mitigation options and conducted outreach activities. Briefed senior management on the progress toward reaching reduction goals.

3/1991 – 7/1994

US Peace Corps

Jamaica, W.I.

Title: Project Manager

Served as a Project Manager for the Portland Environment Protection Association (PEPA), a non-profit environmental organization in Jamaica.

- Drafted and initiated implementation of a comprehensive management plan for a combined marine and terrestrial protected area. Collected field data and measurements for inclusion in the management plan. Conducted public awareness meetings and developed outreach materials to ensure all stakeholders were informed and consulted in the development of the management plan guidelines.

- Established and administered an environmental education public outreach program reaching over 50,000 people. Coordinated activities between the PEPA Education Committee and a 30 person field staff.
- Implemented outreach programs designed to lessen degradation of watersheds and reduce sources and impacts of water pollution, e.g., soil conservation workshops and watershed re-vegetation programs.
- Analyzed current environmental legislation and contributed to the process of drafting new laws to guide the future management of natural resources within Jamaica.
- Wrote eight successful grant proposals, which obtained over \$200,000 to support conservation projects and public outreach programs.

3/1990 – 10/1990

US Forest Service

Covelo, California

Title: Forestry Technician

Surveyed timber sale units for endangered wildlife species and estimated merchantable timber.

- Performed field surveys of proposed logging units to collect data and identify areas where timber harvest operations could result in excessive soil erosion or damage to riparian zones.
- Assessed timber stocks on logging units prior to sale.
- Conducted surveys of logging units to evaluate potential consequences to endangered species as a result of logging activities.

## **EDUCATION**

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Humboldt State University  
Arcata, California

*B.S., Natural Resources Planning*  
1988

## **OTHER QUALIFICATIONS**

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Job related training and certifications include:

- United Nations Framework Convention on Climate Change (UNFCCC) Course for Review of Annex I Party Greenhouse Gas Inventories Land Use, Land-Use Change and Forestry (LULUCF) (certified in 2005)
- EPA Contracting Officer Representative (contracts)
- EPA Project Officer (interagency agreements, grants, and cooperative agreements)