Flood Risk Mapping Of Bandarban District

Introduction:

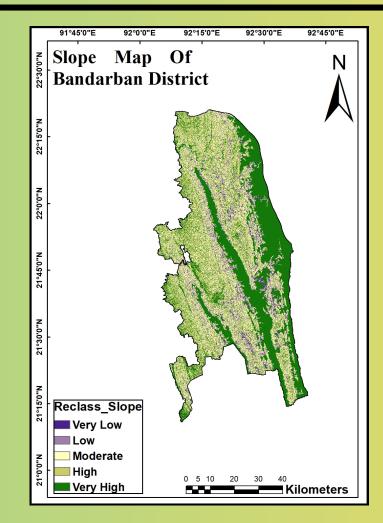
Natural disasters are becoming one of the major worldwide problems that humankind is facing. Among all categories of natural hazards, flooding is one of the widespread, familiar, and regular events. Flood events have become more devastating and frequent in the rainy season, especially for subtropical and tropical regions of Asia where almost 80% of annual rain falls from June to September (Islam and Dharanirajan, 2017). Every year flood comes with disaster in Bangladesh. For instance, the Sangu River basin of the Southeastern corner of the Chattogram Hill tract (CHT) has frequently been facing monsoon floods, including overflow of riverbanks. The socio-economic effects of these recurring floods are substantial. In particular, vulnerable groups are the indigenous ethnic people who need frequent shifting from one hill to another hill.

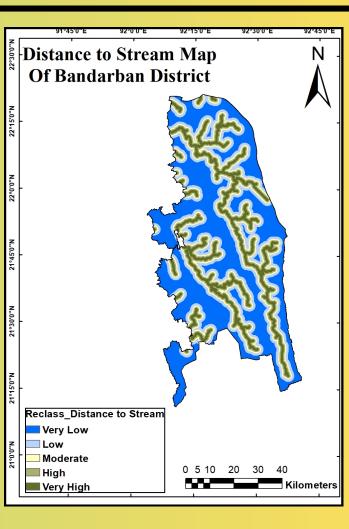
Define Problem

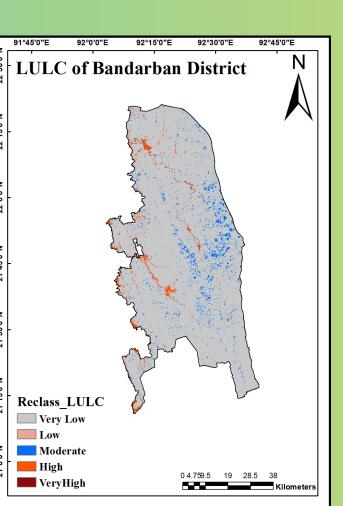
Aim & Objective

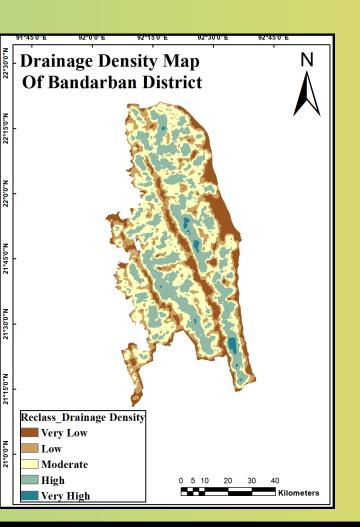
• To prepare a comprehensive flood risk map for the flood-prone area Bandarban district of Bangladesh by integrating GIS

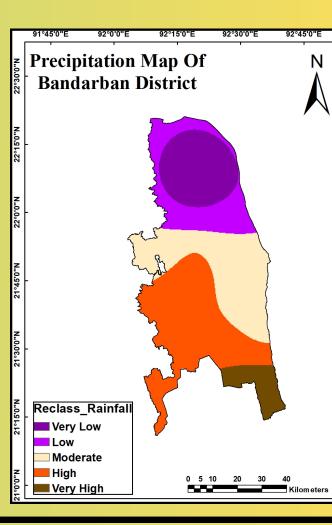
Reclass_Elevation Very Low Moderate High Very High Note 127 92-90-92 92-150-92 92-300-92 92-300-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92 92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-92-350-9



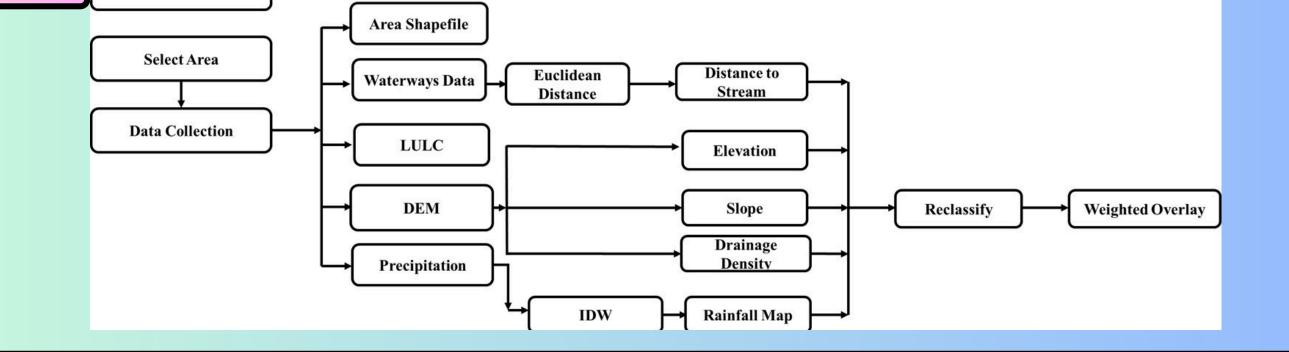








Methodology:



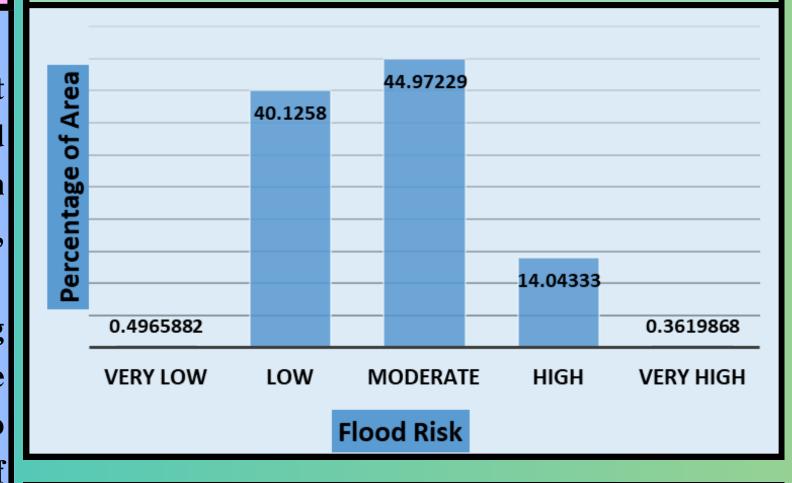
A 1	•
Ana	VSIS

Factors	Weight
Elevation	25
Slope	20
Distance to Stream	15
LULC	15
Drainage Density	15
Precipitation	10

Final Output

- Around 14% of the area is at high risk of flush flooding and 44% of the area is in moderate condition, considering flush flood risk.
- Low-lying areas along riverbanks and streams are particularly vulnerable to flooding during periods of heavy rainfall.

Flood Susceptible Area



Submitted By: Shakawat Hossain Student ID:2105021

Course Name: Fundamentals Of GIS Lab(URP 262)



Responsible authorities may wish to consider this guide for effective flood management plans in a number of ways, for example,

- In emergency preparedness, including flood relief and aid operations.
- Doing construction and development plans for flood defense.
- To control development especially in "high" hazard-prone area.
- To provide proper land use planning.

