

Mobasshara Ahmad Snigdha

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RESEARCH INTERESTS

Climate Change, Hydroclimatology, Watershed Management, Glaciology, Disasters and Hazards, Urban Heat Island, Environmental Health, Geospatial Analytics

EDUCATION

University of Dhaka

Master's in Urban and Regional Planning and Development

Jan 2022 - May 2023

CGPA: 3.82/4.00

University of Dhaka

Bachelors in Geography and Environment

Jan 2017 - Nov 2021

CGPA: 3.63/4.00

RESEARCH ACTIVITIES

Smart Household Garbage Disposal Approach in Urban Neighborhoods of DNCC, Dhaka | Jun'22 – May'23

- This study addresses the issues that are currently present in the solid waste disposal system in Bangladesh and suggests a smart solution that initiates from the neighborhood level. It also tries to find out what peoples' perspectives are towards this new approach and whether or not they are willing to participate by changing their waste disposal habits for greater national interests

Changes in Landuse Patterns and Socio-economic Conditions of Mandra Mouza, Munshiganj | Nov'21 – Jan'22

- Identified the drivers of land use change in combination with environmental and socioeconomic dynamics observation at the semi-urban level in order to provide a comprehensive updated land use database to facilitate planned urbanization in the study area.

Suitable Location Identification for Installing Lightning Rods and Building Lightning Shelters | Sept'21 - Feb'22

- It is a project by the Department of Disaster Management (DDM), Ministry of Disaster Management and Relief, Government of Bangladesh, and implemented by the Department of Meteorology University of Dhaka to reduce the increasing death counts in Bangladesh due to frequent and intense lightning hazards.

Geomorphological and Environmental Characteristics Analysis of Sonadia and Maheshkhali | Nov'19 – Feb'20

- Prepared the very first Geomorphological and Land-use Maps of Sonadia Island, as well as analyzed the Sand Dunes and the Soil Profile in the study area. Besides, conducted a Slope and Vegetation survey on the Mainak Hill of Maheshkhali Island of Cox's Bazar district of Bangladesh.

Local People's Access to Safe Drinking Water: A Case Study at Mongla, Bagerhat | Nov'18 – March'19

- The goal of the study was to explore the drinking water sources in Mongla, Bagerhat district, and assess local people's adjustment to the scarcity of safe drinking water due to the increasing frequency of cyclones and salinity intrusion in that area triggered by climate change.

Environmental and Socio-economic Analysis of the Artisans of Narayanganj Jamdani Polli | Oct'17 – Jan'18

- Assessed local artisans' socioeconomic and living conditions, who still keep the old way of crafting alive in the era of machinery, by taking personal interviews conducting questionnaire surveys, and focus group discussions.

EXPERIENCE

Technical Intern at BRAC

Oct 2023 – Present

The Climate Bridge Fund Secretariat

- The Climate Change Window: Works to strengthen the resilience of people displaced as a result of climate change, with a focus on urban slums
- Emergency Response Window: Provides basic services such as health, livelihood opportunities, water supply, and sanitation in emergency situations.

GIS Expert

Sept 2021 – Feb 2022

Department of Meteorology, University of Dhaka

- Identification of the vulnerable geographical areas of lightning based on casualties.
- Identification of the possible geographical locations to install the lightning protectors/ devices by analyzing the geospatial datasets.
- Preparation of location maps to install the lightning protectors/devices.

Volunteer Researcher

Mar 2021 – Jun 2023

The Zooniverse

- Invader ID: Tracking changes in coastal environments by identifying marine invertebrates
- Plankton Portal: Marking images of plankton taken by an underwater imaging system
- Fossil Atmospheres: Counting cells of modern and fossil leaves to help track climate change.

CERTIFICATES

GIS, Mapping, and Spatial Analysis Specialization | *Coursera*

Satellite Remote Sensing for Urban Heat Islands | *NASA's Applied Remote Sensing Training Program*

Python Data Structures | *Coursera*

Spatial Data Science: The New Frontier in Analytics | *ESRI*

Cities and Climate Change | *UNITAR*

Better Preparedness for Environmental Emergencies | *UN Environment*

Achieving Sustainable Development Goals on Water and Sanitation | *Asian Development Bank Institute*

STANDARDIZED TEST SCORES

TOEFL : 90 (Listening 23, Reading 22, Speaking 24, Writing 21)

TECHNICAL SKILLS

Geographic Information System: ArcMap, ArcGIS Pro, QGIS, Global Mapper, ArcGIS Online, ESRI

Remote Sensing: ERDAS Imagine, Google Earth Engine, ENVI, EarthExplorer (USGS)

Languages: Python, SQL

Softwares: L^AT_EX, SPSS, Google Analytics, Microsoft Office, Adobe Illustrator

REFERENCE

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