

Dr. Mintesnot Gizaw Terefe

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PROFILE

Senior renewable energy and climate professional with 12+ years of experience across consulting, academia, and university leadership in Ethiopia's energy sector. PhD in Energy and Climate (University of Padova & Addis Ababa University). Practical experience delivering feasibility studies, grid-integration assessments, and solar PV system design for productive applications, plus strong capacity-building and stakeholder convening skills. Led PURE training and advisory support for 600+ entrepreneurs, technicians, and TVET instructors.

PURE / HORTI-LIFE RELEVANCE

- PURE technical focus: solar PV for productive use, solar pumping/irrigation energy needs, cold-chain & agro-processing loads; familiarity with biogas/biodigester solutions
- Market systems & partnerships: work with academia, private sector, and public stakeholders; ecosystem mapping and barrier analysis for technology adoption
- End-user financing: contributed to discussions on ownership models and end-user financing mechanisms for energy access solutions
- Project delivery: results-oriented implementation, documentation, facilitation, and reporting; experience supporting sector roadmaps and policy discussions
- Tools: PVsyst, WindPRO, HOMER Pro, MATLAB, GIS; STATA/SPSS

PROFESSIONAL EXPERIENCE

Freelance Senior Consultant (EIA, Renewable Energy & Climate) | Power Ethiopia — Addis Ababa, Ethiopia (Jan 2022–Present)

- Conduct feasibility studies, grid-integration assessments, and policy analysis for renewable energy and climate-related assignments
- Provide consulting services for solar PV system design and installation in off-grid and on-grid settings, supporting productive applications
- Lead Instructor/Advisor for Productive Use of Renewable Energy (PURE) program (Jan 2024–Present); designed and delivered training on solar PV systems
- Trained 600+ young entrepreneurs; delivered training for local technicians and TVET instructors on system maintenance

Assistant Professor of Energy Technology | Addis Ababa Science and Technology University (AASTU) — Environmental Engineering Department (Oct 2023–Present)

- Teach renewable energy technologies (wind, solar, hydropower, geothermal) and micro-grid system design/optimization; supervise applied research

Lecturer | AASTU — School of Energy Resources and Environmental Engineering (Jan 2014–Oct 2023)

- Delivered courses on environmental policy, climate change, environmental impact assessment (EIA), and sustainable energy technologies

University leadership roles | AASTU (Jun 2014–Feb 2016; Feb 2016–Nov 2018)

- Associate Dean (School of Energy Resources & Environmental Engineering): managed teaching-learning and research processes; supported strategic planning, budgets, and curriculum review
- Directorate Director (Continuing & Distance Education): coordinated and managed multiple satellite campuses and supported program quality

SELECTED PROJECTS & CONTRIBUTIONS

- Ethiopian National Energy Technology Roadmap (2015–2025): contributed through academic engagement and sector expertise
- IOM Market Dialogue on Energy Mesh Networks: contributed to discussions on technical solutions, ownership models, and end-user financing mechanisms
- Research and design studies on hybrid renewable systems and storage options (wind, solar, pumped-hydro/sea-water pumped storage) for isolated communities in Ethiopia

EDUCATION & CERTIFICATIONS

- PhD, Energy and Climate — University of Padova (Italy) & Addis Ababa University (Oct 2024)
- MSC, Strategic Energy Planning — Politecnico di Milano (Italy) (Jan 2026)
- MBA, Industrial Management — Addis Ababa Science and Technology University (Nov 2017)
- MSc, Energy Technology (Engineering Physics) — (HU) (Jul 2012)
- BSc, Applied Physics — Arbaminch University (Jul 2008)
- Certified Senior Consultant, Environmental Impact Assessment (Environmental Pollution & Climate Change Analyst) — Ministry of Environment and Forest, Ethiopia (Jan 2022–Present)

TRAINING (SELECTED)

- International workshop on Solar Energy and Energy Storage Technologies (ICTP), Oct 2018
- University of Padova summer schools on energy outlook and renewable energy exploitation in rural Ethiopia, Sep 2015
- UNIDO workshop on low-carbon clean energy technology transfer, Jan 2015

PUBLICATIONS & LINKS (SELECTED)

- Investigation of Sustainable Technology Options: Wind, Pumped-Hydro Storage and Solar Potential to Electrify Isolated Ziway Islanders in Ethiopia
- Design of a solar island with a water-battery storage system for Lake Ziway islanders in Ethiopia
- Design of an eco-friendly hybrid energy supply system for non-electrified Lake Ziway island in Ethiopia
- Study of the Potential of Sea-Water Pumped Storage for Power Generation in Ethiopia
- Empowering displaced communities through energy mesh networks
- Analysis of wind power potential for Jijiga area
- ORCID: 0000-0003-3647-0699 | ResearchGate: www.researchgate.net/profile/Mintesnot-Gizaw-2

LANGUAGES

- Amharic (native), English (professional), Oromic (working)