Saurabh **Kelkar**

PhD · Research Associate · Climate Researcher

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Summary

Climate researcher with 4+ years of experience specializing in climate change impacts and risk assessments. Proficient in Python, R, CDO, and GrADS, with working experience in QGIS and Shell scripting. Authored and coauthored 4 peer-reviewed research articles and delivered 10+ presentations at international conferences. Skilled at producing scientific reports and communicating complex climate science to diverse audiences. Possess strong analytical, problem-solving, and critical thinking skills. Dedicated to providing timely, high-quality results.

Experience

Watershed Organisation Trust - Centre for Resilience Studies — *Pune, India*

Team Lead: Madhav Gholkar — *Dec. 2024 - Present*

- Research Associate

University of Tsukuba - Dep. Engineering Mechanics and Energy — *Tsukuba, Japan*

Advisor: Dr. Koji Dairaku — *Apr. 2020 - Mar. 2024*

- Doctoral Researcher: Apr. 2020 - Mar. 2024
- Research Assistant: Dec. 2023 - Mar. 2024
- Teaching Assistant: Apr. 2021 - Mar. 2023

Indian Institute of Tropical Meteorology - WiFEX — *Pune, India*

PI: Dr. Sachin Ghude — *May 2019 - Mar. 2020*

- Project Associate: Dec. 2019 - Mar. 2020
- Project Assistant: May 2019 - Dec. 2019

TERRE Policy Centre — *Pune, India*

Team Lead: Ankit Gaurav — *Mar. 2019 - May 2019*

- Internship

Indian Institute of Tropical Meteorology - CCCR — *Pune, India*

Advisor: Dr. Ashwini Kulkarni — *Jun 2017 - Dec. 2018*

- Project Student: MS Thesis

Education

University of Tsukuba — *Tsukuba, Japan*

PhD Engineering — *Apr 2020 - Mar 2024*

- Advisor: Dr. Koji Dairaku

Savitribai Phule Pune University — *Pune, India*

MS Atmospheric Science — *Jul 2016 - Jun 2018*

- Advisor: Dr. Ashwini Kulkarni, IITM

Fergusson College — *Pune, India*

BS Physics — *Jun 2013 - Jun 2016*

- Minors: Statistics, Mathematics

Skills

Programming and Software	R, Python, LaTeX, Shell scripting, GrADS, Climate Data Operators (CDO, NCO), QGIS
Research Skill	Systematic Review, Systematic Mapping, Research Publication, Conference Presentation
Data Analysis	Climate Data analysis (CMIP, CORDEX, ERA5, etc.), Statistical Analysis, Post-processing of model data
Soft Skills	Effective Communication, Time Management, Priority-based Work Ethic

Publications

Published

Khan, M. A., Dairaku, K., & **Kelkar, S.** (2025). Assessing wind power generation potential over South Asia using wind speed observation and re-analysis datasets. Stochastic Environmental Research and Risk Assessment, 1–29.

Khan, M. A., Dairaku, K., & **Kelkar, S.** (2024). Evaluation of Wind Speed Accuracy Enhancement in South Asia Through Terrain-Modified Wind Speed (Wt) Adjustments of High-Resolution Regional Climate Modeling. Earth Systems and Environment.

Kelkar, S., & Dairaku, K. (2024). Investigation of Uncertainties in Multi-variable Bias Adjustment in Multi-model Ensemble. Proceedings of IAHS, 386, 55–60.

Ghude, S.D., Kumar, R., Jena, C.K., Debnath, S., Kulkarni, R.G., Alessandrini, S., Biswas, M.K., Kulkrani, S., Pithani, P., **Kelkar, S.**, Sajjan, V.S., Chate, D.M., Soni, V.K., Singh, S., Nanjundiah, R.S., & Rajeevan, M. (2020). Evaluation of PM2.5 Forecast using Chemical Data Assimilation in the WRF-Chem Model: A Novel Initiative Under the Ministry of Earth Sciences Air Quality Early Warning System for Delhi, India. Current Science.

Kelkar, S., Kulkarni, A., & Kundeti, K. (2020). Impact of Climate Variability and Change on Crop Production in Maharashtra, India. Current Science, 118 (8), 1235–1245.

In Prep

Bivariate assessment of Drought Parameters for enhancing drought resilience in India's Semi-arid landscape (2025)

Integrating Climate Model Outputs and the Community's Experience for Climate Change Impact Assessment (2025)

Presentations

Invited Talks

Dec 2025. Invited Talk: International Symposium on Tropical Meteorology (INTROMET) 2025, Pune, India.

Nov 2022. Invited Talk: CORDEX Southeast Asia Workshop and CORDEX Southeast Asia ESD Meeting, Bangkok, Thailand.

Contributed Presentations

Sep 2023. International Conference on Regional Climate - CORDEX 2023, Pune, India.

Feb 2023. The 9th International Conference on Flood Management, Tsukuba, Japan.

Dec 2022. American Geoscience Union Fall Meeting, Chicago, IL, United States. (4 Presentations)

Sep 2022. Japan Society of Hydrology and Water Resources/ Japanese Association of Hydrological Sciences (JSHWR/JAHS), Kyoto, Japan.

May 2022. European Geoscience Union General Assembly, Vienna, Austria.

May 2022. Japan Geoscience Union Meeting, Chiba, Japan.

Dec 2021. American Geoscience Union Fall Meeting, New Orleans, LA, United States. (2 Presentations)

Sep 2021. Japan Society of Hydrology and Water Resources/ Japanese Association of Hydrological Sciences (JSHWR/JAHS), Chiyoda, Tokyo

Jun 2021. Japan Geoscience Union Meeting, Yokohama, Japan.

Outreach & Professional Development

Volunteering

Feb. 2025 - Present **CMIP - Fresh Eyes Working Group**, Research Collaborator *Remote*

2024- Present **Collaboration for Environmental Evidence (CEE)**, Review College Member *Remote*

Peer Review

Climate Risk Management

Program Committees

2026 **Scientific Organising Committee**, CMIP Community Workshop 2026 *Kyoto, Japan*

Awards, Fellowships, & Grants

2020-2023 **MEXT Monbukagakusho Scholarship for Doctoral Study**, Ministry of Education, Culture, Sports, Science and Technology, Japan