

Transformation of Transport Landscape in Dhaka

Keynote Presentation
by

Professor Jamilur Reza Choudhury
Vice Chancellor, University of Asia Pacific

at the Workshop on
Transport and Mobility: Meeting the Needs of Working Women
organized jointly by University of Asia Pacific, Bangladesh and University of Leeds, UK
19th – 20th August 2017

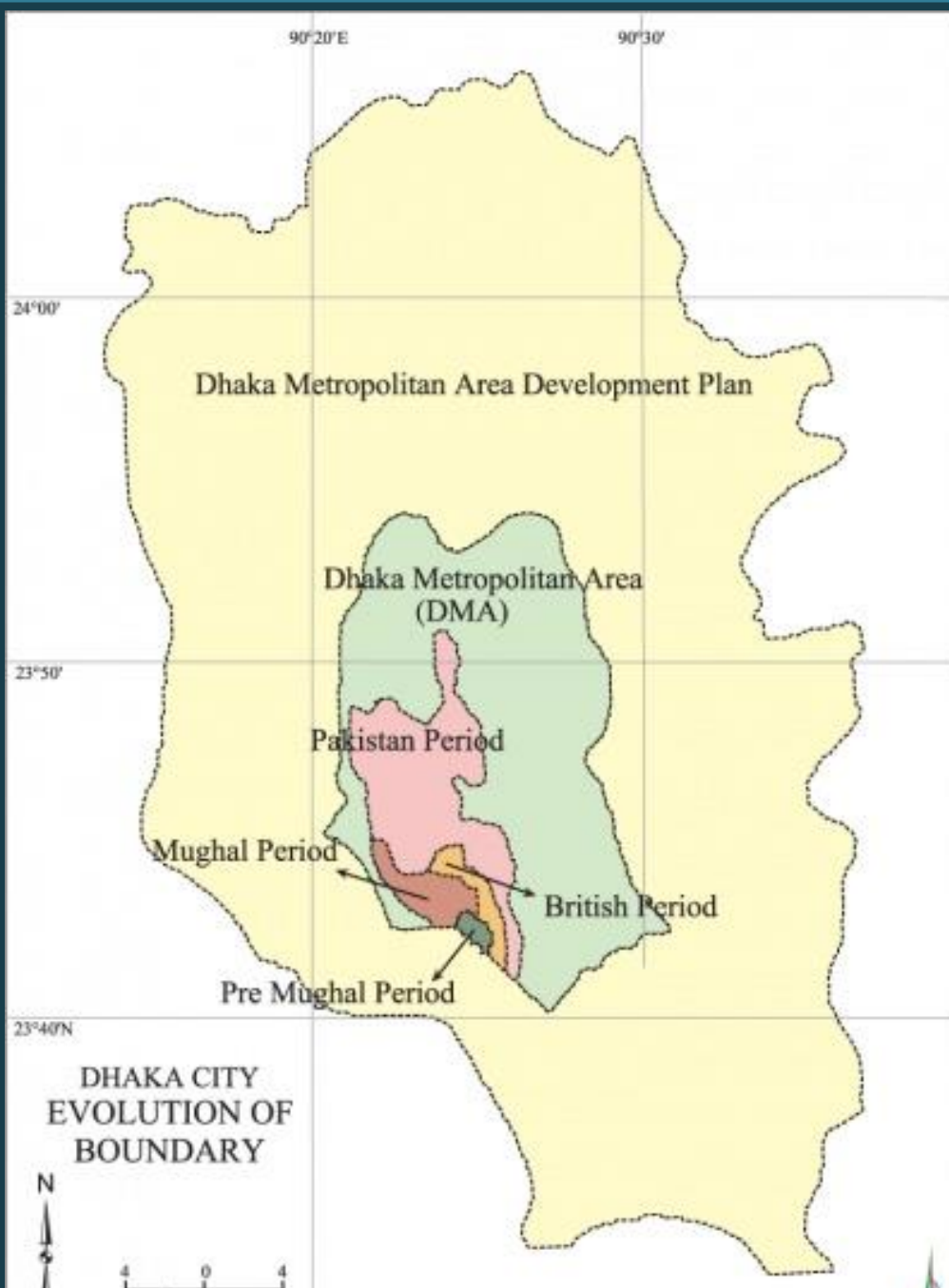
Outline of Presentation

- ❖ Dhaka City : Growth
- ❖ Modes of Transport
- ❖ Current Problems
- ❖ The Strategic Transport Plans
- ❖ Policy and Implementation Issues
- ❖ Concluding Remarks

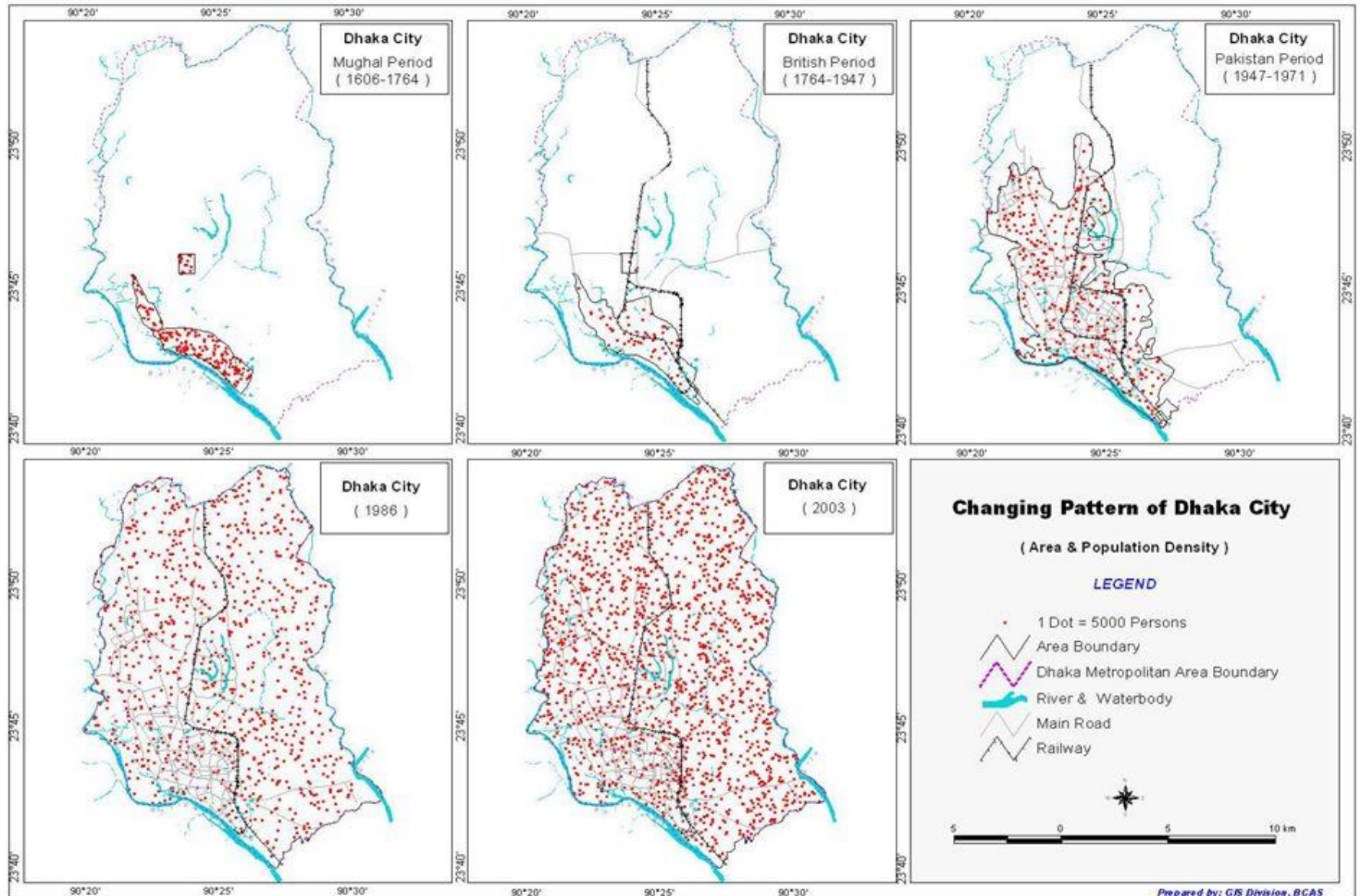
in 40 years

**Growth in area from 100
sq. km. to 1,528 sq. km.**

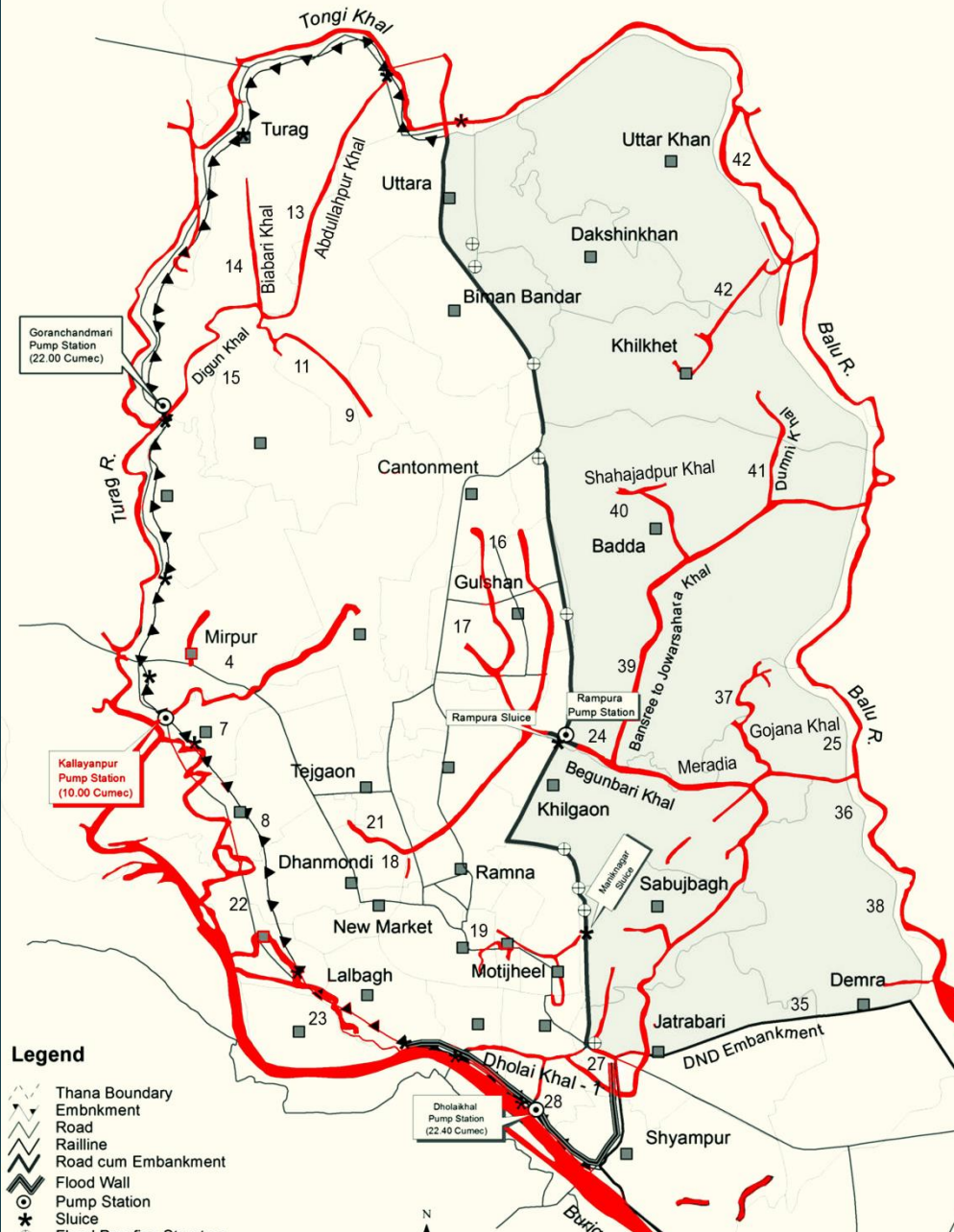
**Population growth from
1 million to 17 million**



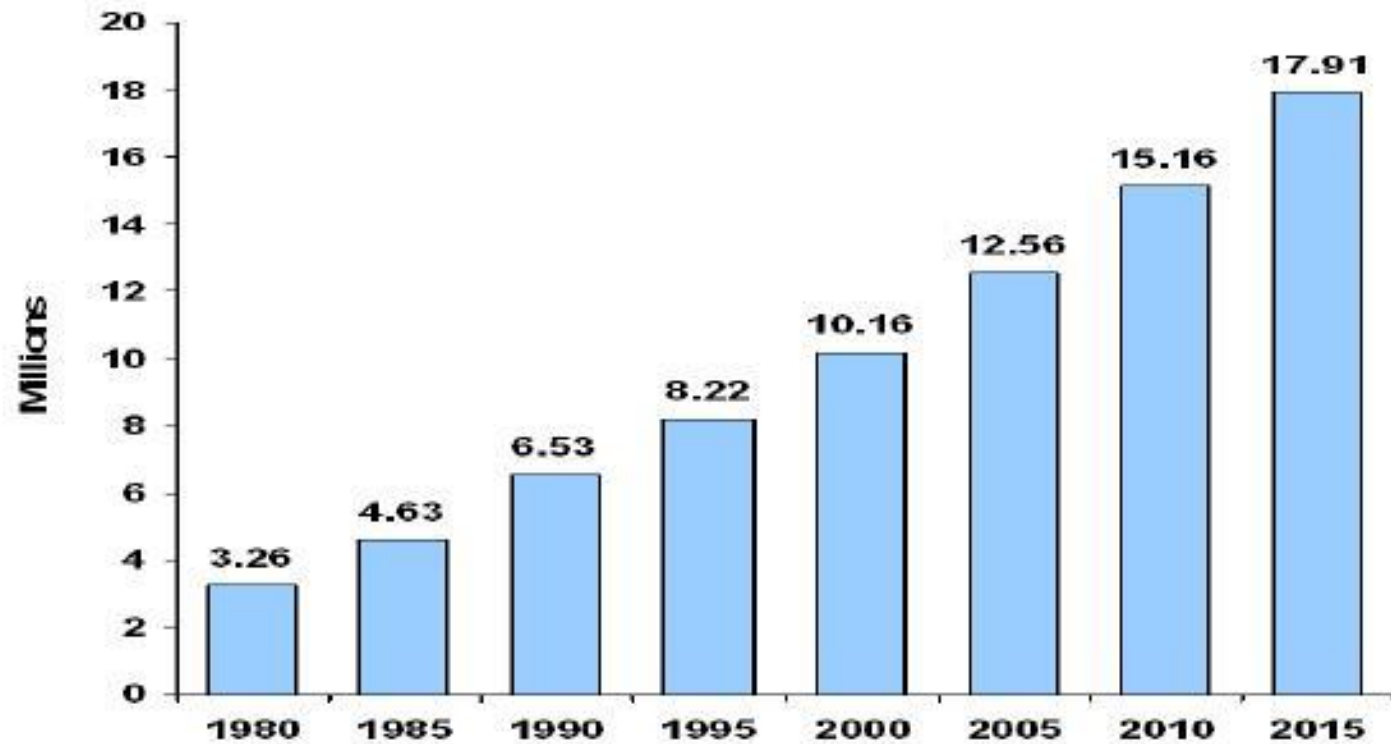
Physical Growth of Dhaka



Drainage Canals of Dhaka City



Population Growth of Dhaka Megacity 1980-2015



Source: World Urbanization Prospects: The 2003 Revision, UN

City of Rickshaws

- Introduced in 1939
- Now more than a million



Horse drawn carriages

Popular in 1940s to 1960s



First Public Buses introduced in late 1940s



3-wheeler : “CNG” and “Tempos” (shared)



- Relatively inexpensive
- Popular among “low” and “low middle income” people



Transport of Goods



Transport of Goods



3-wheeler rickshaw multipurpose vans



Present scenario

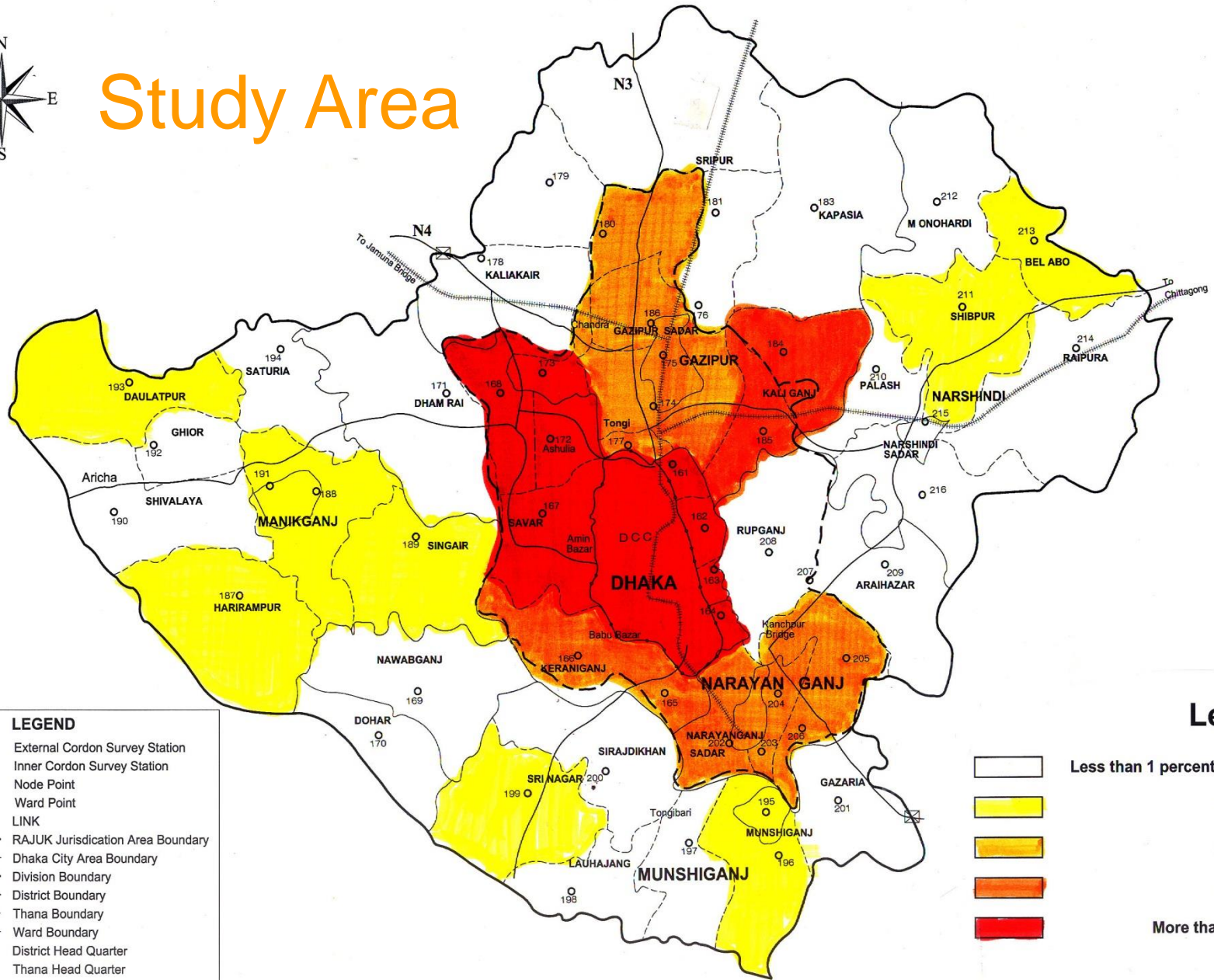
- ❖ In the last 10 years, the average driving speed has dropped from 21 km/hr to 6 km/hr.
- ❖ If business as usual continues, likely to drop to 4 km/hr by 2035, slower than the average walking speed!
- ❖ Congestion in Dhaka wastes 3.2 million working hours per day.
- ❖ Total cost of traffic congestion:
approx. Tk. 300 billion/yr

Studies on Transport Problem

- ❖ 1992-94 : UNDP : Dhaka Integrated Transportation Study (DITS)
- ❖ 1998-2006 : World Bank : Dhaka Urban Transport Project (DUTP)
- ❖ 2004 : Strategic Transport Plan (STP)
 - 32-Member Advisory Committee formed
- ❖ 2009 : Dhaka Urban Transport Network Development Study (DHUTS)
- ❖ 2014 : Revised STP (RSTP)



Study Area



LEGEND

- ⊠ External Cordon Survey Station
- ⊗ Inner Cordon Survey Station
- Node Point
- Ward Point
- LINK
- RAJUK Jurisdiction Area Boundary
- Dhaka City Area Boundary
- Division Boundary
- District Boundary
- Thana Boundary
- Ward Boundary
- District Head Quarter
- Thana Head Quarter
- Main Road
- Road
- Railway
- River / Khal
- BIWTA Terminals

Km 0 4 8 16 24 km

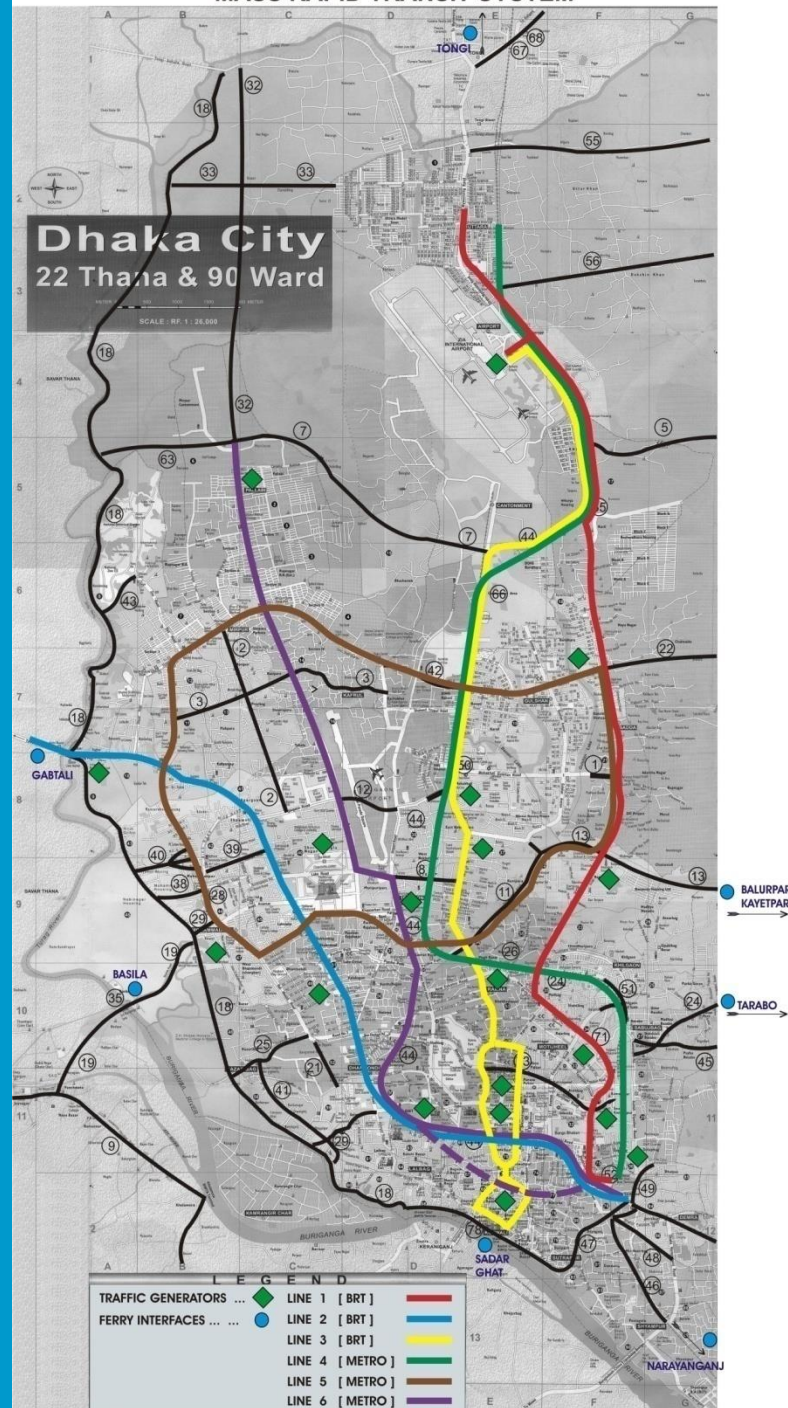
Legend

- Less than 1 percent per annum
- 1-2 percent
- 2-3 percent
- 3-4 percent
- More than 4 percent

MASS RAPID TRANSIT CANDIDATE SYSTEMS

System	Capacity	Power	\$/km
BRT	5-35k	CNG	5m
LRT	5-15k	Electric	20-30m
MRT	20-60k	Electric	50-150m

MASS RAPID TRANSIT SYSTEM



Mass Rapid Transit System

Components of BRT

- ❖ **Line 1 [Red]**. Uttara-ZIA-Pragat Sarani-Malibag-Outer Ring Road -Kamalpur Station-Saidabad Bus Terminal; later extended to Gazipur in the north Narayanganj in the south.
- ❖ **Line 2 [Blue]**. Gabtali Bus Station/Ferry Landing Stage –Dhanmondi-Zahir Raihan Sarani -Saidabad Bus Terminal ; later extended to Savar in the west and Narayanganj in the south
- ❖ **Line 3 [Yellow]**. ZIA-Mohakhali Bus Terminal-Ramna. anti-clockwise loop based on College Road, Phoenix Road and Nazrul Islam Sarani. extended into the old city area (Kazi Alauddin Road, Nawab Yusuf Road, Islampur Road. Johnson Road, English Road and North South Road. extended to Gazipur in the north.

MRT (underground and overground)

- ❖ **Line 4 [Green]**. Uttara-ZIA- Cantonment Area at the north of Airport Road-Mohakhali-Tejgaon-Mogh Bazar-Khilgaon-Kamlapur Station-Saidabad Bus Station.
- ❖ **Line 5 [Brown]**. Gulshan Pragat Sarani-Kamal Ataturk –Kafrul-Mirpur, Mohammadpur, Dhanmondi, Tejgaon (Farmgate)-Rampura - Badda and Gulshan.
- ❖ **Line 6 [Purple]**. Pallabi-Begum Rokeya Sarani-Farm Gate-Sonargaon Hotel-Hatir Pool-Plassey-Fulbaria-Hatkhola-Saidabad Bus Terminal. (? Old City area- Sadar Ghat)

Revised STP Recommendations

- 5 Mass Rapid Transit (MRT) Line construction [MRT Line 1, 2, 4, 5 & 6]
- 2 Bus Rapid Transit (BRT) Line Construction [BRT Line 3 & 7]
- 3 Ring Roads
- 8 Radial Roads
- 6 Expressways
- 21 Transportation Hubs
- Improvement of Circular Waterway around Dhaka
- Improvement of Traffic Management and Traffic Safety
- Bus Sector Reforms [Route Rationalization, Bus Company Formation, Relocation of Bus Terminals]

RSTP RING ROAD

3 Rings and 8 Radials Road Network System



Number of Lanes	Road Function/Type	Centers
 1 lane	 Express way	 Local/Community Center
 2 lanes	 Outer Ring Road	 Regional Center
 4 lanes	 Middle/Inner Ring Road	 Specialized Center
 6 lanes	 Interchange	 Sub Regional Center
 8 lanes	 Major Bridge (Proposed / Under Construction)	 Urban Core



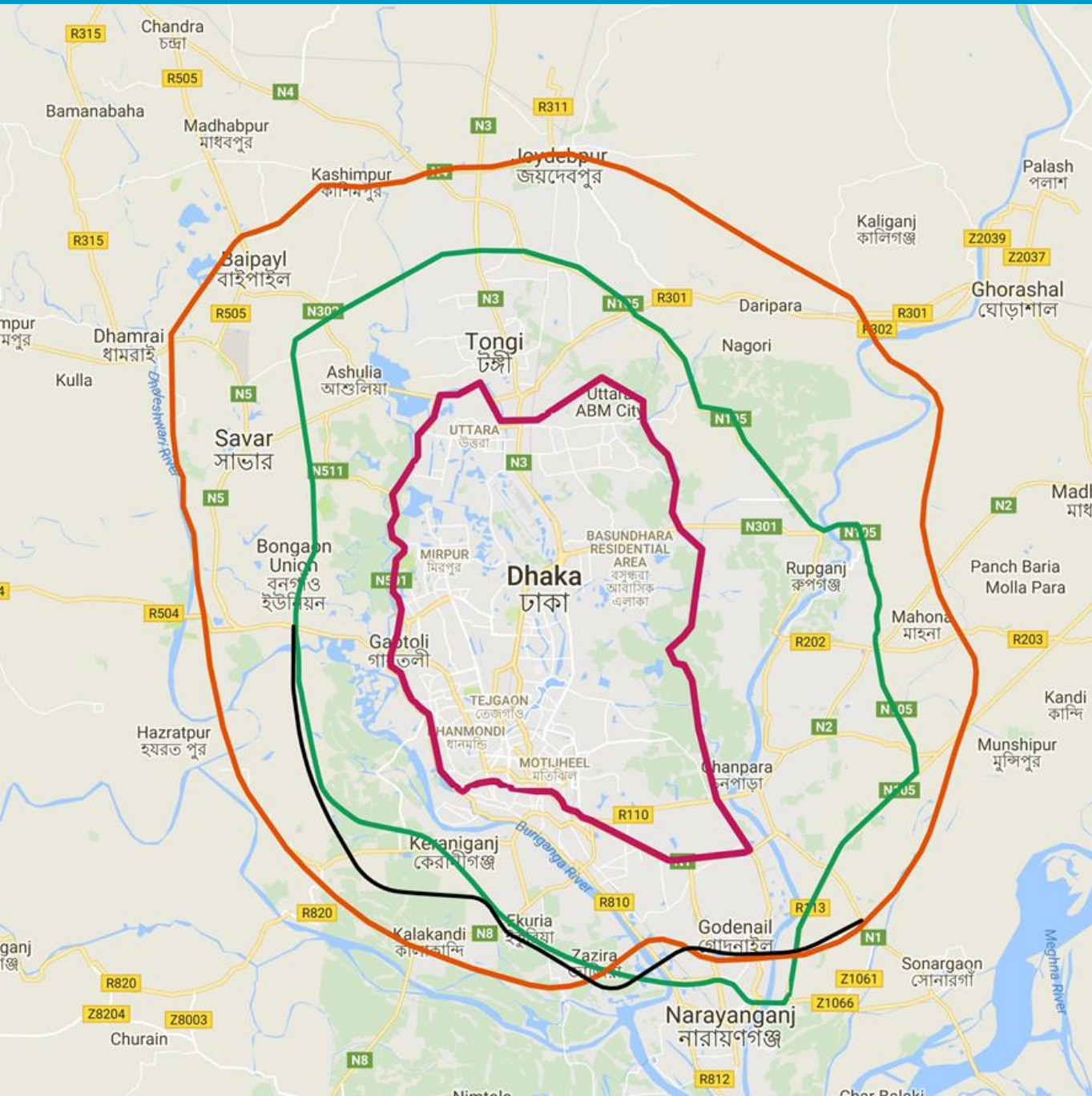
Radial Roads

Proposed 8 radial roads:

1. Dhaka-Joydebpur-Mymensingh
2. Dhaka-Tongi-Ghorashal
3. Dhaka-Purbachal-Bhulta
4. Dhaka-Kachpur-Meghna Bridge
5. Dhaka-Signboard-Narayanganj
6. Dhaka-Jhilmil-Ekuria
7. Dhaka-Amin Bazar-Savar
8. Dhaka-Ashulia-DEPZ



3 Ring Roads



Inner Ring Road

(73.2 km)

Teromukh



Abdullahpur



Gubtoli



Rayerbazar



Babu Bazar



Sadarghat

Fatullah



Chashara



Signboard



Shimrail



Demra



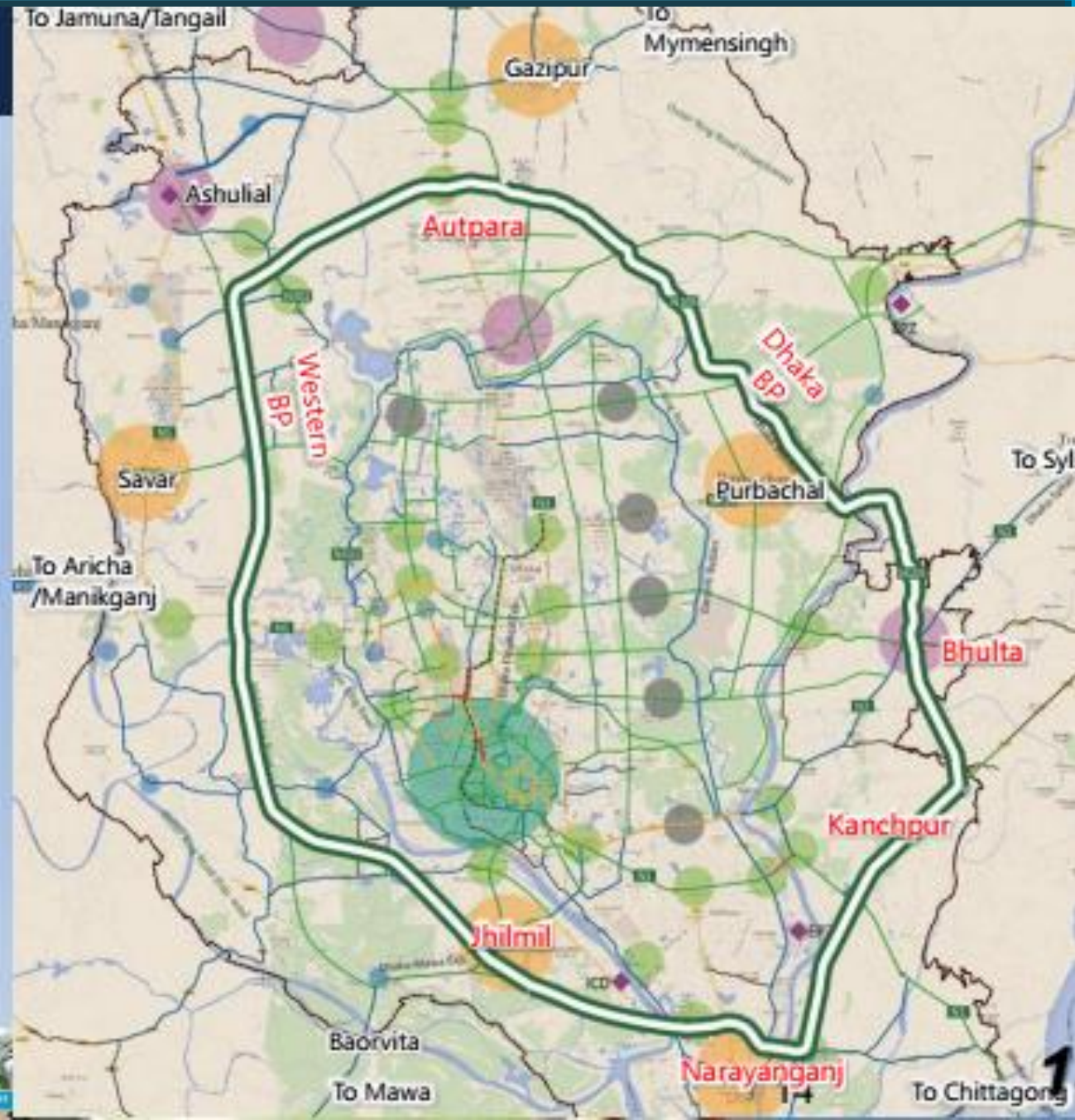
Balu River side



Middle Ring Road

(108.0 km)

Autpara
↓
Dhaka Bypass
↓
Bhulta
↓
Kanchpur
↓
Narayanganj
↓
Jhilmil
↓
Western Bypass



Outer Ring Road

Outer Ring Road

(129.0 km)

Hemayetpur



Kalakandi



Madanpur



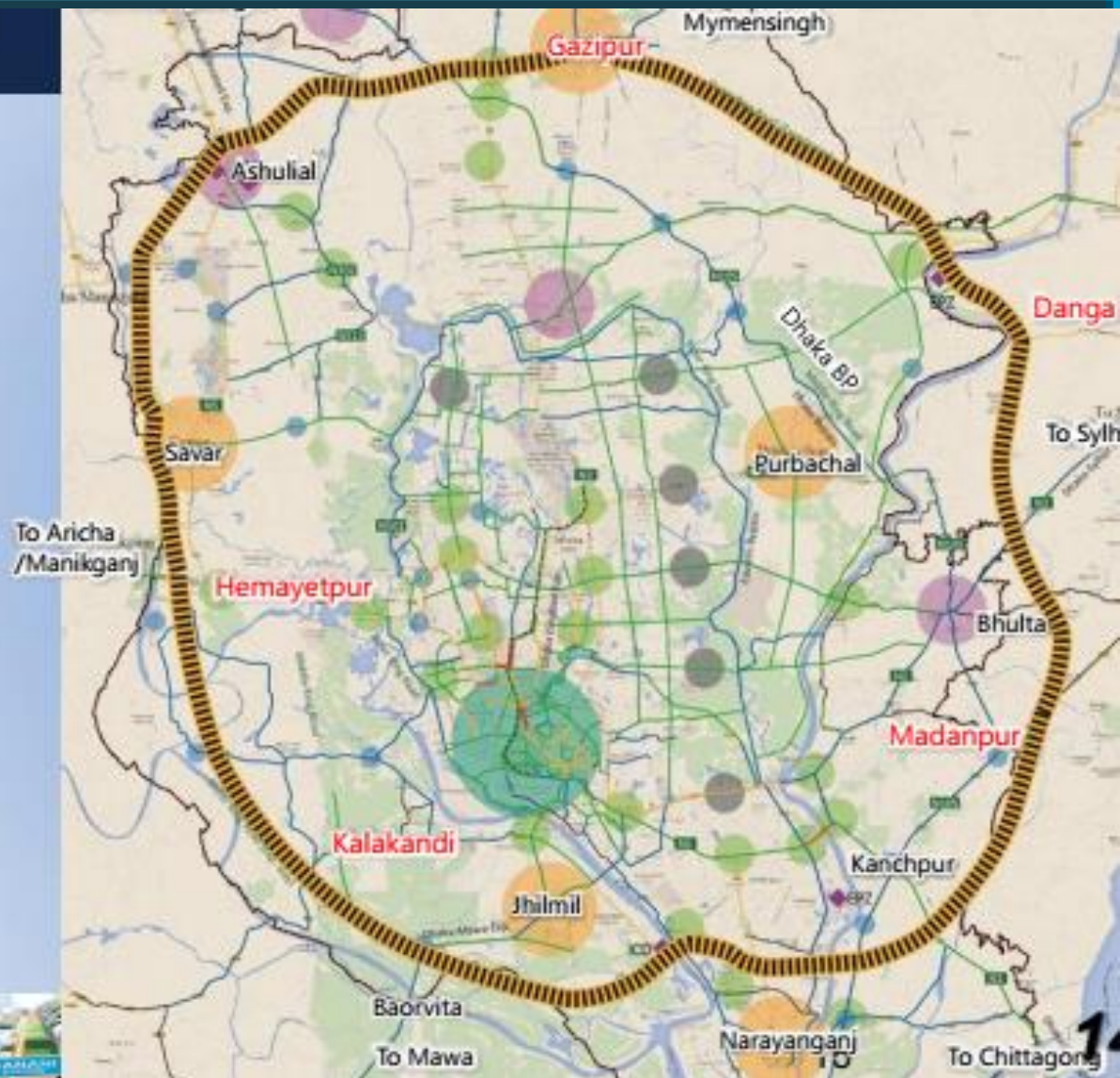
Danga



Bypail



Gazipur



Mass Rapid Transit Network

MRT Line 1 (52km)

- Gazipur - Airport - Kamalapur - Jhilmil
- Purbachal - Khilkhet

MRT Line 2 (40km)

- Ashulia - Savar - Gabtali - Dhaka Univ. – DSCC – Kamalapur

MRT Line 4 (16km)

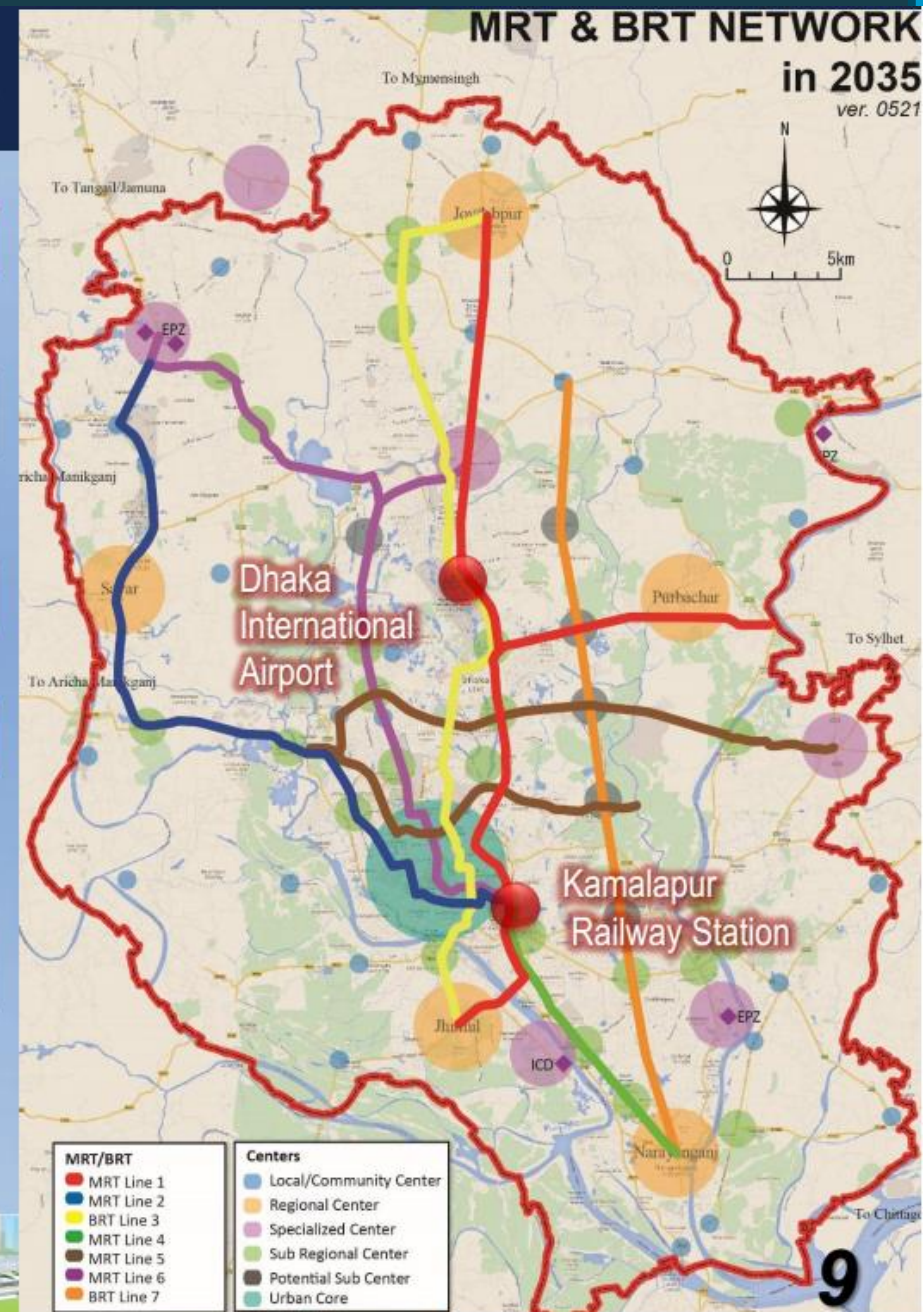
- Kamalapur - Narayanganj

MRT Line 5 (35km)

- Bulta - Badda – Mirpur Road – Mirpur 10 – Gabtoli Bus Terminal – Dhanmondi – Bashundhara City – Hatir Jheel Link Road

MRT Line 6 (41km)

- Ashulia - Uttara Phase 3 – Pallabi – Tejigaon – Motijheel - Kamalapur

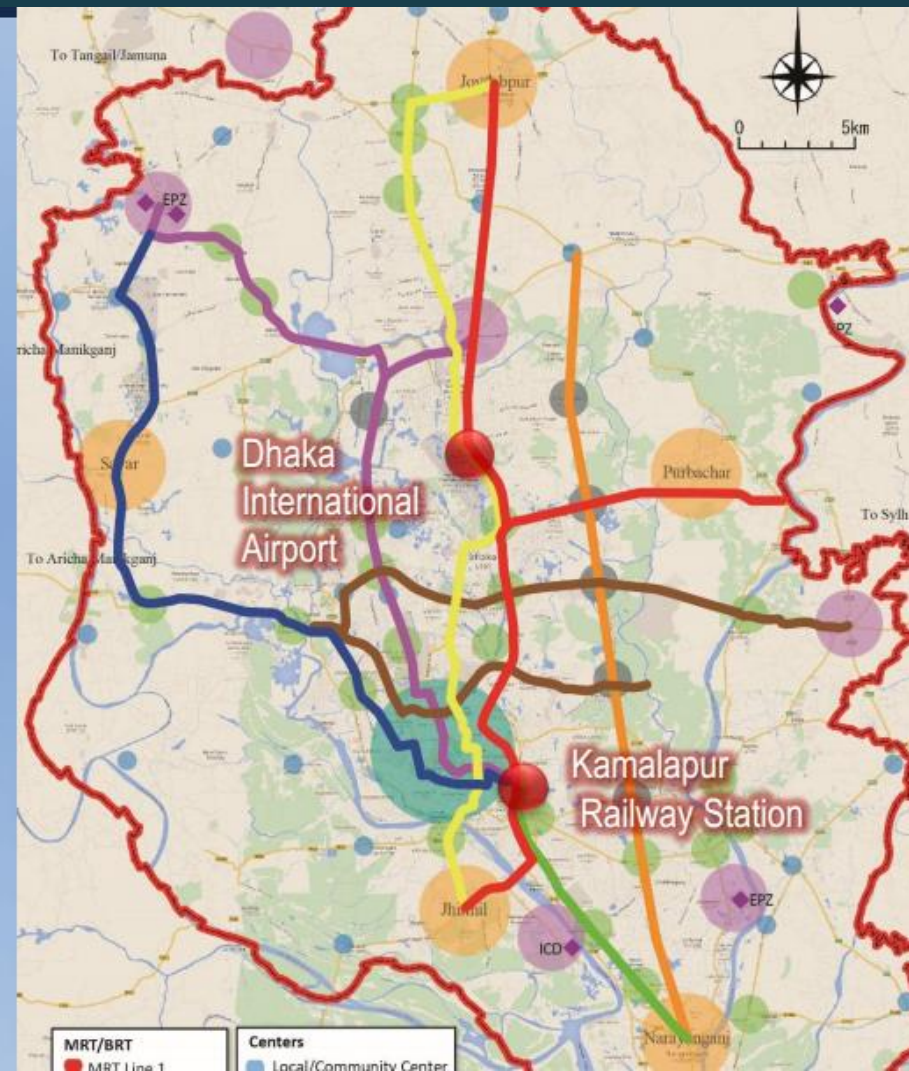


BRT Line 3 (42km)

- Gazipur – International Airport - Jhilmil

BRT Line 7 (36km)

- Eastern Fringe Area

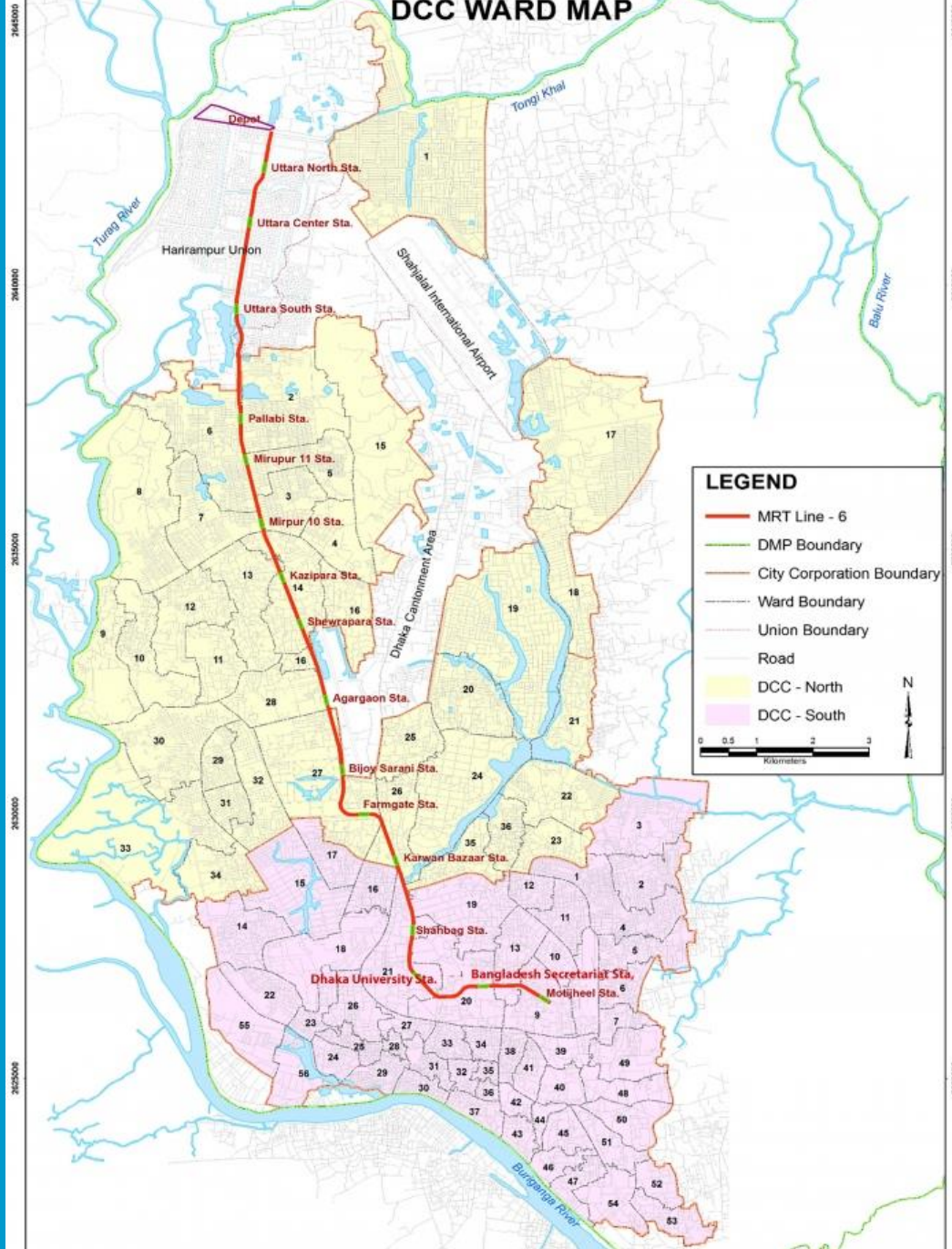


Urban Transport Policy

- ❖ Pedestrian first
 - Pedestrian walkways should be continuous, wheelchair accessible with adequate widths
- ❖ Safety
- ❖ Bus system management
- ❖ Non-motorized Transport
- ❖ Parking

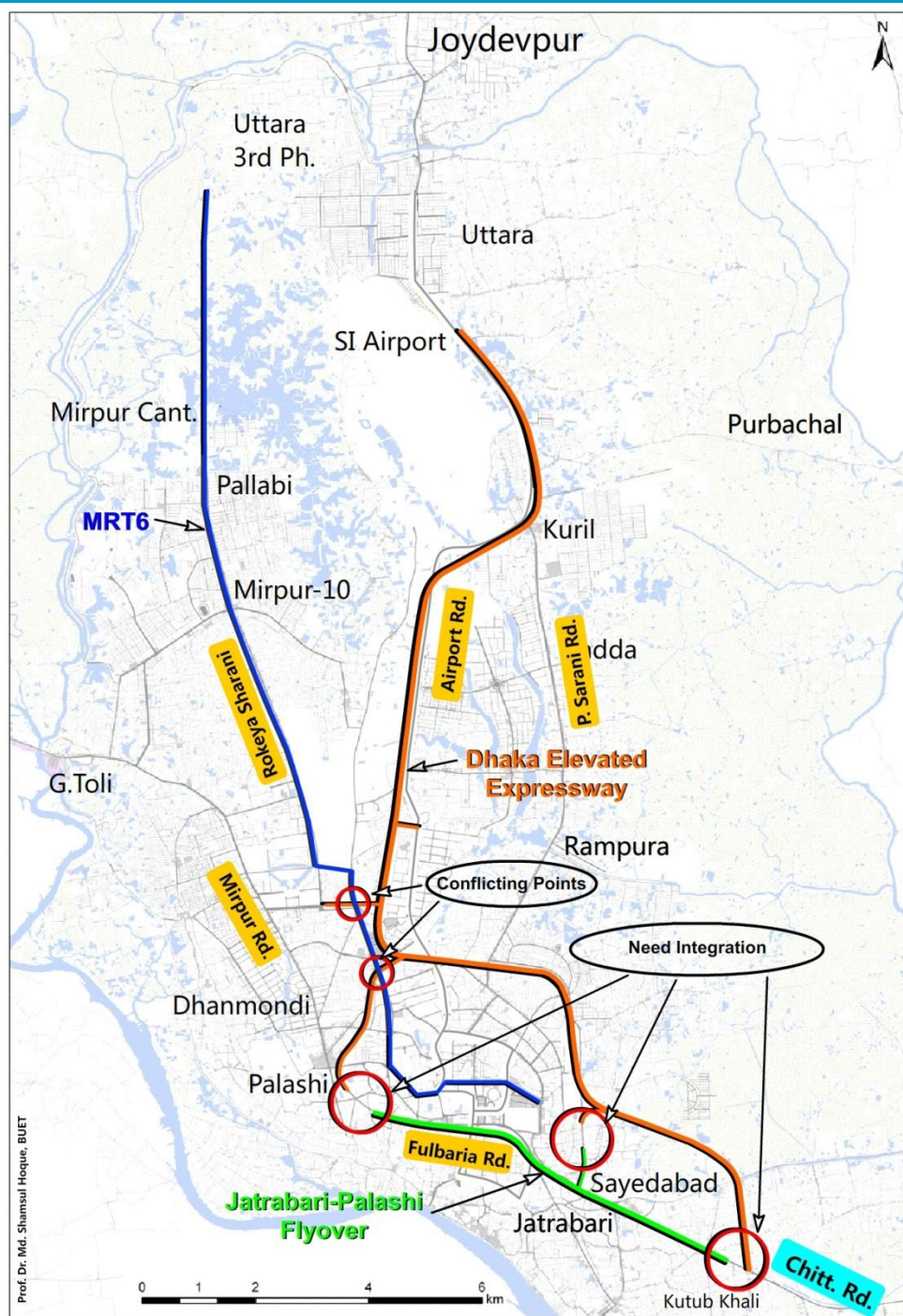
MRT Line 6

Uttara to Bangladesh Bank



MRT6

Modified route and Conflicts



Rivers Surrounding Dhaka



Water Taxis in Hatir Jheel



Concluding Remarks

- ❖ Development of transport system has failed to keep pace with the rapid growth in population
- ❖ Unbearable traffic congestion makes Dhaka almost an unlivable city
- ❖ Significant improvement may be made by better traffic management, parking control and improving pedestrian facilities
- ❖ Implementation of RSTP over the next 15 years, particularly the MRT and BRT lines, likely to lead to improvement in the situation