

Rita C. Klees, Ph.D.

Department of Civil, Environmental and Architectural Engineering
Mortenson Center in Engineering for Developing Communities
University of Colorado Boulder
Boulder, CO. 80309

Experience Narrative

Dr. Klees, a retiree of the World Bank, has over twenty five years of experience addressing key international development challenges related to natural and water resources management, drinking water supply and sanitation, and environmental health. With a unique professional background that combines social service and engineering, Dr. Klees brings a multidisciplinary, systems-based approach to development. She has designed and implemented both large-scale and community-based projects; directed international policy dialogue; conducted social, environment and impact analyses; and participated in strategic planning with local and national governments, non-governmental organizations, and international development agencies. Prior to joining the World Bank, Dr. Klees, as an American Association for the Advancement of Science (AAAS) Science, Engineering and Diplomacy Fellow and a AAAS Overseas Science and Technology Fellow, served as an environmental advisor to the U.S. Agency for International Development (USAID) in Washington DC and Bangkok, Thailand, respectively. Since 2008 she has held teaching and research positions at the University of Colorado (CU). She is currently a Scholar-in-Residence Professor of Engineering Practice in Civil, Environmental and Architectural Engineering, as well as Associate Director of Outreach for the Mortenson Center for Global Engineering. Her experience is geographically extensive covering assignments and long term overseas positions throughout the world.

Education

- Ph.D. Environmental Engineering, University of Colorado, Boulder, CO
- M.S. Environmental Engineering, University of Colorado, Boulder, CO
- M.A. Social Work, University of Chicago, Chicago, IL
- B.S. College of St. Catherine, Majors: Mathematics and Social Work, St. Paul, MN

Employment

- 2008-present *University of Colorado-Boulder*

- 2015 - Present **Scholar-in-Residence Professor of Engineering Practice**
Department of Civil, Environmental and Architectural Engineering (CEAE),
 Responsible for:
 - Design and instruction of core curriculum in the Mortenson Center in Global Engineering (MCGE) Certificate Program: Water, Sanitation & Hygiene (CVEN 5969), and Sustainable Community Development (CVEN 5919).
 - Development and supervision of field-based international summer internships (CVEN 5939) for over 60 MCGE graduate engineering students. Responsible for host agency coordination, placement, scope of work, guidance and evaluation of students.
 - Provide technical advice to CEAE graduate students. Served on MS (19) and PhD (11) committees, as well as preliminary exams (8).
 - RESEARCH: Interests include integrated and participatory solutions to developing community issues with a focus on water, sanitation and hygiene; service delivery; and environmental health.
- 2015 - present **Associate Faculty Director of Outreach MCGE**
 Responsibilities include connecting MCGE with the larger development community to expand partnerships, internships and other collaborative initiatives. Outreach activities include bringing guest speakers from academia, the private sector, NGOs, and the local community to CU; representing MCGE at international development conferences and meetings; securing internships with development partners; and engaging MCGE alumni. Leadership team responsibilities include monitoring and evaluation of the MCGE program; design and expansion of the MCGE program and mission; and participation in MCGE meetings and events.
- 2012 - 2014 **Senior Research Associate CEAE** Team Member on Bill and Melinda Gates Foundation-funded "Reinventing the Toilet Challenge." Provided technical guidance on \$1 million grant to design an affordable on-site, off grid toilet that treats human waste and recovers resources.
- 2011 - 2015 **Adjunct Professor Sustainability and Social Innovation Resident Academic Program** Taught "Social Entrepreneurship and Sustainable Development" to freshmen students

- 2008 - 2014 **Adjunct Professor** *MCGE* Taught “Global Issues in Water, “ and “WASH” to undergraduates and graduate engineering students.
- 2008 – 2013 **Consultant: Wastewater Expert**, *DAI, Inc.*, Bethesda, MD.
WASH technical expert for USAID’s “Further Advancing the Blue Revolution Initiative” project, a 5 year water resource management project in the Middle East
- 2008-2011 **Consultant-Environmental Expert**, *Millennium Challenge Corporation*, Washington, D.C.
Responsible for environmental due diligence investigation for the “Moldova Irrigation and Water Resources Management Project”
- 2010 **Consultant-Water Expert**, *Mendez, England and Associates*, Bethesda, MD
WASH technical expert for USAID’s “Water and Development Strategy 2013-18”
- 1994 – 2008 **Senior Environment Engineer**, *The World Bank*, Sustainable Development Network, Washington, D.C.

Senior level managerial and project development responsibilities in operational departments included environment, water and sanitation infrastructure, and environmental health. Served as the acting regional environmental safeguards coordinator for Europe and Central Asia. Managed the World Bank’s Environment Strategy Update. Served as peer reviewer and environmental specialist for numerous projects, programs, and studies in the environment and water sectors. Represented the World Bank at international and national forums, workshops and conferences related to water and environment. Maintained networks with civil society and private sector actors. Mentored junior staff.

- 1993-1994 **Director of Technology**, *CH2MHill Engineering International Division*, USAID Environmental Policy and Technology Project, Washington, D.C.
Responsible for technical design, implementation and oversight of water and environment projects throughout the Former Soviet Union
- 1992-1993 **AAAS Overseas Science and Diplomacy Fellow**, *USAID Southeast Asia Regional Office*, Bangkok, Thailand
Based overseas, responsible for USAID environment programs in Thailand, Cambodia, Mongolia and Vietnam. Assignments focused on water resources management and wastewater treatment
- 1990-1992 **AAAS Science and Diplomacy Fellow**, *USAID Global Health*, Washington, D.C.

Served as technical advisor to USAID's WASH Project. Provided on site WASH guidance in: Swaziland, Kenya, Mali, Botswana, Belize, and Thailand. Developed the Environmental Health Project, the successor to the WASH Project in 1993.

- 1986-1989 **Research Assistant**, *Department of Civil, Environmental, and Architectural Engineering*, University of Colorado, Boulder, CO
Research focused on innovative urban wastewater and solid waste management technologies. Conducted seminal research on composting of municipal sludge
- 1984 **Project Assistant**, *Denver Water Board*, Dam Engineering Department, Denver, CO
Investigated environmental impacts of large dam failures and developed community emergency response systems
- 1976-1986 **Social Worker**, *Boulder Valley Public Schools*, Boulder, CO
Provided community-based outreach programs and services for special needs students

Honors and Distinctions

- American Association for the Advancement of Science: Overseas Fellowship, 1993
- American Association for the Advancement of Science: Science, Engineering & Diplomacy Fellowship, 1990-1992
- Water Pollution Control Federation (WPCF) First Place, International Graduate Student Paper Award, 1989
- WPCF, Rocky Mountain Region, First Place, Graduate Student Paper Award, 1989
- WPCF, Second Place, International Graduate Student Paper Award, 1986

Publications - Recent

Baracho, R.O., and Klees, R. "Municipal Sanitation Plans in Brazil: Analysis of Plans and Recommendations to Improve Planning Sanitation in Brazil." *2017 XVI World Water Congress*, Cancun, Mexico, May 2017.

Linden, K., Javernick-Will, A., Amadei, B., Klees, K., and Sandekian, R. "Engineering in Developing Communities: Curriculum Development around Graduate Certificate and Professional MS Programs." *2016 Engineering Education for Sustainable Development Conference*, Bruges, Belgium, September 2016.

Over 25 additional publications and presentations available upon request.