

# Curriculum Vitae

## 1. Personal Details and Date of CV

- **Surname:** Chowdhury
- **First Name:** Anwarul Islam
- **Researcher ID:** <https://orcid.org/0000-0002-6934-3082>
- **Date of the CV:** March 1 2025

## 2. Degrees

- **Doctor of science (DSc.) in Forest health and remote sensing**
  - University of Eastern Finland
  - *Topic: Novel methods for large-scale assessment of biodiversity using remote sensing and deep learning.*
  - *Supervisors:*
    - Samuli Junttila, Associate professor, School of Forest Sciences, Faculty of Natural Sciences, Forest Sciences and Technology, University of Eastern Finland;  
[samuli.junttila@uef.fi](mailto:samuli.junttila@uef.fi)
    - Topi-Mikko Tanhuanpää, Postdoctoral researcher, Department of History and Geography, Faculty of Social Sciences and Business Studies, University of Eastern Finland;  
[topi.tanhuanpaa@uef.fi](mailto:topi.tanhuanpaa@uef.fi)
  - November 2024- current
- **Master of Science (M.Sc.) in Spatial and Ecological Modelling in European Forestry**
  - University of Lleida, Lleida, Spain
  - September 2023 – September 2024
- **Master of Science (M.Sc.) in European Forestry**
  - University of Eastern Finland, Joensuu, Finland
  - August 2022 - July 2023
- **Bachelor of Science (Honors) in Forestry**
  - University of Chittagong, Chittagong, Bangladesh
  - January 2016 - December 2019

## 3. Other Education and Expertise

- **Sustainable Forest Management in a Changing World**  
Offered by: University of British Columbia
- **Spatial Analysis and Satellite imagery in a GIS**  
An online course authorized by University of Toronto and offered through Coursera.
- **GIS Data Acquisition and Map Design**  
An online course authorized by University of Toronto and offered through Coursera.
- **Leading Teams**  
An online course authorized by University of Michigan and offered through Coursera.
- **The Sustainable Development Goals a Global, Transdisciplinary Vision for the Future**  
An online course authorized by University of Copenhagen and offered through Coursera.

## 4. Language Skills

- Bengali (Native)
- English (Proficient)
- Finnish (Basic)
- Spanish (Basic)

## 5. Employment

- **Visiting Researcher**

- Natural Resources Institute Finland (Luke), Helsinki, Finland
- February 2024 – March 2025
- Supervisor: Dr. Parvez Rana, Senior scientist, Luke
- Stage of Research Career: Stage I
- **Activities:**
  - Predicting ecosystem services using expert models.
  - Generating and processing point clouds.
  - Extracting and analysing key metrics.
  - Employing different machine learning algorithms such as RF SVM, CNNs etc.
  - Conducting grid-level ecosystem services predictions.
  - Performing extensive data analysis and authored comprehensive reports.

- **Intern**

- Forest Science and Technology Centre of Catalonia, Solsona, Spain
- June 2023 - August 2023
- **Activities:**
  - Building and validating ecohydrological models of mountainous areas in Catalonia.
  - Tree core sampling and dendrochronological dating.
  - Fieldwork to characterise topographical profile of riverbed and riparian vegetation composition.

- **Research Assistant**

- Institute of Forestry and Environmental Sciences, University of Chittagong, Bangladesh
- September 2019 - August 2022
- **Activities:**
  - Natural Forest ecological sampling, Forest biomass (live tree and deadwood) estimation, Forest floor and soil (carbon, nutrient) analyses in lab.
  - Forest gap and gap trees measurement, Gap characteristics, Assessment of regeneration, saplings and trees in gaps.
  - Data input and analyses, Writing the manuscript.

- **Survey Enumerator**

- International Union for Conservation of Nature (IUCN), Bangladesh
- October 2021 - December 2021
- **Activities:**
  - Field survey and growth data collection, Data input.
  - Collection of LPG, Socioeconomic data, and Elephant survey.

## 8. Research Output

1. **Chowdhury, A. I.**, Kukkonen, M., Ukonmaanaho, L., Tuula, L., Aleksi, R., Rana, P., (2025) (**under revision**). Predicting ecosystem services using remote sensing and machine learning in boreal drained-peatland forests. *Science of Remote sensing*.
2. Keränen, K., **Chowdhury, A.I.** and Rana, P., 2025. Spatially predicting ecosystem service patterns in boreal drained peatlands forests using multisource satellite data. *International Journal of Applied Earth Observation and Geoinformation*, 139, p.104545. <https://doi.org/10.1016/j.jag.2025.104545>
3. Rana, P., Muinonen, E., Tolvanen, M., **Chowdhury, A.I.**, Vastaranta, M. and Tokola, T., 2025. Can we monitor seedling stands using Landsat Time Series?. *European Journal of Forest Research*, pp.1-12. <https://doi.org/10.1007/s10342-025-01789-y>

4. **Chowdhury, A. I.**, Baul, T. K., Uddin, Md. J., Karmakar, S., Nandi, R., Akhter J., & Nath, T. K., (2022). Quantifying the potential contribution of urban trees to particulate matters removal: A study in Chattogram city, Bangladesh. *Journal of cleaner production*, 380 (2022): 135015. <https://doi.org/10.1016/j.jclepro.2022.135015>
5. Baul, T. K., **Chowdhury, A. I.**, Uddin, Md. J., Hasan, M. K., Kilpeläinen, A., Nandi, R., & Sultana, T. (2022). Forest carbon stocks under three canopy densities in Sitapahar natural forest reserve in Chittagong Hill Tracts of Bangladesh. *Forest Ecology and Management*, 492, 119217. <https://doi.org/10.1016/j.foreco.2021.119217>
6. Baul, T. K., **Chowdhury, A. I.**, Uddin, Md. J., Hasan, M. K., Nandi, R., Nath, T. K., & Kilpeläinen, A.. (2022) Evaluating gap characteristics and their effects on regeneration in Sitapahar forest reserve, Bangladesh. *European Journal of Forest Research*. <https://doi.org/10.1007/s10342-022-01502-3>
7. Baul, T. K., **Chowdhury, A. I.**, Uddin, Md. J., Hasan, M. K., Schmidt, L. H., Nandi, R., & Nath, T. K. (2022) Diversity and Phytosociology of Natural Regeneration in a Sub-tropical Forest of Chittagong Hill Tracts, Bangladesh: Implications for Conservation. *Journal of Sustainable Forestry*, 1-14. <https://doi.org/10.1080/10549811.2022.2059517>
8. Baul, T. K., **Chowdhury, A. I.**, Uddin, Md. J., Hasan, M. K., Kilpeläinen A.; Nandi R.; Karmakar S.; Akhter J. (2023) Effects of fragmentation and shifting cultivation on soil carbon and nutrients: A case study in Sitapahar forest, Bangladesh. *Rhizosphere*. <https://doi.org/10.1016/j.rhisph.2023.100756>
9. Baul, T.K., **Chowdhury, A.I.**, Uddin, M.J., Hasan, M.K., Nath, T.K. and Schmidt, L.H., 2025. Differences in Seedling and Sapling Densities and Species Composition between Canopy Gaps and Forest Understories in a Subtropical Forest in Bangladesh. *Journal of Resources and Ecology*, 16(1), pp.105-114. <https://doi.org/10.5814/j.issn.1674-764x.2025.01.010>
10. Raihan, A., Ridwan, M., Zimon, G., Rahman, J., Tanchangya, T., Bari, A.M., Atasoy, F.G., **Chowdhury, A.I.** and Akter, R., 2025. Dynamic effects of foreign direct investment, globalization, economic growth, and energy consumption on carbon emissions in Mexico: An ARDL approach. *Innovation and Green Development*, 4(2), p.100207. <https://doi.org/10.1016/j.igd.2025.100207>

## 9. Awards and Honours

- Erasmus Mundus Joint master's degree program funded by European union.

## 10. Other key academic merits, such as:

- Ranked in the top 2% for academic excellence.
- Reviewer- South African Journal of Botany

## 11. Scientific and Societal Impact

- Bachelor dissertation (*Quantifying the potential contribution of urban trees to particulate matters removal: A study in Chattogram city, Bangladesh*) was appreciated by Chattogram city corporation during urban tree plantation initiative.

## 12. Other Merits

1st Jamal Nazrul Islam National Conference- 2022 for Young Researchers. Held on 21 May 2022 at the University of Chittagong, Chattogram, Bangladesh

- Potentiality of Urban trees to mitigate the atmospheric particulate matter: A study focused Chattogram City, Bangladesh (**Oral presentation**).
- Forest carbon stocks variation under three canopy densities in Sitapahar Forest Reserve, Chittagong Hill tracts, Bangladesh (**Poster presentation**).

## 13. Social media: ResearchGate ([Anwarul Islam Chowdhury](#)), Google Scholar ([Anwarul Islam Chowdhury](#))