Sishir Dahal
Salt Lake City, Utah, USA
Email: sishir.dahal@utah.edu

Career Objective

To expand the understanding of the impacts of urbanization on environmental changes through academic research.

Education

Aug 2024- Present University of Utah, Salt Lake City, Utah, USA
PhD in Civil and Environmental Engineering

Mar 2017 – Apr 2019 Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal
MSc in Civil Engineering (Environment Program), Distinction

Dissertation: *Study of aerosol characteristics over an urban center of eastern Nepal, Birtamode.*

Nov 2011 - Oct 2015 Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal
BE in Civil Engineering, First Division

Dissertation: *A study of quality issues of RCC in frame structured buildings of Kathmandu valleybased on effects of earthquake.*

2008 - 2010 Little Flowers' Higher Secondary School, Jhapa, Nepal
10+2 Science (Major: Mathematics, Physics, and Chemistry), First Division

Training

Jul - Aug 2019 University of São Paulo, São Paulo, Brazil
Sao Paulo School of Advanced Science on Atmospheric Aerosols: Properties, Measurements, Modelling, and Effects on Climate and Health, Grade obtained: A

Jun 2019 Universiti Kebangsaan Malaysia, Bangi, Malaysia
3rd Atmospheric Composition and Asian Monsoon Training School (IGAC event)

Licenses and certifications

License/Certification: Civil Engineering **Issued by:** Nepal Engineering Council
Issued Date: 06/20/2016 **Country:** Nepal

Work Experience and Involvements

Aug 2024- Present **Graduate Research Assistant- Department of Civil and Environmental Engineering, University of Utah, Salt Lake City, Utah, USA**

Apr 2022- July 2024 **Lab Coordinator- Department of Civil Engineering, Himalaya College of Engineering, TU, Lalitpur, Nepal**

Jun 2022- Sep 2022 **Consultant- Air Quality Data Analysis- International Centre for Integrated Mountain Development (ICIMOD), Lalitpur, Nepal**

Nov 2021- July 2024 **Lecturer- Department of Civil Engineering, Himalaya College of Engineering, Lalitpur, Nepal**

Aug 2021- Jul 2024 **Thematic Lead- Air and Water Quality Section, Institute of Himalayan Risk Reduction, Lalitpur, Nepal**

Mar 2021- Oct 2021 **WSP/WQ Assistant (Consultant)- WHO Nepal, UN House, Lalitpur, Nepal**

Aug 2020- Aug 2021 **SSA (Research Consultant) - Air Quality Modeling, International Centre for Integrated Mountain Development (ICIMOD), Lalitpur, Nepal**

Aug 2019-Aug 2020 **Intern-Air Quality Modeling, International Centre for Integrated Mountain Development (ICIMOD), Lalitpur, Nepal**

Jan 2017- Feb 2019 **Civil Engineer, Vumi Engineering Consortium, Lalitpur, Nepal**

Aug 2016- Jan 2017 **Technical Officer-Engineer, Housing Reconstruction Technical Assistance Program, National Society for Earthquake Technology (NSET), Lalitpur, Nepal**

Apr 2016- Jul 2016 **Civil Engineer, Department of Urban Development and Building Construction, Kathmandu, Nepal**

Jan 2016- Mar 2016 **Civil Engineer/ Enumerator, Central Bureau of Statistics, Kathmandu, Nepal**

Dec 2015- Jan 2016 **Civil Engineer/ Volunteer, National Society for Earthquake Technology (NSET), Lalitpur, Nepal**

Computer Skills

Python, C, R

HYSPLIT, WRF

GMT, Google Earth Engine, QGIS, ArcGIS

AutoCAD, EPANET

Microsoft Office- Word, Excel, PowerPoint, Project

Research and Publications

Peer reviewed:

1. Sharma, N., **Dahal, S.,** Patel, K. and Kumar, S., 2024. Study of the Correlation between Angstrom Exponent and Fine Mode Fraction in the Indo-Gangetic Plain Using Ground-Based Remote Sensing AERONET Data. *Journal of the Indian Society of Remote Sensing*, pp.1-17. https://doi.org/10.1007/s12524-024-02046-2

2. Rupakheti, D., Dhital, S., Rupakheti, M., Yin, X., Li, P., **Dahal, S.** and Zhang, B., 2024. Characteristics of surface air quality over provincial capital cities in Northwestern China during 2013–2020. *Journal of Atmospheric Chemistry*, *81*(1), p.8. https://doi.org/10.1007/s10874-024-09462-1

3. Rupakheti, D., Aculinin, A., Rupakheti, M., **Dahal, S.**, Rai, M., Yin, X., Yu, X., Abdullaev, S.F. and Hu, J., 2023. Insights on aerosol properties using two decades-long ground-based remote sensing datasets in Moldova, Eastern Europe. *Environmental Pollution*, p.122535. https://doi.org/10.1016/j.envpol.2023.122535

4. Bhattarai, N., **Dahal, S.**, Thapa, S., Karky, B., Pradhananga, S., and Qamar, F.M. Forest Fire: A major Challenge for Carbon Finance and Mitigation Action in the HKH Region. *Journal of Forest and Livelihood, 21, p.14-31* https://forestaction.org/wp-content/uploads/2022/07/2_Bhattarai-et- al.pdf

5. Upadhyay, A., Mahapatra, P.S., Singh, P.K., **Dahal, S.**, Pokhrel, S., Bhujel, A., Joshi, I.B., Paudel, S.P.,Puppal, S.P. and Adhikary, B., Learnings from COVID-19 Forced Lockdown on Regional Air Quality andMitigation Potential for South Asia. *Aerosol and Air Quality Research*, *22*, p.210376. https://doi.org/10.4209/aaqr.210376

6. **Dahal, S.**, Rupakheti, D., Sharma, R.K., Bhattarai, B.K. and Adhikary, B., Aerosols over the Foothills of the Eastern Himalayan Region during Post-monsoon and Winter Seasons. *Aerosol and Air Quality Research*, *22*, p.210152. https://doi.org/10.4209/aaqr.210152

Conferences:

1. **Dahal, S.**, Zaman, S.U., Rupakheti, D., Thapa, M.K., and Salam, A. (2023). Unravelling Haze Episodes over the Himalayan Foothills and the Surrounding Regions. ***Atmospheric Environment Remote Sensing Society Annual Meeting*, September 16-19, 2023, Wuhan, China.**

2. Deshar, S., Byanjankar, S., Lama, S., Pudasaini, R., Shrestha, P. and **Dahal, S.** (2023). Does wastewater perturb the quality of water in stone spouts of Kathmandu district, Nepal? ***8th International Conference on Solid Waste and Faecal Sludge Management,* February 25-26, 2023, Khulna, Bangladesh.**

3. **Dahal, S.**, Acharya, N., K.C, P., Panthi, S.R., and Khatri, N.R. (2022). Elucidating the importance of a climate-resilient water safety plan for stone water spouts in Lalitpur district, Nepal**. *Water Security and Climate Change Conference*, December 01-03, 2022, Bangkok, Thailand.**

4. **Dahal, S.**, and Sharma, R. K. Overview of Aerosol Optical Properties During Post- monsoon and WinterSeasons in an Urban Center of Eastern Nepal, Birtamode, ***Sao Paulo School of Advanced Science on Atmospheric Aerosols*, July 22- August 2, 2019, University of Sao Paulo, Sao Paulo, Brazil.**

5. **Dahal, S.**, and Sharma, R. K. (2019). Seasonal Variability of Atmospheric Aerosol Characteristics over Birtamode Using Microtops II Sunphotometer Observations and Validation of MODIS Aerosol Products. ***4th ACAM Workshop*, June 26- 28, 2019, Universiti Kebangsaan Malaysia, Bangi, Malaysia.**

Research profiles

1. **Google Scholar**: https://scholar.google.com/citations?user=ftLVXVEAAAAJ&hl=en
2. **ResearchGate:** https://www.researchgate.net/profile/Sishir-Dahal

Awards/Scholarships

1. **Wilkes Center for Climate Science and Policy Graduate Fellow (2024/2025), University of Utah, Salt Lake City, Utah, USA**
2. **Young scholar travel grant to attend Atmospheric Environment Remote Sensing Society Annual Meeting, Wuhan, China (Sep 2023)**
3. **Travel grant to attend Water Security and Climate Change Conference, Bangkok, Thailand (Dec 2022)**
4. **Travel grant to attend São Paulo School of Advanced Science on Atmospheric Aerosols, São Paulo, Brazil (Jul-Aug 2019)**
5. **Travel grant to attend 3rd ACAM training and 4th ACAM workshop, Kuala Lumpur, Malaysia (Jun 2019)**
6. **IOE Pulchowk Merit Based Scholarship (2017-2019) for a 2-year graduate course in Civil Engineering (Environment Program)**
7. **IOE Pulchowk Merit Based Scholarship (2011-2015) for a 4-year undergraduate course in Civil Engineering**

References

Dr. Heather A. Holmes
Associate Professor
Department of Chemical Engineering
University of Utah, Salt Lake City, Utah, USA
***Email**:* heather.holmes@chemeng.utah.edu

Relation: Dr. Holmes is my PhD supervisor.

Dr. Ram Kumar Sharma
Professor
Department of Applied Sciences and Chemical Engineering
Pulchowk Campus, Institute of Engineering (IOE), Tribhuvan University, Lalitpur, Nepal
Email: rksharma2002@ioe.edu.np

Relation: Prof. Sharma was my master's thesis supervisor.

Dr. Binod Kumar Bhattarai
Professor
Department of Applied Sciences and Chemical Engineering
Pulchowk Campus, Institute of Engineering (IOE), Tribhuvan University, Lalitpur, Nepal
Email: binod.bhattarai@ioe.edu.np

Relation: Prof. Bhattarai taught me courses on Physics and Climate Change during my undergraduate studies.

Dr. Bhupesh Adhikary
Senior Air Quality Specialist
International Centre for Integrated Mountain Development (ICIMOD)
Khumaltar, Lalitpur, Nepal
Email: Bhupesh.Adhikary@icimod.org

Relation: Dr. Adhikary was my supervisor at ICIMOD.