

ARIANNA TOZZI

RESEARCHER DEVELOPMENT & SUSTAINABILITY

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PERSONAL PROFILE

I am a sustainable energy engineer with expertise in low carbon energy technologies for sustainable development. Over the last two years I have been working as field researcher in India, investigating the role of community participation and local governance on the long-term sustainability of mini-grids in rural communities. My expertise is interdisciplinary, spanning across technical and social sciences, as I researched cross-cutting development issues, focussing on the socio-economic impact of energy access technologies, particularly across gender and other intersectional identities.

I have solid experience with academia as well as the development sector, having worked for four years for international NGOs on various projects on climate change and sustainable energies. I have contributed to academic research, published articles in peer reviewed journals, presented findings at international conferences and webinars and received an international prize for innovative research in sustainable energy.

WORK EXPERIENCE

RESEARCHER, Institute on the Environment, University of Minnesota, (Jan 2017 - Present)

Leading a research to assess the long-term sustainability of off-grid renewable energy systems with a focus on the role of community participation and local governance.

- Developed a multi-dimensional framework to assess sustainability of Solar Mini-Grids (SMGs) through a combination of qualitative and quantitative data
- Collected data from over 20 SMGs covering different models and solution providers. Data include household surveys, semi-structured interviews, focus group discussions with community members and other stakeholders
- Analysed quantitative data using statistical tools, coded and analysed qualitative data, triangulated qualitative and quantitative data to identify pattern and draw conclusions.
- Authored publications in scientific journals and online magazines
- Presented at international seminars and online webinar (Tech4Dev Lausanne, Kathmandu University, Smart Villages)
- Reported results to partner organizations to advise on strategies to refine their models based on collected evidence
- Coordinated activities on the ground: liaison between partner organizations, universities, research institutions, trained field staff for data collection, connected with other partners to enlarge the scope of the study

PROJECT OFFICER, The Climate Group, London - UK (May 2015-Jan 2017)

Management of the LED program: advised on strategies to reduce emissions through energy efficient lighting technologies. Program leader for South Asia.

- Advised international stakeholders and policy makers on pathways to accelerate adoption of energy efficient lighting
- Organized capacity building and consultation activities (workshops, webinars, interviews) providing technical and policy support to tackle specific challenges in South Asia
- Worked with international financiers (IFC, WB, ADB) to develop strategies for risk mitigation in financing energy efficiency projects in developing countries
- Publication of consultation results, technical documents, briefing notes, news articles
- Regular liaison with project partners and TCG international offices to coordinate activities and track deliverables

RESEARCH ASSISTANT, The Climate Group, London - UK (Jan–Apr 2015)

Worked on the Future Agenda project, the world's largest open foresight program, on the theme 'Future of Energy'

- Organized and facilitated workshops with international stakeholders discussing trends for future energy systems
- Wrote weekly articles and reports on low carbon technologies and climate change topics

POLICY ANALYST, Absolute Investment Partners, London - UK (Sept –Dec 2013)

Analysed the effects of the 'Electricity Market Reform' on the UK energy system

- Organised structured interviews with experts in the UK energy sector to investigate the effects of the legislation on the national market for renewable electricity. Compiled results and produced a report for external dissemination.

REFEREED JOURNAL ARTICLES, POCEEDINGS, REPORTS

Katre A., Tozzi A. (2018). Assessing Sustainability of Decentralized Renewable Energy Systems: A Comprehensive Framework with Analytical Methods. *Sustainability* 10(4): 1058

Isabella O., & Tozzi A. (2015). Comprehensive modelling and sizing of PV systems from location to load, *MRS Proceeding*

Driving Energy Efficiency and City Renovation (2017), Policy Briefing, The Climate Group

Accelerating Global Adoption of Energy Efficient Lighting (2016), UN Environment, Expert Task Force Advisor

RESEARCH SUBMITTED AND UNDER REVIEW

Katre, A., Tozzi, A. & Bhattacharyya, S. (2018). Sustainability of Mini-Grids: Evidence from India, submitted to *Energy, Sustainability & Society* on April 06, 2018, Under Review

Katre, A., Tozzi, A (2018). Power Dynamics in the Polycentric Governance of Community-Owned Energy Systems, submitted to *Energy Research & Social Science* on July 30, 2018, Under Review

CONFERENCE PRESENTATIONS & AWARDS

Tozzi, A. (2018). "A Multi-dimensional framework for sustainability assessment of energy access interventions" paper presented at UNESCO Chair in Technologies for Development: Voices of the Global South, held at Lausanne, Switzerland on June 27-29, 2018

Tozzi, A. (2018). "Mini-Grid Impact and Long-Term Sustainability of Energy Access" Smart Villages, Webinar Panellist on June 11, 2018

Tozzi, A. (2018). "The Gender Dimension of Energy Access" presented at Women and Energy Transitions to a Low-carbon Economy in Agriculture and Natural Resource, M.S. Swaminathan Research Foundation (MSSRF), held at Chennai, India on April 25, 2018

Tozzi, A. & Katre, A. (2018). "Authority and accountability in polycentric governance of community-owned decentralized renewable energy systems" paper presented 5th International Conference on the Developments in Renewable Energy Technology, (ICDRET' 18) held at Kathmandu, Nepal on March 29-31, 2018.

Tozzi, A. (2017). "Assessing impact of energy access projects in India: A multi-dimensional and multi-tier analysis" presented at a workshop on "Translating Energy Research to Rural India", organized by the University of Edinburgh, UK and the Indian Institutes of Science Education and Research (IISER) in Pune on September 6, 2017.

Cofely Energy Efficiency Prize 2015: [The Dutch PV portal](#) (MSc Thesis)

EDUCATION

M.SC. SUSTAINABLE ENERGY TECHNOLOGIES Delft University of Technology, Netherlands (2012-2014)

Specialization: Solar Photovoltaic Energy

B.SC. AEROSPACE ENGINEERING Sapienza University of Rome, Italy (2008-2011)

SELECTED ONLINE ARTICLES

[Self-governance for SMGs in Remote Settings](#) – Learnings from India, Initiative4Sustainable Energy Policy, 2018

[Advancing electrification in rural India](#) – Grid connected & off-grid solutions, Initiative4Sustainable Energy Policy, 2018

[SMG enable sustainable rural living](#) – India Climate Dialogue, 2018

[Can managing electricity access empower women in rural India?](#) – Village Square, 2018

AFFILIATIONS AND EXTRACURRICULAR ACTIVITIES

Initiative for Sustainable Energy Policy (ISEP) Expert at John Hopkins University

Member of Low Carbon Energy for Development Network (LCEDN)

Member of the Gender and Energy Network India (GENI)

Co-Writer Photovoltaic System syllabus, Delft University of Technology (Jan-Apr 2014)

Volunteer, Projects Abroad Ghana NGO (Jan-Mar 2012)

Languages: *Italian* (mother tongue) - *English* (fluent) - *Hindi* (beginner) - *German* (lower-intermediate)

IT proficiencies: Statistical software (SPSS), Web-programming (LAMP6, HTML5, CSS, JavaScript), CMS (Wordpress, Typo 3), CRM (Salesforce), Office (Word™, Excel™, PowerPoint™), Technical computing language (MATLAB, C++)

Personal interests: I am a keen traveller, I find visiting different countries and connecting with foreign cultures a liberating experience. In my free time I enjoy cooking, reading, yoga and swimming.

REFERENCES AVAILABLE UPON REQUEST