

# Md. Suman Miah

Environmental Specialist | GIS & Remote Sensing | Data Analysis | M&E

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## Professional Summary

Dedicated Environmental Specialist with over a decade of experience in environmental impact assessment (EIA), GIS-based land use planning, water resource management, and monitoring & evaluation (M&E). Proven track record delivering solutions for complex environmental and data challenges across South Asia. Skilled in combining geospatial tools, advanced data analytics, and stakeholder engagement to support sustainable development and evidence-based decision-making.

## Work Experience

**Consultant — Environmental Specialist** Dec 2024 – Present  
*Mouza & Plot Based National Digital Land Zoning Project, Ministry of Land, Bangladesh (GoB, BDT 337 Crore)*

- Analyze environmental situations; prepare detailed environmental indicators, maps, and EMPs.
- Conduct environmental impact assessments for proposed projects and develop mitigation strategies.
- Organize capacity-building workshops at division, district, upazila, and union levels.
- Collaborate with government and NGOs for data collection, technical reporting, and coordination.

**Consultant — Data Analyst & GIS Specialist** Apr 2021 – Nov 2024  
*Mouza & Plot Based National Digital Land Zoning Project, Ministry of Land, Bangladesh*

- Processed and analyzed qualitative, quantitative, and geospatial data using ArcGIS, Python, and Excel.
- Designed land use plans, built visualization dashboards, and implemented robust data governance protocols.
- Developed tools for data collection, cleaning, and database management; ensured data integrity and security.
- Applied advanced statistical and econometric modeling to identify trends and develop predictive algorithms.

**Monitoring & ICT Officer** Jun 2015 – Apr 2021  
*DASCOH Foundation — IWRM Project (Swiss Red Cross / Swiss Agency for Development and Cooperation)*

- Developed 26 monitoring methodologies, tools, and formats; designed baseline, midline, and endline surveys.
- Established project MIS, institutionalizing water quality monitoring systems at local government level.
- Designed and conducted 38 survey types using ODK & KoBo Toolbox; analyzed data using SPSS and ArcGIS.
- Supervised 1,272 Community Water Resource Management Committees across 3 districts; monitored 60 groundwater wells and 7 data loggers.
- Conducted 22 Geoelectric Resistivity Surveys; prepared cost-benefit, water footprint, and economic valuation analyses.

**Research Associate** Mar 2013 – Jul 2014  
*Department of Geology & Mining, University of Rajshahi*

- Contributed to three hydrogeological projects: aquifer recharge well surveys, groundwater depletion solutions in Barind Tract, and mini pipeline water supply hydrogeological profiling.
- Collected VES data, analyzed results using Excel/SPSS/ArcGIS, and prepared field reports.

## Education

MS	Environmental Science, Jahangirnagar University	2025
MS	Geology & Mining (Water Resource & Environmental Management), University of Rajshahi	2012
BSc	Geology & Mining (Honours), University of Rajshahi	2011
PGD	ICT (PGDICT), Bangladesh Korea Institute of IT (BKIICT) / Bangladesh Computer Council	2023

## Technical Skills

<b>GIS &amp; Remote Sensing</b>	ArcGIS (ArcMap, ArcGIS Server), QGIS, MapInfo, ERDAS IMAGINE
<b>Programming &amp; Data</b>	Python, SQL (MySQL, PostgreSQL/PostGIS), R, Excel (Advanced), SPSS, STATA, Tableau
<b>Web &amp; Mapping</b>	GeoServer, MapServer, HTML/CSS/JavaScript, PHP
<b>Data Collection</b>	KoBo Toolbox, ODK, Advanced XLSForm design, survey digitization
<b>Other</b>	Adobe Photoshop/Illustrator, MS Office Suite, PRINCE2 Project Management

## Selected Publications

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1. **Miah, S.** et al. (2019). Water Footprint and Governance Assessment for Sustainable Water Resource Management in Drought-Prone Barind Area, NW Bangladesh. doi:10.1007/978-3-030-01572-5\_87
2. **Miah, S.** et al. (2024). Role of Artificial Intelligence (AI) in Civil Engineering to Minimize Environmental Pollution. *WJARR*. doi:10.30574/wjarr.2024.24.3.3748
3. **Miah, S.** (2021). MAR Model with IWRM Approach in Barind Tract. *7th Gobeshona International Conference*, Dhaka.
4. **Miah, S.** (2020). Economic Valuation of Small Scale Water Management Intervention in Barind Area, Bangladesh. *AIJR Preprints*, 250. preprints.aijr.org
5. Translated Book: *Wally & Deanna's Groundwater Adventure* (Bengali), Earth Science Museum, University of Waterloo, Canada (2025). gw-project.org

## Key International Training & Courses

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- IPDET Core Course on Evaluation — University of Bern, Switzerland (Jul 2024)
- IPDET: From Data to Decisions — Machine Learning in Evaluation, Bern, Switzerland (Jul 2024)
- Multilevel Water Governance — The Hague Academy for Local Governance, Netherlands (Sep 2019), funded by OKP Netherlands
- International Water Law & Transboundary Aquifers (4 ECTS) — Geneva Water Hub / University of Geneva (2019), Swiss SDC scholarship
- IMPrESS: Evaluation Matters for Decision-Making — Key Aid Consulting & UNICEF (2023)
- Policy Evaluation Fall School — APEA / Bill & Melinda Gates Foundation (Oct 2022)
- Mixed Methods Research & Evaluation — EnCompass LLC (Aug 2022)
- MEAL DPro (M&E, Accountability & Learning) — Humanitarian Leadership Academy / CRS (2020)
- International Project Management (PRINCE2) — Global Skills Development Agency, Dhaka (2020)

## Certifications

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- International ICT Certification — IP Exam, Bangladesh Computer Council (Oct 2017)
- IELTS — Overall 6.0 (Speaking 6.5), 2020
- Database Programming (Oracle & Visual Basic) — A+ Grade, BTEB (2015)
- Surveying (Aminship) Course — Grade A, Dhaka Polytechnic Institute, BTEB (2022)
- Certified Online Moderator — DiploFoundation (Nov 2020), Swiss FDFA funded

## Professional Memberships

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- Member, Bangladesh Evaluation Society (BES) — Young & Emerging Evaluators (YEEs), since 2021
- Member, International Association of Hydrological Sciences (IAHS), ID: 17676, since 2019
- Member, Gender and Water Alliance (GWA), Netherlands
- Explorer Member, Association of American Geographers (AAG)
- Member, EvalYouth Bangladesh; Volunteer, EvalYouth Global
- Member, BetterEvaluation Community

## Languages

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<b>Bengali</b>	Native	<b>English</b>	Professional Working Proficiency (IELTS 6.0)
<b>German</b>	Professional Working (1-year certificate)	<b>Hindi</b>	Professional Working Proficiency

## International Exposure

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Switzerland, Netherlands, Thailand, UAE, India — for water management, environmental, and evaluation work.

*Research Interests: EIA, EMP, GIS & Remote Sensing, Monitoring & Evaluation, Geohazards, Climate Change, Water Management, Data Science*