

**Dr. Worku L. Mulat**

Adjunct Associate Professor, University of Connecticut

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***Professional  
Interests***

I believe sharing knowledge is the most important pillar that supports civilization. Thus, I have keen interest to be effective Science Educator, with strong emphasis on applied research and supervision of students in the areas of water pollution, water resource management, water and health. The overarching goal of this endeavor is ensuring human security around the globe and thus making the world a better place to live in.

***Education***

Ph.D. Applied Ecology 2001, National University of Ireland, Cork. Thesis: "Sensitivity of Biotic Indices to Natural Disturbances"

MSc Environmental Sanitation 1993, Gent University, Belgium.

BSc Biology 1987, Asmara University, Asmara, Eritrea.

Other: Computer Training, 2001, Addis Ababa, Ethiopia; Curriculum Development and module preparation Training, Carter Center, Addis Ababa, Ethiopia; 2003 Advanced Wastewater Treatment Training, Gent Belgium, 2004.

***Employment***

***2017-the Present*** President, Ethiopian Institute of Resilience and Climate Change Adaptation, Little Elm, TX

***2016-the present*** University of Connecticut

**Assistant Research Professor and National Science Foundation-UConn, Program Manager**

**National Science Foundation**

Expert (Part-Time), Ecology, Human Resources, Division of Undergraduate Education.

Principal Responsibilities:

- Evaluate proposals for funding
- Participate in panel discussions
- Provide feedback for improvement of grant application processes
- Managed EIA Division’s Committee of Visitors, May 2001.

***2012 - 2016 Adjunct Associate Professor, University of Connecticut, CT***

Principal Responsibilities:

- Identify US-Africa collaborative research niches with particular emphasis to Ethiopia.
- Catalyze joint-funding opportunities between University of Connecticut and Jimma University in Ethiopia.
- Preparation of logistic and strategic plans and implementation strategies of NSF grant in Ethiopia.
- Coordinate NSF research outreach and provide local language training to the team travelling to Ethiopia.

***2005 - 2006***      **Acting President** and founder of Wollo University.

***1987 - 2005***      **Jimma University**, Jimma, Ethiopia, from graduating assistant to a rank of Associate Professor.

### ***Supervision***

Currently co-supervises 8 graduate students in Ethiopia.

### ***Publications***

#### ***Book***

- **H. Kloos** and **Worku Legesse**. Water Resources Management in Ethiopia: Implication to the Nile Basin (Ed.). Cambria Press, NY, 2010.
- **Meg Lowman** and Worku Mulat. Peppertree Press, Sarasota, FL, 2014.

#### ***Book Chapter/Lecture note***

- **Worku L. Mulat** *et al.* Building Household Resilience in a Village in South Wello Zone Using a Family Approach In: Tadele *et al.* Giving Back to the Community: Community Development Projects Implemented by Academics in Ethiopia (2016). Eclipse Printing Press, Ababa, Ethiopia.
- **W. Legesse**, D. Hilemariam and H. Kloos. Water supply and sanitation. In: Brhane Y, Haile Mariam, D and Kloos H., 2006 (Ed.) Chapter 8, pp129-151. **W. Legesse** and H. Kloos. Water pollution from industrial and agricultural sources. In: Kloos & Legesse, 2010 (Ed.) Chapter 12, pp 321-351.
- **H. Kloos** and **Worku Legesse**. Water Resources Management in Ethiopia: Implication to the Nile Basin (Ed.). Cambria Press, NY, 2010.
- Margaret Lowman **and Worku L. Mulat(2014)**. Beza: a conservation book for children narrating a story of a girl trying to save Ethiopian Orthodox Church Forests. Pepper Tree Publisher, Sarasota, FL, USA.

#### ***Journals***

- **Worku L. Mulat**, Getnet Tadele, Aynalem Adugna & Helmut Kloos. A Neglected Resource in Community Development: Participation of Ethiopian Academics in the Development of their Communities. Environment and Natural Resources Research; Vol. 8, No. 2; 2018 ISSN 1927-0488 E-ISSN 1927-0496 Published by Canadian Center of Science and Education.
- Amare, E., Kebede, F., Kloos, H., **Mulat, W.** Wastewater Confronting Realities for Sustainable Liveli-

hood in Developing Countries: Case Study Mekelle University, Ethiopia Water Conserv Sci Eng (2017). doi:10.1007/s41101-017-0021-7.

- Metadel Adane, Bezatu Mengistie, **Worku Mulat**, Helmut Kloos and Girmay Medhin (2017). Utilization of Health Facilities and Predictors of Health-Seeking Behavior for Under-Five Children with Acute Diarrhea in Slums of Addis Ababa, Ethiopia: A Community-Based Cross-sectional Study. Published in Bio-Med Central (BMC), Journal of Health, Population and Nutrition, 36(9): DOI 10.1186/s41043-017-0085-1.
- Metadel Adane, Bezatu Mengistie, Worku Mulat, Girmay Medhin and Helmut Kloos (2017). Prevalence of Handwashing with Soap at Recommended Times and Acute Diarrhea among Under-Five Children in Addis Ababa Slums, Ethiopia: Accepted in Springer, Journal of Community Health (in press)
- Amare, E., Kebede, F. & **Mulat, W.** Analysis of heavy metals, physicochemical parameters and effect of blending on treatability of wastewaters in Northern Ethiopia Int. J. Environ. Sci. Technol. (2017). doi:10.1007/s13762-017-1270.
- Elfu Amare, Fasil Kebede, Helmut Kloos, **Worku Mulat**. Screening of aquatic macrophytes for wastewater treatment in the semiarid areas of Ethiopia. Submitted to *Journal of Arid land*
- Elfu Amare, Fasil Kebede, Helmut Kloos, **Worku Mulat**. Field based investigation on phytoremediation potential of *Lemna minor* and *Azolla filiculoides* in tropical semiarid regions: Case of Ethiopia. Submitted to *International Journal of Phytoremediation*.
- Adane M, Mengistie B, Medhin G, Kloos H, Mulat W(2017) Piped water supply interruptions and acute diarrhea among under-five children in Addis Ababa slums, Ethiopia: A matched case-control study. PLoS ONE. 12(7): e0181516. <https://doi.org/10.1371/journal.pone.0181516>.
- Adane M, Mengistie B, Kloos H, Medhin G, Mulat W (2017) Sanitation facilities, hygienic conditions, and prevalence of acute diarrhea among under-five children in slums of Addis Ababa, Ethiopia: Baseline survey of a longitudinal study. PLoS ONE 12(8): e01827. <https://doi.org/10.1371/journal.pone.0182783>
- Sarfo, Twum, E, Koku, J.E., Yankah, K Kloos H, Worku, M. Stakeholders Participation and Sustainability of Corporate Social Responsibility Programmes in Ghana: A Study of AngloGold Ashanti Mine in Obuasi, *Environment and Natural Resources Research* (2016); 6(1):1-8
- Baye, S., Kloos, H., **Mulat, W.**, Assayie, A., Gulis, G., Kumie, A., & Yirsaw, B. (2012). Assessment on the approaches used for water and sanitation programs in Southern Ethiopia. Water Resources Man-

agement, 26(15), 4295-4309doi: 10.1007/s11269-012-0145-7

- Beyene A, Kassahun Y, Addis T, Assefa F, Amsalu A, **W. Legesse**, Kloos H, Triest L. The impact of traditional coffee processing on river water quality in Ethiopia and the urgency of adopting sound environmental practices. *Environ Monit Assess*. 2011 Dec 9.
- **Worku L. Mulat** and Kebede Faris. Bacteriological analysis of protected springs in Jaimma Zone Southwestern Ethiopia (2000). *Ethiopian Journal of Health sciences*, Vol. 10, No. 1, pp 19-23.
- **Worku L. Mulat** and Tesfaye Getaneh. Sanitary chemical analysis of protected springs in Jimma Zone, Southwestern Ethiopia (1999). *Journal of Ethiopian Health Development*, 13(1):45-48.
- Melaku Getachew, Argaw Ambelu, Seid Tiku, **Worku Legesse**, Aynalem Adugna, Helmut Kloos. Ecological assessment of Cheffa **Wetland in the** Borkena Valley, northeast Ethiopia: Macroinvertebrate and bird communities. *Ecological Indicators*, Volume **15**, Issue **1**, April 2012, Pages 63-71
- D. Yewhalaw, **W. Legesse**, W. Van Bortel, S. Gebre-Selassie, H. Kloos, L. Duchateau and N. Peybroeck. Malaria and water resource development: the case of Gilgel-Gibe hydroelectric dam in Ethiopia. *Malaria Journal* 8:21 (2009).
- Rani Devi, Esubalew Tesfahune, **Worku Legesse**, Bishaw Deboch and Abebe Beyene. Assessment of siltation and nutrient enrichment of Gilgel Gibe Dam, Southwestern Ethiopia. *Bioresource Technol*. 2008;99:975-979.

### ***Presentations***

- Building resilience and climate change adaptation: lessons for Ghana, April 24, 2015, Accra, Ghana.
- Keynote Speaker and chairperson for oral presentations, International Hydrology Conference Sep 10-12, 2012, San Antonio, TX.
- Invited Global Scholar at Opening Ceremony of Nature Research Center, Raleigh, North Carolina, April

18, 2012.

- Boye Lake-a dying Hippopotami sanctuary in Jimma Zone Southwestern Ethiopia. Conservation Conference at Cambridge University, March 2000, Cambridge, UK
- Fulbright Senior Specialist Grant to Ghana, Africa, USD, 9,000. (2015)
- Belgium Government grant to investigate the impact of the Gilgel Gibe Dam: a multidisciplinary Approach towards Capacity Building (2007).
- Tropical Diseases Research Grant to investigate (2006), incidence and prevalence of Malaria around Gilgel Gibe reservoir: USD 155, 000, co-investigator.
- Global Scholar Travel Grant t grant: USD 1000: Grand opening of Nature Research Center, North Carolina Museum of Natural Sciences. April 20, 2012.
- Travel Grant to North Carolina Nature Research Center: USD 1000. Undergraduate research seminar, Nature Research Center, North Carolina Museum of Nature Sciences, Raleigh, Aug 10-13.

***Grants and Fellowships***

***Editorial***

***Activities and***

***Board***

***Membership***

- Academic Editor Journal of Ecology and Agricultural Research International
- Board Member, British Journal of Climate Change Adaptation.
- Board Member, Environmental and Analytical Toxicology.
- Board Member, Journal of Global Ecology and Environment.

***References***

- Teferi Abate Adem, Research Anthropologist, Yale University New Haven, CT 06520. Email: [teferi.abate@yale.edu](mailto:teferi.abate@yale.edu)
- Million Tadege, PhD, Professor, Oklahoma State University. Department of Plant and Soil Sciences Institute of Agricultural Biosciences 3210 Sam Noble Parkway, Ardmore, OK, 7340. Phone: 580-224-0629. Email: [million.tadege@okstate.edu](mailto:million.tadege@okstate.edu).

- Kora Tushune, Associate Professor and Vice President of Jimma University. Email: [Kora.tushune@ju.edu.et](mailto:Kora.tushune@ju.edu.et). Cell Phone: +251 911241916.