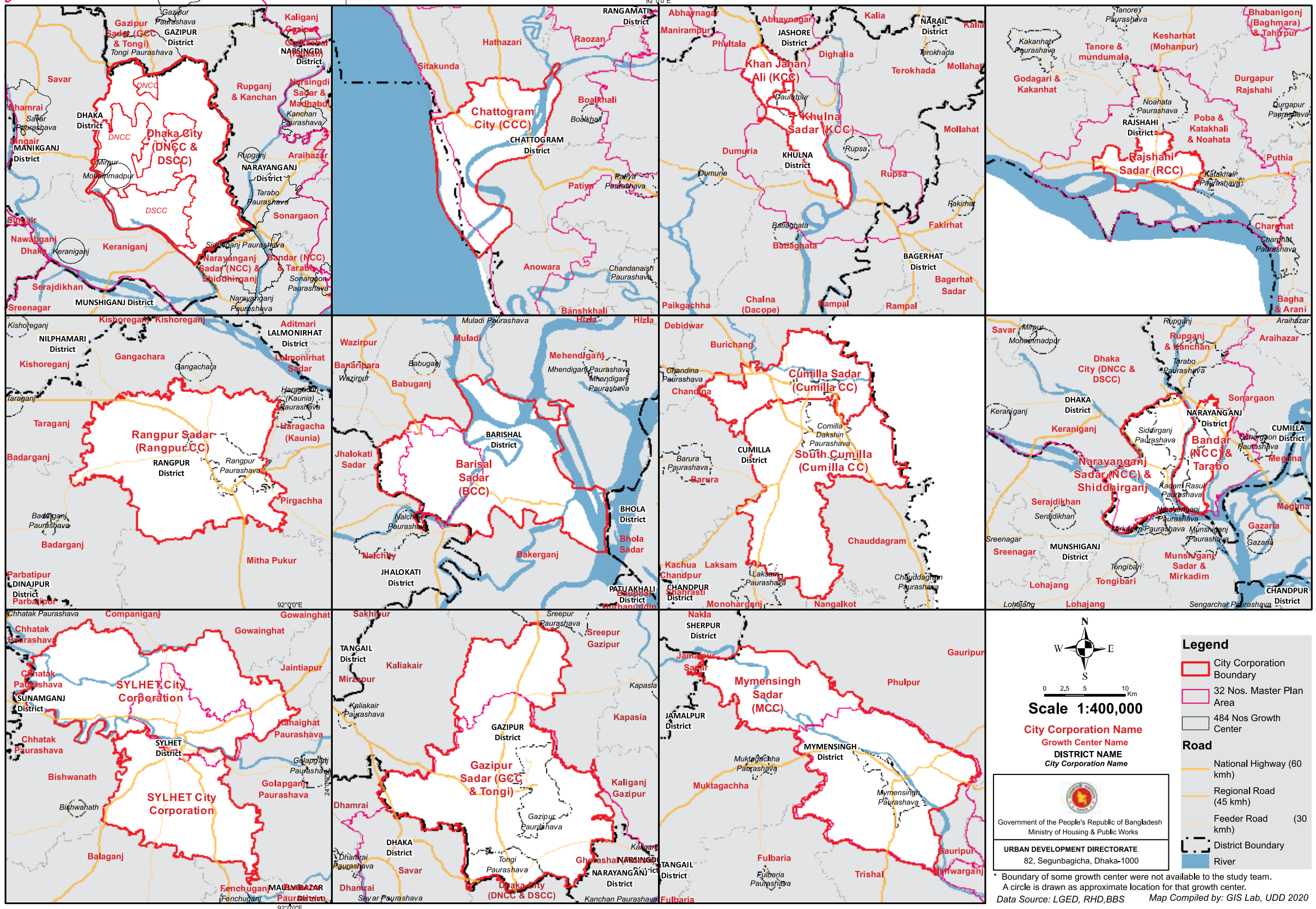


Information Map 43 15 Growth Center for 12 City Corporation of Bangladesh and their relative size



Legend

- City Corporation Boundary
- 32 Nos. Master Plan Area
- 484 Nos Growth Center
- Road
 - National Highway (60 kmh)
 - Regional Road (45 kmh)
 - Feeder Road (30 kmh)
- District Boundary
- River

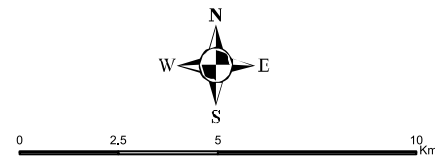
Scale 1:400,000

City Corporation Name
Growth Center Name
DISTRICT NAME
City Corporation Name

Government of the People's Republic of Bangladesh
 Ministry of Housing & Public Works

URBAN DEVELOPMENT DIRECTORATE
 82, Segunbagicha, Dhaka-1000

* Boundary of some growth center were not available to the study team. A circle is drawn as approximate location for that growth center.
 Data Source: LGED, RHD, BBS Map Compiled by: GIS Lab, UDD 2020



Scale 1:150,000

City Corporation Name

Growth Center Name

DISTRICT NAME

City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

District Boundary

River

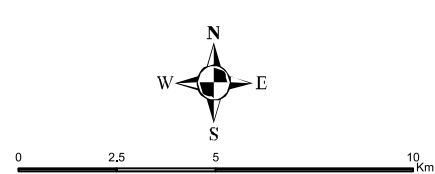
* Boundary of some growth center were not available to the study team. A circle is drawn as approximate location for that growth center.



Map Compiled by: GIS Lab, UDD 2020
Data Source: LGED, RHD, BBS, UDD



"Satellite Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community"



Scale 1:150,000

City Corporation Name
 Growth Center Name
 DISTRICT NAME
 City Corporation Name

Legend

- City Corporation Boundary
- Master Plan Area
- Urban Center
- Road**
- National Highway (60 kmh)
- Regional Road (45 kmh)
- Feeder Road (30 kmh)
- District Boundary
- River

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Government of the People's Republic of Bangladesh
 Ministry of Housing & Public Works

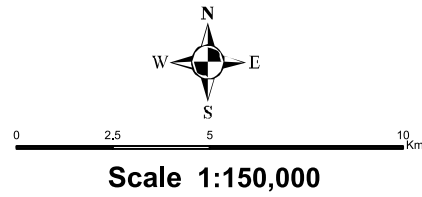
URBAN DEVELOPMENT DIRECTORATE
 82, Segunbagicha, Dhaka-1000

Map Compiled by: GIS Lab, UDD 2020
 Data Source: LGED, RHD, BBS, UDD



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

"Satellite Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community"



City Corporation Name

Growth Center Name

DISTRICT NAME

City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

District Boundary

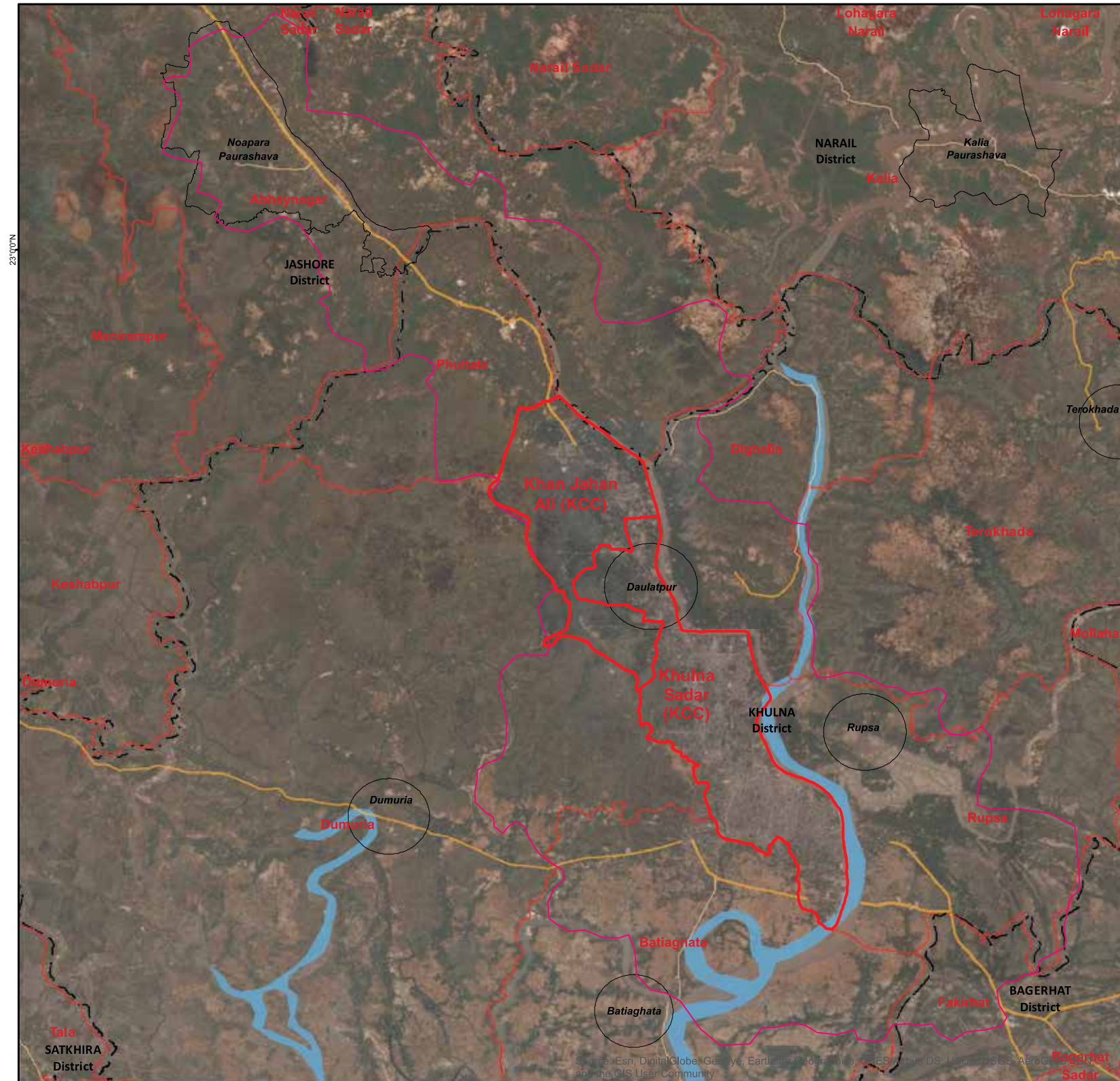
River

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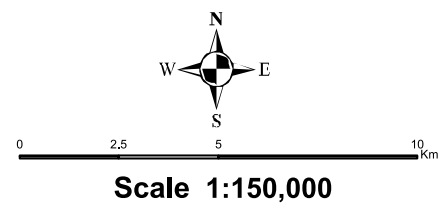
Government of the People's Republic of Bangladesh
Ministry of Housing & Public Works

URBAN DEVELOPMENT DIRECTORATE
82, Segunbagicha, Dhaka-1000

Map Compiled by: GIS Lab, UDD 2020
Data Source: LGED, RHD, BBS, UDD



"Satellite Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community"



City Corporation Name
Growth Center Name
DISTRICT NAME
City Corporation Name

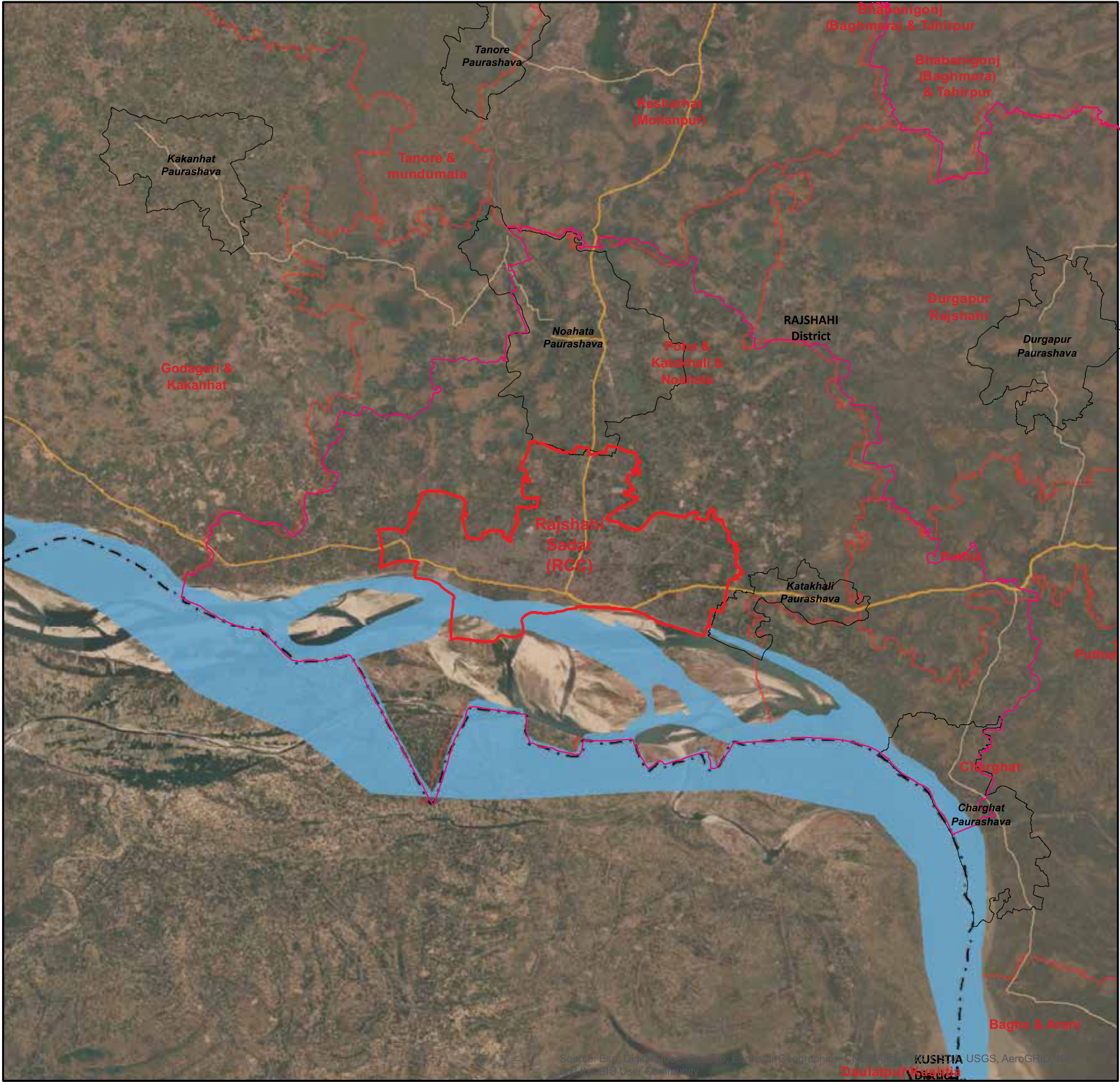
- Legend**
- City Corporation Boundary
 - Master Plan Area
 - Urban Center
- Road**
- National Highway (60 kmh)
 - Regional Road (45 kmh)
 - Feeder Road (30 kmh)
 - District Boundary
 - River

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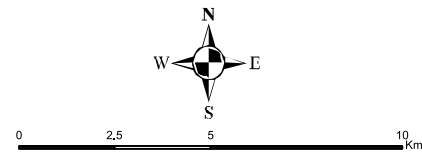
Government of the People's Republic of Bangladesh
 Ministry of Housing & Public Works

URBAN DEVELOPMENT DIRECTORATE
 82, Segunbagicha, Dhaka-1000

Map Compiled by: GIS Lab, UDD 2020
 Data Source: LGED, RHD, BBS, UDD



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Scale 1:150,000

City Corporation Name

Growth Center Name

DISTRICT NAME

City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

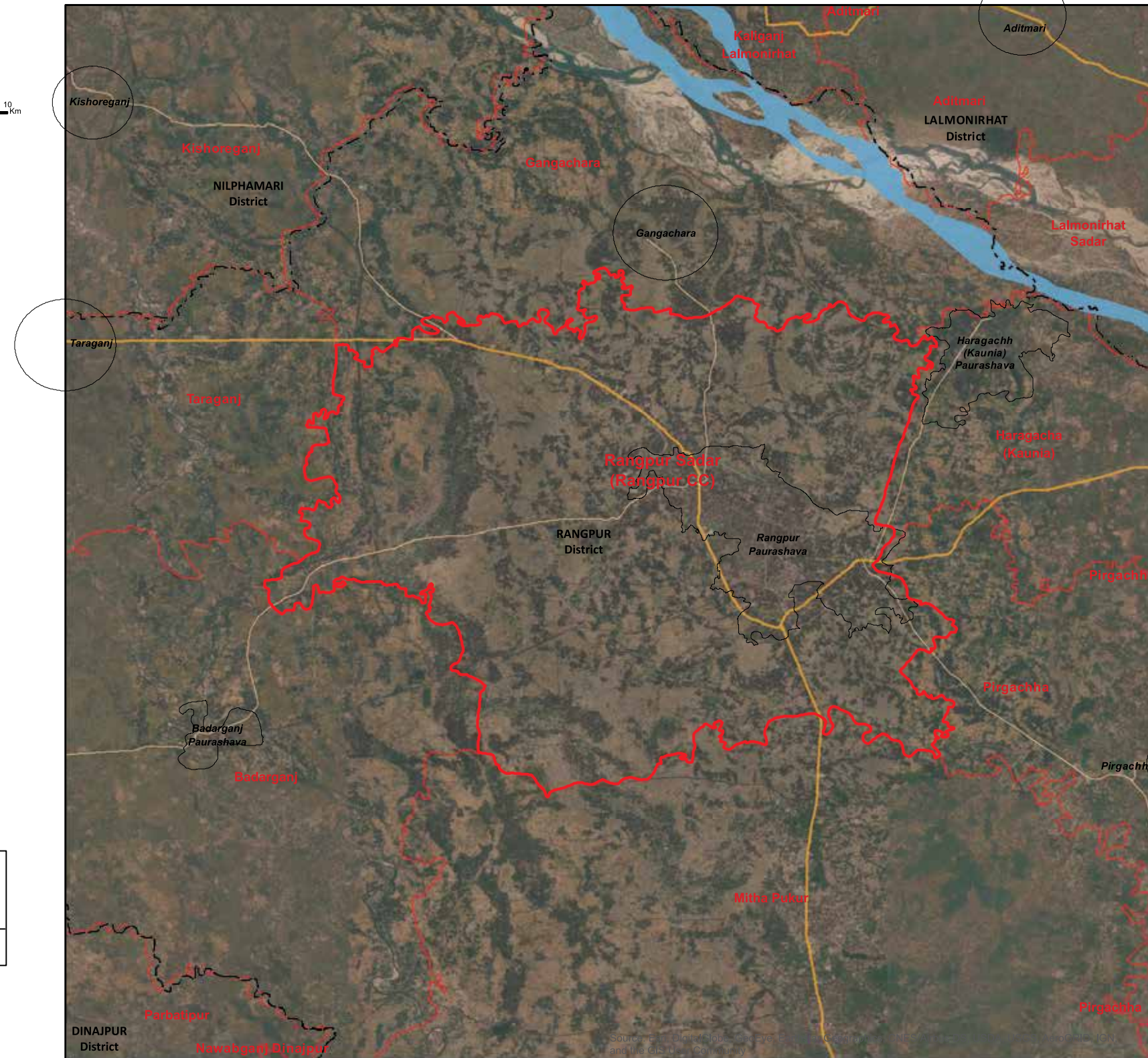
District Boundary

River

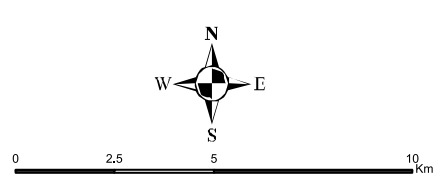
* Boundary of some growth center were not available to the study team. A circle is drawn as approximate location for that growth center.



Map Compiled by: GIS Lab, UDD 2020
Data Source: LGED, RHD, BBS, UDD



"Satellite Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community"



Scale 1:150,000

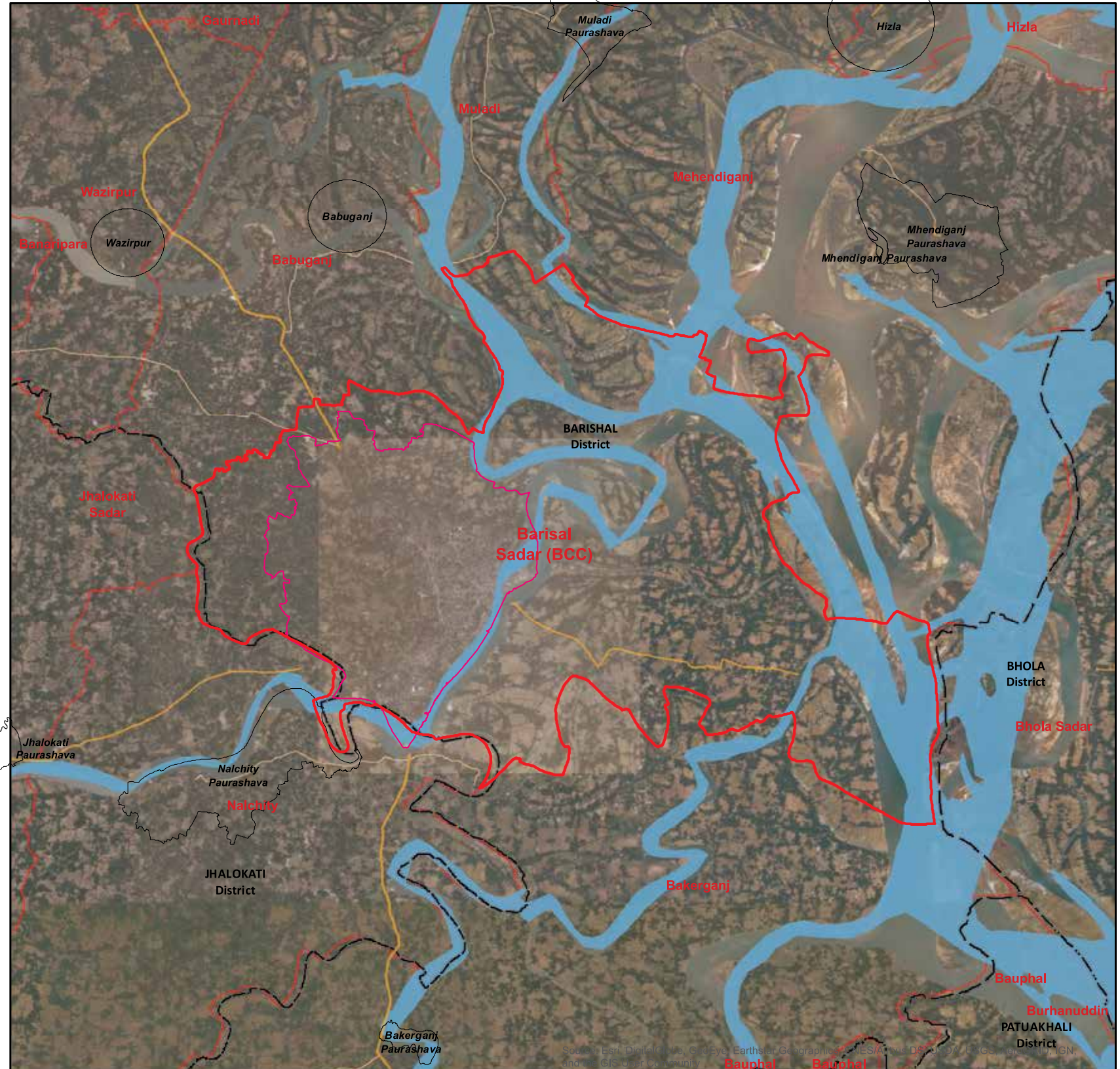
City Corporation Name
Growth Center Name
DISTRICT NAME
City Corporation Name

- Legend**
- City Corporation Boundary
 - Master Plan Area
 - Urban Center
- Road**
- National Highway (60 kmh)
 - Regional Road (45 kmh)
 - Feeder Road (30 kmh)
 - District Boundary
 - River

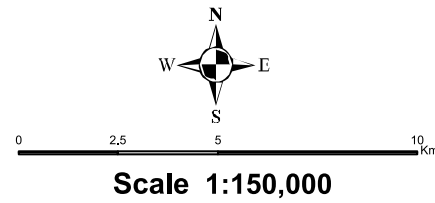
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Map Compiled by: GIS Lab, UDD 2020
 Data Source: LGED, RHD, BBS, UDD



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City Corporation Name

Growth Center Name

DISTRICT NAME

City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

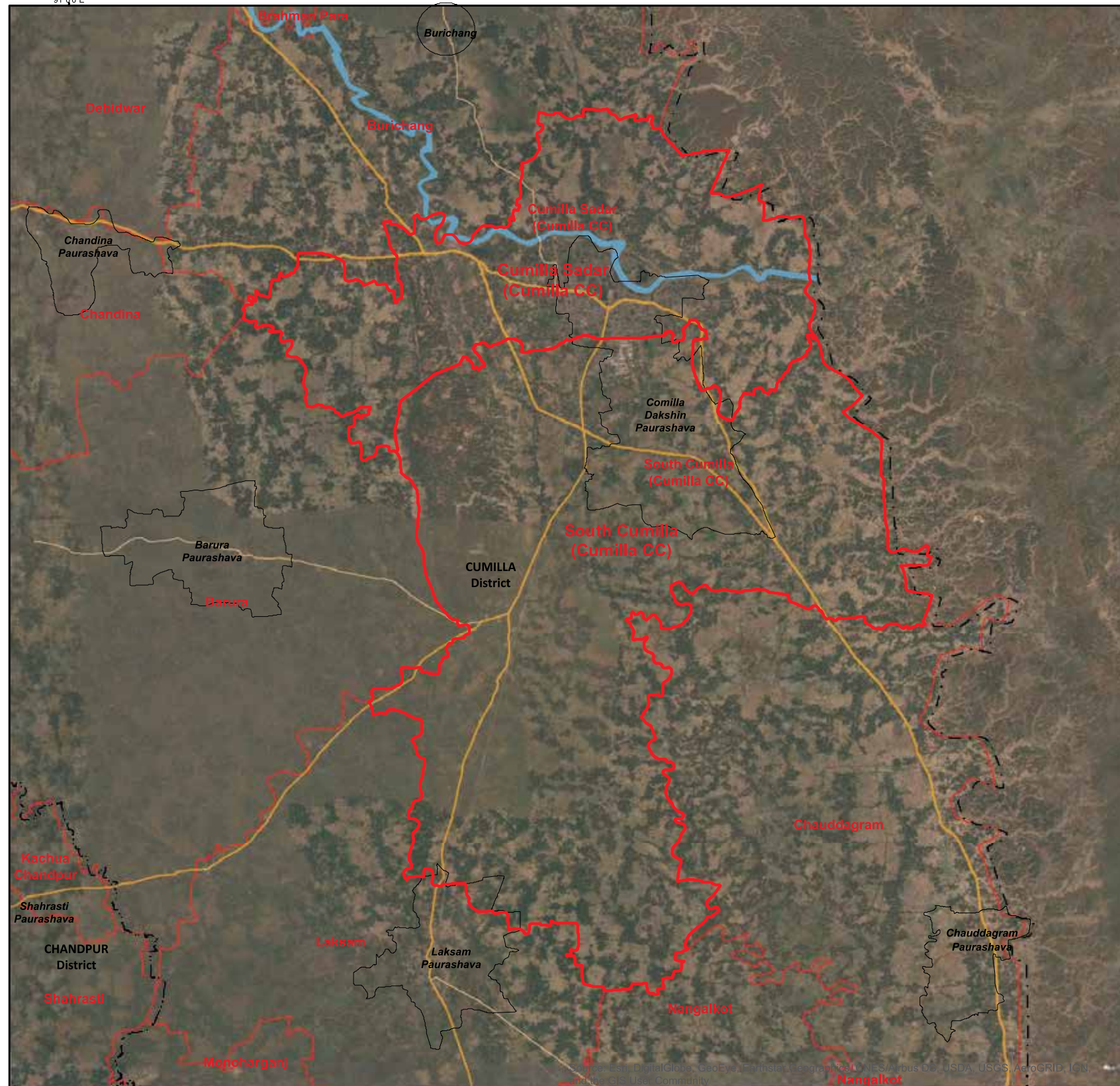
District Boundary

River

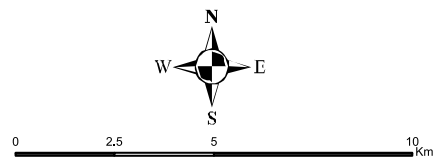
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Scale 1:150,000

City Corporation Name

Growth Center Name

DISTRICT NAME

City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

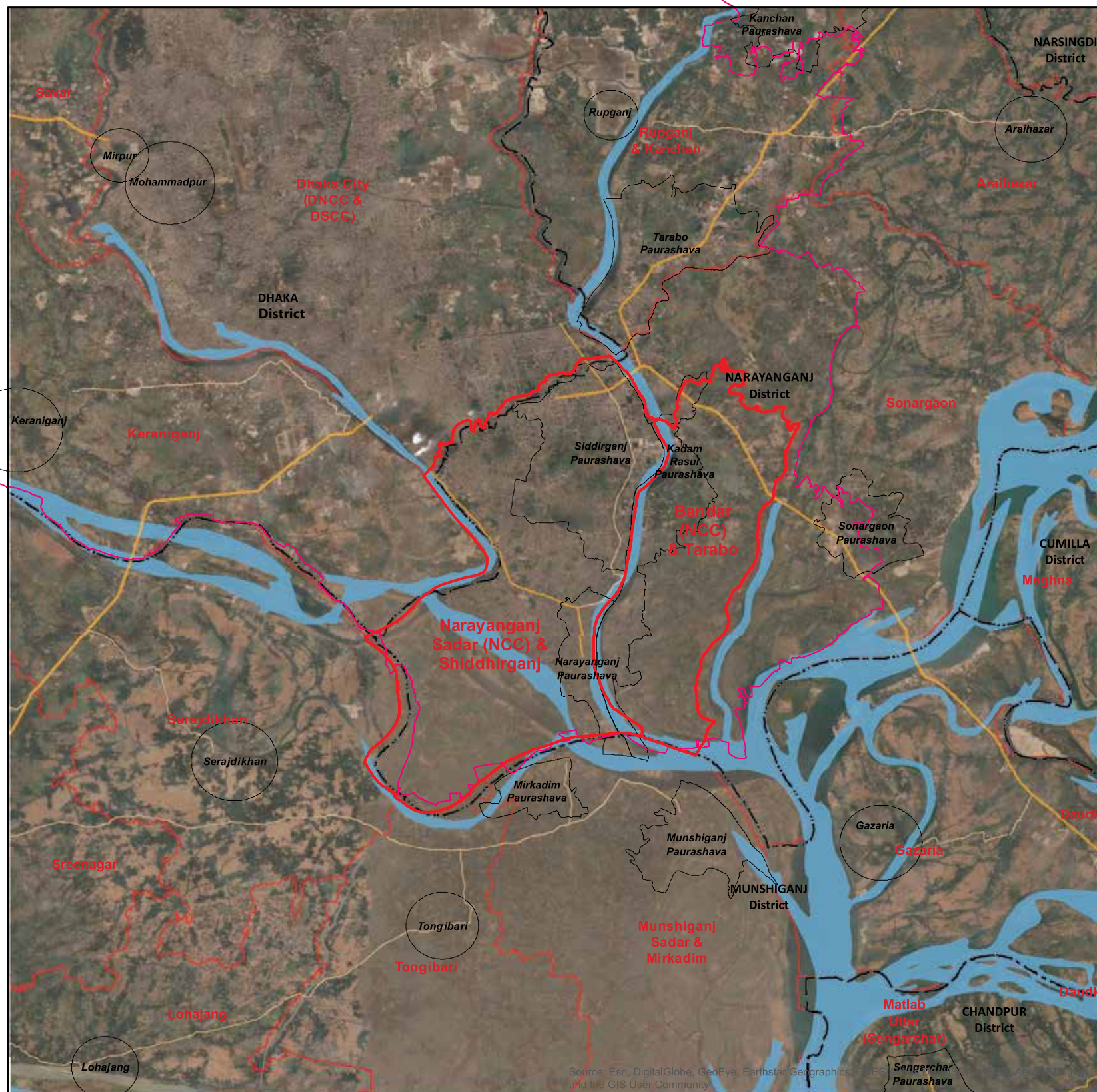
District Boundary

River

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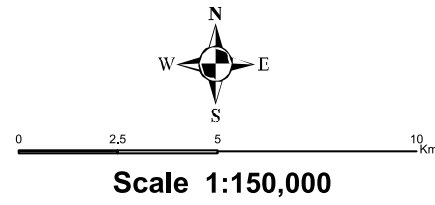


Map Compiled by: GIS Lab, UDD 2020
Data Source: LGED, RHD, BBS, UDD



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, AeroGrid, IGN, IGP, swisstopo, and the GIS User Community

"Satellite Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, AeroGrid, IGN, IGP, swisstopo, and the GIS User Community"



City Corporation Name

Growth Center Name

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City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

District Boundary

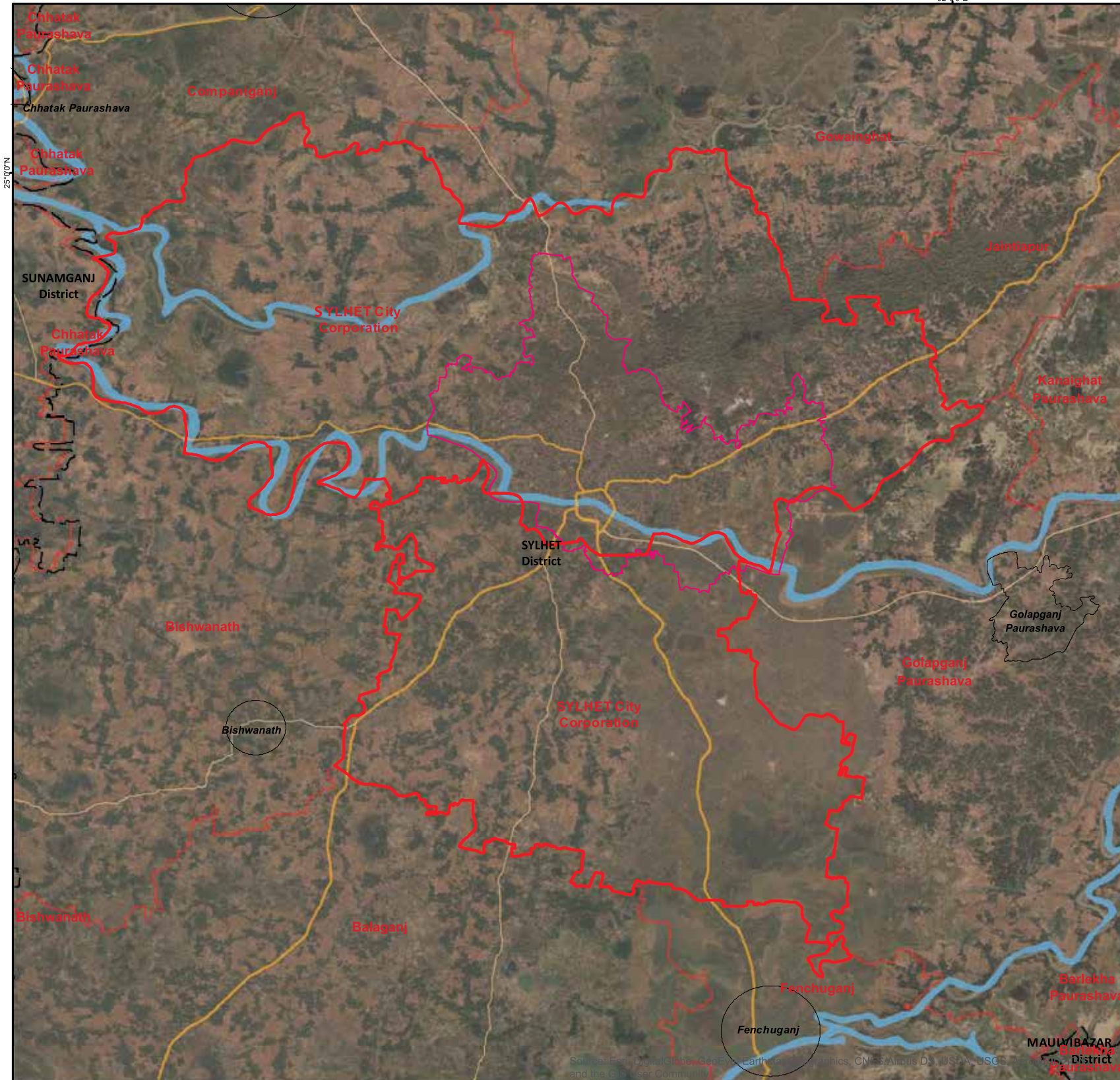
River

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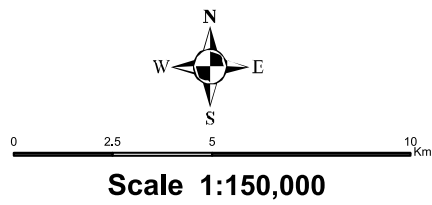
Government of the People's Republic of Bangladesh
Ministry of Housing & Public Works

URBAN DEVELOPMENT DIRECTORATE
82, Segunbagicha, Dhaka-1000

Map Compiled by: GIS Lab, UDD 2020
Data Source: LGED, RHD, BBS, UDD



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City Corporation Name
Growth Center Name
DISTRICT NAME
City Corporation Name

Legend

City Corporation Boundary

Master Plan Area

Urban Center

Road

National Highway (60 kmh)

Regional Road (45 kmh)

Feeder Road (30 kmh)

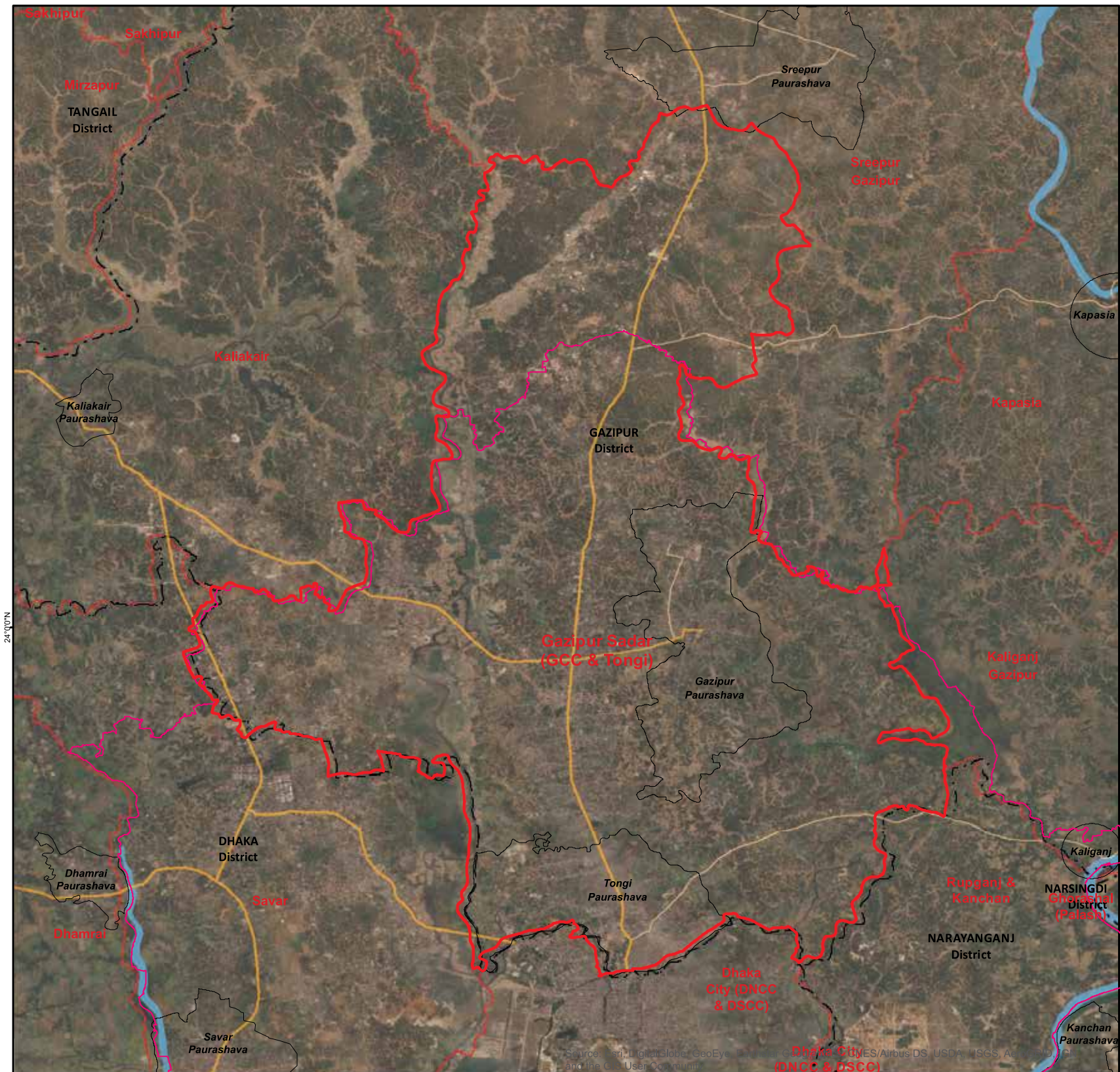
District Boundary

River

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Government of the People's Republic of Bangladesh
 Ministry of Housing & Public Works
URBAN DEVELOPMENT DIRECTORATE
 82, Segunbagicha, Dhaka-1000

Map Compiled by: GIS Lab, UDD 2020
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Scale 1:150,000

City Corporation Name
 Growth Center Name
 DISTRICT NAME
 City Corporation Name

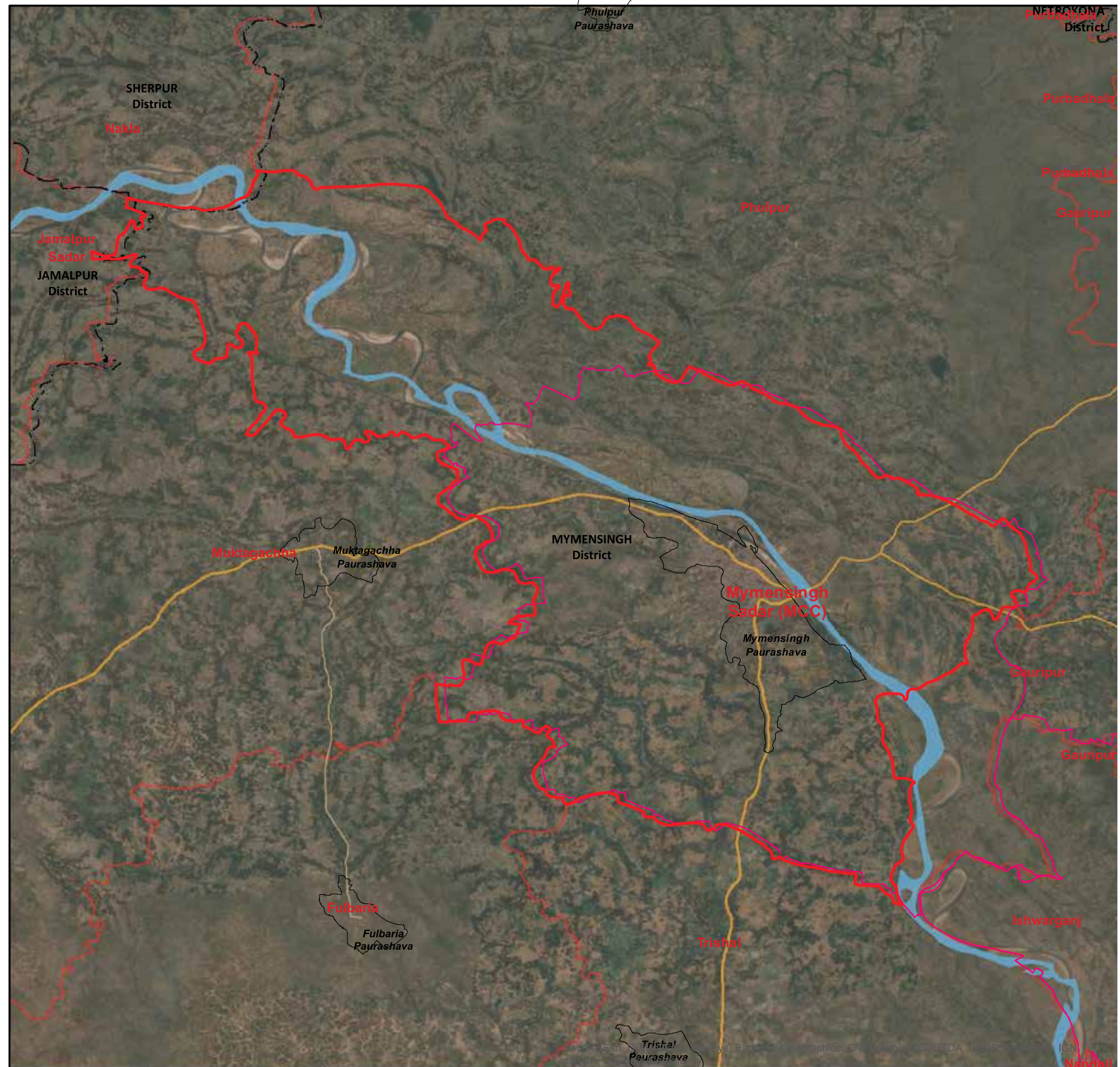
Legend

- City Corporation Boundary
 - Master Plan Area
 - Urban Center
- Road**
- National Highway (60 kmh)
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Map Compiled by: GIS Lab, UDD 2020
 Data Source: LGED, RHD, BBS, UDD



"Satellite Image Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, AeroGrid, IGN, IGP, swisstopo, and the GIS User Community"

Table 25: Detailed data transformation steps

SI	Variable Name	Source Organization & Purpose	Source Format	Geo-referencing/ Projection transformation	Pre-processing	Processed Data Format	Integrate as Growth Center Attribute	Score Computation	Index score
01	Education, Health and Religious	LGED ¹ / Local Infrastructure Development	Feature Point (vector/.shp file)	Projection transformation (LCC to UTM46)	N/A	Feature Point (vector/.shp file)	Sub-category Exist (yes/no)	Assigned Weightage Value for Sub-Category&Summed	Summed Value
02	Agriculture and Emergency	LGED/ Local Infrastructure Development	Feature Point (vector/.shp file)	Projection transformation (LCC to UTM46)	N/A	Feature Point (vector/.shp file)	Sub-category Exist (yes/no)	Assigned Weightage Value for Sub-Category & Summed	Summed Value
03	Rural Economy Related	LGED/ Local Infrastructure Development	Feature Point (vector/.shp file)	Projection transformation (LCC to UTM46)	N/A	Feature Point (vector/.shp file)	Sub-category Exist (yes/no)	Assigned Weightage Value for Sub-Category & Summed	Summed Value
04	Water based communication	LGED/ Local Infrastructure Development	Feature Point (vector/.shp file)	Projection transformation (LCC to UTM46)	N/A	Feature Point (vector/.shp file)	Sub-category Exist (yes/no)	Assigned Weightage Value for Sub-Category & Summed	Summed Value
05	Rail communication	Bangladesh Railway/ National Rail Service	Feature Line/ Feature Point (vector/.shp file)	Projection transformation (BTM to UTM46)	N/A	Feature Point (vector/.shp file)	Highest level feature that Intersect	Assigned Weightage value for level	Assigned Weightage value for level
06	Road connectivity	RHD ² /National Road Connection	Feature Line (vector/.shp file)	Projection transformation (BTM to UTM46)	N/A	Feature Line (vector/.shp file)	Highest level feature that Intersect	Assigned Weightage value for level	Assigned Weightage value for level
07	Airport proximity	Civil Aviation/ International & Domestic Air Communication	Location in JPG Map/ soft copy	Geo-referencing	Digitization/ Network Analysis/ Path distance	Network & Cost Raster / (Network Dataset/Geo Database)	Network Distance	Network Distance	Max-min Normalized value
08	Seaport proximity	BIWTA ³ / Domestic Water Communication	Location in JPG Map/ soft copy	Geo-referencing	Digitization/ Network Analysis/ Path distance	Network & Cost Raster / (Network Dataset/ Geo Database)	Network Distance	Network Distance	Max-min Normalized value

Detailed data transformation steps (Continued)

SI	Variable Name	Source Organization & Purpose	Source Format	Geo-referencing/ Projection transformation	Pre-processing	Processed Data Format	Integrate as Growth Center Attribute	Score Computation	Index score
09	Capital proximity	RAJUK ⁴ / Capital Development	N/A	N/A	Digitization/ Network Analysis/ Path Distance	Network & Cost Raster / (Network Dataset/ Geo Database)	Network Distance	Network Distance	Max-min Normalized value
10	Administration level	BBS ⁵ / National Census	Table in Text/ Soft copy	N/A	Edit Attribute	Attribute in Base file (vector/.shp file)	Highest level	Assigned Weightage value for level	Weightage value for level
11	Urban population	BBS/ National Census	Table in Text/ Hardcopy	N/A	Edit Attribute	Attribute in Base file (vector/.shp file)	Census Amount	Census Amount	Max-min Normalized value
12	Altitude	NASA ⁶ / Global Research	DEM ¹⁴ (Raster/ .tiff file)	Projection (WGS 84 ¹¹ to UTM46 ¹²)	N/A	DEM (Raster/ .tiff file)	Mean Value	Classified & Ranked Value	Max-min Normalized value
13	Cyclone	NASA/ Global Research	Path in JPG Map/ soft copy	Geo-referencing	Digitization/15km Buffer	Feature Polygon (vector/.shp file)	Count Intersect	Classified & Ranked Value	Max-min Normalized value
14	Flood Type	BARC ⁷ / National Agriculture Research	Area percentage of intensity level in AEZ ⁸ Polygon (Vector/ .shp file)	Projection transformation (Everest 1830 ¹³ to UTM46)	Normalized (0-1) Intensity Rank Multiplied by Area Percentage & Summed / Intersect growth center polygon	Polygon/ vector (.shp file)	Highest Value among Intersected feature	Highest Value among Intersected feature	Max-min Normalized value
15	Flood Depth	BARC/ National Agriculture Research	Area percentage of intensity level in AEZ Polygon (Vector/ .shp file)	Projection transformation (Everest 1830 to UTM46)	Normalized (0-1) Intensity Rank Multiplied by Area Percentage & Summed / Intersect growth center polygon	Polygon/ vector (.shp file)	Highest Value among Intersected feature	Highest Value among Intersected feature	Max-min Normalized value
16	River Erosion	BARC/ National Agriculture Research	Area percentage of intensity level in AEZ Polygon (Vector/ .shp file)	Projection transformation (Everest 1830 to UTM46)	Normalized (0-1) Intensity Rank Multiplied by Area Percentage & Summed / Intersect growth center polygon	Polygon/ vector (.shp file)	Highest Value among Intersected feature	Highest Value among Intersected feature	Max-min Normalized value