

# 2012

## FAQs – Bengaluru Commuter Rail



Praja-RAAG  
@www.praja.in

### What is Bengaluru Commuter Rail Service?

It is a local train service that is being proposed to be run on existing railway lines that passes through city centers and connecting the suburbs & towns around Bengaluru.

The proposal is to run the local train service on the lines of local train service in Mumbai, Chennai and Hyderabad.



### What does CRS stand for?

Commuter Rail Service. It is also referred to as ‘Suburban’ train service.

### Why does Bengaluru need CRS?

The population of the Bengaluru Urban area grew by 35% in the 1991-2001 decade and by about 47% in the 2001-11 time periods. In order to cope with this growth the government has invested heavily. BMTC has added 3500 buses from 2006-07 to early 2011. Huge amounts of money have been invested in upgrading roads, building grade separators, the B-TRAC project and most recently for the Metro rail project which will add 115 Kms of mass transit (phase-I and phase II combined) for a total estimated cost of 38,000 Crores.

However, most experts are in agreement that even with the Metro fully operational, Bengaluru's public transport requirements are going to continue to exceed the combined capacity of BMTC and Namma Metro. Here is where commuter rail comes in.

### Who will be the beneficiaries of CRS?

Unlike other PT systems like BMTC, Metro, Monorail, HSRL which are meant to be serving city center and its limits, CRS will serve those who live:

- inside the City Limits
- in the city outskirts, Suburbs
- In Towns and hamlets around Bengaluru

### How does Bengaluru City will benefit from CRS inside the city limits?

CRS running within the heart of the city can serve as an alternate route for residents in the heart of the city to commute to their work centers be it IT hubs such Electronics City, ITPL and Outer Ring Road or industrial and manufacturing hubs such as Peenya or Bommasandra and even traveling to towns like Tumkur, Hosur etc.

### Which are the suburbs that would be covered by Bengaluru CRS?

Peenya, Jalahalli, Yelahanka, Hebbal, K R Puram, Whitefield, Sarjapur, Electronic city, Nayandahalli and Kengeri.

### Which are the towns around Bengaluru would benefit from CRS?

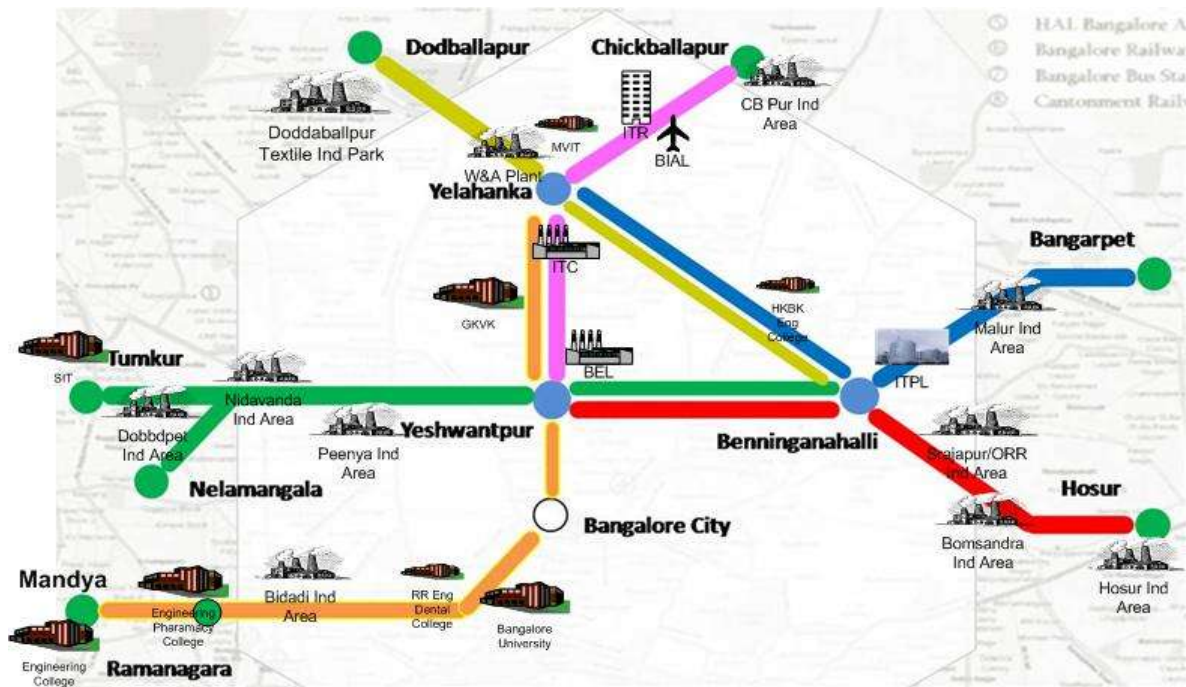
Tumkur, Nelamangala, Doddballpur, Chikballapur, Devenahalli, Malur, Bangarpet, Anekal, Hosur, Bidadi, Ramanagaram, Channapatna, Maddur and Mandya.

### What are the salient features of Bengaluru CRS?

Going by 2012 RITES report, Bengaluru CRS will feature:

- Reach
  - 405 Km of Network
  - Connecting suburbs and towns around Bengaluru
  - 70-100 Kms in Radius
- Reliability
  - Exclusive ‘Right of way’
  - No Road induced grid locks
  - 60-90 Minutes commute times
- Predictability
  - 5-10 Minute Frequency
  - On time Arrival & Departure
  - Round the clock Schedule

### What are the major industrial, commercial, educational catchments of Bengaluru CRS?



### Will CRS be competing with other PT Systems?

A Big NO. CRS will have its own catchments/segments which are not served by other Public transport systems. In fact CRS will supplement other PT systems in City and suburb.

### What is 2012 RITES report?

In Nov/Dec 2010, the Department of urban land transport (DULT) entrusted the RITES Ltd., (Rail India Technical & Economic Services Limited), a Govt. of India Enterprise to bring out a technical report on “Implementing Commuter Rail Service in Bangalore”.

In June 2012, RITES has submitted its 2012 report on “Implementing Commuter Rail Service in Bangalore”. Since then report has been reviewed and discussed among all the stake holders led by DULT. For first time, citizen’s

groups like Praja.in and individual citizens have participated in these deliberations. The notable highlights of this report are:

- Makes a strong case for CRS and says it is a must for Bengaluru's growing needs
- Recommends Connecting Bengaluru with:
  - Mandya/Ramanagaram, Tumkur/Nelamangala, Doddaballapur, Chikballapur
  - Whitefield, Anekal, Hosur, Malur, Bangarpet
- Considering the 'Exclusive Right of Way' feature of rail transport,
  - Points out that there will be no road induced grid locks, traffic jams, road congestion etc.
  - Argues that it will enable fastest travel option covering 70-100 Kms in 1-1 1/2 hr.
  - Substantiates the fact about on time arrivals and departures.
  - Confirms the predictable travel times
  - Argues that CRS is an excellent, reliable daily commute options for citizens
- Concludes that on completion CRS will have capacity to carry 20 lakh commuters / day
- Recommends that trains should cross city centers and terminate beyond city centers – No termination at city edges as recommended/suggested in some government quarters.
- With facts and figures makes unequivocal claim that CRS is possible with significant upgrades to IR infrastructure
- Estimates a cost of 8000 Crores over 7 Years for works spread across 3 Phases.
- Makes a claim that CRS can be operational in 2 Years with completion of Phase 1A costing 3200 Crores.

### **Does the RITES recommend the CRS implementation in One Go or in phases?**

The RITES report submitted to DULT clearly identifies a phased approach to setting up commuter rail in the city. It is to be implemented in Phases – 1A, 1B, 2 and 3.

### **What are the works that has been identified in in Phase-1A? Corresponding Cost estimates?**

Works

- SBC Terminal - Add 2 additional platforms
- SBC Terminal - Shift pit lines to Binny Mill Land
- Procure EMU Rakes - 15 Nos. (Replace the MEMUs/DEMUs with EMU rakes)
- EMU Maintenance Shed at Yelahanka
- SBC Terminal - Entry/Exit from all directions
- 2 Single lines between SBC - BNC (cantonment)
- Automatic Signaling between BNC to WFD
- Electrification of Sections - YPR/BYPL/HSR, SBC/YPR/TK, YPR/YNK/CBP
- Platform modifications - Height raised to EMU height
- Passenger Amenities at BWT, MYA, TK, HSRA, DBY, CBP, YPR and YNK - Parking, Waiting Halls. Platforms, FOBs etc.

Investment Cost

- Rs. 3433 Crores

Time Frame

- 2 Years

**Result – Full fledge CRS with carrying capacity of 5 Lakh trips per day**

### **What are the works that has been identified in Phase-1B? Corresponding cost estimates?**

Works

- Doubling of Lines on sections - WFD/BWT, YNK/DBU, YPR-BYPL, SDVL-NNGA
- Automatic Signaling on sections - WFD/BWT, YNK/DBU, YPR-BYPL, SDVL-NNGA
- Developing BYPL into Coaching Terminal - Build 5 Platforms, 10 Pit-lines, 11 Stabling Lines
- Additional Rakes - 9 Nos.

Investment Cost

- Rs. 2363 Cores

Time Frame

- 2 Years

**Result - CRS with enhance capacity of 10 Lakh daily trips.**

### **What are the works that has been identified in Phase-2? Corresponding cost estimates?**

#### Works

- Remodel SBC Terminal - Final Phase
- 3 Flyovers in BYPL area
- 1 Flyover in YPR area
- Bypass line at YNK connecting DBU and CBP lines
- Developing new halt stations
- Additional EMU rakes - 15 Nos.

#### Investment Cost

- Rs. 2550 Crores

#### Time Frame

- 3 Years

*Result - CRS with total carrying capacity of more than 25 lakh daily trips.*

### **What are the works that has been identified in Phase-3? Corresponding cost estimates?**

#### Works - Extension of CRS reach and activities

- Extend CRS on Chikbanavar -Satyamangala new line which is under construction
- Restoration of BYPL-Vimanapura abandoned line and extend CRS on that line.
- Direct line to Enter from YNK to HEB without touching YPR.
- Introduce Longer EMUs
- Introduce Faster Services (Limited Halts)
- Quadrupling / Tripling of SBC-WFD, BYPL-HSRA, SBC-TK, SBC-MYS and other sections
- Elimination of All level crossings
- Skywalk at BYPL connecting BYPL train terminal to BYPL Metro Terminal
- 4th Coaching Terminal at Hejjala
- New Freight Terminals in TK, MYS and DBU sides
- Ring Rail around the city - One at 40 Km radius, second at 70 Km radius
- Construction of Air Link Rail

Note - No cost or time frame is given in the report.

### **How long it will take to complete the full project? Total Cost?**

7 Years, 8000 Crores.

### **How soon can CRS be operationalize?**

On completion of Phase – 1A, which is 2 years from the date of approval, full fledged CRS can be operational.

Railways have given signals that once the project is approved by GOK and railways, immediately some commuter services can be started.

### **What is the bare minimum cost to start CRS immediately?**

DULT has asked RITES to come up with a bare minimum cost and its funding approach to start the CRS ASAP.

### **Does CRS need construction of new rail lines?**

No. Not until phase-2 is taken up. All that is needed is improvement in existing railway infrastructure – Platforms, Pit/Maintenance/stabilizing lines, Upgrading to automatic signaling and ensuring least time in criss-crossing of trains at terminals.

### **Will it affects existing railway schedules and infrastructure?**

Yes, but in a positive way. With the recommended improvements to railway infrastructure, additional capacity is being created to handle more trains, more schedules and significant improvements in passenger amenities.

### **How much land acquisition is needed for CRS?**

Going by RITES report and recent confirmations from SWR, there is no need for land acquisition for starting the CRS. The additional land if any required is already in possession of railways.

### **How much share of public transport in the city will commuter rail take?**

CRS can support about 20-25 lakh commuter trips per day

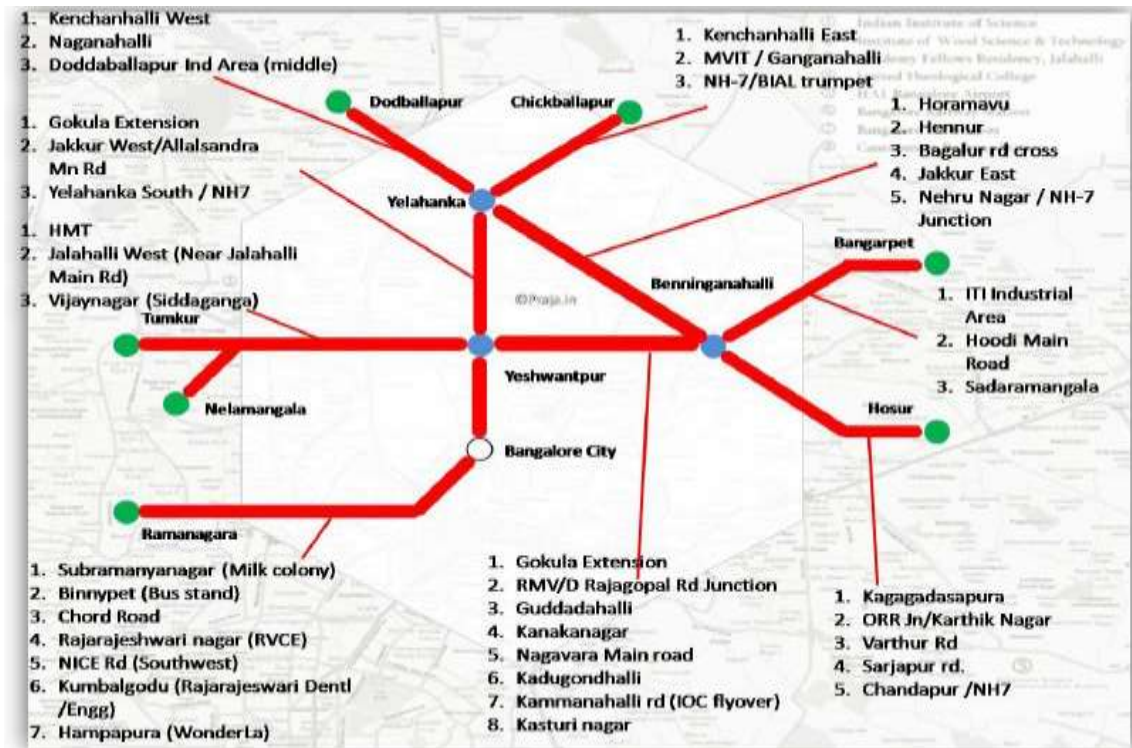


**How much of decongestion on city roads could be achieved by CRS?**

1 Commuter Rail replaces 300 Cars or 20 Buses. In a study done for a CRS with a size of 1.5 lakh commuters per day will result in 50,000 less cars on roads.

For more Read here - <http://praja.in/en/projects/3110/announcement/socio-economic-benefits-bangalore-commuter-rail-service>

**List of proposed new stations to be created for CRS catchments?**



**How CRS measures in comparison against Metro, HSRL, Monorail?**

	CRS*	Metro*	Monorail []	HSRL []
<b>Daily Ridership</b>	25,00,000	10,50,000	1,50,000	30,000
<b>Length</b>	405 Kms	115 Kms	60 Kms	35 Kms
<b>Total Cost</b>	Rs. 8,000 Crs	Rs. 38,000 Crs	Rs. 8,400 Crs	Rs. 6000 Crs
<b>Construction Cost (Per Kilometer)</b>	Rs 15-20 Crs	Rs. 200-400 Crs	Rs. 150 Crs	Rs. 180-200 Crs

Data Source - \* - 2012 RITES Report on CRS, [] - News Media

**How CRS does fits into Bengaluru's overall PT system? Mainly Integration with other Public transport?**

By its nature, CRS will need the support for last mile connectivity as well as connecting services to city centers. Since CRS runs 80-90% of the time along the major roads and intersections, it will be desirable to have a tight integration with other PT systems.

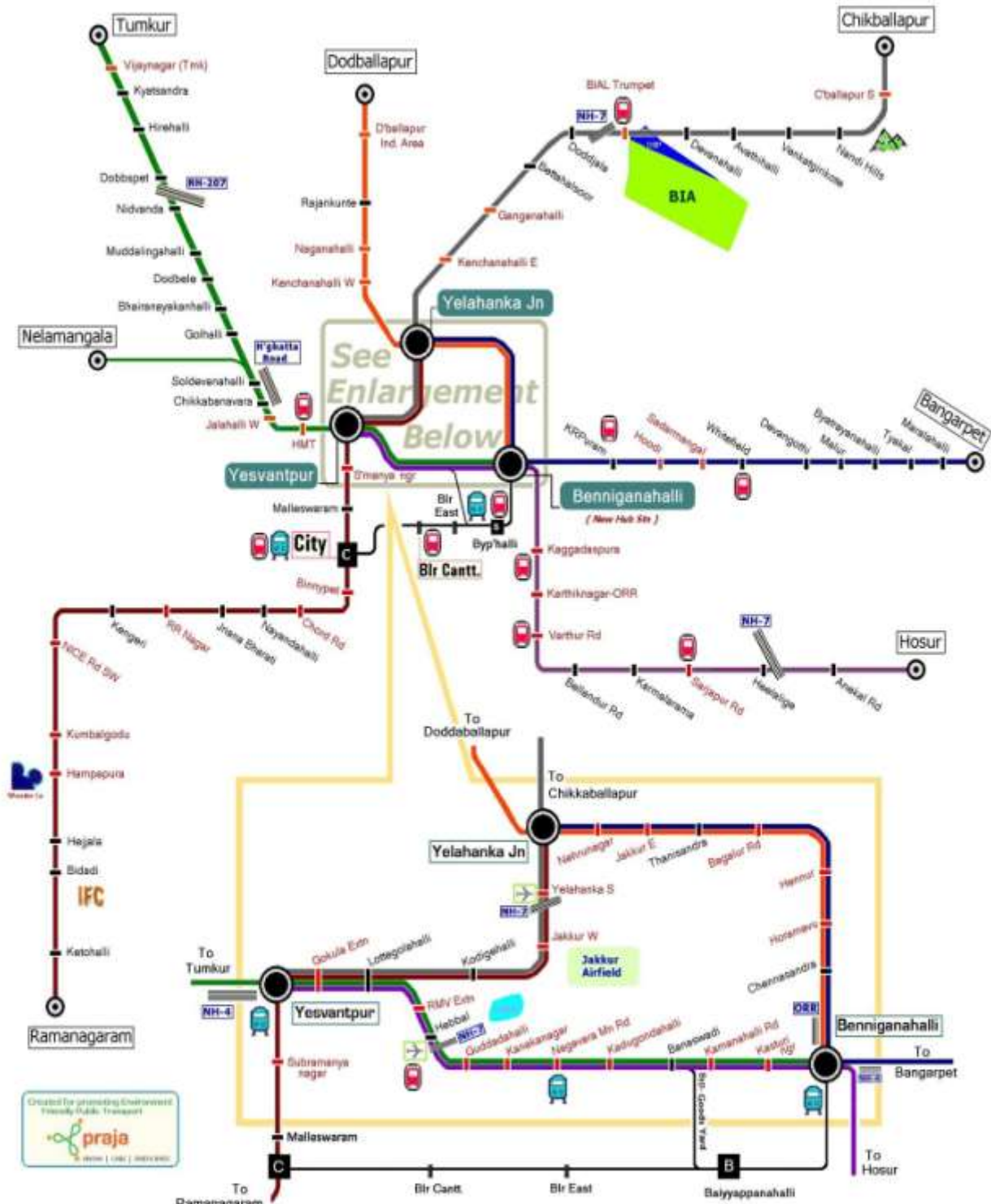
**Who needs to approve the plans for CRS implementation?**

State Government of Karnataka is the lead approval authority followed by Indian Railways.

**Is there a Socio-Economic study done for Bengaluru CRS?**

Yes. There is a study available on Praja.in @ <http://praja.in/en/projects/3110/announcement/socio-economic-benefits-bangalore-commuter-rail-service>

## Bengaluru Commuter Rail Network



**Legend**

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border: 2px solid black; border-radius: 50%;"></span> Commuter Rail Hub Station</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: black; color: white; text-align: center; vertical-align: middle;">C B</span> Inter-City Train Terminals</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%;"></span> Commuter Train Terminal Stn</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px solid black; margin-right: 5px;"></span> Intermediate (Existing) Station</li> <li><span style="display: inline-block; width: 15px; height: 15px; border-bottom: 2px dashed black; margin-right: 5px;"></span> Proposed / New Station</li> <li><span style="display: inline-block; width: 15px; height: 15px; border-left: 2px solid black; margin-right: 5px;"></span> Important Highway / Road Crossing</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%; background-color: #00aaff; color: white; text-align: center; vertical-align: middle;">M</span> Interchange to Metro Train</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%; background-color: #ff6666; color: white; text-align: center; vertical-align: middle;">B</span> Interchange to Bus</li> <li><span style="display: inline-block; width: 15px; height: 15px; border: 1px solid black; border-radius: 50%; background-color: #99cc99; color: white; text-align: center; vertical-align: middle;">A</span> Interchange to Airport Hi-speed Train</li> </ul>
--	--	--

# Bengaluru Commuter Rail Service FACTS



<b>Location</b>	<b>Bengaluru, Karnataka</b>
<b>Transit system</b>	Mass transit system running on existing railway lines
<b>Category</b>	Daily Commute
<b>Number of proposed lines</b>	6
<b>Catchment Population</b>	5.5 Million
<b>Suburbs covered in CRS coverage</b>	Peenya, Jalahalli, Yelahanka, Hebbal, K R Puram, Whitefield, Sarjapur, Electronic City, Nayandahalli, Kengeri
<b>Towns covered in CRS coverage</b>	Tumkur, Nelamangala, Doddballpur, Chikballapur, Devenahalli, Malur, Bangarpet, Anekal, Hosur, Bidadi, Ramanagaram, Channapatna, Maddur and Mandya.
<b>Network length</b>	405 Kms
<b>Coverage in radius</b>	70-100 Kms around Bengaluru
<b>Travel time to reach city center from towns</b>	60 – 90 Minutes
<b>Completion time</b>	Phase 1A – 2 Yrs, Phase 1B – 2 Yrs and Phase 2 – 3 Years
<b>Investment costs</b>	Total – 8000 Crs. Phase 1A – 3400 Crs, Phase 1B – 2300 Crs, and Phase 2 – 2500 Crs
<b>Cost of construction (Per Km)</b>	15-20 Crores Per Km ( Metro 200-400 Crs/Km)
<b>Daily ridership</b>	2.5 Million on completion
<b>Number of daily services</b>	460
<b>Number of rakes</b>	78
<b>Number of cars per Rake</b>	15
<b>Max. capacity of each rake</b>	3000 (200 per car) Commuters
<b>Peak hour frequency</b>	5-10 Minutes
<b>Non-Peak hours Frequency</b>	15-20 Minutes
<b>Schedule</b>	24/7
<b>Number of stations</b>	Existing-60, New-45, Total - 105
<b>Track gauge</b>	Broad Gauge
<b>Cost of operation (Per Train/Km)</b>	Rs. 22/-

**Data Sources:**

1. 2012 RITES Report on Implementing CRS in Bengaluru,
2. Praja's 'Bengaluru Commuter Rail – Call to Action' Report