

# Institution of Engineers of Pakistan (IEP)

## Seminar on “Public Transport”

Presentation by

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Consultant

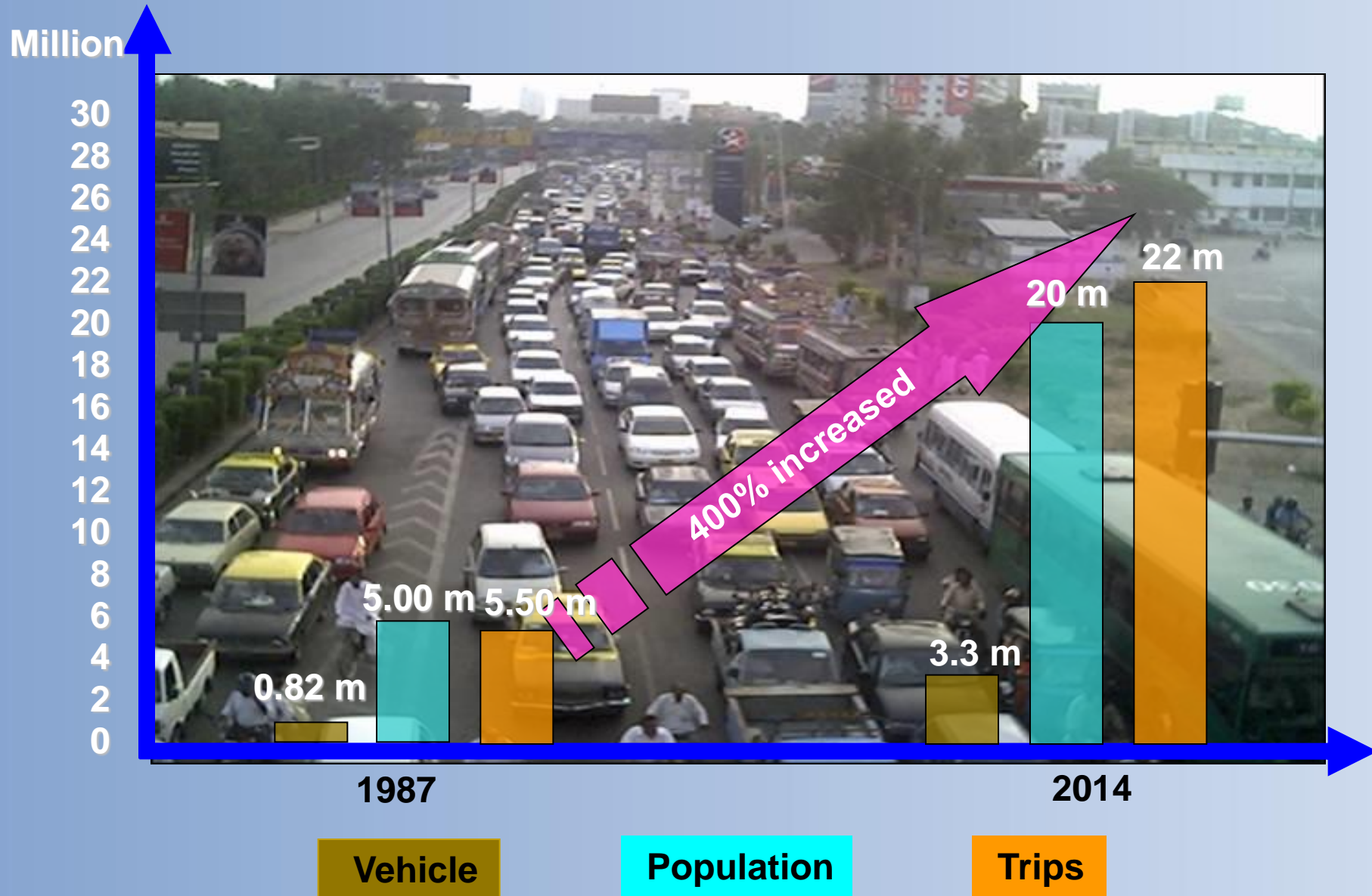
Transport and Mass Transit Department,  
Government of Sindh

November 29, 2014

# TRANSPORT SECTOR OVERVIEW

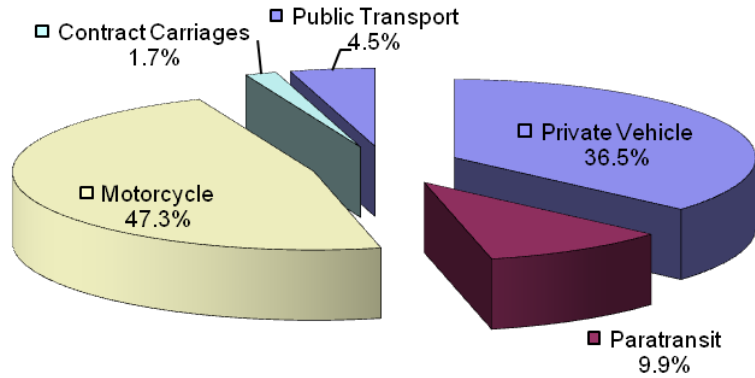
- Road Network 10,000Km
- Registered Vehicles 3.3 Million
- Out of 22 million trips generated in Karachi, 45% are by public transport which is only 4.5% of the registered vehicles
- Currently 12,000 buses of various sizes on 254 routes
- Contract Carriage (Buses / Coaches) are 2,715
- 45% (i.e. 5,400 buses) more than 20 years old
- Poor quality of service, high fuel consumption
- Commuters spend 13% of monthly income on transportation (Affordability)

# GROWING TRAVEL DEMAND



# Status of Existing Public Transport [Vehicle Count VS Occupancy Comparison]

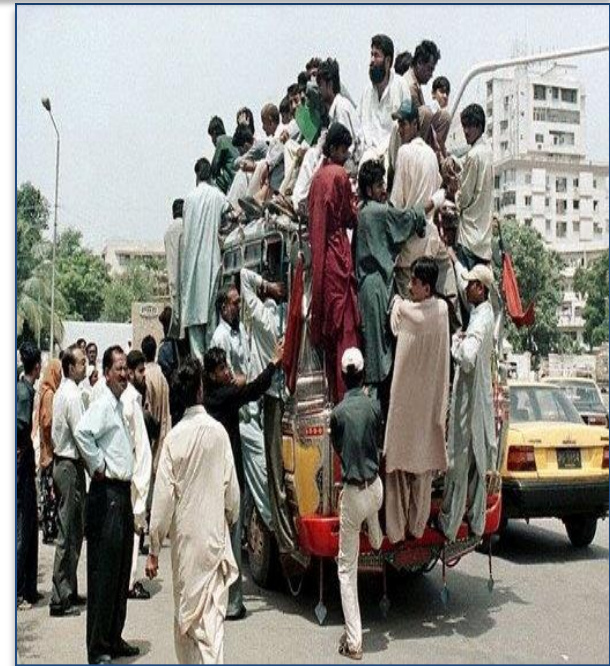
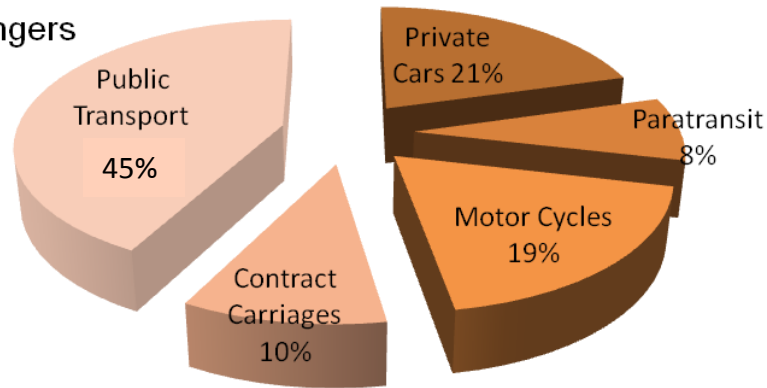
## Modal Distribution of Vehicles



(Total no. of Vehicles : 3.3 million)

- 4.5% composition of Public Transport Vehicles carry 45% of Total Persons Traveling in the City.
- Private Cars which is 36.5% of Total Vehicular Traffic carries only 21% of Persons. Showing Lesser Average Vehicle Occupancy.
- **The above leads to the conclusion that there is still deficiency of Public Transport availability on all Major Routes in the city.**

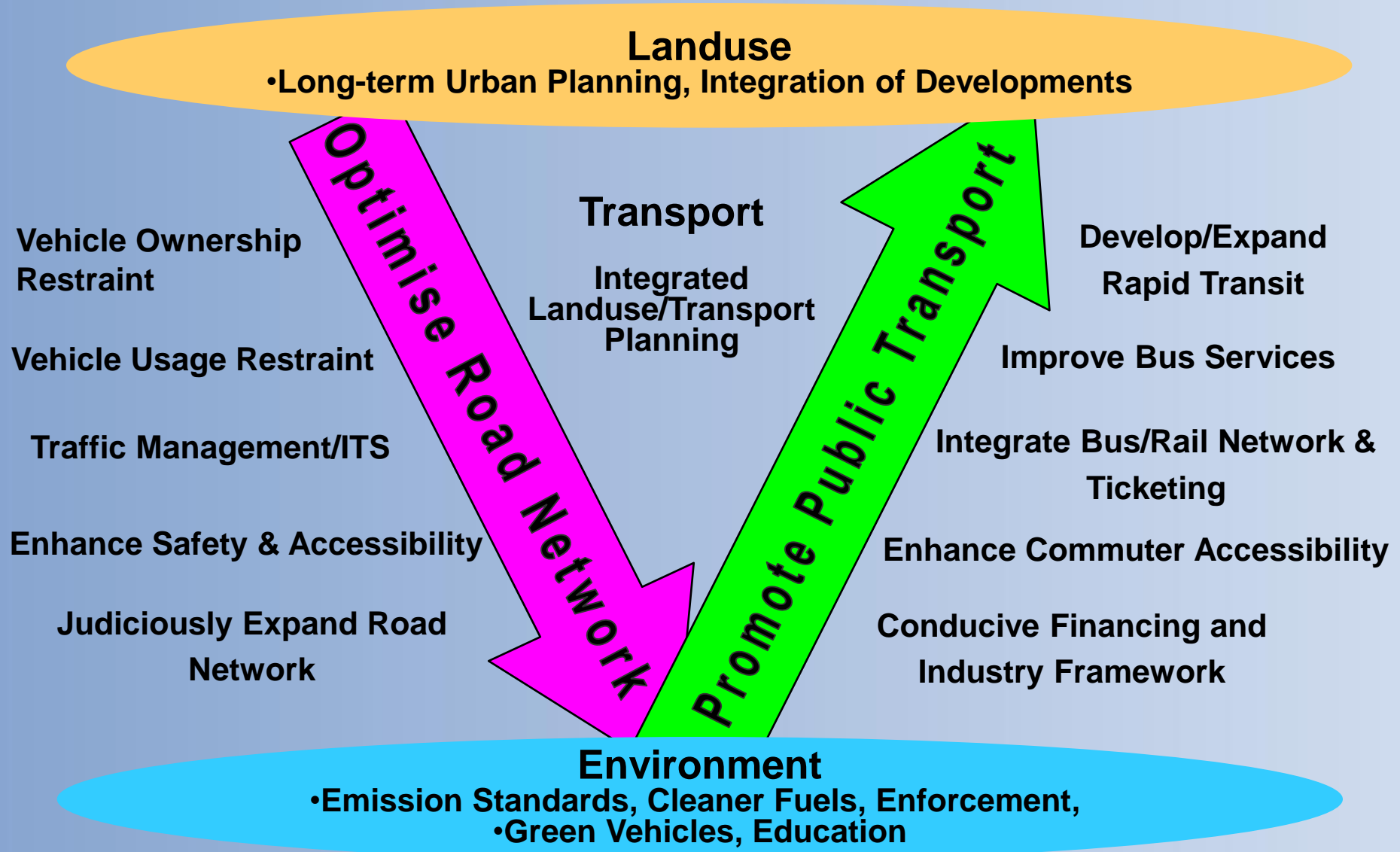
## Modal Distribution of Passengers



# TRANSPORT CHALLENGES

- **Fast urbanization**
- **Rapid motorization**
- **Increasing traffic congestion**
- **Absence of an efficient Mass Transit System**
- **Declining road safety, air-quality and growing noise pollution**
- **In-effective Traffic Police and motor-vehicle inspection system**
- **Fragmentation of Authorities**
- **Shortage of Resources**

# TRANSPORTATION STRATEGY (SUSTAINABLE & INTEGRATED APPROACH)

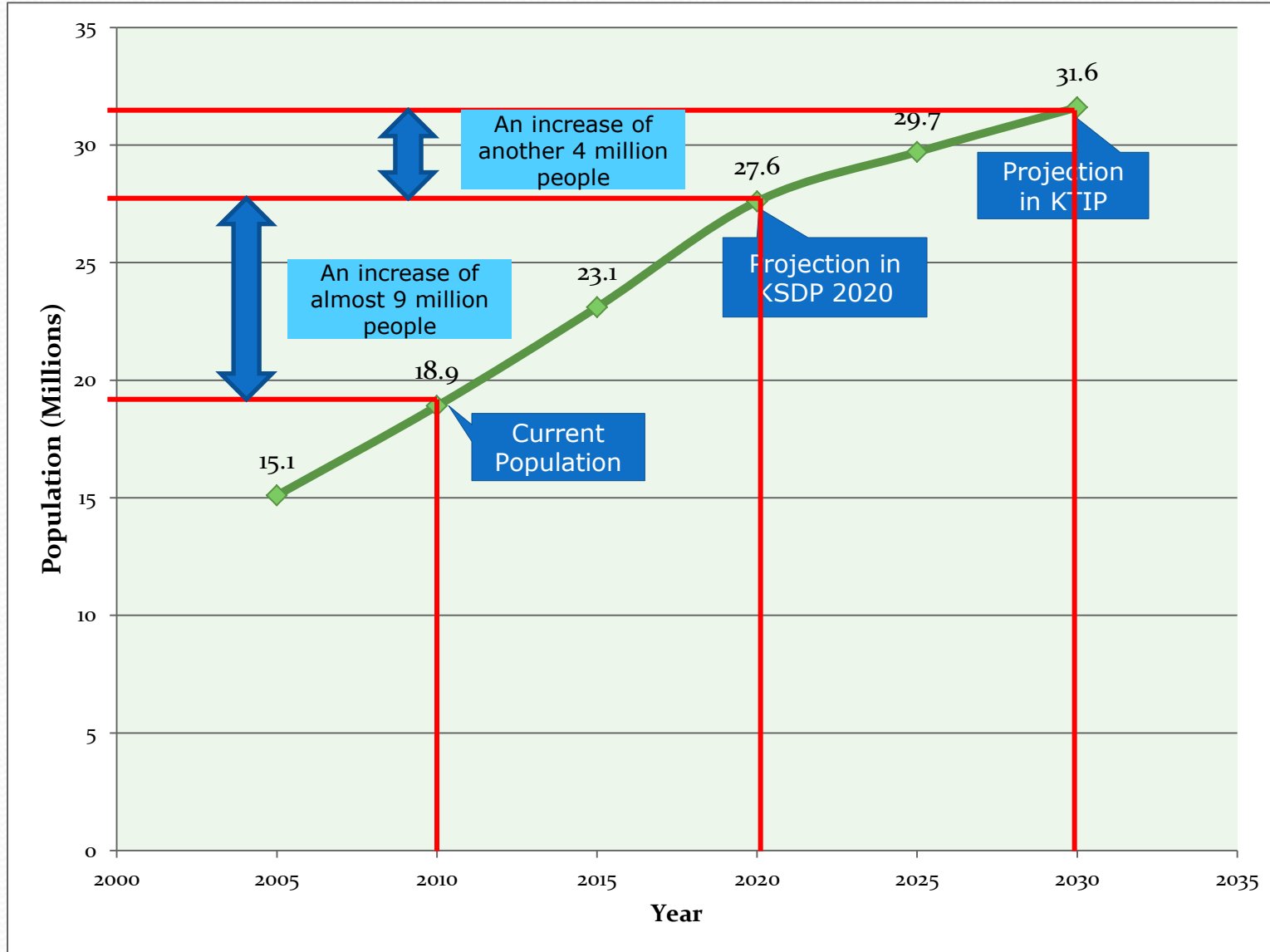




**KARACHI TRANSPORTATION  
IMPROVEMENT STUDY  
PROJECT 2010 - 12,**

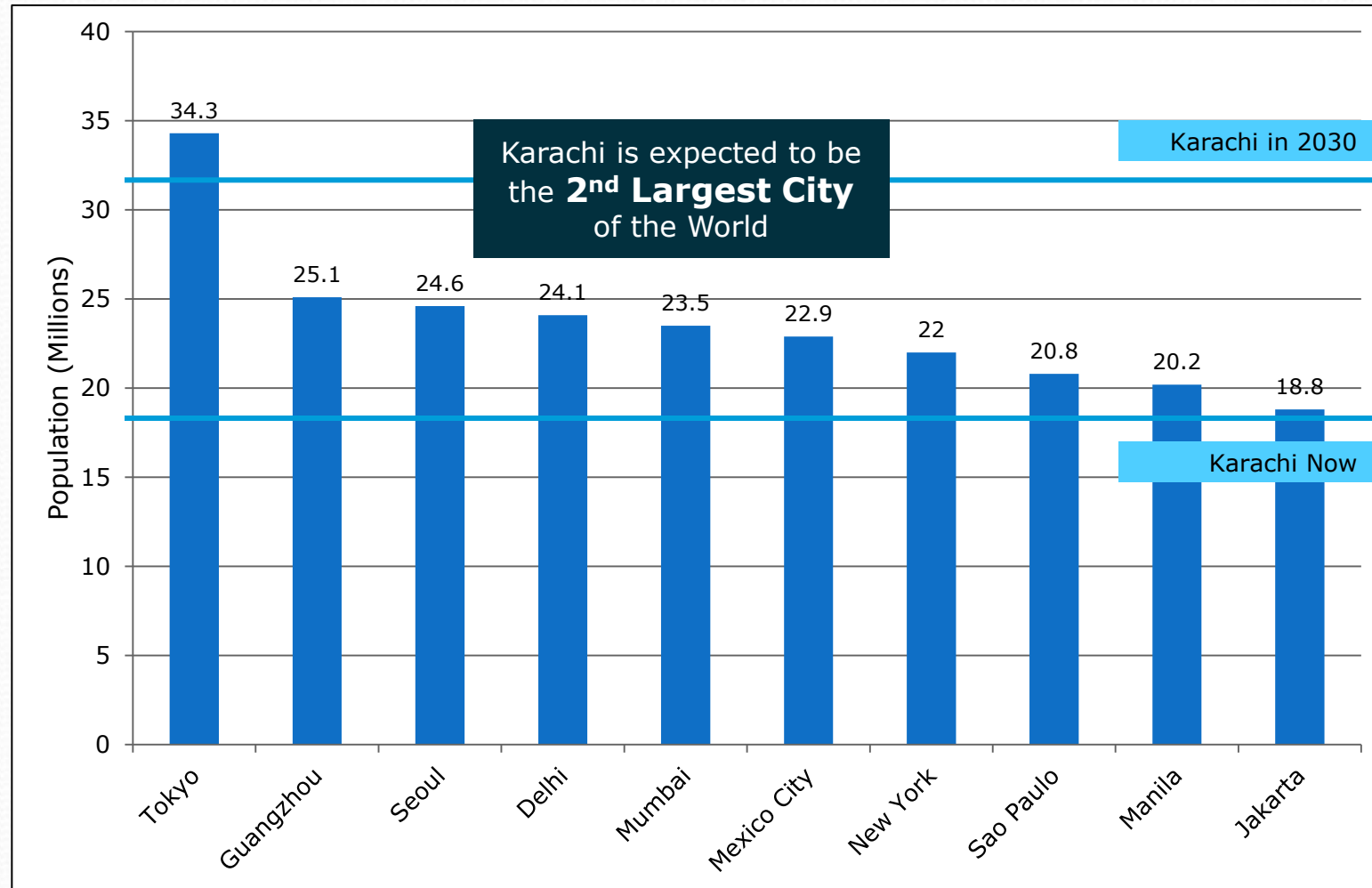
**conducted by  
Japan International Cooperation Agency (JICA)  
in association with  
Karachi Mass Transit Cell (KMTC),  
Karachi Metropolitan Corporation (KMC)  
including  
Preparation of Transport Master Plan  
with 2030 vision**

# Population Projection for Karachi



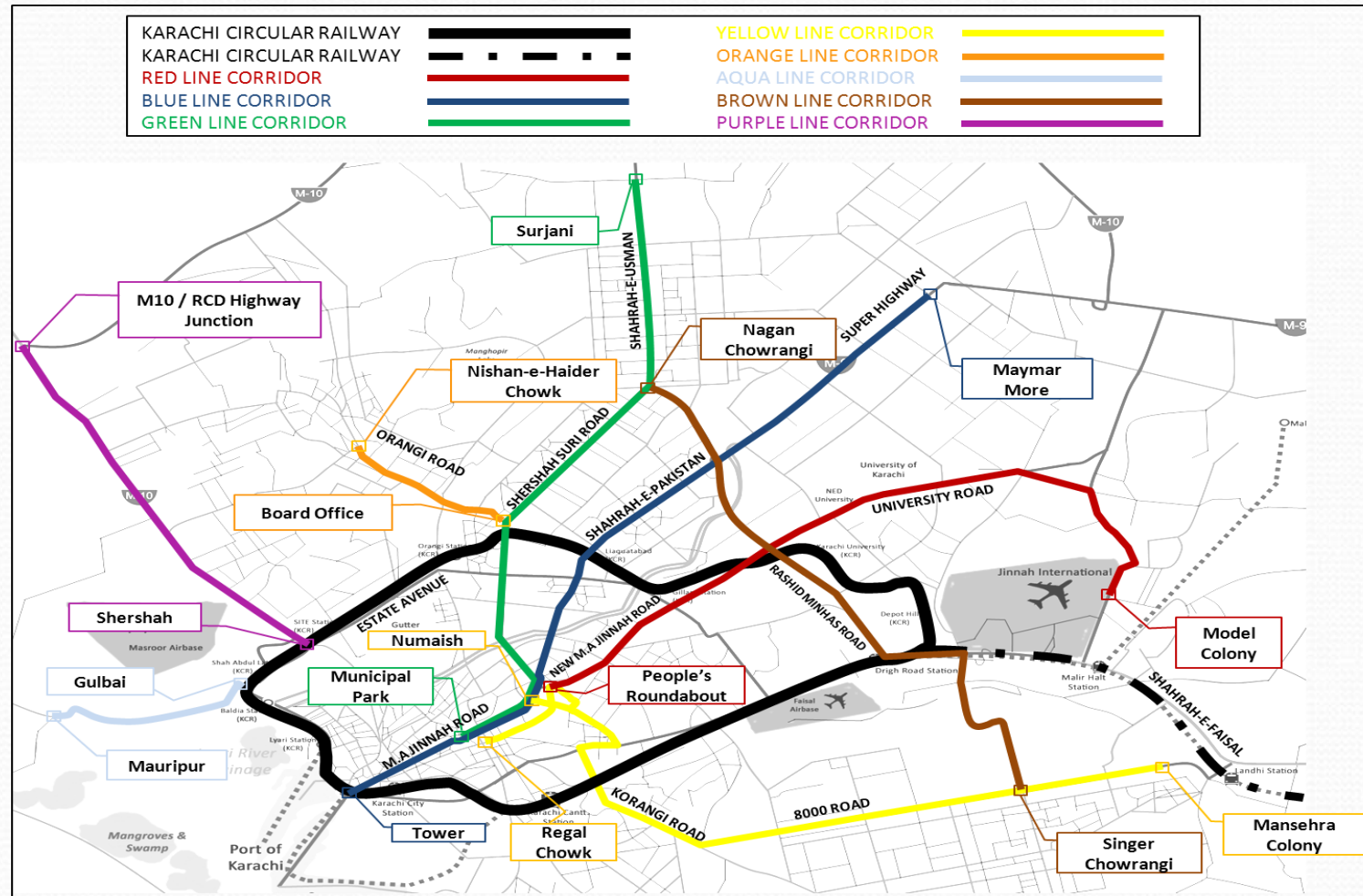


# World Metropolitan Population



- ✓ All Metropolises of the world have a good Mass Transit System except Karachi.
- ✓ So a high demand of good Mass Transit System can easily be understood.

# Karachi Mass Transit Master plan-2030

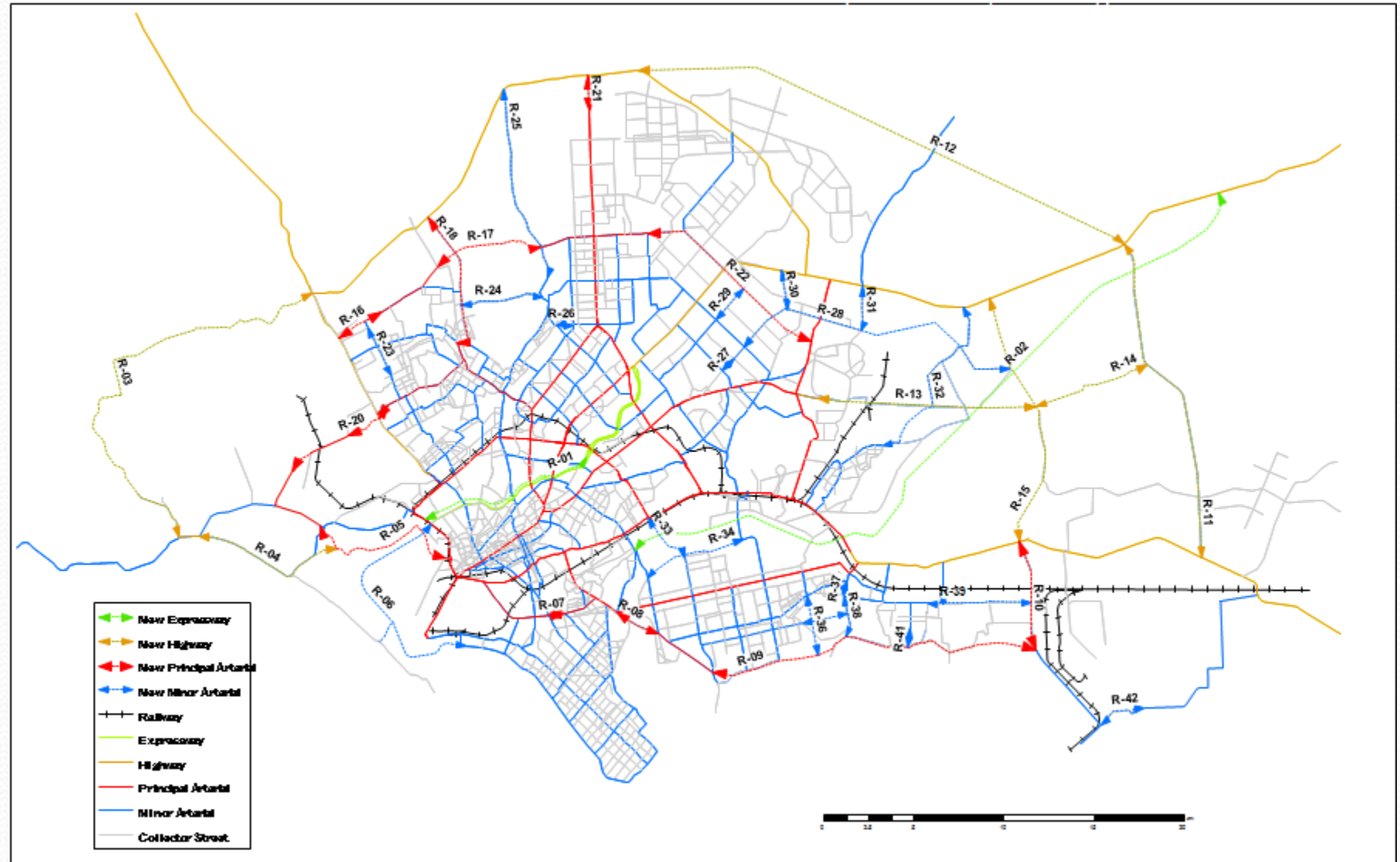


**KCR (43 KM), 2 Metro Corridors (41 KM), 6 BRT Lines (92 KM)**  
**BRT Yellow, Green, Red, Orange & Blue lines have been taken up.**

# Road Network in 2030

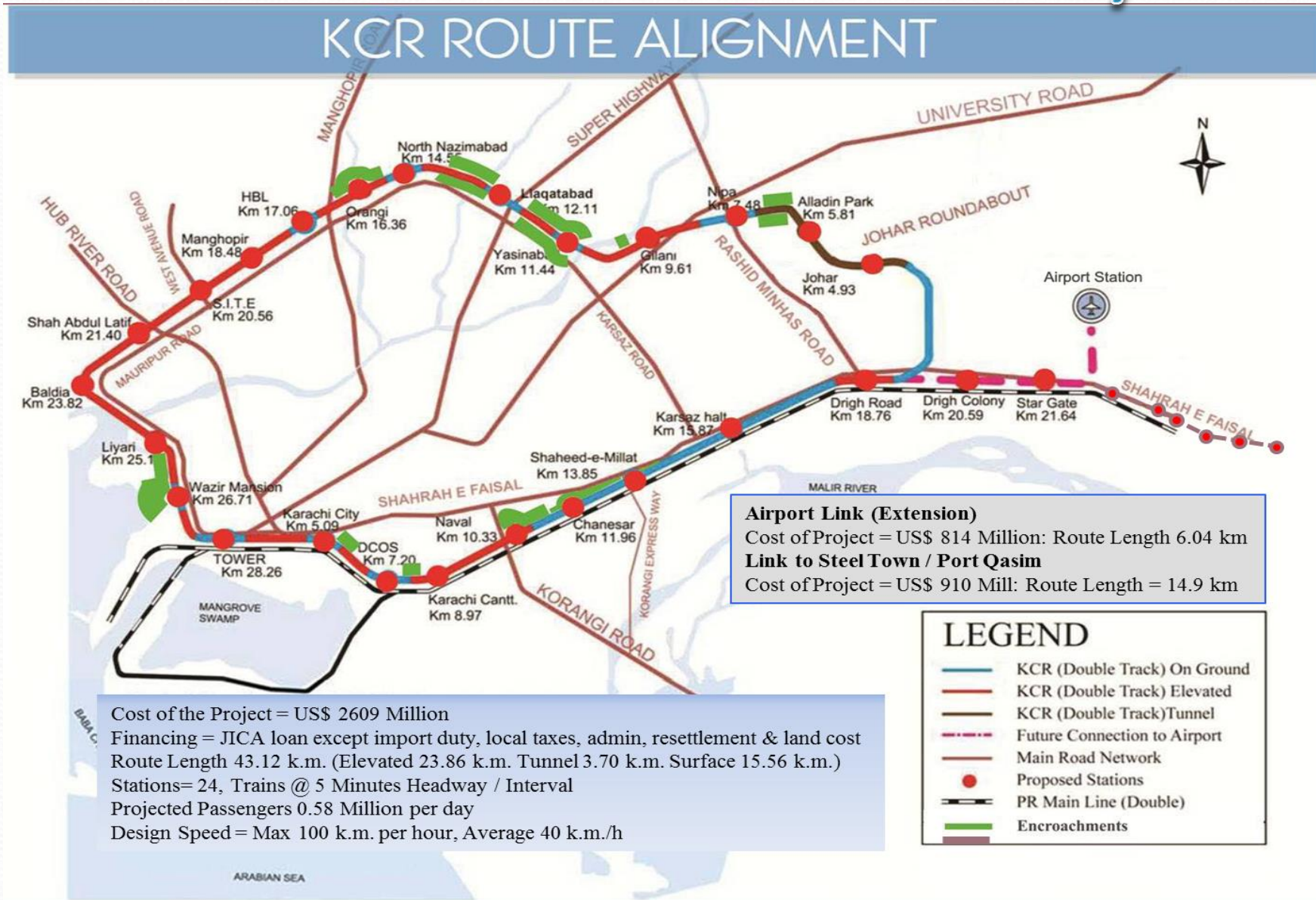
IN ORDER TO ENSURE CONNECTIVITY AND ACCESSIBILITY TO THE MASS TRANSIT SCHEME VARIOUS INFRASTRUCTURE PROJECTS HAVE BEEN IDENTIFIED FOR IMPLEMENTATION UP TO YEAR 2030.

THIS INCLUDES EXPRESS WAYS, HIGHWAYS, OVERPASSES, ARTERIAL, MISSING LINKS, PEDESTRIAN BRIDGES AND PARKING PLAZAS:



# Karachi Circular Railway

## KCR ROUTE ALIGNMENT



**Airport Link (Extension)**  
 Cost of Project = US\$ 814 Million: Route Length 6.04 km  
**Link to Steel Town / Port Qasim**  
 Cost of Project = US\$ 910 Mill: Route Length = 14.9 km

Cost of the Project = US\$ 2609 Million  
 Financing = JICA loan except import duty, local taxes, admin, resettlement & land cost  
 Route Length 43.12 k.m. (Elevated 23.86 k.m. Tunnel 3.70 k.m. Surface 15.56 k.m.)  
 Stations= 24, Trains @ 5 Minutes Headway / Interval  
 Projected Passengers 0.58 Million per day  
 Design Speed = Max 100 k.m. per hour, Average 40 k.m./h

### LEGEND

- KCR (Double Track) On Ground
- KCR (Double Track) Elevated
- KCR (Double Track) Tunnel
- - - Future Connection to Airport
- Main Road Network
- Proposed Stations
- PR Main Line (Double)
- Encroachments

# PROVISION OF MULTI LEVEL PARKING FACILITIES

S. #	NAME / LOCATION OF PARKING FACILITY	PARKING SPACES
01.	LINES AREA CAR, NEAR SADDAR DAWAKHANA, EMPRESS MARKET.	CARS: 710 M/CYCLE: 300
02	UNDERGROUND PARKING AT BARADARI, ON BOT BASIS.	CARS: 600
03	SCHON UNDERPASS, CLIFTON.	CARS: 500 M/CYCLE: 100
04	CIVIC CENTRE PREMISES.	CARS: 679 M/CYCLE: 300
05	SHAHABUDDIN MARKET, ADJACENT EMPRESS MARKET, SADDAR.	CARS: 1980 M/CYCLE: 220
06	JHEEL PARK, OFF TARIQ ROAD.	CARS: 3000



# Road Safety Policies / Measures

- Provided land marking, signals, zebra crossing and signals as per standard.
- Drivers training programs.
- Awareness program on Road Safety for school children and general public.
- Induction of Traffic Wardens to supplement and compliment Traffic Police.



# Mass Transit Implementation Program

# BUS RAPID TRANSIT PROJECTS

## YELLOW LINE

- LENGTH: 26 KM
- COST: APPROX 12-14bn
- DAILY RIDERSHIP: 150,000 pax
- NO. OF BUSES REQUIRED: 70
- COMPLETION TIME: 18 MONTHS

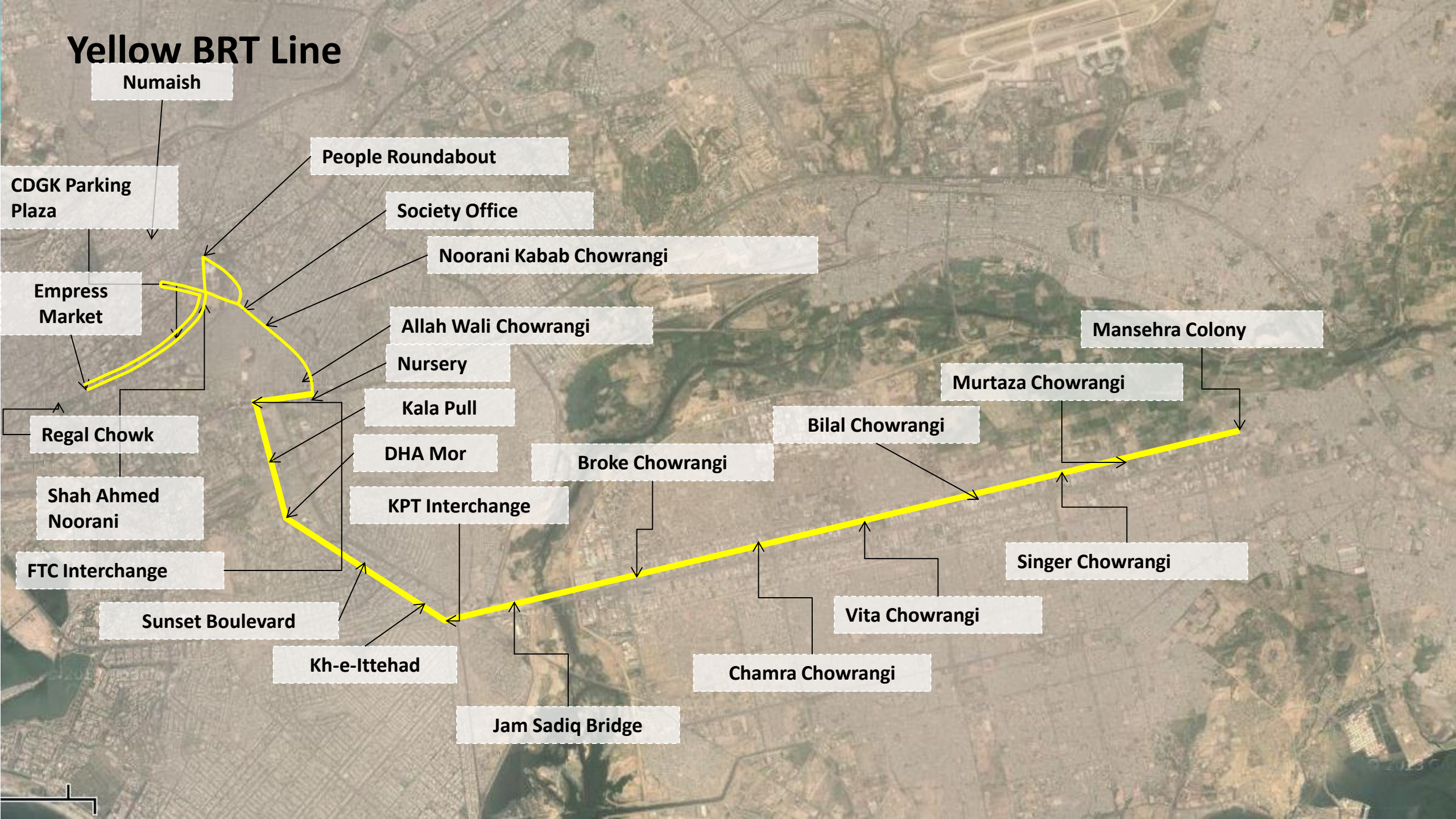
### CURRENT STATUS:

IN RESPONSE TO EOI FOR PRE-QUALIFICATION 21 FIRMS HAVE SHOWN THEIR INTERESTS INCLUDING CHINESE, SPANISH AND TURKISH FIRMS.

- EVALUATION OF EOI HAS BEEN COMPLETED
- RFP ISSUED TO PRE-QUALIFIED FIRMS.



# Yellow BRT Line



Numaish

People Roundabout

Society Office

Noorani Kabab Chowrangi

Allah Wali Chowrangi

Nursery

Kala Pull

DHA Mor

Broke Chowrangi

Bilal Chowrangi

Mansehra Colony

Murtaza Chowrangi

Regal Chowk

Shah Ahmed Noorani

FTC Interchange

Sunset Boulevard

Kh-e-Ittehad

Jam Sadiq Bridge

Chamra Chowrangi

Vita Chowrangi

Singer Chowrangi

CDGK Parking Plaza

Empress Market

Regal Chowk

Shah Ahmed Noorani

FTC Interchange

Sunset Boulevard

Kh-e-Ittehad

Jam Sadiq Bridge

Chamra Chowrangi

Vita Chowrangi

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Society Office

People Roundabout

Numaish

# BRT - GREEN LINE PROJECT

## SALIENT FEATURES:

- LENGTH: 21 KM
- RIDERSHIP: OVER 400,000 PAX PER DAY
- SYSTEM CAPACITY: 13000 pphpd
- ESTIMATED COST: Rs. 21 Bln
- FEASIBILITY STUDY COMPLETED.

## SATTUS:

- GOP HAS AGREED TO FINANCE THE PROJECT.
- PC-I IS READY TO CONSIDER BEFORE THE CDWP.

# Green Line

## Corridor Detail:

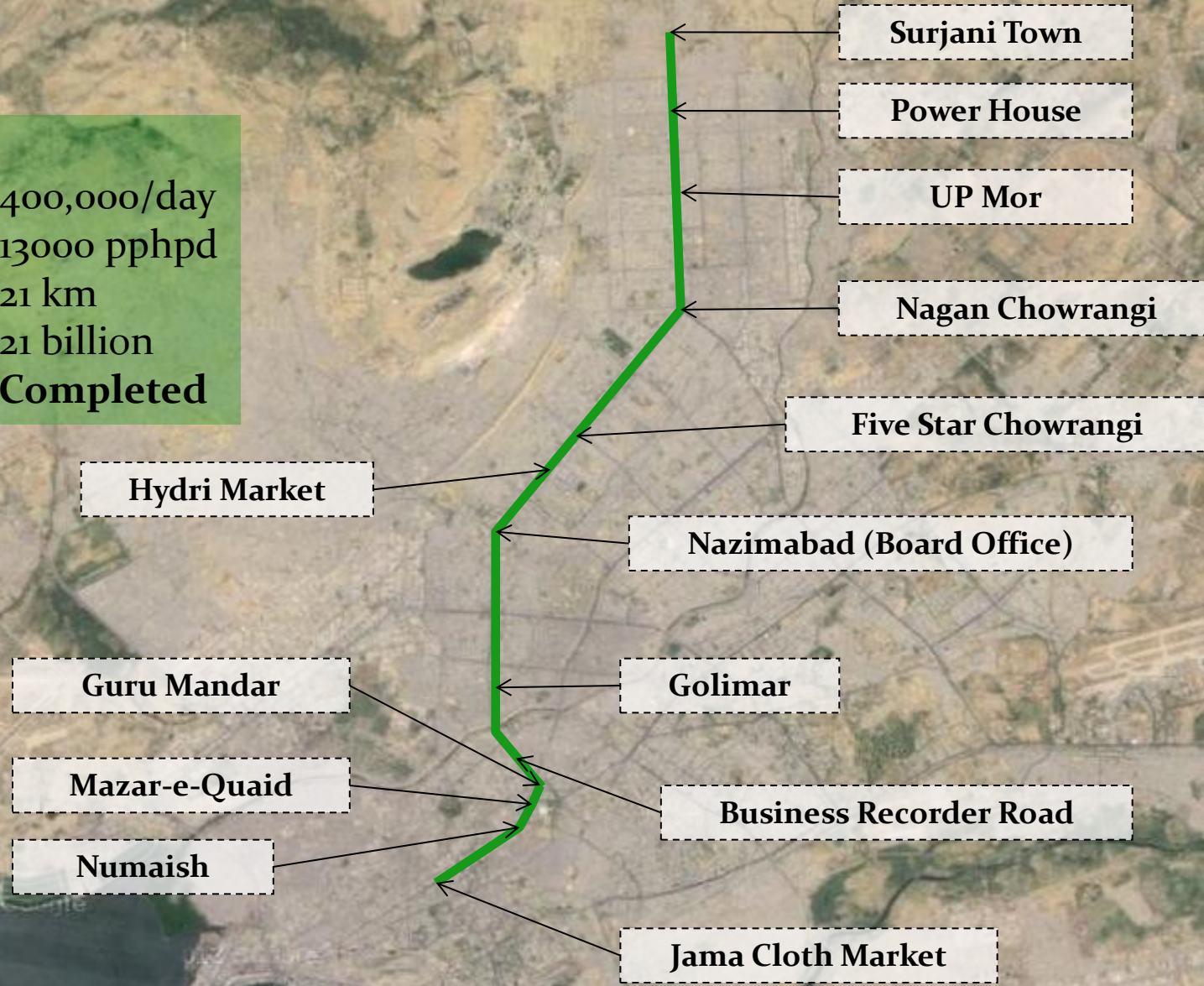
Ridership: 400,000/day

System Capacity: 13000 pphpd

Length: 21 km

Cost: 21 billion

Feasibility Study Completed



# BRIEF BRT – RED LINE

## SALIENT FEATURES:

- RIDERSHIP: 350.000 PASSENGERS PER DAY
- LENGTH: 21.5 KM
- ESTIMATED COST: 15 BILLION
- FEASIBILITY STUDY COMPLETED.

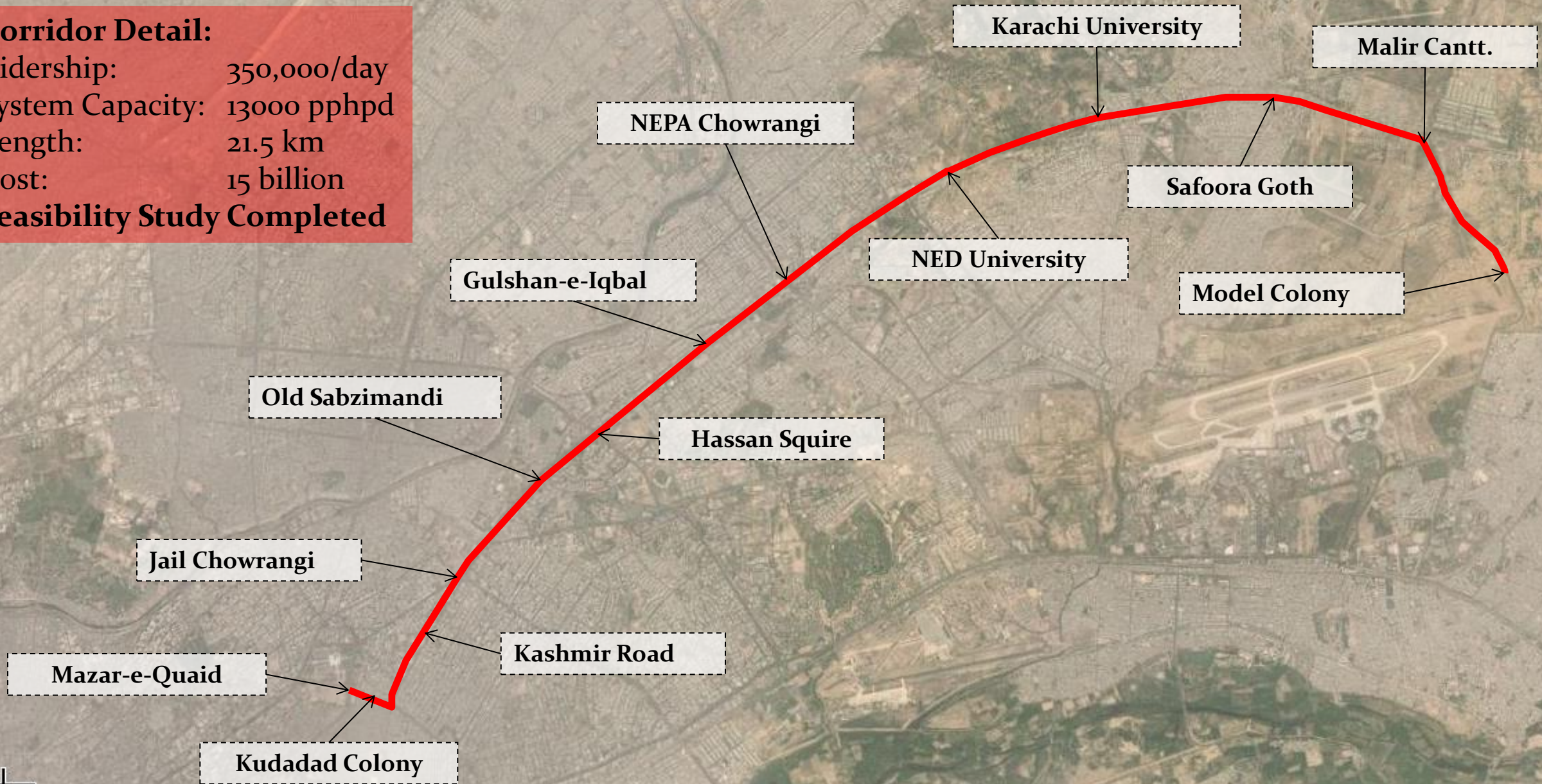
## STATUS:

- ASIAN DEVELOPMENT BANK'S OFFER IS UNDER CONSIDERATION.

# Red BRT Line Project:

## Corridor Detail:

Ridership: 350,000/day  
System Capacity: 13000 pphpd  
Length: 21.5 km  
Cost: 15 billion  
Feasibility Study Completed



# BRIEF BRT – ORANGE LINE

## SALIENT FEATURES:

- RIDERSHIP: 50,000 PASSENGERS PER DAY
- LENGTH: 04 KM
- COST Approx. : 03 BILLION
- FEASIBILITY STUDY IN PROGRESS.

## STATUS:

- FUND ALLOCATED AND PC-I BY NESPAK IS IN PROGRESS.

# BRT Orange Line – Route Map



TMA

Orangi

Banaras

Qasba

Orangi Town

North Nazimabad

Abdullah College

Nazimabad  
Number 5

Jinnah

# Institutional Framework

- ✓ Need for Institutional Framework was realized
- ✓ Creation of Sindh Mass Transit Authority Bill presented before the Provincial Assembly



**THANK YOU**