

# A presentation on Passenger Traffic and Earnings

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# Key Trends (2015-16 to 2019-20)

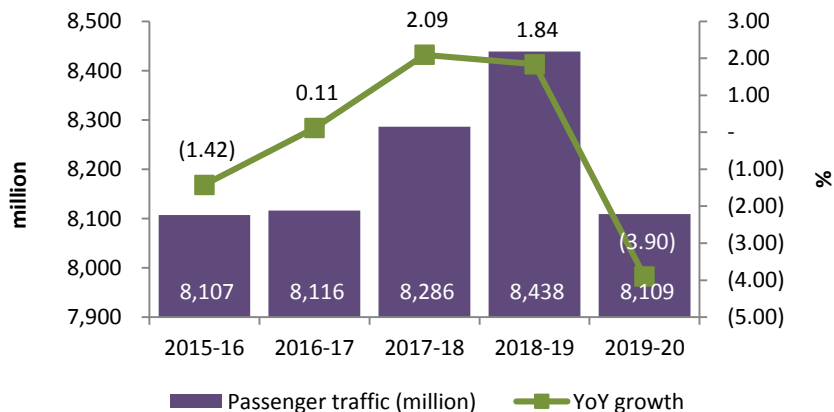
## Passenger Traffic Trends

Overall, the passenger traffic increased at a CAGR of 0.01% during the five year period from 2015-16 to 2019-20.

### Passenger Traffic Handled by the Indian Railways, 2015-16 to 2019-20

#### Trend in Passenger Traffic

- The YoY growth of passenger traffic has been positive for three consecutive years (2016-17 to 2018-19). The highest YoY growth in passenger traffic was noted in 2017-18, at a rate of 2.09%.

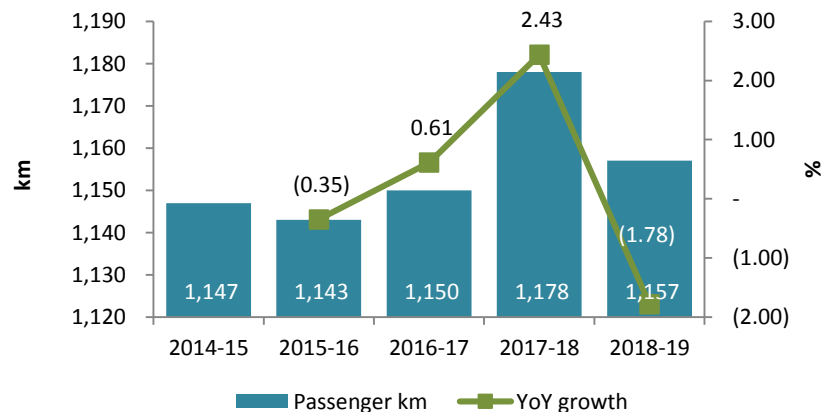


Note: 2019-20 figures are provisional.

Source: Monthly Reports on Revenue Freight Traffic Statistics on Originating Basis

#### Trend in Passenger Km

- For the period from 2014-15 to 2017-18, passenger km recorded the highest value in 2017-18 at 1,177.7 billion km. The YoY growth has been sharply increasing after the negative growth of 0.36% in 2015-16. The highest YoY growth of passenger km was noted in 2017-18, at a rate of 2.43%.



# Passenger Earnings Trends

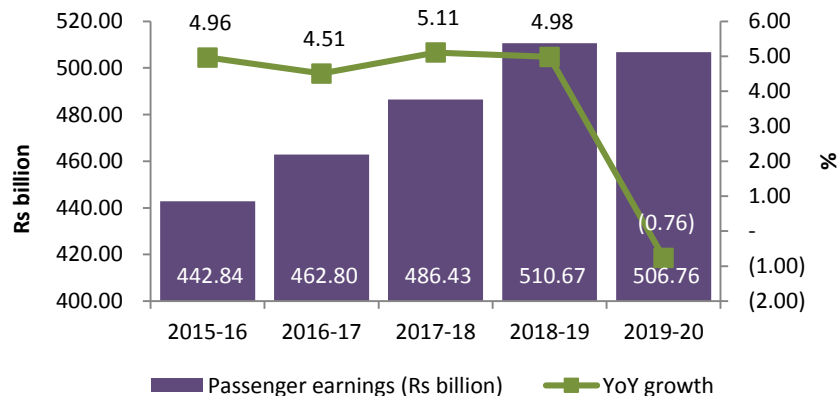
## Passenger Earnings Trends

Overall, the passenger earnings increased at a CAGR of 3.43% during the five year period from 2015-16 to 2019-20.

### Passenger Earnings of the Indian Railways, 2015-16 to 2019-20

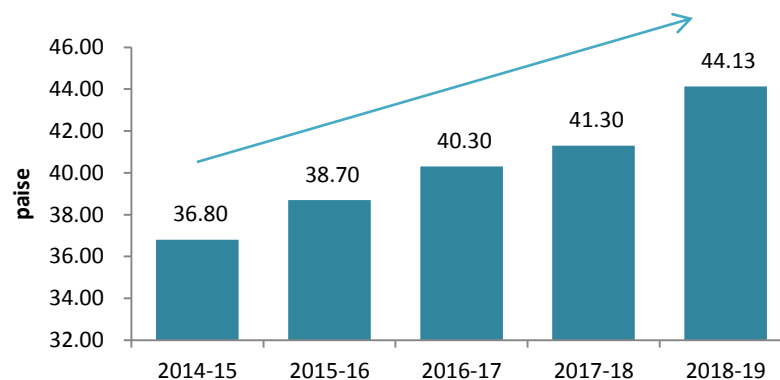
#### Trend in Passenger Earnings

- Passenger earnings displayed a steady rise in the entire period under consideration, recording the highest value in 2018-19 where it stood at Rs 510.67 billion. Besides, the trend in YoY growth of passenger earnings has remained positive for all years, except for 2019-20.



#### Trend in Average rate Per Passenger km

- Average rate per passenger km stood at 44.13 km in 2018-19, witnessing a rising trend from 2014-15 to 2018-19.

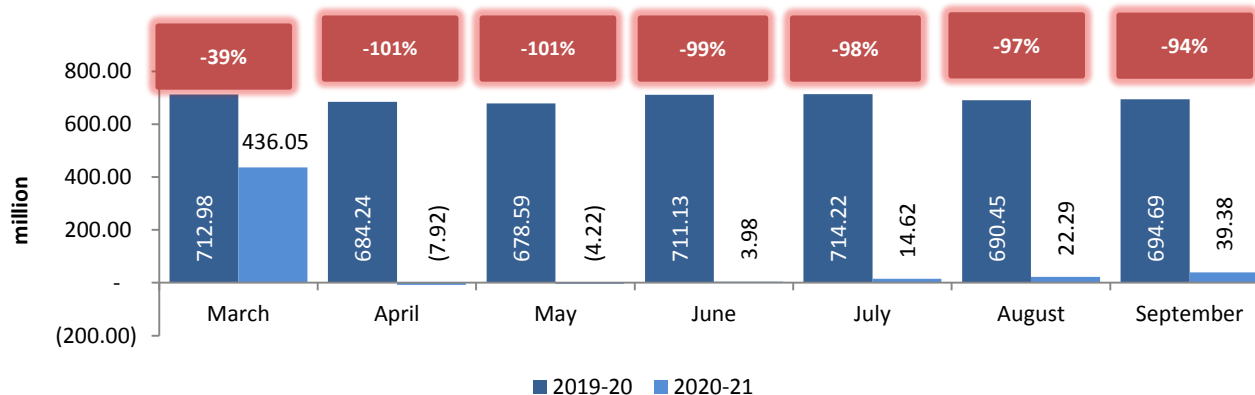


Note: 2019-20 figures are provisional.

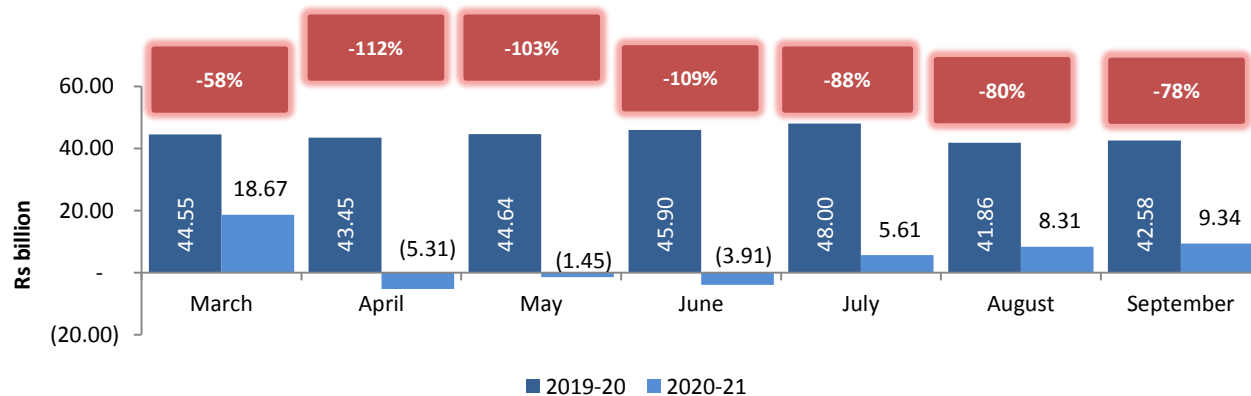
Source: Monthly Reports on Revenue Freight Traffic Statistics on Originating Basis

# Impact of Covid-19 on Monthly Traffic & Earnings in 2020-21

Passenger Traffic, March-September 2020



Passenger Earnings, March-September 2020

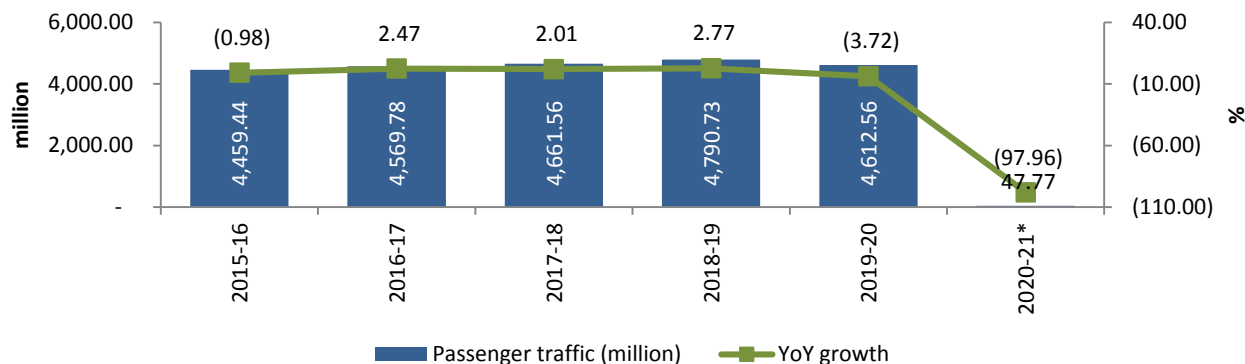


- Passenger traffic of the Indian Railways has been worst impacted due to the outbreak of Covid-19.
- Since the first lockdown starting March 24, 2020, the passenger traffic has been declining, with the rate of decline ranging from 94% - 101%.
- A similar trend was witnessed in passenger earnings as well.
- However, since July 2020 onwards, the rate of decline in passenger traffic has started decreasing.
- With regard to passenger earnings, the minimum decline of 78% was registered during September 2020 as compared to the previous months of the current fiscal.

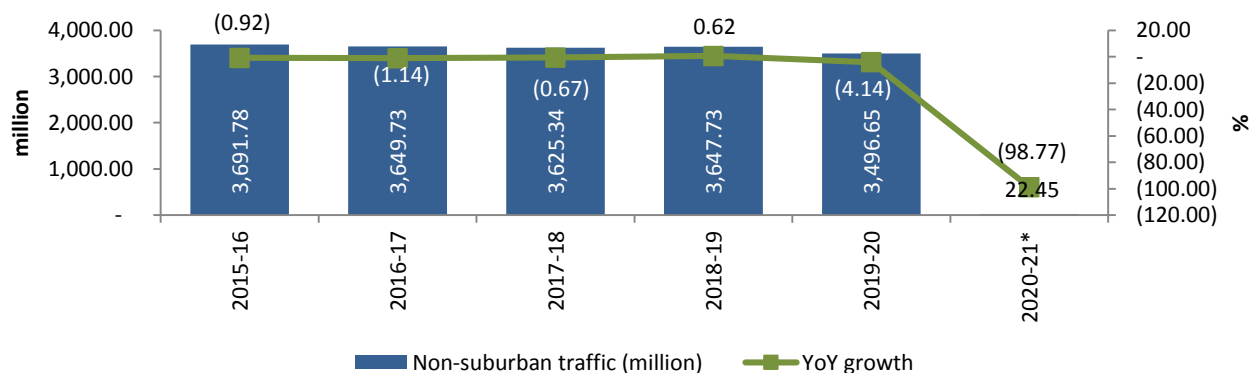
Source: Monthly Reports on Revenue Freight Traffic Statistics on Originating Basis

# Suburban and Non-Suburban Traffic and Earnings Analysis

**Suburban Traffic Analysis, 2015-16 to 2020-21**



**Non-Suburban Traffic Analysis, 2015-16 to 2020-21**



\*April-September 2020; Source: Monthly Reports on Revenue Freight Traffic Statistics on Originating Basis

- During 2015-16 to 2019-20, suburban passenger traffic increased at a CAGR of 0.85%, while the non-sub-urban passenger traffic declined at a CAGR of 1.35%.
- It has been registering positive growth rates since 2016-17. However, the traffic number declined by 3.72% during 2019-20, primarily due to the outbreak of Covid-19.
- During April-September 2020, the suburban passenger traffic declined by a massive ~98%, decreasing from 2.34 billion during April-September 2020 to just 47.77 million during April-September 2019.
- With regard to the non-suburban traffic, it has been registering negative year-on-year growth rates since 2015-16, except for 2018-20.

## Class-wise Traffic and Earnings Analysis

### Class-wise Traffic Analysis (million)

Class	2015-16	2016-17	2017-18	2018-19	2019-20	YoY growth in 2019-20 over 2018-19 (%)	2020-21#
1A	2.97	3.19	3.46	3.97	3.96	(0.25)	0.36
2A	26.23	26.73	28.50	30.51	29.99	(1.70)	2.54
3A	84.65	90.71	99.37	110.62	113.33	2.45	7.78
CC	27.01	28.15	29.88	32.57	34.20	5.00	1.63
FC	0.32	0.23	0.18	0.23	0.25	8.70	(0.02)
<b>SL</b>	<b>307.03</b>	<b>314.90</b>	<b>330.46</b>	<b>345.13</b>	<b>333.97</b>	<b>(3.23)</b>	<b>24.20</b>
2S	58.60	62.96	68.11	75.45	75.26	(0.25)	33.67
3E	0.30	0.30	0.30	0.31	0.22	(29.03)	-

### Class-wise Earnings Analysis (Rs billion)


Class	2015-16	2016-17	2017-18	2018-19	2019-20	YoY growth in 2019-20 over 2018-19 (%)	2020-21#
1A	5.22	5.76	5.81	6.61	6.55	(0.91)	1.03
2A	33.71	35.25	36.67	39.04	38.19	(2.18)	5.00
3A	91.69	101.73	109.37	121.23	124.63	2.80	13.78
CC	13.52	15.24	15.79	17.10	17.74	3.74	0.93
FC	0.16	0.13	0.09	0.14	0.15	7.14	(0.01)
<b>SL</b>	<b>129.04</b>	<b>134.50</b>	<b>134.15</b>	<b>138.48</b>	<b>134.67</b>	<b>(2.75)</b>	<b>13.64</b>
2S	7.51	8.23	8.25	9.03	8.97	(0.66)	6.24
3E	0.26	0.30	0.30	0.34	0.23	(32.35)	-


#Till November 2019; Note: The figures are inclusive of Konkan Railway; Aforementioned classes may not be exhaustive

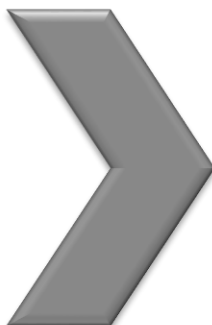
Source: Indian Railways Statement of Approximate Gross Earnings and Passenger Booked on Originating Basis


**Largest contributor**


## Initiatives for Improving Passenger Amenities


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- In December 2019, Delhi Development Authority, Rail Land Development Authority and Indian Railway Station Development Corporation Limited signed an MoU for the redevelopment of Anand Vihar and Bhijwasan railway stations

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- IR is in talks with Reliance Jio Infocomm to revamp the existing signal tower (900 towers) infrastructure, along a 67,368 km railway tracks, into a seamless mobile and internet connectivity for passengers.

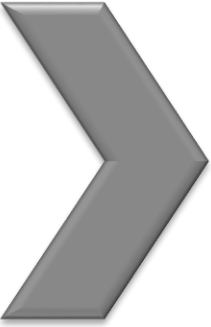
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- In December 2019, railways announced a fare hike across its network excluding suburban trains, effective from January 1, 2020 (1 paise per km of journey hike for ordinary non-AC, non-suburban fares; a two paise per km hike for mail/express non-AC trains; and four paise per km hike for AC classes). The step has been taken to provide better services and amenities to its passengers.

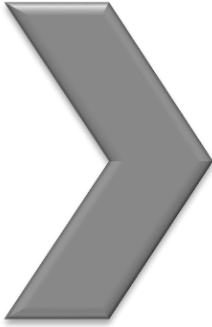
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- In January 2020, IR has opened an innovative digital kiosk at the Visakhapatnam railway station of the East Coast Railway zone. The facility is a step towards upgrading passenger-friendly services at the station.


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- In January 2020, IR decided to provide content on demand (CoD) service on trains and railway stations to generate more non-fare revenues. With this, the passengers will be able to enjoy uninterrupted free/subscription based entertainment service and high quality buffer free streaming across personal devices during their train journey.

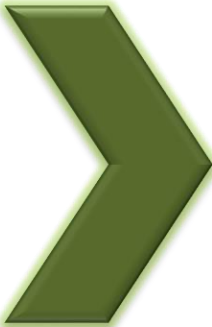
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- Electronics Limited commissioned the first phase of the real time train information system (RTIS) for IR to increase its operational efficiency and improve passenger safety in January 2020.

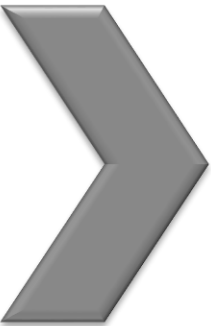
## Initiatives for Improving Passenger Amenities

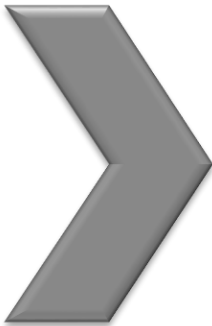
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- IR third private train, Kashi Mahakal Express, began its commercial operations on February 20, 2020 after its inaugural run on February 16, 2020. The train runs between Varanasi and Indore and like the other two private trains (Lucknow-Delhi and Mumbai-Ahmedabad Tejas Express); is operated by IRCTC.

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- An in-principle agreement was signed for starting a Tejas Express between Delhi and Dehradun via Haridwar in February 2020. The Tejas Express trains are more premium version of the Shatabdi trains and are equipped with modern passenger facilities.

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- The South Western railway zone set up a new health check-up kiosks at five railway stations under the Hubballi division in Karnataka in March 2020. The health kiosks have been opened for improving passenger experience at the railway stations and to provide crucial amenities in time of emergencies.

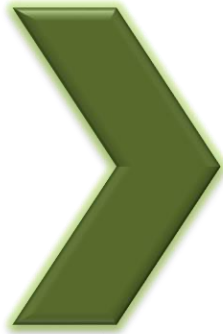
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- IR introduced Shramik Special trains on May 1, 2020 to move migrant workers, pilgrims, tourists, students and other persons stranded in different parts of the country due to Covid-19 lockdown.

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- In May 2020, MoR decided to restore the advance reservation period for special Rajdhani trains and mail express trains from 30 days to 120 days. Other terms like current booking, tatkal quota allocation of seats will be the same as in regular time-tabled trains. The railways aims to restore the passenger services in a graded manner with the easing of nationwide lockdown rules.

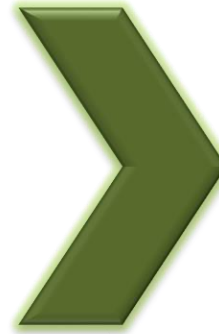
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- IR's production unit, Rail Coach Factory, Kapurthala has developed a new coach with features such as foot-operated soap dispensers, copper-coated fixtures, titanium dioxide coating to kill viruses and plasma air purification equipment inside AC ducts to lower the chances of infection transmission and make travel safe for passengers.



## Initiatives for Improving Passenger Amenities



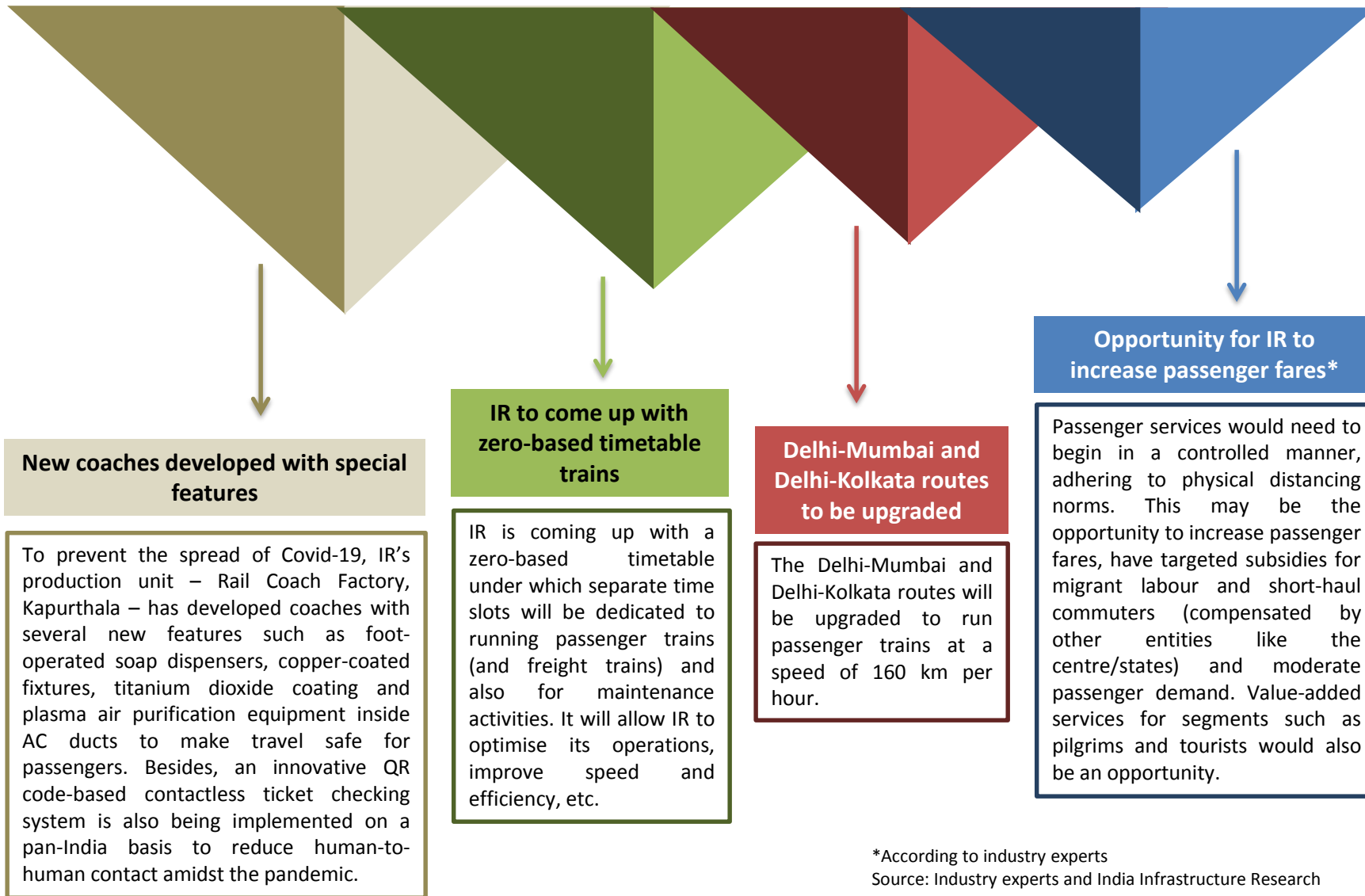
- In August 2020, the railways procured unmanned aerial vehicles for monitoring its assets and ensuring safety of passengers. Nine drones have been procured by RPF so far at a cost of Rs 3.18 million at South Eastern Railway, Central Railway, Modern Coaching Factory, Raebareilli and South Western Railway.



- In November 2020, IR's coach manufacturing unit, Rail Coach Factory, Kapurthala rolled out a semi high-speed double-decker coach that can run at a top speed of up to 160 km per hour. The coach will now be sent to Research Design and Standards Organisation, Lucknow, for further oscillation trials.

Source: Compiled by India Infrastructure Research from various sources

# Revival Strategies



## Segment Outlook and Projections

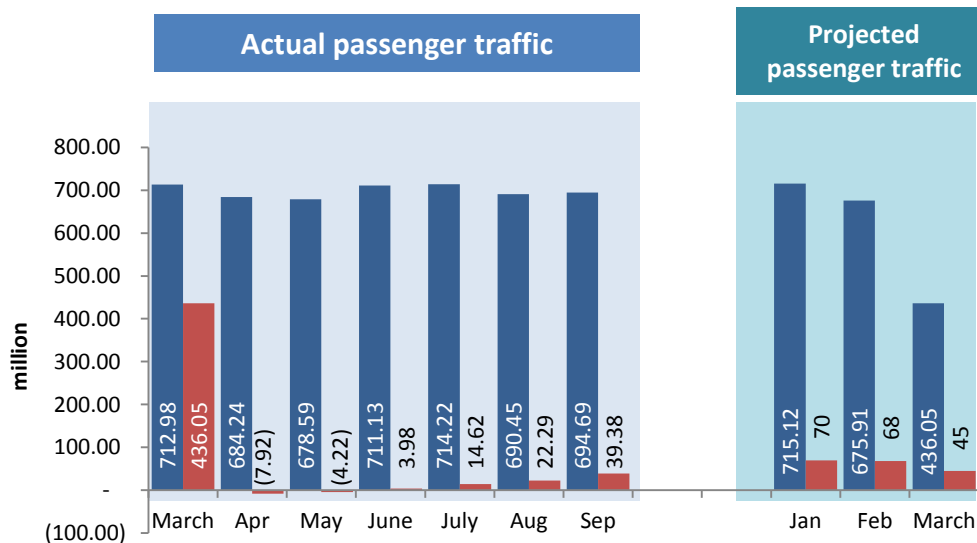
All regular passenger train services have been suspended since March 22, 2020 to curb the spread of Covid-19. However, around 30 Rajdhani trains were put into service in May and 200 special trains started operations on June 1, 2020 with the gradual easing of travel restrictions. Besides, suburban train services are also being operated in Mumbai on a limited basis.

Due to the suspension of passenger services, IR registered a loss of Rs 10.67 billion in the first quarter of 2020-21 as the refunds exceeded the earnings from ticket bookings. **It is likely to incur revenue losses of up to Rs 350 billion from the passenger segment in the ongoing fiscal year as the movement of trains is likely to be limited.**

In May 2020, the railways also introduced Shramik special trains to ferry migrant labourers stranded in different parts of the country due to the lockdown. IR has operated a total of 4,621 Shramik trains transporting more than 6.3 million people\*.

All the demand for these trains has been met and the last Shramik train was run on July 9, 2020. The railways has spent around Rs 24.12 billion on running these special trains.

Expected Passenger Traffic during 2020-21 (million)



- While it is difficult to ascertain the passenger traffic due to the uncertainties regarding increase/decrease in no. of Covid infections, pace of vaccination, regaining passenger confidence, etc., **the passenger traffic is expected to fall at an average of 90% as compared to the corresponding month of previous quarter during 2020-21.**
- According to reports, the government is planning to immunise up to 250 million people by July 2021. However, immunising the remaining 80% of the population is expected to be a daunting task for the government. Further, it would be practically difficult for the government to fully commence passenger train operations in the near future, one of the key reasons for IR to turn towards the freight segment.

\*According to Indian Railways' one year achievement booklet, December 2020. Source: India Infrastructure Research

## Segment Outlook and Projections

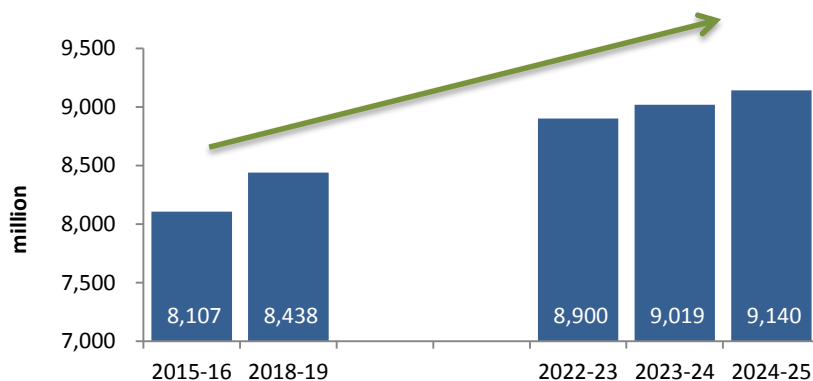
### Expected Passenger Traffic from 2022-23 to 2024-25 (million)

- While it is difficult to calculate the passenger traffic numbers for 2021-22 due to a no. of uncertainties related to the pandemic, the passenger traffic is expected to resume considerably, if not in full capacity, from the second quarter of 2021-22.

**India Infrastructure Research** has taken two scenarios to calculate the expected passenger traffic during 2022-23, 2023-24 and 2024-25.

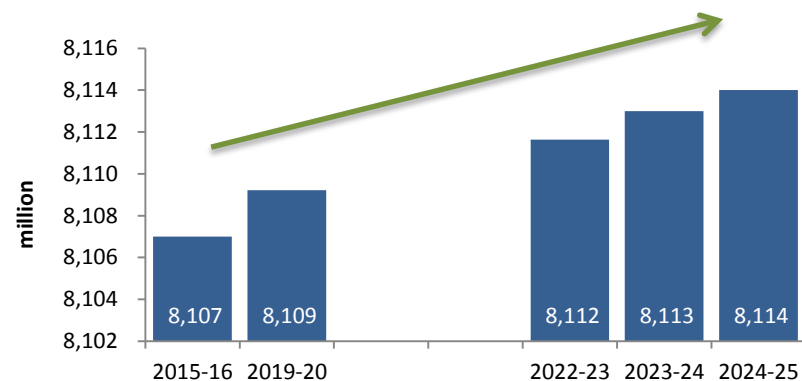
#### Scenario 1: *Optimistic Scenario*

- Assuming a CAGR of 1.34% (as registered during 2015-16 and 2015-16), the passenger traffic is expected to reach to 9,140 million in 2024-25.



#### Scenario 2: *Pessimistic Scenario*

- Assuming a CAGR of 0.01% (as registered during 2015-16 and 2019-20), the passenger traffic is expected to reach to 8,114 million in 2024-25.



Source: India Infrastructure Research

## Segment Outlook and Projections

*The commissioning of following rail projects is expected to give a huge boost to the passenger traffic and earnings for IR.*

### Mumbai Urban Transport Project (MUTP)



- Works on Phase III of the project involving Trespass Control on mid-section on Central and Western Railway; Quadrupling of the Virar-Dahanu Road (64 km); procurement of rolling stock; Elevated Rail Link from Airoli-Kalwa (3 km); and Construction on Panvel-Karjat Corridor (28 km) are currently underway. They are expected to be completed by **November 2024**.

- Besides, works on Phase 3A of the project are currently in the initial stage.

- The ambitious MAHSR, also known as Bullet Train Project, is expected that daily boarding passengers will be 40 thousand in 2023 and 0.2 million in 2053.
- MAHSR will be equipped to handle 17,900 passengers one way daily which will be increased up to 92,900 passengers in future.
- As or November 2020, 66% land has been acquired for the project.
- **Official target date of completion: 2023-24**

### Mumbai-Ahmedabad High-Speed Rail (MAHSR)



### Regional Rapid Transit System (RRTS) in the National Capital Region



- **Total length:** 82.15 km (68.03 km elevated and 14.12 km underground)
- **Expected ridership:** 0.8 million passenger trips per day
- The DPR for Delhi-Panipat RRTS Corridor has been approved on March 13, 2020
- The DPR has been submitted to concerned state governments for approval.

Source: India Infrastructure Research