

Curriculum vitae (CV) with track record

1. Personal Details

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| Name | Fasil Ejigu Eregno |
| Date of Birth | Feb 10, 1973 |
| Place of Birth | Attaye / North Shoa, Ethiopia |
| Nationality | Ethiopian |
| Live in | Norway |
| Marital status | Married |
| E-mail | fasil.eregno@nibio.no / efasilejigu@yahoo.com |
| Mobile | +47 41488518 |
| Current position | Research Scientist – Department of Urban Greening and Environmental Engineering, Norwegian Institute of Bioeconomy Research (NIBIO) |
| Academic network | https://www.researchgate.net/profile/Fasil_Ejigu_Eregno |

2. Educational Background

- **PhD:** 2014 -2017: Faculty of Science and Technology (REALTEK), Norwegian University of Life Sciences (NMBU)
Speciality: Water and Environmental Engineering
PhD Thesis: Quantitative Microbial Risk Assessment and Water Quality Modelling: On Drinking Water Sources, Recreational and Recycled Waters
- **MSc:** 2011-2013: Norwegian University of Life sciences, Norway
Speciality: Sustainable Water and Sanitation, Health and Development
Thesis: Multiple linear regression models for estimating microbial load in a drinking water source: a case from the Glomma River, Norway
- **MSc:** 2007-2009: University of Oslo, Norway
Speciality: Geosciences (Hydrology)
Thesis: Comparison of Hydrological Impacts of Climate Change Simulated by WASMOD and HBV Models in Different Climatic Zones. China, Ethiopia, and Norway.
- **MSc:** 2005-2007: Norwegian University of Life sciences, Norway
Speciality: Management of Natural Resource and Sustainable Agriculture
Thesis: Geographical and hydro-geological settings in defining the threshold spacing of shallow hand dug wells: a Case study in Northern Ethiopia
- **BSc:** 1995-2000: Mekelle University, Ethiopia
Speciality: Soil and water conservation (*with Distinction*)
Thesis: Assessment of moisture holding capacity of different physical soil and water conservation techniques.

3. Work Experiences

- ❖ April 2018 – now: Research Scientist at the Department of Urban Greening and Environmental Engineering, Norwegian Institute of Bioeconomy Research (NIBIO), Teaching assistance at NMBU for the course TPS210 Fluidmekanikk 2: Strømningsteknikk.
- ❖ 1 December 2017 to 31 March 2018: Researcher - at the Faculty of Science and Technology (REALTEK), Norwegian University of Life Sciences (NMBU) in the project on health risk assessment of drinking water supply system in Bergen, Norway
- ❖ 2014 -2017: *PhD Research fellow* in the Faculty of Science and Technology (REALTEK), Norwegian University of Life Sciences (NMBU) and carrying out the following duties:

- Take part as an assistant lecturer in the Faculty of Science and Technology (REALTEK), Norwegian University of Life Sciences (NMBU) for the courses:
 - THT311 - Water Resources Management and Treatment Technologies
 - THT280 -On-Site Wastewater Treatment - Planning, Design and Impact Assessment
 - TPS210 - Engineering Fluid Mechanics / Transport av væsker og gasser
 - THT201 -Rapid Methods for Assessing Environmental Parameters, Laboratory Course
 - IMRT100 - Introductory Project / Innføringsemne - fagorientert prosjekt
 - Take part as a research technician and responsible for water laboratory in the Faculty of Science and Technology.
 - Take part as a co-supervisor for six MSc students.
- ❖ 2004 – 2005: Graduate assistance lecturer at Mekelle University
 - For undergraduate courses “Introduction to soil science”, “Soil and water management”, and “Water harvesting technologies”.
 - Involved in the water balance studies of operational research and capacity building for food security and sustainable livelihood project
 - ❖ 2000 – 2004: Soil and water conservation expert and Project coordinator in the Relief Society of Tigray (REST), Ethiopia.
 - Duties included coordinating environmental rehabilitation activities in the project area, the construction of water harvesting structures, catchment treatment, and rural road development programs.
 - ❖ 1992 – 1995: Elementary school teacher in the Ministry of Education, North Shoa, Ethiopia.

4. Key qualifications and Competencies

- ❖ Multidisciplinary academic background and proficient in water quality analysis and modelling, hydrological modelling, decentralized wastewater treatment systems, chemical-microbial health risk assessment. Interested in a holistic approach for complex environmental challenges that encompass technical, social and economic aspects. I enjoy facilitating synergies of good teamwork, and I believe that scientific work is more fruitful if done in a team of multidisciplinary professional touch.

5. Short-term Training

- Research project management, December 2015
- Educational competencies and Instructional skills; February 2004
- Watershed management; August 2002
- Environmental Assessments and Environmental sound design; June 2002

6. Members of Scientific Societies

- ❖ 2014 – now: International Water Association (IWA), Member
- ❖ 2018 – now: Management committee members of IWA Specialist Group (SG) on Water Safety Planning

7. Commissions of Trust (if applicable)

- ❖ 2016 – Now: Reviewer for various scientific journals including Science of the Total Environment, and Water Research.

8. Research Interest

- ❖ My research interest includes water quality analysis and modelling for municipal water services (drinking water, wastewater, stormwater and recreational water) framed around minimal emission of chemical and microbial pollutants, and integrate with chemical-microbial risk assessment (C-MRA) framework to identify management targets for improved eco-health and living conditions.

9. Publications

- Eregno, F.E.**, and Heistad, A., 2019. On-site treated wastewater disposal systems – The role of stratified filter medias for reducing the risk of pollution. *Environment International*. 124: 302-311. <https://doi.org/10.1016/j.envint.2019.01.008>
- Eregno, F.E.**, Tryland, I., Tjomslund, T., Kempa, M. and Heistad, A., 2018. Hydrodynamic modelling of recreational water quality using *Escherichia coli* as an indicator of microbial contamination. *Journal of Hydrology*. <https://doi.org/10.1016/j.jhydrol.2018.04.006>
- Eregno, F.E.**, Tryland, I., Myrmel, M., Wennberg, A., Oliinyk, A., Khatri, M. and Heistad, A., 2018. Decay rate of virus and faecal indicator bacteria (FIB) in seawater and the concentration of FIBs in different wastewater systems. *Microbial Risk Analysis*. 8: 14-21. <https://doi.org/10.1016/j.mran.2018.01.001>
- Eregno, F. E.**, Moges, M., and Heistad, A., 2017. Treated Greywater Reuse for Hydroponic Lettuce Production in a Green Wall System: Quantitative Health Risk Assessment. *Water*, 9(7): 454. <http://www.mdpi.com/2073-4441/9/7/454>
- Moges, M.E., Todt, D., **Eregno, F.E.** and Heistad, A., 2017. Performance study of biofilter system for on-site greywater treatment at cottages and small households. *Ecological Engineering*, 105: 118-124. <http://www.sciencedirect.com/science/article/pii/S0925857417302458>
- Eregno, F. E.**, Tryland, I., Tjomslund, T., Myrmel, M., Robertson, L., & Heistad, A. (2016). Quantitative microbial risk assessment combined with hydrodynamic modelling to estimate the public health risk associated with bathing after rainfall events. *Science of The Total Environment*, 548–549, 270-279. <https://www.journals.elsevier.com/science-of-the-total-environment/news/recommended-read-by-the-editors-quantitative-microbial-risk>
- Tryland, I., Braathen, H., Wennberg, A.C., **Eregno, F.E.** and Beschorner, A.-L., 2016. Monitoring of β -d-Galactosidase Activity as a Surrogate Parameter for Rapid Detection of Sewage Contamination in Urban Recreational Water. *Water*, 8(2): 12. <http://www.mdpi.com/2073-4441/8/2/65>
- Tryland, I., **Eregno, F.E.**, Braathen, H., Khalaf, G., Sjølander, I. and Fossum, M., 2015. On-Line Monitoring of *Escherichia coli* in Raw Water at Oset Drinking Water Treatment Plant, Oslo (Norway). *International Journal of Environmental Research and Public Health*, 12(2): 1788-1802. <http://www.mdpi.com/1660-4601/12/2/1788>
- Moges, M.E., **Eregno, F.E.** and Heistad, A., 2015. Performance of biochar and filtralite as polishing step for on-site greywater treatment plant. *Management of Environmental Quality: An International Journal*, 26(4): 607-625. <http://www.emeraldinsight.com/doi/abs/10.1108/MEQ-07-2014-0101>
- Eregno, F. E.**, Nilsen, V., Seidu, R., & Heistad, A. (2014). Evaluating the Trend and Extreme Values of Faecal Indicator Organisms in a Raw Water Source: A Potential Approach for Watershed Management and Optimizing Water Treatment Practice. *Environmental Processes*, 1(3), 287-309. <https://link.springer.com/article/10.1007/s40710-014-0026-6>
- Eregno, F.E.**, Grøndahl-Rosado, R.C., Nilsen, V., Seidu, R., Heistad, A. and Myrmel, M., 2014. Multiple Linear Regression Models for Estimating Microbial Load in a Drinking Water Source: Case from the Glomma River, Norway. *Vann*, 49(3): 335-350. http://vannforeningen.no/wp-content/uploads/2015/06/2014_910120.pdf
- Eregno, F. E.**, Xu, C.-Y., & Kitterød, N.-O. (2013). Modelling hydrological impacts of climate change in different climatic zones. *International Journal of Climate Change Strategies and Management*, 5(3), 344-365. <http://www.emeraldinsight.com/doi/abs/10.1108/IJCCSM-04-2012-0024?journalCode=ijccsm>

10. Report

Tryland, Ingun; Wennberg, Aina Charlotte; Vogelsang, Christian; Tjomsland, Torulv; Beschorner, nna-Lena; **Eregno, Fasil**; Robertson, Lucy; Myrmel, Mette; Østensvik, Øyvinn; (2016) [Effekt av endret værmønster på hygienisk badevannskvalitet og kvalitet på sjømat i Indre Oslofjord](#) Norsk institutt for vannforskning. ISBN 978-82-577-6766-2. No 7031 (85 sider)

Haaland, S., Bechmann, M., Eikebrokk, B., **Eregno, Fasil.**, Greipsland, I., Heistad, A., Paruch, A., Paruch, L., Riise, G., Rohrlack, T. & Turtumøygaard, S. (2018). [Forurensingsanalyse av drikkevannskilden Jordalsvatnet med vanntilsigsområde](#). NIBIO Rapport 4(120). 86 s. NIBIO, Ås.
<http://hdl.handle.net/11250/2569689>

11. Award

- ❖ Awards for Excellence 2014: Highly commended paper, winner in International Journal of climate change strategies and management of the publication "modelling hydrological impacts of climate change in different climatic zones."
<https://www.nmbu.no/en/news/archive/2014/awards-for-excellence-2014-to-fasil-ejigu-eregno>

12. Conferences

- IWA conference on a sustainable solution for small water and wastewater treatment systems, 22-26 October 2017, La Cité Nantes, France, **Oral presentation** - Treated Domestic Greywater Reuse and Associated Health Risks - Integrated with Green Wall Structure for Hydroponic Lettuce Production
- EWA conference on Water management: Challenges in cold climate, Spitsbergen, Norway, 25-27 June 2016, **Oral presentation** - Hydrodynamic modelling of microbial water quality at the recreational beaches using *E. coli* as an indicator of faecal contamination.”
- 3rd OpenWater2015 symposium, ILRI campus Addis Ababa, Ethiopia, September 14-17, 2015, **Oral presentation** - Hydrodynamic Modelling Approach Combined with Quantitative Microbial Risk Assessment at Recreational Water after Heavy Rainfall Event
- IWA Nutrient Removal and Recovery: Moving innovation into practice, Gdansk, Poland, May 18 – 21, 2015, participant
- 12th Urban Environment Symposium, Forskningsparken Oslo, Norway, June 1-3, 2015, **Oral presentation** - GEMSS Hydrodynamic Modelling Approach to Assess the Risk of Microbial Contamination of Recreational Water after Heavy Rainfall Event
- Six International Conference on Environmental Sciences and Technology, Houston, USA, June 25–29, 2012, **Oral presentation** - Modelling Hydrological Impact of Climate Change in Different Climatic Zones.