# Mobasshara Ahmad Snigdha

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#### EDUCATION

University of Dhaka

Jan 2017 - May 202

Bachelors in Geography and Environment

CGPA: 3.63/4.00

Saidpur Government Science College

Jul 2013 - Dec 2015

Higher Secondary Certificate

GPA: 5.00/5.00

# Research Interests

Climate Change, Hydroclimatology, Climate Hazards, Geospatial Analytics, Glaciology, Active Tectonics, Urban Environment

#### EXPERIENCE

## Volunteer Researcher

Mar 2021 – Present

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 fossil leaves to help track climate change.

Citizen Scientist

Jun 2021 – Dec 2021

NASA Citizen Science Projects

- Discovering floating forests: Classifying Kelp on the Edges
- GLOBE Observer: Help monitor the conditions of clouds, water (especially as a habitat for mosquitoes), and plants, and see change over time
- MAPPPD: Mapping penguin populations and finding all the penguin colonies in Antarctica

## Research Activities

# 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 | Dec'20 - Jun'21

• This government project was a collaboration between the Ministry of Environment, Forest and Climate Change and the World Bank 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 Moheshkhali 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 Narayanganj Jamdani Polli

Oct'17 – Jan'18

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

# 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 Monitoring, Evaluation, Accountability, and Learning (MEAL) in Emergencies | Save the Children

## 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, JavaScript

Softwares: IATEX, SPSS, Google Analytics, Microsoft Office, Adobe Illustrator