

# Saikat Mandal Tanu

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## PROFILE

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Currently employed as a GIS Officer in the Health section of UNICEF Bangladesh with 5+ years experience in the development and humanitarian sector, focus in the South Asia Region, enhanced by strong academic profile of Master's in GIS for Environment and Development from Jahangirnagar University and Bachelor's in Environmental Science from Independent University, Bangladesh. Demonstrated track record of Report writing, GIS, Remote Sensing, Database management, Spatial data analysis several organisations in Bangladesh. My skills are given below

- GIS and Remote Sensing Platforms: ESRI ArcGIS 10x, ArcGIS desktop, ArcGIS pro, ArcGIS online, QGIS, Erdas Imagine
- Mapping software: ArcMap, ArcScene, ArcView, Google Earth Pro
- Smartphone data applications: ODK and Kobocollect
- GPS: Garmin Etrex 10
- Statistical Analysis: SPSS, Tableau, Power BI, GeoCLIM
- Photo Manipulation: Adobe Creative Suite, Lightroom
- Video Editing: Filmora, Camtasia Studio 8
- Programming Languages: Python, SQL, PostgreSQL, Javascript, jQuery Mobile, CSS & HTML
- Highly proficient in English language both Written & Oral

## PROFESSIONAL EXPERIENCE

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### UNICEF, Bangladesh

#### GIS Officer (Health Section)

May 2022– Present

- Developing an ArcGIS Online (AGOL) database as UNICEF Geospatial Repository for Bangladesh country office with different data sets;
- Provide documentation on analytic methodologies and approaches for reproducibility and reporting Supporting organizational strategy, change management, and capacity building;
- Data Management- Assist office in gathering of data, cleaning and working with data for map readiness;
- Prepare the data visualization using Arc GIS dashboard using Power BI;
- Collecting and validating the admin boundaries in Bangladesh with special focus on Urban areas to be able to integrate with other data on urban health.

**Career Highlight:** Several maps of different administrative levels in Bangladesh were created with various health indicators, including ANC, IMR, breastfeeding, early marriage, etc. The lead was taken in ANC Microplanning, involving the development of GIS, questionnaires, and data collection. District-wise Shared Health Record (SHR) maps were created, highlighting different features and population density. Several meeting minutes were created and disseminated. Communication was established with important government officials. Numerous trainings on data collection, GIS, Health Information Systems (HIS), and Management Information Systems (MIS) were conducted within UNICEF and externally. UNICEF priority areas, encompassing equity, tipping, programmatic and routine aspects, were created in Bangladesh. Several GIS and remote sensing (RS) databases were completed, and various knowledge products were generated.

### UNDP, Bangladesh

#### Project Assistant

April 2020 – May 2022

- Develop MoFA knowledge products on key emerging issues such as LDC graduation, SDGs, Environment/Climate Change, 4IR, and digitization;
- Support the data collection processes and the overall data management activities including mapping, encoding, storing, as well as processing, and support to the analysis of the collected data;

- Support and participate to conduct in-depth research and analyse primary and secondary data.

**Career Highlight:** Policy and act developed, knowledge and document management, effective meeting or negotiation with EU etc. And overall mapping of UNDP projects in Bangladesh through AGOL and PowerBI.

#### **Practical Action, Bangladesh**

##### **Monitoring, Documentation & Reporting Officer**

**January 2020 – April 2020**

- Prepare and produce regular GIS analysis, analytical maps, information products and interactive dashboards as required;
- Support the training of staff in work related to data collection, survey and assessment, data management as well as maintenance and support to database systems;
- Monitoring the activities of the project and track performances against the deliverables timeline.

**Career Highlight:** Trained 120 Farmers about their capacity building, managed efficient farmer for running Farmer field school.

#### **Danish Refugee Council, Bangladesh**

##### **Information Management Officer**

**May 2019 – December 2019**

- Keeping all records updated including Safety Unit Volunteers (SUVs), Site Management Support (SMS) volunteers, community groups, camp committees, and provide Age Gender and Diversity (AGD) breakdown analysis;
- Develop monthly analytical reports based on the Complaints Feedback and Response Mechanism database as well as the referral trackers providing a breakdown by gender, types of complaints and a comparative analysis between complaints and status;
- Develop tools needed for data collection based on needs and feedback from camp managers and train staff on use of the tools.

**Career Highlight:** One of the main achievements was the creation of tools required for the collection of data from 32,000 individuals in the camp, along with the regular updating of databases for 7,000 households. A role was taken in leading the data collection process regarding risk sites, resulting in the identification of 284 landslide and flood-prone areas within the assigned camp. Monthly analytical reports were developed based on the Complaints Feedback and Response Mechanism (CFRM) database, and referral trackers were created to provide a breakdown by gender and types of complaints, as well as to conduct a comparative analysis of complaint status.

#### **WorldFish, Bangladesh**

##### **Data Enumerator with Sustainable Aquaculture Program**

**October 2018 – April 2019**

- Collect data, prepare census list to develop sample frame for target aquaculture species (e.g. Tilapia) in 15 districts of Bangladesh;
- Coordinate and perform geospatial analysis, as necessary, based on collected data and disseminate resulting products and datasets;
- Conduct epidemiology and health economics survey on tilapia farms using online data collection toolkit in different locations of Bangladesh.

**Career Highlight:** A survey involving 350 individual fishermen was conducted to analyze fish mortality, and a map was created to visualize the distribution of fish mortality.

#### **Geo-Planning for Advanced Development**

##### **Junior Project Officer and GIS Coordinator**

**May 2018 – August 2018**

- Land Acquisition Plan and Resettlement Action Plan for Dhaka-Ashulia elevated expressway project;
- Database management on relevant linkage between datasets to Geo database, design effective solution to meet the accurate and timely information needs;

- Data base management in ArcGIS, QGIS, SPSS, Excel.

**Career Highlight:** LAP and RAP of 25 km elevated expressway.

**Technical University of Dresden, Germany**  
**Research Assistant**

**March 2018 – May 2018**

- Successfully executed extensive quantitative field data collection in remote areas of Bangladesh;
- Designed and developed field site maps and ensured timely logistical support;
- Produced professional field reports with rapid turnaround time.

**Independent University, Bangladesh**  
**Teaching and Research Assistant**

**June 2014 – October 2016**

- Maintained Geographic Information System (GIS) Lab;
- Trained and provided student support in ArcGIS 10x software;
- Prepared and delivered timely project reports.

## EDUCATION

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- Master of Science in Applied Statistics and Data Science, Jahangirnagar University, 2024
- Master of Science in GIS for Environment and Development, Jahangirnagar University, 2018
- Bachelor of Science in Environmental Science, Independent University Bangladesh, 2016

## PROFESSIONAL TRAINING

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- Google Data Analytics by Google on Coursera. Certificate earned at June 4, 2023
- Data Analysis by UNICEF from AGORA, 11 September 2022
- “Project Management Foundations” course registered by Project Management Institute(PMI), USA and National Association of State Boards of Accountancy (NASBA), USA
- Spatial Analysis and Satellite Imagery in a GIS conducted by University of Toronto, 2020
- United Nations Course on Prevention of Harassment, Sexual Harassment and Abuse of Authority
- Prevention of Sexual Exploitation and Abuse (PSEA), UNDP, April 2020
- Camp Coordination & Camp Management Training, Facilitated by UNHCR and DRC, November 12, 2019 – November 13, 2019
- Use of Satellite Data Products for Drought Monitoring, Bangladesh Meteorological Department (BMD), April 15-19, 2018. Facilitated by BARC, BMD, CIMMYT, ICIMOD, NASA-SERVIR SCO, Johns Hopkins University, USA
- Geohealth: Improving Public Health through GIS, University of Twente, 2017
- Python for Everyone, ESRI, 2018
- Master GIS for Data Science, LinkedIn, August 2018
- SPSS and Applied Statistics, Institute of Statistical Research and Training (ISRT), University of Dhaka, October 2017 – November 2017
- LICT Training program for Graphic Design and Soft Skill certified by George Washington University, USA
- Developing Skills for Environmental Management Using ArcGIS Desktop, Independent University, Bangladesh, February 27, 2017– March 4, 2017

## SELECTED PUBLICATIONS

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- Hassan, M. S., Tanu, S. M., & Rabbani, K. A. Relationship between COVID-19 infection rates and air pollution, geo-meteorological, and social parameters. *Environmental Monitoring and Assessment*, 193(1), 1-20. 2021
- Undergrad thesis paper accepted at 10th edition of the “Air and Water - Components of the Environment” International Conference in Romania

## REFEREES

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Available upon request.