

Saptarshi Majumdar



Technical Staff Research Fellow

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PROFILE

I am a Technical Staff Research Fellow at the Emerson Centre of Excellence for Sustainability Studies. Currently, I am working on the Namami Gange project, conducting ground surveys and assessing socio-cultural, sociological and technical feasibility for hosting MahaKumbh 2025 sustainably. This involves integrating interdisciplinary approaches to ensure sustainability, stakeholder inclusivity, and cultural sensitivity in large-scale events.

Formerly, as a Project Associate with the Climate Change Division at TERI, I focused on hydropower forecasting, climate change impact assessments, and urban heat management. My work involved advanced data analysis, climate adaptation strategies, and designing practical solutions for sustainable urban development in the context of urban heat islands and heat stress management.

I hold a Master's degree in Environmental Engineering from the University of Auckland, New Zealand. During my four years of work experience in New Zealand, I worked as a NZ project managing lead for the Infrastructure Sustainability Council of Australia (ISC). This role included organizing high-profile conferences such as #ISConnect 2022 and 2023, involving government officials, multinational corporations, and UN sustainability diplomats. The ISC fulfilled 15 out of 17 UNSDGs across its infrastructure-rated projects, and every dollar invested in IS ratings for infrastructure projects with a CAPEX of over \$100 million yielded an average ROI of 1.6 to 2.4 dollars. My expertise spans over project management, renewable energy systems, and integrating social and technical dimensions into sustainable development.

PUBLICATIONS

Journal Articles

1. **Majumdar, S.** (2024). "Enhancing Forecasting Techniques and Interactive Tools to Predict Streamflow and Subsequently Hydropower in the Wang Chu River of Bhutan Utilizing AI and ML Algorithms." – Submitted to TERI and draft accepted by TERI – about to be published soon in a well reputed Elsevier or Springer Journal.

Media Outreach for Sustainability:

1. Creator of a YouTube channel focusing on sustainability and environmental issues, including documentaries.
2. Co-producer of the documentary "The Himalayan Infernos of the Kumaon" submitted to the #VishwaNishaneParHai Campaign, spearheaded by Dr. Nikhil Kant, Deputy Director of the AICTE (All India Centre for Technical Education), on World Environment Day 2024. The documentary investigates the cause behind the rampant environmental vandalism in the form of forest fires that choke Uttarakhand's Kumaon region during every summer season by interviewing some locals and recording the brutal vandalism to witness and ponder upon encroaching and completely environmentally destructive anthropological tendencies.

Conferences:

1. **ISConnect 2022 – Brisbane, Australia:** Played a key role in organizing this event, which brought together government officials, multinational corporations, and sustainability experts from the Oceania Pacific region.
2. **ISConnect 2023 – Melbourne, Australia:** Instrumental in hosting this event, where I delivered a symposium titled “Incorporating Sustainability Concepts Borrowed from Traditional Indigenous Maori Cultural Values and Way of Life.”
The symposium highlighted how the Maori cultural practices of simple living and nature worship have preserved New Zealand’s pristine environment. I performed the traditional Maori Karakea ritual (chanting Maori prayers) and emphasized the importance of including indigenous communities as equal partners in engineering decision-making, showcasing how New Zealand leads in sustainability standards in infrastructure.
3. **#ConnectKaro 2024 – New Delhi, India:** Organized in collaboration with WRI and TERI at the India Habitat Centre, focusing on sustainable urban development and climate resilience strategies for India’s growing cities.