

Mahmud Syed

Email: mahmud.syed@gwmail.gwu.edu

LinkedIn: linkedin.com/in/mahmudsyed/

RESEARCH INTERESTS

Environmental pollution, nanoparticles, environmental microbiology, water treatment technology, nutrient cycling and management, bioremediation, SOC management and GHG emission reduction.

EDUCATION

The George Washington University, School of Engineering & Applied Science

Ph.D. in Civil and Environmental Engineering

Jan 2024 – Present

University of Dhaka, Faculty of Biological Sciences

M.S. in Soil, Water and Environment (Water Science), **GPA: 3.92** (out of 4)

2019 – 2020

- Position - 1st among 78 students

B.S. in Soil, Water and Environment, **CGPA: 3.49** (out of 4)

2015– 2016

- Merit-based Board Scholarship on the honors result

RESEARCH EXPERIENCE

Graduate Research Work | University of Dhaka

Feb 2021 – Feb 2023

- Analyzed physico-chemical properties of soil, water and plants in laboratories
- Identified a technique for reducing heavy metals in plants and ameliorating soil conditions
- Inspected nutrient contents of spinach, okra, eggplant, cucumber, sesame and mung bean
- Discovered remediation techniques for saline and acid soils for plant cultivation
- Conducted field sampling from coastal areas, offshore islands and districts and analyzed
- Explored different agronomic fields and studied environmental monitoring instrumentation
- Microplastics sampling of agricultural soils from Savar, Dhaka

TECHNICAL SKILLS

Statistical Analysis and Programming: MS Excel, Minitab, SPSS and R Programming

Image Processing Software: Adobe Photoshop, Adobe Illustrator, ImageJ, Canva

Video Editing Software and others: Adobe Premier Pro, MS Word, PowerPoint and Mendeley

LINGUISTIC PROFICIENCY

- English (Fluent, IELTS 7), Bangla (Native), Hindi (Speaking), Arabic (Reading)

ACCOMPLISHMENTS

- The Duke of Edinburgh's International Award – Gold Level (Feb 2022)
- The Duke of Edinburgh's International Award – Silver Level (Jan 2019)
- Bangladesh Biology Olympiad – Best Enzyme Award (Issued May 2019)

PROFESSIONAL EXPERIENCE

Research and Campaign Associate

2022 – 2023

Environment and Social Development Organization-ESDO, House 8/1, Block C, Lalmatia, Dhaka

- Research work, research proposal writing, paperwork and material development
- Key member of on-site sampling and data collection team
- Building awareness through the campaign and community reach (education camp)
- Report writing, communication, meeting with multi-stakeholders and community outreach

PUBLICATIONS, SYMPOSIUM PAPERS AND CONFERENCE PRESENTATION

Publications

1. Syed, M., Sadi, K.T.M., Uddin, R., Devnath, A. & Rahman, M. (2022). Integrated Effects of Vermicompost, NPK Fertilizers, Cadmium and Lead on the Growth, Yield and Mineral Nutrient Accumulation in Spinach (*Spinacia oleracea* L.). *J. Biodivers. Conserv. Bioresour. Manag.* 8(2): 13–24. <https://doi.org/10.3329/jbcbm.v8i2.63814>
2. Shathi, T. A., Syed, M. & Rahman, M. K. (2023). Growth and Quality Characteristics of Sesame (*Sesamum indicum* L.) as Influenced by Vermicompost and Chemical Fertilizers. *J. Asiat. Soc. Bangladesh, Sci.* 49(1): 43–53. <https://doi.org/10.3329/jasbs.v49i1.67594>
3. Prity, N., Syed, M. & Rahman, M. (2023). Performance and Nutrient Content of Okra (*Abelmoschus Esculentus* L. Moench) Fruits as Influenced by Vermicompost, Nitrogen and Zinc Grown in Soil. *J. Biodivers. Conserv. Bioresour. Manag.* 9(1): 101–108. <https://doi.org/10.3329/jbcbm.v9i1.66635>
4. Rifhat, R., Mitu, S., Syed, M. & Rahman, M. (2023). Utilization of Vermicompost and NPK Fertilizers on the Growth, Yield, Nutrient and Protein Content of Mung Bean (*Vigna radiata* L.). *J. Biodivers. Conserv. Bioresour. Manag.* 9(1): 29–40. <https://doi.org/10.3329/jbcbm.v9i1.66630>
5. Turna, T. T., Syed, M. & Rahman, M. K. (2023). Productivity and Nutrient Composition of Cucumber (*Cucumis sativus* L.) Grown under Integrated Application of Vermicompost, Phosphorous and Zinc Fertilizers. *Dhaka Univ. J. Biol. Sci.* 32(2): 201–210. <https://doi.org/10.3329/dujbs.v32i2.67679>
6. Akter, N., Syed, M. & Rahman, M. K. (2023). Nutritional and agronomic response of Eggplant (*Solanum melongena* L.) to the application of vermicompost, potassium and boron. *Bangladesh Journal of Botany*, 52(4): 959–964. <https://doi.org/10.3329/bjb.v52i4.70577>

Symposium Abstracts (researchgate.net/profile/Mahmud-Syed)

1. Sadi, K. T. M., M. Syed and M. K. Rahman. Evaluation of Heavy Metal Concentrations in Tea Soils and Leaves of Lalmonirhat District in Bangladesh. *1st International Symposium on Environmental Pollution and Risk Management*. Dhaka, Bangladesh. May 1-2, 2023, pp. 6. Link: <https://bit.ly/3FIWggM>
2. Rahman, M., M. Alauddin, S. Mazumdar, M. Syed, M. M. Apurba and M.K. Rahman. Assessment of Some Heavy Metal Contamination in Paddy Soil and Accumulation in T. Aman Rice (*Oryza sativa* L.) on the South Coast and Offshore Islands of Bangladesh. *1st International Symposium on Environmental Pollution and Risk Management, Dhaka, Bangladesh*. May 1-2, 2023, pp. 1. Link: <https://bit.ly/45WDv43>

Conference Presentation (researchgate.net/profile/Mahmud-Syed)

1. Reclamation of Coastal Soil: Assessment of the Potentiality of Black-Eyed Pea (*Vigna unguiculata* L.) Cultivation in Increasing Salinity. Bangladesh Delta Study Centre. Link: <https://bit.ly/40p9J72>