Md. Suman Miah

Environmental Specialist

PERSONAL INFORMATION

Name: MD. SUMAN MIAH
Present/Mailing Address: Holding No: 348/2, Pagla Mazar Goli, Noyatola,
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Permanent Address: House: 1524, Ward: 10, Vill- Bakhtiarpur, P.O- Keranirhat,
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Contact no: +8801750497710 (Personal), Office: 02-41025584
Date of birth: 11 December, 1989; Sex: Male; Nationality: Bangladeshi,
NID: 8235908194; TIN: 815108320273; Driving License: RJ0031630CL0004; Passport: A00653489;
Civil status: Married (Spouse: Israt Zahan)

SUMMARY

I am a dedicated Environmental Specialist with extensive expertise in assessing and mitigating environmental impacts, developing environmental management plans (EMPs), and implementing sustainable resource management strategies. My professional experience spans key areas such as climate change risk assessment, environmental governance, GIS-based land use planning, and water resource management. I have a proven track record in delivering actionable insights and innovative solutions for environmental challenges in South Asia, leveraging advanced tools in GIS, remote sensing, and data analysis. My core competencies include conducting environmental impact assessments (EIA), engaging stakeholders through capacity-building workshops, and integrating multidisciplinary approaches to promote sustainable development. Passionate about contributing to global environmental sustainability, I aim to support projects that address pressing ecological and climate concerns while aligning with organizational and governmental priorities.

Research Interest: EIA, EMP, GIS and Remote Sensing, Monitoring and Evaluation, Geohazards, Climate Change, Water Management, Data Science

EDUCATION

1. Master of Science (MS) in Environmental Science (2025), Jahangirnagar University, Savar, Bangladesh.

2. Master of Science (MS) in Geology and Mining (specialized on Water Resource and Environmental Management) (2012), University of Rajshahi, Bangladesh.

3. BSc. Honours in Geology and Mining, (2011), University of Rajshahi, Bangladesh

4. Post Graduate Diploma (PGD) in ICT (PGDICT), (2023), Bangladesh Korea Institute of Information and Communication Technology (BKIICT), Bangladesh Computer Council (BCC), Agargaon, Dhaka.

5. Higher Secondary Certificate (HSC) in Science (2007), Rangpur Govt. College, Rangpur.

6. Secondary School Certificate (SSC) in Science (2005), Bir Uttam Shaheed Samad High School, Rangpur Cantonment, Rangpur.

SHORT COURSES AND TRAINING (National & International)

1. Graduated IPDET (International Program for Development Evaluation Training) Core Course on Evaluation, with the modules- introduction & overview, Evaluation process, Framing & scoping the evaluation, Theories & Evaluation Approaches, Overview of design, data collection & data analysis methods, context of evaluation & Utilization, by the Independent Evaluation Group at the World Bank, the University of Bern, Switzerland, and the Centre for Evaluation, Germany, held at University of Bern, **Switzerland** from July 15-19, 2024,

2. Completed IPDET workshop- From Data to Decisions: Integrating Machine Learning in Evaluation, July 22-24, 2024 at University of Bern, Switzerland.

3. Completed IPDET workshop- Designing and Managing Projects for Results and Evaluability, July 25-26, 2024, at University of Bern, Switzerland.

4. Completed short course on "Multilevel Water Governance", from 9 September to 20 September, 2019 in The Hague Academy for Local Governance, The Hague, Netherlands, funded by OKP, **Netherlands.**

5. Completed 7-weeks (May 29, 2023 to July 17, 2023) course on Intermediate Moderated Program for Evaluation Systems' Strengthening (IMP*r*ESS) – *"Evaluation Matters for Decision-Making"* by Key Aid Consulting and UNICEF.

6. Mixed Methods Research and Evaluation from 30-31 August and 1st September 2022, by EnCompass LLC.

7. Digital Analytics for Monitoring and Evaluation from 5-9 September 2022 by IPDET.

8. Completed POLICY EVALUATION FALL SCHOOL 2022, "Evaluating policies and using evaluation results for policies" from 6-7 October 2022, Organized by the Asia Pacific Evaluation Association (APEA) in collaboration with Bill & Melinda Gates Foundation, and Development Monitoring and Evaluation Office, NITI Aayog.

9. Completed workshop on "MONITORING AND EVALUATION FOR EVIDENCE-BASED DECISION MAKING" by Bangladesh Evaluation Society (BES) and Community of Evaluators (CoE-SA), South Asian Evaluation Conclave in Dhaka, 13 October 2022.

10. Completed training course on "Asia Pacific Virtual Winter School 2021 for Young and Emerging Evaluators (YEEs)" in Asia Pacific region from 29-31 March, 2021 by APEA.

11. Accomplished training course on "Faecal Sludge and Water Management in Rural Areas" from "20 February to 5 March, 2021 by Centre for Science and Environment (CSE), New Delhi, India.

12. Completed training on "Integrated Water Resource Management (IWRM)" from 29-31 August, 2016 at Rural Development Academy, Bogura and organized by DASCOH Foundation and Swiss Red Cross Bangladesh

13. Undertook short course on "International Water Law and the Law of Transboundary Aquifers" (4 ECTS credits) from 21 October to 22 December, 2019 by Geneva Water Hub in collaboration with DiploFoundation and University of Geneva, Switzerland. Achieved scholarship funded by the Swiss Agency for Development and Cooperation.

14. Multidisciplinary Application of Geographic Information System (GIS), Department of Urban and Regional Planning, Rajshahi University of Engineering and Technology (RUET) from 03.12.2015 to 04.12.2015.

15. Principles of Geographical Information Systems (GIS) and Remote sensing, Department of Urban and Regional Planning, RUET, 28-29 May 2015.

16. Completed training on "Measuring Resilience" from 11-15 June, 2017 in SKS Gaibandha, Bangladesh by Swiss Red Cross, Bangladesh Red Crescent and Banyaneer.

17. Completed training on "Report Writing" from 28-29 March, 2018 by DASCOH Foundation, Bangladesh.

18. Completed 10-weeks (February 20, 2023 to April 27, 2023) course on "Public Diplomacy" by DiploFoundation, scholarships funded by the Maltese Ministry for Foreign and European Affairs and Trade.

19. Completed training on "Conflict Sensitive Program Management (CSPM)" from 24-26 June, 2015 by Swiss Red Cross and DASCOH Foundation, Bangladesh.

20. Completed training on International Project Management based on PRINCE2 from 02-10 October, 2020 at Dhaka by Global Skills Development Agency.

21. Completed 6-weeks training course "Online Meetings and Conferences: How to Run Effective and Secure Events" from 15 October to 24 November, 2020 by Diplo Foundation, scholarship funded by the Federal Department of Foreign Affairs of Switzerland.

22. Completed training on Content Management System from 26 September to 30 December, 2014 conducted by raj IT and supported by Bangladesh High-tech Park Authority.

23. Certified in "Database Programming" Skill Standard Basic Course Examination, 2015" following 6 months (360 Hrs) course by Karigori Proshikkon Academy, Rajshahi, Bangladesh Technical Education Board, BTEB, Dhaka, and secured A+ grade in Jan-June, 2015 session.

24. Completed online training on MEAL DPro: Monitoring, Evaluation, Accountability and Learning from 8-12 May, 2020 by Humanitarian Leadership Academy, Humentum and Catholic Relief Services (CRS).

25. Surveying Certification (Course Session-July-Dec) - 2022, Dhaka Polytechnic Institute, BTEB, Dhaka.

WORK EXPERIENCE

1. December 2024 – Continue as Consultant-Environmental Specialist in 'Mouza and Plot based National Digital Landzoing Project' of Ministry of Land, Bangladesh. This project is funded by Government of Bangladesh (GoB) with a budget of 337 crore. The primary objective is to achieve efficient land management by categorizing the land into plots designated for agriculture, forestry, industrial development, etc., based on the land quality, utilizing GIS & Remote Sensing technology. I serve following key responsibilities:

   - Analyze the current environmental situation and prepare detailed environmental indicators and maps.
   - Conduct assessments of environmental impacts from proposed projects.
   - Develop EMPs to address and mitigate environmental risks identified during assessments.
   - Organize workshops and training at various levels (division, district, upazila, and union) to raise awareness about environmental concerns.
   - Collaborate with relevant organizations to collect environmental data and prepare reports.
   - Coordinate with government and non-governmental organizations for technical and monetary support.
   - Address specific needs such as preparing special reports or fulfilling ad hoc environmental tasks.

2. April 2021 – November 2024 as Consultant-Data Process in 'Mouza and Plot based National Digital Landzoing Project' of Ministry of Land, Bangladesh. This project is funded by Government of Bangladesh (GoB) with a budget of 337 crore. The primary objective is to achieve efficient land management by categorizing the land into plots designated for agriculture, forestry, industrial

development, etc., based on the land quality, utilizing GIS & Remote Sensing technology. I serve as a Consultant on this project, undertaking the following key responsibilities:

- Collection, processing, and incisive analysis of qualitative, quantitative, and geospatial data and handling land and surveyed data using software tools such as ArcGIS, advanced Excel functionalities, and Python scripting.
- Establish rules for data sharing, enhance data collection procedures for analytic systems ensuring ethical data collection protocols. Support to develop and implement a robust approach for high-quality data collection, including the creation, testing, and digitization of various tools, while addressing issues in collaboration with both internal and external stakeholders and providing supervision for data entry in essential databases.
- Devising comprehensive land use plans and delivering actionable insights for efficient land data management.
- Engaging in on-site activities, including monitoring tasks, conducting surveys, and collecting land-related data.
- Maintaining liaison with concerned departments, outsourced firms, and ministries
- Developing tools for data analysis and constructing intuitive visualization dashboards.
- Assisting in developing policies, frameworks, and procedures for effective data management, ensuring compliance, and implementing secure and efficient data handling.
- Perform data processing tasks, including cleaning, filtering, and ensuring data integrity; safeguard digital databases against security threats and data loss; address data-related issues and authorize maintenance; and analyze, recommend, and propose structural requirements for new software and applications.
- Analyze intricate data sets to identify trends, develop predictive algorithms using advanced statistical and econometric modeling, assist in report preparation with necessary data extraction, and oversee the development of dashboards with a focus on efficient data processes and quality inputs.

3. 14 June 2015 – April 2021 as 'Monitoring and ICT Officer' in DASCOH Foundation in 'Integrated Water Resources Management Project (IWRM)' project jointly implemented by the Swiss Red Cross, financed by Swiss Agency for Development and Cooperation SDC. Within my job responsibilities, I have developed 26 methodologies, tools, formats for monitoring purposes, and guided staff for efficient use. Also, I have designed, conducted, and analyzed baseline, midline, and endline surveys for the annual internal evaluations. Hence, I've collected and preserved data in periodic output and outcome-focused monitoring databases and documented it with reports of water resources, ongoing activities, feedbacks, and outcomes of the project regularly. I established the project's MIS system that supported institutionalizing the water quality monitoring system at local government institutions. Prepared three annual and three half-yearly outcome-focused operational reports. I designed and conducted 38 categories of surveys using ODK and KoBo Toolbox, monitored the progress of ongoing activities, and assessed the impact of the project intervention. I analyzed data for reports using Excel, SPSS, ArcGIS, and suitable tools for the specific type of data. I also prepared 4 monitoring guidelines and 3 working manuals for field staff. I also provided information to the management and implementation team to make decisions and mitigation the situation and contributed to knowledge management and monitoring system. The remarkable studies and projects I have accomplished as a supervisor in this period are –

   a. Web-based water resources mapping at 52 LGI's of 3 districts.
   b. Formed, monitored, and supervised 1272 Community-based Water Resource Management Committee (WRMC).
   c. 60 Groundwater monitoring well monitored regularly and reported the fluctuation
   d. 7 loggers installed for continuous groundwater monitoring and reported
   e. Cost-benefit analysis (CBA), water footprint, economic valuation of water and water modelling for empirically identifying water stressed area.

f. 22 Geoelectric Resistivity Survey conducted at Tanore, Rajshahi (2015), Godagari, Rajshahi (2015), Nachole, Chapai Nawabganj (2013), Rajshahi (2012) and Porsha, Sapahar, Naogaon (2011), Bangladesh

4. March 2013 - July 2014 as 'Research Associate' in the Dept. of Geology and Mining, University of Rajshahi under the supervision of Professor Dr. Quamrul Hasan Mazumder. Engaged in the 3 short term projects- (i) Hydro-geologist Expert for Survey Conduction and Preparation of Hydro-geological Profile to Install Aquifer Recharge Well in Chapai-Nawabganj District. (ii) A Viable Solution to Groundwater Depletion in Barind Area, Northwest of Bangladesh and (iii) Survey Conduction and Preparation of Hydro-geological Profile to Identify and Assess the Potential/Safe Shallow and Deep Aquifer for Mini Pipeline Water Supply in Barodhutpatila, Damurhuda Upazilla, Chuadanga District. I assisted Supervisor in taking 27 Vertical Electrical Sounding (VES) data and monitoring the data collection activities, analyzed the collected data using Excel, SPSS and ArcGIS program and prepared field reports.

5. 15 April 2021 to 23 Dec 2021, Volunteer, Groundwater Relief (Groundwater Relief, Room 19, Chimmels, Park Road, Dartington Hall, Totnes, Devon, TQ9 6EQ, United Kingdom, Bangladesh Project Office, Coxsbazar). Key Responsibilities- a) Volunteered to support the Water Relief project P114 Bangladesh, b) Extracted and digitalized valuable information from Department of Public Health and Engineering's (DPHE's) borehole records. (Laura Holliday, Phone: 4407969039881)

LANGUAGE AND COMMUNICATION SKILLS:

- Bengali: Native Proficiency
- English: Professional Working Proficiency (Overall IELTS Score 6.00, having 6.5 in Speaking)
- German: Professional Working Proficiency (with having one Year Certificate Course),
- Hindi: Professional Working Proficiency
- Good communication skills gained through my work of liaison with NGO, govt. department and different stakeholders

DIGITAL SKILLS

- Multidisciplinary Application of Geographic Information System (GIS), Mapping and Cartography: ArcGIS-ArcMap, ArcGIS Server, QGIS, MapInfo
- Remote sensing: ERDAS IMAGINE
- Database Management, Web Mapping (Open Source): SQL(MySQL), PostGreSQL (PostGIS), Geoserver, Map Server, Oracle
- Statistical Analysis: SPSS, Python, Tableau, STATA
- Data Collection Solutions: Expert in KoBo Toolbox, ODK, Python and equipped with any online data collector program. Capable to design, development of questionnaire of that program using Advance XLSForm, train to enumerator and efficiently collect field data
- Expert in MS Office, with a focus on advanced Excel functioning.
- Skilled in image processing and graphics with Adobe Photoshop and illustrator, video editing
- Good at Web Designing (HTML, CSS, JavaScript, jquery, PHP), Visual Basic, and Java. FORTRAN language learned through a one-year course curriculum.
- Programming: Python, Visual Basic, C, Java
- Good command in networking and Intranet, E-Mail Applications, Social Networking, Audio-Visual Conferencing, Instant messaging, online event management.

MEMBERSHIPS

- Young and Emerging Evaluators (YEEs) member, Bangladesh Evaluation Society (BES), since 2021, worked as Assistant Editor for Proceedings on Formulation of Bangladesh National Evaluation Policy.
- Member, EvalYouth Bangladesh

- Member, Gender and Water Alliance (GWA), Dieren, the Netherlands, Email: secretariat@gwalliance.org,
- Member, Gender and Equity Network South Asia-GENSA. GENSA is a special interest group of the Community of Evaluators – South Asia (COESA). Email: gensanetwork@gmail.com
- Member, International Association of Hydrological Sciences (IAHS), Membership: 17676 (Since 12 July 2019)
- Vulunteer, EvalYouth, https://volunteer.evalyouth.org/?page_id=8&um_user=suman
- Member, Rajshahi University Rotaractors Alumni Association (RURAA), Dhaka, Bangladesh. Rotaractors are a member of the Rotaract Club and sponsored by Rotary International.
- Member, betterevaluation community, https://www.betterevaluation.org/
- Explorer Member: Association of American Geographers (AAG);

PUBLICATIONS AND REPORTS

1. Water Footprint and Governance Assessment for Sustainable Water Resource Management in Drought-Prone Barind Area, NW Bangladesh, (2019), https://doi.org/10.1007/978-3-030-01572-5_87
2. Role of artificial intelligence (AI) in civil engineering to minimize environment pollution (2024), DOI: https://doi.org/10.30574/wjarr.2024.24.3.3748
3. Rainwater Harvesting to Alleviate Water Scarcity in drought-prone Barind Tract, NW, Bangladesh: A Case Study, (2016), Proceeding Published in 1st International Conference on Botanical Pesticide and Environmental Sustainability. 24-26, IES, University of Rajshahi, Bangladesh, http://www.ru.ac.bd/ies/conference/
4. MAR Model with IWRM Approach in Barind Tract: An Adaptation Tool for Alleviating Water Scarcity in Thirsty Hard-to-Reach Area in NW Bangladesh (2021). Abstract on 7th Gobeshona International Conference_18-24 January, 2021.
5. Economic Valuation of Small Scale Water Management Intervention in Barind Area, Bangladesh. AIJR Preprints, 250, Version 1, 2020. https://preprints.aijr.org/index.php/ap/preprint/view/250
6. Field Data Collection Method using KoBo Toolbox, (2016), DASCOH Foundation, Rajshahi.
7. Video Documentary: Women and Water, (2020), Scripted and Supervised. (https://www.youtube.com/watch?v=ToaP5EjKIxM)
8. Mouza Map Atlas (2017), DASCOH Foundation, Rajshahi.
9. Translated Book: "Wally & Deanna's Groundwater Adventure... to the Saturated zone" (2025)- by Earth Science Museum, University of Waterloo, Canada. https://gw-project.org/download/wally-and-deannas-groundwater-adventure-bengali/

Academic Reports:

- Internship Report on Drilling and Production Site of Titas Gas Field. (March, 2014)
- Geological field report on the Padma River, Rajshahi, Bangladesh
- Geological field report on Jaintapur and Adjacent Areas, Sylhet District, Bangladesh

(These reports are submitted to the department of Geology and Mining, University of Rajshahi, Rajshahi, 6205, Bangladesh)

CERTIFICATIONS

- International Certification of ICT Skills and Knowledge, IP Exam of ITEE passer, conducted by Bangladesh IT-engineers Examination Center (BDITEC) and Bangladesh Computer Council on 29 Oct 2017, Passer ID #IP2017OCT00041
- Database Programming (Oracle and Visual basic) Skill Standard Basic Course Examination, following 6 months (360 Hrs) course by Karigori Proshikkon Academy, Rajshahi, BTEB, Bangladesh Technical Education Board, Dhaka, and secured A+ grade Reg. No: 857355, Sl No: 2250486. in Jan-June, 2015 session.
- International English Language Testing System (IELTS), 2020. Overall Score 6.00 with speaking 6.5.
- Certified Online Moderators, November 2020, by Diplo Foundation, financial supported by the Federal Department of Foreign Affairs of Switzerland.

- Surveying (Aminship) course- 2022, Dhaka Polytechnic Institute, BTEB, Dhaka. (Secured grade A)
- Completed training on International Project Management based on PRINCE2 from 02-10 October, 2020 at Dhaka by Global Skills Development Agency.

CONFERENCES

- Participated in regional alumni training and conference on Climate Change, Water management & Food security on 20-22 November 2019 in Bangkok, Thailand
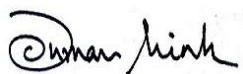
COUNTRIES OF WORK EXPERIENCE/ VISITED

I visited Switzerland, Netherlands, Thailand, UAE, and India to get experienced with Water management as well as Environmental issues and system.

REFERENCES

- **Referee 1:** Present Supervisor

  Muhammad Mahfuzur Rahman, Project Director (Additional Secretary), Mouza & Plot Based National Digital Land Zoning Project, Ministry of Land, Bhumi Bhaban (12th Floor), 98 Shaheed Tajuddin Ahmed Sharani Tejgaon, Dhaka-1208, E-mail: pdlandzoning@minland.gov.bd, Tel:/Mobile: 02-41025584

- **Referee 2:** Academic Supervisor
  Chowdhury Sarwar Jahan, Ph.D., Professor, Department of Geology & Mining, University of Rajshahi, Rajshahi-6205, Contact no: +8801712612142, Email: sarwar_geology@yahoo.com

- **Referee 3:** Past Supervisor
  Akramul Haque, CEO, DASCOH Foundation, Dingadoba, Rajshahi, 6201, Bangladesh, Contact no: +8801714085845, Email: akram.dascoh@gmail.com

DECLARATION

I, the undersigned, certify to the best of my knowledge and belief that this CV correctly describes myself, my qualifications, and my experience, and I am available, as and when necessary, to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client.

Md. Suman Miah