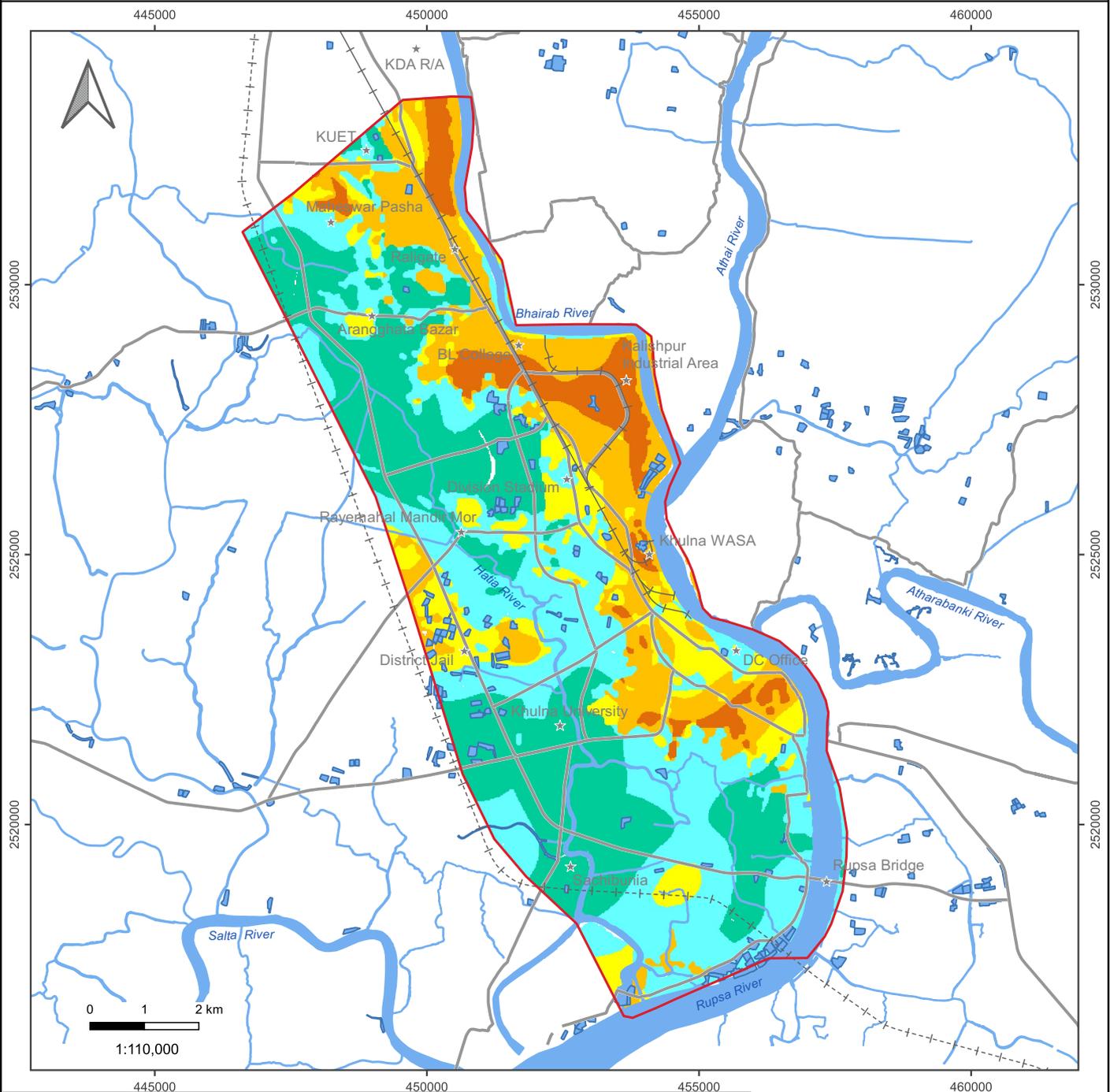


Building Ground Suitability of Khulna study area



Suitability map class	Landuse	Infrastructure
Class I	Industrial zone, Commercial area, Residential area	Suitable for all kind of infrastructures with low hazard potential and foundation costs. The area is free from eventual flooding.
Class II	Industrial zone, Commercial area, Residential area, Park and Recreation	Suitable for all kind of infrastructures with low hazard potential and foundation costs. During infrastructure planning and foundation design precautions must be taken as per on-site geotechnical investigations. Some parts of the area may be effected by eventual flooding.
Class III	Industrial zone, Residential area, Commercial area, Agricultural zone, Park and Recreation	Foundation conditions are heterogeneous. For construction of small and medium infrastructures precautions must be taken and evaluated per detailed on-site geotechnical investigations. Any ignorance of sub-surface conditions may create foundation failure. Parts of the area contains weak foundation layers which are can be affected by earthquake shaking and / or ground subsidence. For heavy infrastructure deep pile foundation is essential. The area is free from normal flooding but effected by eventual flooding.
Class IV	Agricultural Zone, Flood flow zone, Flood proof Urban and Rural settlement, Park and Recreation	In general, the foundation conditions are weak. Any ignorance of the sub-surface conditions may create foundation failures. For construction of small and medium infrastructures, pile foundations are required, based on detailed on-site geotechnical investigations. This area is prone to normal flooding, seismic hazard and / or ground subsidence. For heavy infrastructures, deep pile foundations are essential.
Class V	Agricultural Zone, Flood flow zone, Wetland, Park and Recreation	The foundation conditions are very weak. Any ignorance sub-surface conditions may create failure of infrastructure. For construction of small and medium infrastructures, deep pile foundations are required, based on detailed on-site geotechnical investigations. This area is regularly flooded and has a high potential of earthquake-induced hazards and / or ground subsidence. For the construction of heavy infrastructures, specialized foundation designs with very deep pile foundations are essential.

- * Landmark
- Primary road
- +— Railway
- - - - Railway under construction
- River
- Canal
- Stagnant water > 8,000 m²
- Khulna study area

Map projection: BUTM2010, spheroid WGS84
Unit of Rectangular Grid Coordinate: Metre
Topographic base map: after SOB (2014) and OpenStreetMap (2019)

Report: Geo-Information for Urban Planning of Khulna Town and Surrounding (2021)