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**STANDING COMMITTEE ON HOUSING
AND URBAN AFFAIRS
(2024-25)**

EIGHTEENTH LOK SABHA

MINISTRY OF HOUSING AND URBAN AFFAIRS

Regional Rapid Transit System and Role of NCRTC

FIFTH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

April, 2025/Chaitra, 1947 (Saka)

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Regional Rapid Transit System and Role of NCRTC

Presented to Lok Sabha on 22.07.2025

Presented to Speaker on 29.05.2025

Laid in Rajya Sabha on 04.04.2025



**LOK SABHA SECRETARIAT
NEW DELHI**

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(iii)

**COMPOSITION OF THE STANDING COMMITTEE
ON HOUSING AND URBAN AFFAIRS (2024-25)**

Shri Magunta Sreenivasulu Reddy - Chairperson

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- | | | | |
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INTRODUCTION

I, the Chairperson of the Standing Committee on Housing and Urban Affairs (2024-25), having been authorized by the Committee on their behalf, present this Fifth Report (18th Lok Sabha) on the subject, 'Regional Rapid Transit System and Role of NCRTC' of the Ministry of Housing and Urban Affairs.

2. The Ministry of Housing and Urban Affairs has introduced Regional Rapid Transit System (RRTS) to meet the need of fast, safe, reliable, comfortable and modern transportation system providing regional connectivity to rapidly growing urban population in National Capital Region. National Capital Region Transport Corporation (NCRTC) has been mandated with the designing, developing, financing, operating and maintaining RRTS network. Out of the three prioritized corridors of RRTS, part of Delhi-Ghaziabad-Meerut Namo Bharat Corridor has since been made operational. Against this background, the Committee felt the need to examine the subject 'Regional Rapid Transit System and Role of NCRTC'.

3. The Committee on Housing and Urban Affairs (2022-23) selected the subject 'Regional Rapid Transit System and Role of NCRTC' for in depth examination and report to the House. The Committee on Housing and Urban Affairs (2023-24) and (2024-25) continued with the examination of the subject.

4. The Committee were briefed on the subject by the representatives of Ministry of Housing and Urban Affairs on 07 September 2022 and 13 November 2024. The Committee also took oral evidence of the representatives of Ministry of Housing and Urban Affairs along with representatives of NCRTC on 31 October 2023. The Committee express gratitude to the previous Committees for their valuable inputs during the briefing sessions and oral evidence held under their tenure.

5. The Committee wish to express their thanks to the officials of the Ministry of Housing and Urban Affairs and other witnesses for appearing before them and furnishing the information that they desired in connection with the examination of the subject.

6. The Committee would also like to place on record their deep sense of appreciation for the invaluable assistance rendered to them by the Officials of Lok Sabha Secretariat attached to the Committee.

7. The Committee considered and adopted Draft Report at their Sitting held on 03 April, 2025.

8. For facility of reference, the observations/recommendations of the Committee have been printed in bold letters in the body of the Report.

PART-I

I. INTRODUCTORY

1.1 According to Census 2011, decadal growth of urban population was higher than the rural population, with 31.2 percent of the population living in urban areas. There has been a dramatic increase in the number of large cities. As many as 53 cities in India had a million plus population.

1.2 The study of the trends of Urbanization in India also reveal that the concentration of Urban Population in million plus cities have increased significantly from about one fourth in the 1970s to 1980s to more than two fifths in the 2000s. Among the Metropolitan cities, six cities that have a population of more than five million, namely Mumbai, Kolkata, Chennai, Delhi, Hyderabad and Bangalore constitute around one fifth of the total urban population. These Urban Centers due to better infrastructure in terms of Education, Health, Transportation, Entertainment etc. act as magnets attracting people, capital and technology towards itself and have become engines of economic growth in the country providing opportunities of trade, employment, research, innovation *etc.*

1.3 As the density of population in metropolitan cities have increased significantly over the years, it has spilled over to adjoining areas as a natural consequence. It is worthwhile to mention that the peripheral areas adjoining the main city are comparatively growing faster than many million plus cities. In this respect, the examples of cities like Gurugram, Faridabad, Meerut, Noida around Delhi and Navi Mumbai, Thane, Kalyan, Mira Bhayander around Mumbai is noteworthy. Thus, the nature of migration in big metropolitan cities seems to have changed which need to be assessed in conjunction with the surrounding areas.

1.4 With limited availability of land and rapid influx of population, these cities have swollen with people leading to dense and compact settlements leading to heavy traffic congestion, environmental pollution, increasing Green House Gas emissions from the transport sector, increasing road accidents, an exploding growth in the number of private vehicles, lack of space, parking space problems, crowding, housing shortage, slums *etc.*

1.5 Although, the peripheral areas around the big cities are growing at fast pace in terms of population, the centres providing opportunities for trade, employment, education, research & innovation, healthcare, transportation, *etc.* have remained largely within the city. Hence, people are required to travel to these megacities daily from various sub-urban and regional centers

surrounding them. Most of these commuters use local trains, short distance train and buses which are cost effective but often remain overcrowded, uncomfortable in extreme weather condition and are unreliable, or private vehicles which lead to traffic congestion, long commuting time, air pollution etc. putting strain on their physical and mental health.

1.6 On the other hand, efficient, fast, safe and comfortable Urban Transportation makes significant contributions towards the mental, emotional and physical well being to improve the efficiency and productivity of a city and its environs. The extent to which the Indian cities can maximize economic performance and reduce poverty will be closely linked to how efficiently their transport system moves people and goods upon which their socio-economic activities depend.

1.7 The economic survey 2025 points that given India's vast size and limited land availability, public transportation is a more efficient alternative for viable energy transition. Further, as India aspires to become a developed nation by 2047, it is crucial to create efficient mass transportation system providing speed, safety, reliability and comfort for maximizing economic performance, physical and mental well being of its citizen and promoting efficient energy uses not only within the city but also in and around the adjoining suburban and regional urban agglomeration.

1.8 It is in this backdrop the idea of developing regional rapid transit system connecting the National capital with the adjoining areas came up in the 'Functional Plan on Transport for National Capital Region-2032' prepared by the NCR Planning Board (NCRPB). Accordingly, in August, 2013, the Government of India formed a Joint Venture with four State Governments namely Delhi, Uttar Pradesh, Haryana and Rajasthan and established National Capital Region Transport Corporation (NCRTC) for implementation of RRTS network. Under the proposed RRTS network for connecting regional centres in NCR, 8 corridors have been identified. Out of which 3 were prioritised.

1.9 With part of Delhi-Meerut corridor operational and remaining under implementation, the Committee took up the RRTS project for detailed examination and report. In this Report, the Committee have examined the role of NCRTC, characteristics of Regional Rapid Transit System, the progress of the project and other related issues. In the process, the Committee obtained background materials and post evidence written replies from the Ministry of Housing and Urban Affairs besides taking their oral evidence. Based on the written replies and oral depositions of the

Ministry, the Committee have analysed various issues pertaining to the subject matter as enumerated in the succeeding paragraphs followed by the Committee' Observations/Recommendations.

(i) RRTS vis-à-vis alternative modes of regional transport

1.10 As regards the query of various alternatives for boosting regional connectivity, the Ministry informed that as per the Metro Rail Policy, 2017, other than Metro Rail and Regional Rail, following are the alternative mass transit systems in cities/urban agglomeration:

- (a)** Bus ways & Bus Rapid Transit System (BRTS): Bus ways are physically demarcated bus lanes along the main carriageway with a segregated corridor for movement of buses only. At the intersections, the buses may be given priority over other modes through a signalling system. BRTS, is an enhanced form of a busway which incorporates features such as facilities for pedestrians, Non-Motorised Vehicles (NMV) and many other associated infrastructures including operations and control mechanism.
- (b)** Suburban Rail Services: The Suburban Rail Services can be a cost effective option depending upon the line capacity of Indian Railways. However, it needs to be improved in terms of speed, comfort, punctuality & availability.

1.11 Further, pointing out the limitation of Suburban Rail Services, Secretary, MoHUA in the meeting dated 07.09.2022 deposed before the Committee as given:-

“अब जितनी नई इंटर सिटी चल रही हैं, वे बाकी ट्रेन्स के लिए बाधक हो रही हैं। जैसे दिल्ली से कानपुर, इलाहबाद, वाराणसी वाला ट्रैक है, उस पर तो डेडिकेटेड फ्रेट कॉरिडोर के आ जाने से ट्रैफिक अभी थोड़ा कम हुआ है, आगे और कम हो जाएगा। परंतु बाकी जितने मेजर कॉरिडोर हैं और खासतौर पर जो बड़े शहरों के पास के कॉरिडोर हैं, वे चोकड़ हैं। वे लगभग 300 पर्सेंट ज्यादा कैपेसिटी पर चल रहे हैं। उस पर और कोई ट्रेन चला पाना अब संभव नहीं है, अनलैस आप कोई और ट्रैक डालें। आपने देखा होगा कि जयपुर से जब दिल्ली आते हैं तो गुरुग्राम तक तो बड़ी तेज़ी से ट्रेन आती है, पालम तक फिर भी आती है, लेकिन पालम से नई दिल्ली जाने में आपको आधा-पौना घंटा लग जाता है, क्योंकि ये ट्रैक्स चोकड़ हैं।”

1.12 Comparing the Metro rail with RRTS, the Ministry informed the Committee that Metro Rail is a fully segregated rail based mass transit system, which could be at grade, elevated or underground and due to its physical segregation and system technology, metro rail can have a very high capacity of 40,000–80,000 passengers per hour per direction (PPHPD). Metro systems also include monorails, which, however, has lower capacities and higher maintenance cost.

Metro Rail are generally useful for transportation within a large city and have halts at shorter distance of 1-1.5 km. As a result, the speed of Metro trains are relatively slower. Whereas, Regional Rail caters to passenger services within a larger urban agglomerate or metropolitan area connecting the outskirts to the center of the city. The services have greater number of halts at smaller distances compared to long distance railways but fewer halts and higher speeds compared to metro rail. Regional rail are common in large metropolitan cities and held in decongesting the city center by providing safe and speedy access to the city center for commuters residing in less congested suburbs.

1.13 As regards the query as to how the RRTS is unique from other modes of transportation, the Ministry explained the Committee that while, every mode has its own advantages, the following features of the RRTS trains distinguishes it from traditional MRTS:

- (a) Higher Speed: The RRTS trains have a design speed of 180 Kmph, with maximum operating speed of 160 Kmph, resulting in average speed of about 100 Kmph.
- (b) Advanced Technologies: RRTS incorporates state-of-the-art technologies across its various subsystems, making it a first of its kind implementation in India. For instance, it utilizes Austrian pre-cast track technology for low maintenance ballast less tracks, a rigid overhead catenary system for the design speed of 180 Kmph and the European Train Control System (ETCS) level 2 signaling.
- (c) Unique Service Offerings: RRTS introduces innovative services such as the capability to carry patients on stretchers/wheelchairs during medical emergencies. This feature enhances the safety and accessibility of the system, potentially saving lives in critical situations.
- (d) Comfort: The RRTS trains offer features like comfortable & cushioned 2x2 transverse seats, overhead luggage racks, USB/electric charging points, onboard WiFi and a premium class coach with facilities like reclining seats, sun blinds, footrests, laptop charging sockets *etc.* These amenities enhance passenger comfort and convenience during travel.
- (e) Operational Complexity: RRTS introduces operational complexity by sharing its infrastructure with other services, such as the operation of metro services in Meerut on the same infrastructure. This demonstrates the adaptability and flexibility of the RRTS system to accommodate diverse transportation needs within the region.

- (f) Interoperability and System Integration: Unlike metro where each corridor is standalone with the no movement of rolling stock from one line to other, RRTS corridors are being designed to be inter operable. The deployment of ETCS level 2 signaling allows interoperability among different RRTS corridors facilitating seamless operations across a network of networks.
- (g) Additionally, the use of modern system-operated, Made-in-India rolling stock with high acceleration/deceleration further distinguishes it from other mode of transportation.

1.14 The above points demonstrate that RRTS has a clear edge over other modes of regional transport including MRTS. In subsequent paragraphs specific advantages expected to be gained from RRTS which makes it a desirable option for regional transport are listed out.

(ii) Need for Regional Rapid Transit System (RRTS)

1.15 The Ministry presented before the Committee that Regional Rapid Transit System (RRTS) is a state-of-the-art, high-speed rail-based commuter network designed to enhance regional connectivity in urban and peri-urban areas. Operated at speeds of up to 180 km/h and with availability of trains every 5-10 minutes serving traffic nodes every 5-10 kms, the RRTS is envisioned as a game-changer for urban mobility, featuring modern infrastructure, advanced signalling systems, and passenger-centric amenities. The Committee were also informed that across the world also, such connectivity is deployed. The best examples are Regional Express Rail (RER) in Paris, S. Bahn in Berlin, GTX in Seoul, Tsukuba in Tokyo, Regional Rail in Queensland and Cross Rail in London.

1.16 The following points, furnished by the Ministry of Housing and Urban Affairs outline the need for RRTS in India:

(a) Addressing Congestion

India's cities are among the most congested in the world, with vehicular traffic increasing exponentially. The over-reliance on road-based transport leads to long travel times, fuel wastage, and reduced productivity. RRTS offers a high-speed, efficient alternative to ease congestion, especially on heavily used corridors like Delhi-Meerut or Delhi-Panipat.

(b) Meeting the Demands of Urbanization

As urban populations grow, the demand for housing, jobs, and services extends to suburban and peri-urban areas. Efficient regional transit systems like RRTS ensure that these areas remain connected to urban hubs, supporting balanced urban development and reducing pressure on city centers.

(c) Promoting Sustainable Transportation

India is grappling with rising air pollution and carbon emissions, much of which stem from the transportation sector. The RRTS, with its reliance on electricity and energy-efficient technologies, provides a low-carbon mobility solution that contributes to India's climate goals under international agreements. The safer rail based transit also has the potential to reduce road accidents.

(d) Reducing Travel Time and enhanced labour productivity

Commuters traveling between cities and suburbs often face long, unpredictable travel times. RRTS, with operational speeds of up to 180 km/h, drastically reduces travel time. For example, the Delhi-Meerut RRTS corridor will allow commuters to travel the distance in less than an hour compared to over two hours by road. The reduced travel time and reliability reduces the travel time buffer leading to increased productivity.

(e) Polycentric economic development

By encouraging commuters to live in suburban and regional areas while maintaining easy access to urban hubs, RRTS helps to decongest metropolitan areas. This reduces the strain on urban infrastructure, including housing, roads, and utilities and encourages polycentric economic development and more livelihood opportunities.

(f) Boosting Regional Economies and inclusive growth

Efficient connectivity is crucial for economic growth in regional areas. RRTS fosters regional development by linking businesses, educational institutions, healthcare facilities, entertainment hubs and industrial hubs, ensuring access to opportunities across a wider geographical area, thereby promoting inclusive growth.

(g) Integrated Transport Solution

The lack of integration between different modes of transport in India often leads to inefficiencies. RRTS is designed to seamlessly integrate with existing transport systems, such as metro rail, bus networks, and airports, creating a unified and user-friendly transportation ecosystem.

(h) Improving Quality of Life

A reliable and fast transit system reduces commuting stress and allows for better work-life balance. RRTS also ensures a safer and more comfortable commuting experience,

with features such as air-conditioned coaches, automated ticketing, and modern safety measures.

(i) Supporting Government Initiatives and providing employment

The RRTS aligns with the Indian government’s initiatives, such as Smart Cities Mission, Make in India and Atmanirbhar Bharat by promoting urban mobility solutions that are technologically advanced, sustainable and locally developed leading to direct as well as induced job creation.

(iii) Cost-Benefit analysis of RRTS vis-à-vis other alternatives

1.17 Since, RRTS is a capital-intensive project, the Ministry was asked as to whether any cost benefit analysis of various option of Mass Rapid Transit System has been conducted, the Ministry informed as under:

“A cost-benefit analysis conducted by NITI Aayog in Dec 2018 for the Delhi-Meerut RRTS project highlighted the critical need for enhanced regional connectivity in the Delhi-NCR. The study reviewed various transportation challenges faced by National Capital Territory of Delhi & NCR, emphasizing the importance of implementing high-speed public transport systems like RRTS to decongest Delhi and facilitate the growth of Tier-2 & Tier-3 cities in NCR.

Several alternatives were evaluated, including commuter rail services on existing Indian Railways alignment and high-capacity bus systems or BRTS along the Delhi-Meerut expressway alignment. However, these alternatives were deemed infeasible or unsuitable due to various factors such as saturated capacity, high number of level crossings, and high first and last mile travel distances for commuters.

The study conducted a two-level analysis of alternatives, comparing options like extension of Metro services, elevated BRTS connectivity, and the proposed Delhi-Ghaziabad-Meerut RRTS corridor. This analysis considered parameters such as mobility, costing and financials, conceptual engineering effects, economic, social, and environmental factors. The RRTS emerged as the most suitable alternative with an overall score of 4.57 out of 5, surpassing the alternatives significantly like elevated BRTS stands at 2.49 and that of Metro Extension alternative stands at 3.14 out of score of 5.”

II. GENESIS OF RRTS IN INDIA

1.18 The genesis of RRTS can be traced to planning of NCR in regional context which led to organization of NCR Planning Board (NCRPB) and creation of NCR.

(i) Organisation of NCRPB

1.19 Like the other metropolitan cities of India, Delhi has also been experiencing phenomenal growth of population which led to increasing congestion and shortages of civic amenities. It has been felt that as Delhi grows, its problems of land, housing, transportation and management of essential infrastructure like water supply and sewerage would become more acute. The Committee have learnt that it was with this concern that the need for planning Delhi in the regional context was felt. The Interim General Plan 1956 suggested that serious consideration should be given for a planned decentralization to outer areas & even outside the Delhi region. For the purpose, a High Powered Board was set up under Union Minister for Home Affairs in 1961. The Master Plan for Delhi 1962 also emphasized Planning of Delhi in regional context. The High Powered Board was reconstituted under Union Minister for Works & Housing in 1973. Subsequently, National Capital Region Planning Board was constituted in 1985 through enactment of the Act by the Union Parliament, with the concurrence of the participating States of Haryana, Rajasthan and Uttar Pradesh.

(ii) Creation of National Capital Region (NCR)

1.20 Regarding the creation of NCR, the Committee have been apprised that the constitution of NCRPB paved the way for creation of NCR which is a unique example of inter-state regional planning and development, covering the entire National Capital Territory of Delhi, fourteen districts of State of Haryana, eight districts of State of Uttar Pradesh and two districts of State of Rajasthan. With the Nation Capital as its core, the key rationale of creation of NCR is to promote balanced and harmonized development of the Region through preparation of Regional and Functional Plan for NCR region.

(iii) Regional Plan 2021 for NCR

1.21 The Committee were learnt that the regional plan for NCR with the perspective year 2021 was notified by NCRPB in 2005. One of the objectives of the Regional Plan-2021 was to provide efficient and economic rail and road-based transportation system (including mass transport systems) well integrated with the land-use patterns for balanced regional sustainable development. Subsequent to notification of Regional Plan 2021, the functional plan on various aspects related to Transport, Ground Water Recharge, Economic Development, Drainage and Micro & Household Enterprises were prepared by NCRPB to elaborate on various aspects of

Regional Plan and for proper guidance of participating States.

(iv) **Functional Plan for Transport-2032**

1.22 The functional plan for Transport was prepared by NCRPB with the perspective year 2032. As regards the salient features and achievements made in Functional Plan on Transport for NCR, 2032, MoHUA in their written reply informed as under:-

“The Functional Plan on Transport recommends projects related to Regional Rapid Transit System (RRTS), New Rail Lines, Regional Mass Rapid Transit System (MRTS), Up-gradation of Roads, Expressways, Interchange, Bypasses, Bus Transport-System, Bus Terminals, Logistic hubs, Integrated Freight Complexes, Highway Facilities Centres and Airports.

The current day prominent implemented projects such as the Eastern and Western Express ways around Delhi, Yamuna Expressway, Delhi-Meerut Expressway and the under implementation RRTS corridors are amongst the key contributions of the plan.

Many of the proposed road stretches/corridors that have been created/improved and were proposed for same in the Plan include Greater Noida-Bulandshahar, Delhi-Panipat, Delhi-Loni-Baghpat, Delhi-Ghaziabad-Meerut, Ghaziabad-Hapur, Ghaziabad-Bulandshahar-Khurja, Delhi-Faridabad-Ballabgarh-Palwal expressway, Delhi-Gurgaon-Manesar-Dharuhera, Delhi-Bahadurgarh-Rohtak, Panipat-Rohtak-Rewari, Rewari-Palwal-Khurja, Khurja-Hapur-Meerut and Gurgaon-Faridabad highways have been implemented.

Plan also proposed that the MRTS and RRTS are to be planned with appropriate integrated feeder rail/road services. The plans recommended that Mass Rapid Transit System (MRTS) extension to NCR towns and its integration with upgraded ring railway in Delhi and proposed Regional Rapid Transit System (RRTS).”

1.23 As regards the query as to whether NCRPB has prepared regional plan beyond 2021, the Ministry informed as under:-

“As per the Minutes of the 41st Board Meeting of NCRPB held on 12.10.2021 under the Chairmanship of Hon’ble Minister of Housing and Urban Affairs and Chairman, NCRPB, the decision (v) (Agenda Item No. 41/4) – “The current RP 2021 shall be valid till the publication of finally approved Regional Plan-2041”. Currently, the Draft RP-2041 is prepared but yet to be approved.”

1.24 With regard to preparation of fresh functional plans including transport plan, the Ministry informed that advance preliminary work for preparation of various Functional plan including transport will be finalized once the Regional Plan-2041 is approved.

III National Capital Region Transport Corporation (NCRTC) and its functions

(i) Setting up of NCRTC

1.25 The Committee have been briefed that although the idea of an integrated commuter railway network providing connectivity using fast commuter trains within National Capital Region and Delhi was mooted way back in 1998-99 in an Indian Railways commissioned study, the idea was subsequently taken up and owned by NCRPB while developing the 'Functional Plan on Transport for NCR-2032' and the proposal was re-examined in 2006 in the light of extension of the Delhi Metro to some of the NCR Towns. The NCRPB identified and recommended eight RRTS corridors to connect the towns in NCR with high-speed rail-based commuter transit services.

1.26 The erstwhile Planning Commission subsequently formed a Task Force (2006) under the Chairmanship of Secretary, Ministry of Urban Development (MoUD) on RRTS for NCR. The Task Force in 2009 proposed to set up a Special Purpose Vehicle (SPV) with an initial corpus of Rs. 100 crore for implementing a wide-ranging integrated multi-modal transport system for suburban commuters that would lead to a balanced and sustainable growth across the region.

1.27 To develop an appropriate ecosystem for development and growth of RRTS, NCRPB had initiated and prepared the Cabinet Note in year 2010 on the subject of "Formation of National Capital Region Transport Corporation (NCRTC)", as a wholly government owned company under Companies Act 1956 under MoHUA (erstwhile Ministry of Urban Development).

1.28 As was proposed in Cabinet Note, a Memorandum of Understanding (MoU) was signed amongst MoHUA, NCRPB, State Governments of NCT of Delhi, Haryana, Rajasthan and Uttar Pradesh for implementation of commuter transit projects in NCR, on 29th June 2011. The MoU stated that "An organization to be called as "NCR Transport Corporation" (NCRTC) will be formed for creation of comprehensive integrated multi-modal suburban commuter transportation system for National Capital Region (NCR). Accordingly, for planning and implementation of Regional Rapid Transit System (RRTS) projects, National Capital Region Transport Corporation (NCRTC) was established in 2013 which is a joint venture of Government of India and States of Rajasthan, UP, Haryana and Delhi.

1.29 The capital Structure of NCRTC is as under:-

NCRTC Capital Structure



(ii) Functions of NCRTC

1.30 As per Memorandum of Understanding, NCRTC was formed for creation of comprehensive integrated multi-modal suburban commuter transportation system for NCR. According to the official website of NCRTC, the mandate of NCRTC includes overall development of commuter Rail, related Roads, bus service, *etc.* to improve connectivity in NCR, integration of feeder bus service and commercial exploitation of air space above non-operational buildings/areas. The MOU further provides that NCRTC would look after the commercial aspects *i.e.* fare structure, fare collection, inter-modal integration of feeder bus services,

commercial exploitation of air space above non-operational buildings/areas etc. The MOU also provides that NCRTC will subsequently undertake other transportation projects.

1.31 The Ministry was requested to inform about the other activities NCRTC is undertaking/propose to undertake in future for optimally utilizing their capacity/resources and to fulfill their mandate in true earnest besides undertaking implementation of RRTS. In response, the Ministry informed as under:-

“NCRTC is currently spearheading the successful implementation of the 82km Delhi-Meerut Namu Bharat RRTS corridor, with 55 km operational and the remaining section on track for timely completion. Key steps taken towards building an integrated transport system include:

- (i) NCRTC will be providing Meerut Metro services on the Namu Bharat infrastructure in Meerut. This integration will lead to ease of travelling for commuters and saving of around Rs. 6,300 Cr to public exchequer.
- (ii) On the request of UP Govt, NCRTC is undertaking the relocation of Bhisali interstate bus terminal and depot to outskirts of Meerut by creating two multi modal transit hubs near Meerut South and Modipuram Namu Bharat stations. This is expected to significantly decongest the city and promote seamless connectivity.
- (iii) Undertook extensive integration with other modes such as mainline Railways, Delhi Metro, inter state and local buses, para transit organisations to ensure smooth public transit transfers.
- (iv) Developed expertise in planning and execution of complex infrastructure projects, transport modelling, efficient project management etc and also supported other organisations in the sector.
- (v) NCRTC is also involved in preparing Influence Zone Plan (IZP) of Transit Oriented Development (TOD) nodes of Jangpura, Kakardooma and Anand Vihar Multimodal Transit hub. NCRTC is also a member of the committee for preparation of UP TOD policy and Zonal Development Plan(ZDPs) for Meerut TOD Zone.

With its diverse human resources and accumulated experience, NCRTC is well-equipped to take on additional assignments in the transportation sector, as mandated in future.”

1.32 The data regarding decadal growth of population in Mumbai Metropolitan Region, Hyderabad Metropolitan Area, Chennai Metropolitan Area, Bangalore Metropolitan Area and Kolkata as provided by the Ministry is enclosed at **Annexure-I**. Further, the data regarding the estimated current population and future projection of population provided by them in these cities (except Kolkata) is enclosed at **Annexure-II**.

1.33 The Ministry was requested to inform whether any need has been felt by the Ministry for planning the aforesaid cities in regional context as has been done in case of NCR. The Ministry informed as under:-

“Urban Planning is a State subject. Therefore, the respective State Governments are responsible for planning, initiating and developing urban transport infrastructure. The Central Government considers financial assistance for Metro Rail proposals in cities or urban agglomerates based on the feasibility of the proposal and availability of resources, as and when posed by the concerned State Government.”

IV. LEGISLATIVE, POLICY FRAMEWORK AND FUNDING OF RRTS

(i) Legislative framework

1.34 Regarding the Legislative framework under which Regional Rapid Train System would operated, the Ministry briefed the Committee as under:

“Legal cover for the RRTS projects to be taken up by NCRTC is under the Metro Railways (Construction of Works) Act 1978, the Railways Act 1989 and the Delhi Metro Railways (Operation and Maintenance) Act 2002 as amended through Metro Railways (Amendment) Act 2009. This legal framework was sanctioned by the Ministry of Housing and Urban Affairs for the formation of NCRTC in July 2013. Further, Ministry of Railways is the Central Government agency in relation to technical planning and safety of Metro Railways including RRTS.”

(ii) Policy Framework

1.35 The Government of India formulated a National Urban Transport Policy in April, 2006. The objective of the policy is to ensure accessible, safe, affordable, quick, comfortable, reliable and sustainable mobility for all. The policy seeks to promote integrated land use and transport planning, greater use of public transport and non-motorized modes of travel and use of cleaner technologies. It offers Central Government’s financial support for investments in public transport.

1.36 The Government of India has launched PM Gatishakti- A National Master plan for Multi-Modal connectivity, essentially a digital platform to bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects. The Multi-modal connectivity will provide integrated and seamless connectivity for people, goods and services from one mode of transport to another.

1.37 The Committee have been informed that the RRTS projects are governed by the Metro Rail Policy 2017. The policy provides for setting up of Unified Metropolitan Transport Authority (UMTA) for integrated approach in planning and management of urban transport for States. UMTA has been assigned to prepare Comprehensive Mobility Plan for the city, organize investments in urban transport agencies, manage the Urban Transport Fund (UTF) *etc.* For all metro rail projects taken up with central assistance, it will be mandatory for the State Governments to give commitment to set up and operationalize UMTA in city within a year.

1.38 As regards the status of setting up UMTA in Delhi, Haryana, Uttar Pradesh and Rajasthan, the Ministry informed as under:-

“The Delhi-Ghaziabad-Meerut RRTS corridor has been sanctioned by Government of India which passes through Delhi and Uttar Pradesh. However, UMTA has not been set up by the State Governments of National Capital Territory of Delhi and Uttar Pradesh. In this regard, Government of NCT of Delhi have informed that Draft Cabinet Note for setting up of UMTA has been mooted by them.”

(iii) Funding of RRTS Projects

1.39 As regards the funding of RRTS Projects, the Ministry informed that projects like RRTS are highly capital intensive and have longer gestation period. Such projects are difficult to take up by private players without necessary support from Central and/or State Government(s). Some of the existing modes of funding are:

- 50:50 JV between GoI & State Government(s).
- 100% funding by GoI.
- 100% funding by State Government(s).
- Public Private Partnership.

1.40 The Ministry further informed that RRTS projects may cross the boundaries of more than one State and, therefore, the concerned States are supposed to contribute to its funding depending on the benefits expected to be reaped by the States. Further, Property Development may be one of the important sources for funding such projects. Concerned State Governments may consider providing land pieces at the stations and/or along the corridors, which can be monetize to partly fund the project.

V. STATUS OF PROGRESS AND ISSUES WITH VARIOUS CORRIDORS OF RRTS

1.41 The eight identified Regional Rapid Transit System (RRTS) corridors are as under:

- i. Delhi-Ghaziabad-Meerut,
- ii. Delhi-Panipat,
- iii. Delhi-Alwar,
- iv. Delhi-Faridabad-Ballabgarh-Palwal,
- v. Ghaziabad-Khurja,
- vi. Delhi-Bahadurgarh-Rohtak,
- vii. Ghaziabad-Hapur,
- viii. Delhi-Shahdra-Baraut,



1.42 As regards the progress of various corridors of RRTS, the Ministry informed that the task force prioritized three corridors out of 8 corridors proposed in transport plan-2032, namely Delhi-Ghaziabad-Meerut, Delhi-Alwar and Delhi-Panipat. Out of these, Delhi-Meerut RRTS corridor has been sanctioned by Government of India.

(i) **Delhi-Ghaziabad-Meerut Corridor**

1.43 The Committee have been apprised that the Delhi-Ghaziabad-Meerut corridor project received sanction on 7th March, 2019 while the construction commenced soon after on June 2019 as pre construction activities and enabling works were undertaken in advance. RRTS Services commenced on October 20, 2023 when 17 km priority section of the corridor was inaugurated. This priority section with 5 stations spanning from Sahibabad to Duhai Depot is under commercial operations *w.e.f.* 21.10.2023. Another 17 km stretch from Duhai to Modinagar North was inaugurated on March 6, 2024.

1.44 As regards the updated status regarding physical and financial progress of the Delhi-Meerut Corridor, the Ministry has informed in the sitting of the Committee dated 13.11.2024 that the physical and financial Progress is around 80% and 75% respectively. The Ministry also informed that concerted efforts are being made to pre-pone the commissioning of entire corridor within scheduled completion date of June 2025.

(ii) **Delhi-Gurugram-SNB Corridor**

1.45 Regarding Delhi-SNB Corridor, the Secretary, MoHUA in the sitting of the Committee dated 31.10.2023 informed as under:-

“दूसरा कॉरिडोर दिल्ली एस एन बी आर आर टी एस कॉरिडोर है। उसका डीपीआर बन चुका है। इसमें हरियाणा और राजस्थान में अपने योगदान के लिए कमिटमेंट किया है। अभी दिल्ली सरकार से इसके फाइनेंशियल कमिटमेंट का अप्रूवल नहीं मिला है। इसकी टोटल लेंथ 107 किलोमीटर है। इसका लगभग 71 किलोमीटर एलिवेटेड है। इस का लंबा पोर्शन काफी अंडरग्राउंड है, क्योंकि यह दिल्ली के उन जगहों पर है, जहां एलिवेटेड बनाना संभव नहीं है। इसमें भी 16 स्टेशंस होंगे और 70 मिनट में यह दूरी पूरी होगी। इसकी भी फाइनेंशियल स्ट्रक्चरिंग दिल्ली मेरठ जैसे ही है, जिसमें 20 प्रतिशत भारत सरकार, 20 प्रतिशत तीनों राज्य सरकार और 60 प्रतिशत मल्टी लेटरल फंडिंग के द्वारा पैसा आएगा।”

1.46 The Ministry also informed that as per recent judgment dated 24.07.2023, Hon'ble Supreme Court of India has directed GNCTD to make budgetary provision for Delhi-SNB corridor. Government of India *vide* letter dated 11.08.2023 had requested GNCTD to communicate their commitment for the corridor. Based on Hon'ble Supreme Court's Judgment, GNCTD released an amount of Rs. 100 crore for Sarai Kale Khan (SKK) - SNB RRTS corridor.

1.47 However, subsequently, in the sitting of the Committee dated 13.11.2024, NCRTC informed that the said corridor has not been sanctioned and some fine tuning of the DPR is being done. Thereafter, the proposal will be sent to the Ministry for sanction.

(iii) Delhi-Panipat Corridor

1.48 Regarding Delhi-Panipat Corridor, the Secretary, MoHUA in the sitting of the Committee dated 31.10.2023 informed as under:-

“तीसरा दिल्ली-पानीपत आरआरटीएस कॉरिडोर है। इसकी लंबाई लगभग 103 किलोमीटर है। इसका डीपीआर बन गया है। हरियाणा सरकार से उसका अनुमोदन भी हो गया है। इसमें लगभग 51 किलोमीटर एलिवेटेड है और 11 किलोमीटर का अंडरग्राउंड सेक्शन है। इसका कुछ पोर्शन दिल्ली में और कुछ पोर्शन पानीपत में है। इसमें लगभग 17 स्टेशंस हैं। दिल्ली में छः स्टेशंस और हरियाणा में 11 स्टेशंस हैं। इसे भी हरियाणा सरकार ने अनुमोदन कर दिया है, लेकिन जीएनसीटीडी का अप्रूवल अवेटेड है। यह मिलेगा, तब सैक्शन की प्रक्रिया आगे बढ़ेगी।”

1.49 Regarding the updated status of the corridor, the Ministry in their reply dated 27.06.2024 informed as under:-

“DPR of the Delhi-Panipat RRTS Corridor was approved by NCRTC Board on dt: 06-04-2020. Govt. of Haryana conveyed approval of DPR vide letter dt: 08-01-2021 and has released the amount of Rs. 5 Crores vide letter dt: 26-06-2018. DPR was forwarded to GNCTD for approval on dt: 10-04-2020.”

1.50 The Committee have been further apprised that in compliance to the directions of Hon’ble Supreme Court, Government of NCT of Delhi have sanctioned ₹50 crore on 21.12.2023 as per the schedule laid before the Hon’ble court. Further, GNCTD has provisioned ₹200 crore in Budget Estimate for 2024-25 towards Delhi-SNB and Delhi-Panipat RRTS corridors. However, the approval on the DPR and financial commitment towards the Delhi-Panipat RRTS corridor is pending from GNCTD.

1.51 During the evidence sitting of the Committee held on 13.11.2024, NCRTC informed that some realignment and extension of the corridor to Karnal is being considered and NCRTC will submit the proposal to the Ministry.

1.52 When asked about the reasons for reviewing DPR at such a late stage when financial contributions from States have already been obtained for the project, the Ministry informed as given:

“Metro project are cost intensive. Therefore, at appraisal stage an exercise is undertaken based on the experience gained in previous projects at appraisal stage to optimize the cost.”

(iv) Projected Operational Performance of 3 priority Corridors

1.53 The Ministry was asked to furnish the projected operational performance of the three priority corridors. In response, the Ministry informed as given:-

Corridors	Delhi – Ghaziabad - Meerut	Delhi – Gurugram-SNB	Delhi - Panipat
Expected capacity in terms of passenger per hour per direction (PPHPD)	@ 6p/sqm – 40,000	@ 6p/sqm –40,000 @ 8p/sqm – 49,000	@ 6p/sqm – 40,000 @ 8p/sqm – 49,000
Peak Hour Peak Direction Traffic (PHPDT)	2024 – 19,444 2031 – 22,215 2041 – 26,462	2031- 24,589 2051 – 48,883	2031- 17,142 2051 – 26,651
Expected Average Daily Ridership	2024 - 7,95,516 2031 – 9,19,612 2041 - 11,35,530	2031 - 10,95,087 2051 – 19,37,846	2031 – 8,00,758 2051 – 12,50,335
Daily Ridership Required for Breakeven	Above ridership along with non-fare box revenue will be able to make it breakeven	Above ridership along with non-fare box revenue will be able to make it breakeven	Above ridership along with non-fare box revenue will be able to make it breakeven
Expected Average Daily Earning	2031 - 11.82 Cr	2031 - 14.189 Cr	2031 - 10.49 Cr

VI. DELHI-GHAZIABAD-MEERUT CORRIDOR

1.54 Considering the fact that the Delhi-Ghaziabad-Meerut corridor is the first prioritized corridor under the RRTS project which is partly operational and would act as a ‘light house’

corridor for other proposed seven corridors, the Committee have in detail examined the various aspects and operational issues related with this corridor in subsequent paragraphs.

(i) Salient features

1.55 The Salient features of Delhi Meerut Corridor as informed by the Ministry are as under:-

- (a) The Delhi-Meerut RRTS corridor is 82.15 kms long corridor with 24 stations, which will cover the distance from Sarai Kale Khan in Delhi to Modipuram in Meerut in about 60 minutes (Currently, it takes more than 3 hours to commute from Delhi to Meerut).
- (b) The corridor will fill the void of regional connectivity serving key nodes with an inter station distance of 5-10km through a semi high speed services with 5-10 min frequency.
- (c) The alignment of this corridor has 68.03 km elevated and 14.12km underground.
- (d) System Specifications:
 - (i) Design Speed: 180 kmph
 - (ii) Operational Speed: 160 kmph
 - (iii) Average Speed: 100 kmph
 - (iv) Track Gauge: Standard Gauge (1435 mm)
 - (v) Traction: 1 x 25 KV AC overhead catenary (OHE)
 - (vi) Seating Arrangement: Economy and Business (1 coach per train)

(ii) Financing of Delhi- Meerut Corridors of RRTS

1.56 As regards the funding of Delhi-Meerut Corridors of RRTS, the Ministry informed that the said corridor was sanctioned at a total project cost of Rs. 30,274 crores. The 20% of the project cost (excluding state taxes, government land and private sector participation) is being funded by Government of India. 20% of the project cost (excluding state taxes, government land and private sector participation) is being funded by participating States (namely Government of Uttar Pradesh and Government of NCT-Delhi). Remaining project cost (excluding state taxes, government land and private sector participation) is being funded from Multilateral Development Banks (MDBs) namely Asian Development Bank (USD 1049 million), New Development Bank (USD 418 million) and Asian Infrastructure Investment Bank (USD 500 million). As regards the status of funds received, the Ministry informed that till 27.06.2024, the details of funds received are as under:-

Stakeholder	Contribution expected, ₹ Crore	Funds received, as on 29 Feb 2024, ₹ Crore
Government of India	5,872	4,066.65
Government of NCT-Delhi	1,180	1,260.00
Government of Uttar Pradesh	6,048	4,742.00
Loan from ADB, AIIB, NDB (received as PTA from GoI)	16,904	11,360.00
Private sector participation (AFC)	270	-
Total	30,274	21,428.65

1.57 The details of term and rate of interest of MDB loans signed by Government of India has been summarized at **Annexure-III**. The repayment of loan (ADB, NDB, AIIB) for Delhi-Meerut RRTS corridor is based on the principle of semi-annual annuitized repayments and repayment schedule is at **Annexure-IV**. As regards cheaper option of loan, the Ministry submitted as given:

“Loan interest rate depends on various factors such as exchange rate, currency, geo political factors, tenure *etc.* These factors are very dynamic therefore interest rate fluctuates regularly. Loan with low interest rate in current scenario may prove to be costlier due to above factors. Therefore, it is not possible to indicate which is cheaper due to above factors.”

(iii) Viability and Ridership of the Delhi-Meerut Corridor

1.58 As regards the viability of the project, NCRTC informed that Financial Rate of Return is around 8% and economic rate of return is around 19%. As regards the query as to whether the project is service oriented or commercially oriented, the Ministry informed that the project has been approved on the basis of Economic rate of return and not on the basis of financial rate of return.

1.59 In the DPR, the daily ridership is estimated to be around 8 lakh per day for the Delhi-Meerut Corridor. The Ministry was requested to justify how RRTS will attain the ridership of 8 Lakh per day given the fact that the Delhi Meerut expressway runs almost parallel with the

corridor. The corridor also faces competition with sub-urban/local trains which is much cheaper.

In response, the Ministry submitted as given:-

“एक्सप्रेसवे में जो उसकी कनेक्टिविटी है और आरआरटीएस की जो कनेक्टिविटी है और आरआरटीएस की जो लिंकेज विद मेट्रो सिस्टम, दिल्ली मेट्रो के साथ में और दूसरे मेट्रो के साथ जो लिंकेज आरआरटीएस का हो रहा है और साथ में बीच-बीच में जो स्टेशंस आ रहे हैं, उसके कारण जो कार से आने वाले लोग हैं और जिनको कहीं ऐसी जगह जाना है, जहाँ मेट्रो की रीचेबिलिटी नहीं है, उनकी बात छोड़ दीजिए। बाकी दिल्ली मेट्रो सिस्टम के साथ आरआरटीएस की जो कनेक्टिविटी है, I do not think expressway provides that connectivity, but certainly your point is valid that expressway does provide a competition to this line.”

1.60 The Ministry during an evidence, further submitted:

“There is an issue, which you said, that poor people will continue to use railways. This project has a high cost. How much should we do ticketing? What should be the fare between Delhi and Meerut? This is a very critical issue for us. When we took DMRC fare and applied it to RRTS, the fare between Delhi and Meerut came to Rs. 310. That is a bit high fare for poor people to pay every day. This is an issue which is bothering us also. Right now, it is a small stretch which has been inaugurated. Once all the stretches get inaugurated from Meerut to Delhi when they get completed, by that time, we have to address this issue of how do we get poor people to use it. ज्यादातर लोग जो मेरठ से दिल्ली आते हैं, ज्यादातर गरीब लोग दिल्ली आते हैं, मिडल क्लास भी आता है, लेकिन गरीब लोग ज्यादा आते हैं। गरीबों के लिए क्या फेयर अप्रोप्रिएट होगा? अगर हम प्रोजेक्ट की ऑपरेशनल कॉस्ट भी रिकवर नहीं कर पाते हैं तो इस तरह के प्रोजेक्ट्स हमारे लिए आगे बनाना भी मुश्किल होगा।”

1.61 Regarding viability of the project, the Secretary, MoHUA informed as under:-

“वॉयबिलिटी एक तो ओवर ए पीरियड ऑफ टाइम होती है। दिल्ली मेट्रो में भी या दूसरी मेट्रो में भी हमारा एक्सपीरियंस है कि शुरू में कुछ पीरियड में, अभी तो यह लाइन शुरू नहीं हुई है, शुरू होगी तब हमें एग्जैक्ट राइडरशिप पता चलेगी। सभी मेट्रो में हमारा एक्सपीरियंस यह रहा है कि ओवर ए पीरियड ऑफ टाइम राइडरशिप बढ़ती है।

दिल्ली मेट्रो में दो इश्यूज़ रहे हैं। हमने शुरू की जितनी लाइन्स बनाईं, वहां पर ट्रैफिक बहुत ज्यादा रहा है। अभी भी वह बहुत ही ओवरक्राउडेड है, चाहे आप गुड़गांव की लाइन ले लें, चाहे द्वारका-नोयडा लाइन लें, इवेन शाहदरा वाली लाइन है, इन सब पर ट्रैफिक बहुत ज्यादा है। जो नई लाइन बनी है, रिंगरोड, पिंक लाइन आदि, उसमें अभी राइडरशिप थोड़ी कम है। राइडरशिप शायद धीरे-धीरे बढ़ेगी। कुछ लाइन्स में राइडरशिप कम है, कुछ में बहुत ज्यादा है, लेकिन राइडरशिप धीरे-धीरे बढ़ी है। आरआरटीएस में जो आपका कंसर्न है, वह बहुत वैलिड कंसर्न है। वही कंसर्न हमारे दिमाग में भी आता है कि राइडरशिप का क्या इश्यू होगा? जैसे मैंने जयपुर के केस में कहा कि

अलवर तक भी राइडरशिप कितनी होगी, यह एक काफी बड़ा इश्यू है। एक्सप्रेस-वे के साथ कांपटीशन तो है, आपकी बात सही है। जो इंडियन रेलवे की रेगुलर पैसेंजर सर्विस है, उसके साथ भी कांपटीशन है, क्योंकि वहां तो शायद पांच सौ रुपये में एक महीने का पास बन जाता है।”

1.62 Since, the ridership of RRTS is expected to increase in future, the Ministry was requested to inform as to whether platforms have been designed to accommodate additional coaches as per requirement. In response, the Ministry informed that Delhi-Meerut Namo Bharat RRTS Corridor has been constructed for 9 coach train. Currently, 6 coach trains are being operated as per ridership.

(iv) Fare Fixation Mechanism and Revenue/Ticketing

(A) Fare Box Revenue

1.63 A rational fare structure is essential not only to maintain commercial viability of RRTS but also to attain greater ridership. As regards the query regarding the details of the fare fixation mechanism of RRTS and whether any study has been conducted before deciding the fare structure regarding the willingness/paying capacity of riders to pay extra fare for high frequency, comfortable sitting, air conditioning *etc.*, which the RRTS offers., the Ministry informed as under:-

- (a)** “Indian Institute of Management, Ahmadabad (IIMA) was engaged by NCRTC to carry out a detailed study which carried out the study in two phases. The IIM Ahmadabad conducted a comprehensive two-phase study for NCRTC to develop a fare structure for the Delhi Meerut RRTS and Meerut metro. Phase I involved comparing fare structures of metro systems in India and internationally, alongside other transport modes in the NCR, and devising strategies for ridership and revenue maximization. Phase II focused on developing a fare policy, including data collection, fare setting recommendations, and an indexation methodology, aiming to balance ridership growth and revenue.
- (b)** A willingness to pay survey was conducted on bus stations, railway stations, and primary activity centres as part of the fare setting process for RRTS system. The SP survey was administered through a semi-structured questionnaire *via* random face-to-face data collection. Passengers travelling *via* various modes such as two-wheeler, car, government bus, AC Volvo bus, AC chair car, AC sleeper, reserved chair car, reserved sleeper, unreserved sleeper, and EMU were interviewed for Delhi Meerut RRTS corridor. The survey design captured various socio-economic characteristics and journey details of the passengers. Further, the interviewee’s opinions were recorded to understand their preference for RRTS choice based on

six transport scenarios that compared the attributes of the existing travel mode, likely travel time, travel cost, and wait time, with that of a new travel mode of RRTS. Survey formats also captured willingness to pay for new features of RRTS such as AC and comfortable seating, premium class and other added services. The data was analysed to estimate the relationship between RRTS fare and commuters' likelihood of choosing RRTS at various time and cost savings. Sensitivity analysis has been carried for revenue and ridership estimation at various RRTS fare levels which helped in finding the break-even point between revenue and ridership to set up the suitable fare for RRTS.”

1.64 Regarding the comparative cost of travel by alternative modes of transport viz. the roadways, railways *etc.* between Meerut and Delhi, the Ministry informed as under:-

Node	Source-Destination	Distance (KM)	Fare (INR)	Per KM Fare (INR)
UPSRTC Janrath AC Bus	Kausambi Bus Stand (Anand Vihar) to Meerut South (On Pro Rata Basis)	46.5	105	2.25
Janshatbdi AC Chair car (Train No. 12055)	Ghaziabad to Meerut City	47.0	270	5.74
Vande Bharat (Train No. 22457)	Anand Vihar to Meerut City	60.0	399	6.65
Taxi Normal	Anand Vihar Namoo Bharat Station to Meerut South Namoo Bharat station	57.0	1067	18.72
Taxi Premium		57.0	1578	27.68
Car	Anand Vihar Namoo Bharat Station to Meerut South Namoo Bharat station	57.0	658	11.54
Namoo Bharat Fare	Anand Vihar Namoo Bharat Station to Meerut South Namoo Bharat station	44.3	130	2.93

1.65 As regards the details of the expected fare box revenue, the Ministry informed that at the time of fare setting of Delhi-Meerut RRTS corridor, the estimated daily ridership of Delhi-Meerut RRTS for the initial fare target year 2025-26 was considered with a ramp-up factor of 25% and gradually increasing to 65% in FY 2033-34. This was considered as it would take time for India's first RRTS system to stabilize, development of robust feeder system, TOD developments along the corridor, operationalization of RRTS Phase-I corridors in a phased manner, first/ last mile network expansion, including others.

(B) Non fare box revenue

1.66 With regard to non fare box revenue, NCRTC have identified the following streams:-

Station naming Rights	Pre-fix or suffix brand name with the RRTS Station Name.
Media Rights	Indoor Advertisement, Outdoor Advertisement, In-train advertisement
Property Development	Commercialization of land parcels, Land Value Capture
Telecom	Telecom Tower, IBS (in building solution)
Station areas	Retail spaces, parking, PD floors/spaces, food and beverages
Other Innovative Streams	Consultancy works, EV charging stations, virtual stores, digital lockers, capacity building

1.67 Regarding the details of the policies formulated and steps taken for increasing the Non-Fare box Revenue, the Ministry informed as under:-

- (a) “A Standard Operating Policy has been formulated to ease decision making for Real Estate Business, Retail Related Business, and Advertisement and IT Business.
- (b) A dedicated cell has been created for maximizing Alternate Revenue Sources and Value Capture Financing. This cell has a cross functional team comprising of Financial Managers, Marketing Specialists, Civil Engineers, Architects and Contract Specialists who work in close collaboration with rest of the organization to quickly identify and close Non-Box Fare Revenue Opportunities.
- (c) The dedicated Cell is supported by a team of external specialists comprising of International Property Consultants, Strategy Consultants, Technical and Legal Consultants.
- (d) For Real Estate Business, NCRTC has prepared a detailed corridor level strategy towards successful commercial development along the transit corridor. The corridor level strategy focuses on corridor level value enhancement rather than individual property level value maximization.
- (e) NCRTC has been working closely with all the stakeholders including Urban Development Authorities to obtain necessary approvals to create encumbrance free opportunities to exploit private sector efficiency.”

1.68 As regards the query as to whether the estimated revenue generated through fare and Non-fare box is expected to meet the operational expenditure and service the debt, the Ministry replied that in the fare setting exercise, it was estimated that fare box revenues of the system may be able to cover its operating costs (*i.e.* O&M costs excluding interest, depreciation, and grant amortization, but including contingencies and GST). However, it is only expected to meet 28-36% of the total O&M costs in the FY 2025-26.

(C) Ticketing

1.69 As regards ticketing, NCRTC has informed that NCMC card will be used for ticketing in RRTS. Further, multiple payment channel viz. paper QR code, Digital QR code and EMV contactless card will also be used and for the purpose necessary tech infrastructure has been put in place in the priority corridor. Certain innovative steps have also been undertaken for Automatic Fare Collection for example the UPI-enabled Ticket Vending Machines (TVMs) at RRTS stations cater to all commuter ticketing needs, offering various payment options (cash, credit/debit cards, UPI, and NCMC wallet) for a smooth travel experience.

1.70 The Committee have also been briefed that for purchasing Mobile QR tickets, NCRTC has launched an innovative ‘One Tap’ feature. Commuter (after arriving at a RRTS origin station) only need to press once the ‘One Tap’ feature in mobile app and unique QR is generated at origin station and at whichever station, commuter exits through AFC gate, the fare would be automatically deducted from digital wallet. Further, OD Selection has been introduced wherein passengers can book the tickets by selecting the origin and destination stations and making the payment.

(v) Transit Oriented Development (TOD)

(A) TOD Development on the Corridor in Delhi

1.71 Transit oriented Development aims to promote planned and sustainable urban centers with high density, mixed land-use development within an influence zone of 500-800 meters of mass transit stations, thereby increasing the ridership of the transit facility and improving the economic and financial viability of the system. As regards, TOD in Delhi on Delhi-Meerut Route, the Ministry informed a under:

“Upon the request of Delhi Development Authority, NCRTC undertook the preparation of Influence Zone Plan (IZP) for 3 nodes under the Delhi TOD Policy, viz. Jangpura RRTS Station, Sarai Kale Khan-Nizamuddin Multi-modal transit hub and Karkardooma & Anand Vihar Multi-modal transit hub (taken together). The final IZP for Jangpura has been submitted to DDA and awaits approval. Coordination with DDA towards finalization and approval of these IZPs is ongoing.”

(B) TOD development on the Corridor in Uttar Pradesh

1.72 As regards TOD development along RRTS corridor in Uttar Pradesh on Delhi-Meerut Route, the Ministry informed as given:

“The State cabinet of GOUP has approved and notified TOD policy on 24 Aug 2022. The said policy provides for application of TOD provisions in the ‘TOD Zones’ of the Delhi - Ghaziabad - Meerut RRTS corridor and TOD shall be applicable in the radial Influence Zones of 1.5 km from the RRTS stations and the 4 Special Development Areas (SDAs) and have been incorporated in the Master plans (2031) of Ghaziabad and Meerut. The Meerut Master plan was notified on 09.02.2024 and the Ghaziabad Master plan has been finalized by the GDA Board and awaits State Government notification. Further, GDA and MDA have delegated responsibility of preparation of TOD based Zonal Development Plans for the RRTS TOD Zones to NCRTC. Works in respect of the same are ongoing in coordination with the Development Authorities.”

1.73 As regards the steps being taken for optimization of land use and commercial exploitation of Depots in Duhai and Modipuram on the Delhi Meerut Corridor, the Ministry informed as given:

“NCRTC has planned to develop the depots on principles of Transit Oriented Development (TOD). This will allow for optimum land utilization and Commercial Exploitation while also helping in attracting increased ridership for the Namoo Bharat Trains. NCRTC also worked with the Ghaziabad Development Authority and Meerut Development Authority to delineate these Depots as TOD Zones in the Master plan of Ghaziabad and Meerut. In the Master plan of Ghaziabad Development Authority and Meerut Development Authority, the land use of the Depots has been changed to Transportation. Land use of Transportation under UP TOD Policy allows for a development mix comprising of Residential, Commercial, Transportation and Retail. Further, to provide ease of access, both these Depots have a functional Passenger Station, which improves the opportunity for commercial exploitation. For Duhai Depot NCRTC has carried out extensive stakeholder interaction to identify a potential use which would result in optimum commercial exploitation.”

(vi) **Last Mile Connectivity and Multi Modal Integration**

1.74 The Ministry has informed that for improving the last mile connectivity, catchment area of RRTS will be connected with various feeder modes. Walking track upto 500 mtr., cycling zone upto 1 km, provision for bike taxi/scooter rental, electric rickshaw and shared auto for connectivity upto 3 km and Auto Rickshaw, Taxi/Car rental, shuttle bus for long distance travel are to be made.

1.75 As regards the query regarding details of physical infrastructure which is already in place and the timeline by which the remaining portion (if any) will be completed, the Ministry informed as under:-

- (a) “For improvement of multimodal integration and walkability around stations, NCRTC has already constructed footpaths in the vicinity of the stations.
- (b) Electric buses operated by Ghaziabad City Transport Services Ltd. (GCTSL) are integrated at 4 RRTS stations of the operational section of Delhi – Meerut RRTS Corridor. These buses operating on 7 routes are providing feeder connectivity to RRTS passengers from various areas of Ghaziabad. Bus stops of these routes are introduced in RRTS station pockets at each location.
- (c) Regarding Para-transit services, while sufficient number of e-Rickshaws & Autos are already registered in both cities, NCRTC is engaging with private operators to deploy Bike Taxi, Bicycle sharing, E-Autos, Taxi and shuttle Buses. Partnership has been made by issuing Letter of Award/MoUs signing with 3 feeder operators namely ETO, Rapido and Speed Trip (P) Ltd to provide of Electric Autos, Bike Taxi, & Cabs from Stations between Sahibabad – Duhai section of Delhi – Meerut RRTS Corridor.
- (d) Engagement is being done with City Transport Services Ltd. for feeder bus routes operation from RRTS stations. On request of NCRTC, State Transport Authority (Govt. of Uttar Pradesh) had approved and notified 17 feeder bus routes with 114 buses to/from 5 operational stations of priority section between (including) Sahibabad RRTS Station and Duhai Depot RRTS Stations.
- (e) NCRTC has included station design elements to support infrastructure and providing ample parking space, pick & drop for intermediate public transport (IPT) at stations to enable first/last mile connectivity.”

1.76 Regarding the Status of Multimodal Integration of Delhi-Meerut RRTS with various modes of transport, the Ministry informed the following:

Modes	MMI
Metro Rail Systems	Delhi Metro: Ghaziabad, Anand Vihar, New Ashok Nagar, SKK Meerut Metro: At Begumpul
Indian Railways	Hazrat Nizamuddin & Anand Vihar
ISBTs	Sarai Kale Khan, Anand Vihar
Other Bus Terminal/Depot	Kaushambi Bus Depot, Sahibabad Bus Adda, Ghaziabad New Bus Adda, Muradnagar Bus Stand, Bhaisali Bus Adda
Roads	Ring Road, Eastern Peripheral Expressway, Delhi-Meerut Expressway

1.77 Further explaining the manner in which Multimodal integration has been achieved, the Ministry in the sitting dated 13.11.2024 has informed as under:-

“मल्टी मॉडल इंटीग्रेशन हमारा एक बहुत बड़ा प्रयास रहा है कि जो डिफरेंट मोड्स ऑफ ट्रांसपोर्टेशन है, चाहे वहमेट्रो हो, चाहे बसेस हों, चाहे रेलवे स्टेशन्स हों या ऑटोरिक्शाज़ हो, उनको हमने एक साथ लाने की कोशिश की है। जैसे सराय काले खां स्टेशन की ओर हम जाते हैं तो वहां पर निजामुद्दीन रेलवे स्टेशन भी है, बस स्टैंड भी है तो हमने उन सबको जोड़ा है। जहां पर दूरी ज्यादा है, उनको ब्रिजेस से या ट्रेवलेटर्स के माध्यम से जोड़ने की कोशिश कर रहे हैं। उसी तरह से आनंद विहार में भी ऐसा ही किया जा रहा है। सभी स्टेशन्स पर हमारा यही प्रयास है। बस ऑपरेटर्स से भी, जो यूपी एरियाज़ में चलते हैं, उनसे हमने मीटिंग्स की है कि आप हमसे पैरेलल में न चलकर, कॉम्पिटिशन में न चलते हुए ऐसी जगहों को फीड करें, जहां पर बस की सर्विसेज़ नहीं है। वे हमसे सहमत हुए हैं। गवर्नमेंट ऑफ यूपी ने 17 नए बस के रूट्स भी नोटिफाई किए हैं। अगर इस स्लाइड में देखें तो सराय काले खां आरआरटीए सस्टेशन है और राइट में जाकर हजरत निजामुद्दीन रेलवे स्टेशन है। मेट्रो स्टेशन भी वहीं पर है और रेलवे स्टेशन भी है। हम लोगों ने सबको जोड़ दिया है। उसमें चाहे एस्केलेटर लगाना हो या लिफ्ट लगानी हो, चाहे ट्रेवलेटर लगाना हो, एफयूबी बनाना हो, सब प्रयास किया है, जिससे एक सीमलैस कनेक्टिविटी हो।”

(vii) Safety Measures, Medical facilities and accessibility

(A) Safety and Security

1.78 Regarding the safety and security measures, particularly for female passengers, undertaken or proposed to be undertaken in and around the RRTS network, the Ministry informed as under:-

- (a) “Security of the RRTS network has been entrusted to UPSSF under the supervision of the Commandant 5th Battalion UPSSF. The Government of UP shall bear the expenditure on the deployment of security staff. UPSSF staff has been deployed approximately 8 meters before AFC gates.
- (b) All commuters are checked, frisked, and their baggage subjected to inspection through XBIS. At each Security Checkpoint (SCP), a female police constable has been deployed for frisking and checking, if necessary, based on indications given by DFMD. One Ladies Frisking Booth (LFB) has been placed at each SCP to ensure privacy of female commuters. In addition to the staff deployed at the security check points.
- (c) UPSSF has deployed one personnel for CCTV monitoring at each station and one-armed guard inside BP Morcha at each SCP al under the supervision of Sub Inspector of Police. QRT, consisting of one SI and three subordinates all armed, is deployed to handle any contingency and for regular patrolling.
- (d) Namoo Bharat trains have a dedicated women’s coach on every train. To ensure safe and comfortable regional travel for women the second coach is reserved

for women. Additionally, 10 seats are also reserved for women in other coaches of the train.

- (e) CCTV cameras have been installed in vulnerable areas, including lifts and around the station premises and in RRTS train sets for 24/7 monitoring, and security personnel have been deployed to monitor various movement at the OCC as well as the station to enhance safety.
- (f) To make end to end journeys of commuters safe and reliable, well-lit station pickup and drop off areas have been created on the stations.”

1.79 As regards the query as to whether security has been provided inside the trains, the Ministry informed as under:-

“There is a provision. If some passenger has some problem, he will push that button. His photo will come to the driver's console and he or she can talk to driver and adequate action can be taken. The driver can then convey to the central control that if someone is misbehaving with a lady passenger, then she can convey the message to the driver.”

1.80 The Delhi-Meerut Corridor of RRTS passes through dense urban areas at many places having residential building, hospital, offices and other public infrastructure. Hence, Ministry was asked to provide the information as to whether sound barriers have been installed by RRTS in such places, the Ministry informed as under:-

“The Sound barrier has not been installed by NCRTC in Delhi-Meerut Namoo Bharat Corridor till date. However, as per the requirement envisaged in the proposed Namoo Bharat Stabling line alignment traverses through the Sidhartha Extension Pocket-C Residential Complex at New Delhi, a stretch of approx. length of 125 meters of viaduct has been planned with the installation of noise barrier.”

1.81 Regarding steps taken for safety of passengers on various modes of transportation providing last mile connectivity, the Ministry informed as follows:-

“NCRTC is making provisions of feeder/last mile connectivity either through local city transport corporations (Ghaziabad City Transport Services Ltd, DTC etc) or through MOU with private operators. All feeder operators have to comply with local regulatory requirements related to safety. However, at Namoo Bharat stations NCRTC has made several initiatives to enhance safety of passengers such as provision of CCTV Cameras, adequate lighting arrangement etc. NCRTC is also working on various safe initiatives such as providing pink auto rickshaw for women from stations, Emergency button is also provided in the mobile App.”

(B) Medical Facility

1.82 With regard to the Medical facilities, the Ministry informed as under:-

“हरेक स्टेशन पर फर्स्ट एड की सुविधा है। इसके साथ ही, हर स्टेशन के नियरेस्ट हॉस्पिटल्स हैं, उनके साथ टाई-अप है कि अगर कभी भी ऐसी आवश्यकता हो, तो तुरंत उनसे कांटैक्ट किया जाए और उनकी एम्बुलेंस के द्वारा हम व्यक्ति को ले जा सकें।”

1.83 Regarding the distance between the station and the hospital, the Ministry informed that on an average, the distances are less than 10 kilometres. As regards first aid in case someone get stroke or heart attacks, the Ministry informed the Committee that their staff are trained in CPR.

1.84 To the query of having para-medical staff and small CPR machine, the Ministry stated replied:

“It is not there today. We can examine this.”

(C) Accessibility

1.85 RRTS is mostly an elevated rail network. Hence, easy and convenient accessibility to platform is crucial for wider adoption of the system by cross section of society. In respect of the query regarding the steps taken/ proposed to be taken for easy accessibility of old, infirm, patients, pregnant women and children, the Ministry informed the following:-

“NCRTC is committed to providing state-of-the-art infrastructure for its commuters and the concept of universal accessibility is adopted in its corridors. Towards this, following provisions have been made-

- (a) ramps with handrails, tactile path and warning strips for vision impaired persons; bright colour contrast for low vision persons;
- (b) large lettering and information displays and signage;
- (c) lifts with lowered control panel with Braille and raised control buttons and auditory signals, wide doors and grip rails on the side walls of the elevator car;
- (d) resting areas for senior citizens and disabled persons; well-lit corridors;
- (e) widened ticket gate to accommodate wheelchair users have been planned at Stations.
- (f) Inside coaches, reserved seats for old and physically challenged, audio announcement with dynamic display and sensory door closing mechanism have also been planned.
- (g) Audio and visual indications are provided during the opening and closing processes of the Platform Screen Door (PSD). One PSD earmarked for physically challenged individuals on each platform, located close to the nearest lift and directed by a tactile path, have been provided with higher frequency audio and visual chimes.

- (h) RRTS trains have been specially designed to carry a stretcher at specified location in a coach along with enabling RRTS station infrastructure to cater to the medical emergencies.
- (i) Lifts & Escalators have been provided from Ground to Concourse and Concourse to Platform for the differently abled and elderly passengers in order to provide step free vertical movement at its stations.
- (j) Wheelchairs and stretchers are available at all the stations for the passengers in need; also, an earmarked space for wheelchairs and stretcher has been provided in each train.
- (k) Dedicated parking areas for the differently abled passengers have been provided in the parking lots.
- (l) A tactile path has been provided for easy access of the station to blind passengers. Also, ramps with a dedicated tactile path to negotiate all level differences have been provided.
- (m) RRTS stations also have provisions for nursing rooms and separate toilets for women & differently abled. Further the female rest rooms are also equipped with Sanitary Pad Vending Machine and Diaper Change Station.
- (n) Help points have been provided on the Concourse from which the passenger may call SCR/OCC in case of any emergency.
- (o) Train attendants are available inside the train in order to guide the passengers during normal and emergency scenarios.
- (p) Customer Facilitation Agents (CFAs) are available at the stations for crowd management and helping commuters whenever required.”

(viii) Grievance Redressal Mechanism

1.86 An efficient and fast grievance redressal is one of the pre-requisites of the public transportation system. In this regard, the Ministry informed that for complaint redressal, Namco Bharat has following 3 modes:

“Helpline no.08069651515
 Email Id- customercare@ncrtc.in
 Complaint logbook kept at all stations.
 Further, 05 day timeline is prescribed for redressal of any complaint.”

(ix) Environmental Benefits

1.87 RRTS projects have the potential to reduce environmental pollution both directly and indirectly. By installing solar panels, better station design to reduce energy consumption, *etc.* it can directly lessen environmental pollution. Indirectly, RRTS projects may reduce vehicles on road thereby impacting environment positively.

1.88 As regards the sources of power and energy conservation methods adopted/proposed to be adopted on various lines of RRTS, the Ministry informed as given:

“NCRTC is currently sourcing the power from State Distribution Companies (DISCOMs) in Delhi and Uttar Pradesh. The energy conservation measures employed/adopted on Delhi-Meerut RRTS corridor include regenerative braking features in Rolling Stock and lifts. Further, energy efficient electrical M&Ps, air conditioning systems including, lighting fixtures, etc. are being used. Open and energy efficient stations with natural ventilation have been planned and constructed with the aim of saving energy in respect of lighting and ventilation thereby lowering the operating cost. Saving of approximately 30,000 units of electricity per annum per elevated RRTS station has been anticipated.”

1.89 Regarding the steps being taken by RRTS for solar power generation on the rooftop of stations, depots and other possible areas, the Ministry informed that NCRTC has planned provision of 11 MWp solar capacity on its roof top spaces of RRTS Stations, Depots & electrical receiving sub-stations. These projects are being executed under Renewable Energy Service Company (RESCO) model wherein NCRTC will only pay the cost of energy generated from these solar plants.

1.90 The Ministry has also informed:

“An Environment Impact Assessment (EIA) study for Delhi - Ghaziabad - Meerut RRTS corridor was carried out as per Asian Development Bank Safeguard Policy Statement 2009. The EIA report includes an Environment Management Plan (EMP) to mitigate negative impacts during project execution and RRTS project advantages. As per the traffic studies carried out, over the 29 year design life of the Delhi-Meerut RRTS project from 2025 until 2054, there will be a net reduction of about 7.4 million tons of carbon-di-oxide with an average reduction of over 2,58,000 tons per annum.”

1.91 Regarding the steps taken for registration for carbon credits and rating of stations of RRTS by Indian Green Building Council (IGBC), the Ministry informed as under:

“NCRTC has engaged agency for registration of carbon credit for the project. The said agency is in process of registration of carbon credit for the project of Delhi Meerut Namo Bharat Corridor.”

1.92 Regarding IGBC rating, the Ministry briefed as given:

“NCRTC has taken various measures right from energy efficient design till operation stage including during construction activities, waste management, water conservation measures, use of energy efficient systems *etc.* Systems and subsystems have been implemented in line with highest IGBC certification (Platinum rating) for all establishments like Stations, RSS, Depot Building *etc.*”

(x) **Promotion of Make in India in RRTS**

1.93 Regarding promotion of Make in India in RRTS, the Ministry informed that one of the endeavors of RRTS is to promote indigenization of various sub systems of RRTS viz. Rolling stock, signaling, Tele communication, Civil, Electrical and Mechanicals etc. RRTS rolling stock is the first in India certified for providing high speed (design/operating speed of 180/160 kmph). 100% trainsets for RRTS are being manufactured at Savli, in Gujarat under (Make in India) MiI guidelines of DPIIT, Government of India (GOI). The train sets have been designed at the Global Engineering and Technology Centre, Hyderabad and the Propulsion System for the trains has also been developed in the country.

1.94 Platform Screen Doors (PSDs) have been designed and developed indigenously for the first time in the country by NCRTC in partnership with Bharat Electronics Limited (BEL) and a complete set has been installed at one platform of Duhai Depot. This development is aiming to minimize the dependence on foreign vendors.

1.95 As regards the query as to whether any separate study has been undertaken to quantify the Cost reduction, due to promotion of Make in India, the Ministry answered in negative.

(xi) **Benchmarking**

1.96 RRTS is one of its kind project in India. However, Benchmarking with similar systems is an essential for enhancing the performance and undertaking the best practices. As regards Benchmarking exercise of RRTS with other regional transportation system developed across the world, the Ministry informed the Committee as given:

“The global best practices are being implemented in Namo Bharat RRTS corridor. However, as of now, only Delhi-Ghaziabad-Meerut RRTS project has been sanctioned and is under implementation. Further, the cost of project depends on local factors like technology availability, manpower *etc.* Hence, when a suitable number of RRTS project is approved & operational, then, if need is felt, a Benchmarking exercise for RRTS projects can be performed.”

(xii) **Data and Details of Accident**

1.97 Regarding the details of accidents taken place so far during construction and/or operation of Delhi-Meerut corridor of RRTS, the Ministry informed that a total of five fatal accidents occurred during construction phase of Delhi-Meerut corridor of RRTS.

1.98 With regard to the mechanism adopted for grievance redressal of the victim, payment of compensation and the time frame for the same, the Ministry answered as under:

“In case of accidents of employees including contract workers, compensation is regulated as per Employees Compensation Act, 1923. In addition, a Labour Welfare Fund has also been created to provide financial relief in cases of Death and Total/Partial disability. Further compensation is also provided to third party in cases of Death/Permanent incapacitation of victims/families of victims on account of accident due to negligence and/or unforeseen causes in the course of provisioning of Public Services.”

VII EXPANSION OF RRTS NETWORK

1.99 There are many urban centers especially the big metro cities like Mumbai, Kolkata, Bangalore, Chennai, Hyderabad etc. in the country who see a large influx of people for employment, business, leisure and other activities. With regard to the query as to whether Ministry of Housing and Urban Affairs (MoHUA) is planning to expand the RRTS network in and around such major towns and cities, The Ministry informed as under:-

“हमें स्टेट गवर्नमेंट से प्रपोजल आना चाहिए। चूंकि इसे मेट्रो एक्ट में करते हैं जिस रीजन ने डेवलप करना है there should be Metro and there should be ridership और राज्य सरकार को उस एरिया को मेट्रोपोलिटन एरिया डिक्लेयर करना पड़ेगा। Then, they should come up with their proposal.”

1.100 Further, explaining the point, the Ministry informed that in Delhi, DMRC has got a network of around 400 kilometers. Once that kind of strong network is available in the heart of the city, then these systems are very efficient. If a person is coming from a satellite town, he would like to be connected with some other Metro system to reach his working place. Secretary, Ministry of Housing and Urban Affairs clarified that the mandate of the Ministry of Housing and Urban Affairs is to provide connectivity in the Metropolitan areas of the city while the inter city connectivity is the subject of Indian Railways.

1.101 Regarding the query as to whether RRTS can be built outside NCR region or not, Secretary, MoHUA in the sitting dated 31.10.2023 informed as under:

“अगला इश्यू था कि एनसीआर रीजन से बाहर आर आर टी एस जा सकती है या नहीं? मैं बताना चाहूंगा कि आर आर टी एस सिर्फ एन सी आर रीजन के लिए ही नहीं बनाई गई है। यह ट्रेन कहीं भी बनाई जा सकती है। मुंबई रीजन में भी बनाई जा सकती है। जयपुर भी जा सकती है। कोई भी

प्रोजेक्ट करने के लिए हमें यह देखना होगा कि उसकी राइडरशिप कितनी एक्सपेक्टेड है, क्या कॉस्ट है और क्या बेनिफिट्स हैं।”

1.102 With regard to the query as to whether NCRTC can function outside NCR region, the Secretary in the sitting dated 31.10.2023 informed as under:-

“एक तो टैक्निकल इश्यू है कि एनसीआरटीसी एनसीआर रीजन के बाहर जा सकता है या नहीं जा सकता है? लेकिन भारत सरकार, on a larger scale, कुछ भी सैक्शन कर सकती है। राज्य सरकारें और भारत सरकार अगर चाहे तो कानून भी बदल सकते हैं और कुछ भी, कहीं भी सैक्शन किया जा सकता है। यदि मुंबई एरिया में यह लगता है कि वहां भी आरआरटीएस बननी चाहिए या बेंगलुरु रीजन में, चेन्नई रीजन में बननी चाहिए, तो बनाई जा सकती है।”

1.103 Jewar airport is going to become operational soon. The airport is built mainly to provide another alternative airport to people residing in NCR. The Committee noted that expanding the RRTS network from Ghaziabad to Jewar will go a long way in not only providing smooth connectivity to Jewar for the people living in NCR but also improve the passenger foot print and sustainability of RRTS. To a query as to whether NCRTC is considering connectivity of Delhi Meerut Corridor of RRTS with Jewar Airport, the Ministry informed as under:-

“we have received one proposal from NCRTC, which is connecting Ghaziabad with Jewar airport. That proposal we have recently received. We are appraising that project and we are examining how much it will be beneficial for the public and how much the best kind of connectivity can be provided with Delhi, Ghaziabad, and future connectivity that it should match with our future plans.”

VIII ENGAGEMENT OF PRIVATE SECTOR FOR FUTURE RRTS PROJECTS

1.104 The Memorandum of understanding (MoU) of NCRTC states that the plan of RRTS projects needs to be implemented in phases keeping in view the scarcity of resources. MOU further provides for inducting Private entrepreneurs at a subsequent stage, if considered desirable. NCRTC was requested to clarify whether they are planning to engage Private entrepreneurs in future RRTS projects. The reply furnished is as under:

“NCRTC has engaged private parties in Delhi-Ghaziabad-Meerut Namu Bharat Corridor for comprehensive Operation & Maintenance activities for a period of 12 years, maintenance activities of Rolling Stock for a period of 15 years. Further, maintenance of Automatic Fare Collection (AFC) system has also been taken up under PPP Hybrid Annuity Model (HAM) for a period of 10 years. Similarly, NCRTC is inclined to engage private sector in future Namu Bharat Corridor projects also.”

1.105 Regarding the approach adopted by NCRTC with regard to participation of private sector, the Ministry informed as under:-

“At Sarai Kale Khan station, we have constructed foundation for two buildings fit for six storey. So, we have constructed only the foundation but then in PPP mode, whosoever wants to come based on open bidding, then he can come and construct six storey two buildings. In that way, we will also earn and that guy will also recover his money. So, this kind of approach, we are trying to follow everywhere.”

PART II
RECOMMENDATIONS/OBSERVATIONS

Recommendation No.1

Need to plan big Metro cities in regional context and expansion of RRTS

The Committee note that considerable rise in population of Delhi and its adjoining areas resulted in problems of land, housing, transportation, pollution etc. and necessitated planning of Delhi in regional context which led to development of regional and functional plan including the Transport plan 2032. The Committee also note that the transport plan 2032 contributed significantly towards development and improvement of many expressways, highways, roads and forms the basis for RRTS in India.

Looking at the estimated current and projected population data of metro cities namely Mumbai, Kolkata, Chennai, Hyderabad, Bangalore etc. and the problem of insufficient infrastructure, congestion and pollution grappling them, the Committee are of the opinion that there is a need to plan these cities in the regional context to promote balanced and harmonized development and make them sustainable. The Committee are also of the view that fulfillment of the ambitious goal of Viksit Bharat by 2047 will be closely linked with the efficiency of the transport system moving people and goods for various socio-economic activities. Thus, modern transportation solution like the RRTS is the need of the hour so as to enable people to live in sub-urban areas adjoining these big cities while remaining connected to modern healthcare, educational, research, entertainment facilities and opportunities of trade and employment thus increasing their productivity and ensure their social and mental well being.

Regarding the need to plan these cities in regional context, the Committee were apprised by the Ministry that urban planning is a State subject and therefore respective State Governments are responsible for planning, initiating and developing urban transport infrastructure. The Central Government considers financial assistance for Metro Rail proposals in cities and urban agglomerates based

on the feasibility of the proposals and availability of resources, as and when posed by the concerned State Government.

In this regard, the Committee feel that the role of Central Government cannot be confined only to providing financial assistance to State Governments. Policy decision on regional planning ought to be taken at the Centre level who have an important mandate of urban transport planning and therefore impetus from the Ministry for such initiative is needed.

With regard to expansion of RRTS network in various cities, the Committee were informed that interventions like RRTS are suitable in cities having strong metro network providing connectivity to various places in the heart of the city.

In this connection, the Committee are of the view that RRTS projects are of long gestation period. Further, cities like Mumbai, Kolkata, Chennai, Hyderabad, Bangalore have expanding metro network. Thus, by the time, RRTS projects are finalized, there will be strong metro networks in these cities to supplement future RRTS projects.

The Committee, therefore, recommend:-

- (i) Ministry of Housing and Urban Affairs (MoHUA) to exhort and persuade the respective State Governments to plan big metro cities like Mumbai, Kolkata, Chennai, Bangalore and Hyderabad in regional context and prepare detailed regional and functional plans including transport plan for future regional development to meet the transportation needs of these cities.
- (ii) Subject to preparation of such detailed transport plan by the concerned State Government, MoHUA may consider RRTS projects based on the proposal received from the State Government, financial commitment, feasibility study and other relevant facts. A proper roadmap is required to be prepared in this direction.

Recommendation No.2

Timely preparation of Regional and Functional Plan for NCR region

The Committee note that National Capital Region Planning Board (NCRPB) prepared a Regional Plan with the perspective year 2021 for the National Capital Region (NCR) that was notified on 17.09.2005. The plan provides a model for sustainable and balanced development of urban and rural settlements to improve quality of life as well as a rational regional land use pattern in NCR. Thereafter, as envisaged in Regional Plan 2021, various functional and sub-regional plans including transport plan with the perspective year 2032 were prepared which led to development of transportation infrastructure in and around NCR including RRTS.

The Committee further note that the period of the said regional plan has completed in the year 2021. However, the draft Regional Plan 2041 is yet to be approved and till the final approval of Regional Plan 2041, the current Regional plan will remain valid. Further, advance preliminary work for the preparation of various Functional plans including transport will be finalized once the Regional Plan-2041 is approved.

The Committee are of the view that meticulous and advance planning is required for timely and appropriate intervention by the Urban developmental agencies in addressing the issues arising out of rapid urbanization and bridge the infrastructural gaps important for making the urban sprawl sustainable and economically viable especially for mega cities that are growth engines of our country. The Committee also feel that advance transportation plan is all the more important because of its multiplier effect on the economy.

The Committee, therefore, recommend Ministry of Housing and Urban Affairs (MoHUA) to finalize and notify draft Regional Plan 2041 for Delhi-NCR at the earliest and direct NCRPB to expeditiously prepare and finalize the various functional plans including the transport plan.

Recommendation No.3

Extending the mandate of NCRTC to undertake transport projects outside NCR

The Committee note that the mandate of National Capital Region Transport Corporation (NCRTC) is to undertake overall development of commuter Rail, related Roads, bus services etc. to improve connectivity in NCR region only. The Committee appreciate the fact that in addition to spearheading the implementation of Delhi-Meerut RRTS corridor, NCRTC have also undertaken various other projects viz. providing Meerut Metro services on RRTS infrastructure, relocation of bus terminal and depot, extensive multi-modal integration, preparation of Transit oriented development (TOD) plans, etc. have developed expertise in planning and execution of complex infrastructure projects, transport modelling and efficient project management.

The Committee feel that there is a need to leverage the capacity and expertise of NRCTC in other parts of the country for catering to the regional transportation requirement in particular and other appropriate transport solution in general.

The Committee, therefore recommend that through appropriate legislative instrument, the mandate of NCRTC be extended in regions other than NCR for creation of comprehensive integrated multi-modal suburban commuter transportation system.

Recommendation No.4

Setting up of Unified Metropolitan Transport Authority (UMTA)

The Committee observe that RRTS projects are being implemented under the Metro Rail Policy 2017. The policy provides for setting up of Unified Metropolitan Transport Authority (UMTA) to facilitate coordinated planning, implementation of Urban Transport programs & projects and integrated management of the Urban Transport System. For all metro rail projects taken up with central assistance, it will be mandatory for State Government to set up and operationalize UMTA within a year. The Committee have been apprised that

UMTA has not been set up by the State Governments of National Capital territory of Delhi and Uttar Pradesh where RRTS projects are under implementation along with the Metro projects although Draft Cabinet Note for setting up of UMTA has been mooted by Govt. of NCT of Delhi.

The Committee feel that coordinated and integrated planning and execution of various urban transportation projects creates a symbiotic relationship resulting in cost reduction and optimization of resources on one hand and complementing the transport needs of the commuters on the other.

The Committee, hence, recommend Ministry of Housing and Urban Affairs (MoHUA) to take up the matter with the respective State Governments and persuade them to operationalize UMTA at the earliest.

Recommendation No.5

Finalization of DPR and commence work on remaining two priority corridors of RRTS

The Committee observe that out of 08 corridors identified for RRTS projects in the Transportation plan 2032, the Task Force on RRTS proposed for setting up National Capital Region Transport Corporation (NCRTC) in 2009 and prioritized three corridors namely the Delhi Meerut Corridor, Delhi-Gurugram-SNB Corridor and Delhi Panipat Corridor. The Committee further note that although the DPR of all the three corridors were finalized, the project has taken off only in respect of Delhi-Meerut Corridor. On the remaining two priority corridors, very little progress could be made. As a matter of fact, the DPR of these corridors are now being revisited.

The Committee acknowledge that projects like RRTS are time consuming due to Financial, Structural and Technical complexities involving multilevel deliberation and meticulous planning. However, the very purpose of prioritizing a corridor gets defeated due to such inordinate delays particularly for a transformational project like RRTS which is touted as a game changer in urban mobility and sustainable urbanization showcasing the technical prowess and aspirations of the country to become a developed nation by 2047. The Committee are also of the view that rapid progress have been made in terms of development of

highways and metro network in NCR areas which needs to be factored in while reviewing the DPRs of the remaining two priority corridors so that all these transport mode should complement each other rather than posing competition to each other.

The Committee, therefore, recommend Ministry of Housing and Urban Affairs (MoHUA) to ensure that all the necessary formalities like approval of DPR, obtaining necessary approvals from respective State Governments be completed in a time bound manner and commence the work on the proposed Delhi- SNB and Delhi-Panipat corridor at the earliest. The Committee further recommend that while reviewing the DPRs of the remaining two priority corridors, the Ministry should ensure that alignment of these corridors be done in such a way that metro, road and rail network should complement the RRTS and benefits may reach to maximum number of people. The feedback of commuters/general public may also be obtained before finalization of the DPRs.

Recommendation No.6

Integration of RRTS corridors with India Gandhi International Airport and Jewar Airport

The Committee appreciate the concerted efforts made by NCRTC for Multimodal integration of RRTS with various other modes of transportation such as Metro Rail, Indian Railways, Inter State Bus Terminals (ISBTs), other Bus terminals/depots and important roads/expressways. However, two important nodes of transportation *viz.* the Indira Gandhi International Airport and Jewar Airport are yet to be integrated with the RRTS.

As regards connecting Indira Gandhi International Airport (IGIA) with the RRTS, the Committee were earlier apprised that such integration will be undertaken in the Delhi-SNB corridor. However, now, the DPR of the said corridor is being revisited by NCRTC.

The Committee are of the view that being an established transport node in Delhi-NCR, it is important to bring Indira Gandhi International Airport on the map of RRTS.

With regard to connecting Jewar airport with Delhi Meerut corridor of RRTS, the Committee were informed that they have received one proposal for connecting Ghaziabad to Jewar Airport through RRTS and the proposal is under appraisal.

The Committee are of the opinion that, in future, Jewar Airport is going to become an important transport hub for people living in Ghaziabad, Gautam Budh Nagar and adjoining areas. Further, the growth of dense residential areas, employment opportunities, entertainment zones, educational and healthcare facilities around Ghaziabad-Noida-Greater Noida corridor makes it all the more important to connect these areas through a safe, fast, comfortable and reliable transport mode like RRTS which will feed and increase the ridership and financial viability of Delhi -Meerut Corridor and provide much needed connectivity to Jewar airport.

The Committee, therefore, recommend that both the important transport nodes of Delhi -NCR *i.e.* Indira Gandhi International Airport and Jewar Airport be connected with Regional Rapid Transit System.

Recommendation No.7

Expediting Transit oriented development (TOD) on Delhi-Meerut Corridor and planning TOD in advance on remaining two priority corridors

The Committee note that although the Delhi Meerut Corridor of Regional Rapid Transit System is nearing its completion and NCRTC is planning to operationalize the entire corridor in 2025, the Transit oriented development (TOD) for three nodes in Delhi, 04 special development areas in Uttar Pradesh and around the radial influence zone of RRTS Stations is only at a planning stage. As such, significant opportunity of increasing non fare box revenue through TOD remains unutilized.

The Committee feel that for a highly capital intensive project like RRTS, concurrent development of Residential, Commercial, Retail, educational, healthcare and leisure infrastructure as envisaged under TOD along with the construction of

the RRTS corridor is crucial for increasing its ridership and to improve the economic and financial viability of the system from the outset.

The Committee, therefore, recommend NCRTC to expedite finalization of TOD plans in Delhi and Uttar Pradesh in consultation with respective development authority and start developing physical infrastructure swiftly on the Delhi-Meerut Corridor. The Committee further recommend that TOD plans be finalized in coordination with the developmental authority of the concerned states for the remaining two priority corridors also so that work can commence concurrently in respect of TOD along with construction of the these corridors.

Recommendation No.8

Model of Multimodal Integration required to be followed

The Committee note that for seamless connectivity of RRTS with different mode of transportation, NCRTC have built bridges, foot over bridges (FOB) and used travellers & escalators at various railway stations, bus stands etc.

Regarding the Model to be followed for Multi-Modal connectivity of RRTS with other transportation systems, the Committee are of the view that integration should take place in such a seamless manner that the commuter may be able to board or de-board the RRTS trains from within the premises of the airport, railway station etc. Such facilities provide convenience to the commuters travelling with luggage and save lot of time during interchange of different mode of transportation.

The Committee, therefore, recommend that at the time of finalization of DPR, Ministry of Housing and Urban Affairs (MoHUA) should coordinate with all the stakeholders viz. Ministry of Civil Aviation, Ministry of Railways and respective State Government so that multimodal integration within the premises of railways stations, airports, Inter State Bus Terminals could be planned and developed at various interchange points of RRTS network in future and facility of luggage check-in etc. be provided at the entry point of RRTS network to the commuters.

Recommendation No.9

Ensure availability and frequency of feeder bus service for last mile connectivity

The Committee note that NCRTC is engaging with various city transport services of the government and private service providers for feeder bus operations, shuttle bus services, bike taxi, E-Autos, taxi *etc.* The Committee also appreciate that RRTS stations have been designed to provide ample parking space, pick & drop facility for intermediate public transport and have introduced bus stops in RRTS station pockets.

The Committee are of the view that commuters judge the efficiency of a mass transport system like RRTS, metro *etc.* not only by the time taken in reaching from one station to another but by the overall time taken in travelling from their originating point to the final point of destination. Thus, the availability and frequency of shuttle bus services providing last mile connectivity is important to reduce the waiting time of the commuters at their de-boarding point especially those who cannot afford taxi or auto services. The Committee also feel that small buses with fixed time interval matching more or less with the time interval of Namo Bharat trains is required for meeting such requirement.

The Committee, therefore, recommend NCRTC to consider adopting shuttle buses with smaller capacity and with fixed frequency matching largely with the frequency of Namo Bharat trains while engaging with service providers providing feeder bus service for last mile connectivity.

Recommendation No.10

Installation of sound barriers

The Committee note that Delhi-Meerut Corridor is passing through dense urban areas of Delhi-NCR having residential buildings, offices, hospitals educational institution *etc.* The Committee, therefore feel that installation of sound

barriers are very important to ensure that the residents and public in general and patients, elderly citizens and children in particular using various facilities around the corridor are not put to any inconvenience due to operation of Namo Bharat trains.

In this regard, the Committee has been apprised that sound barriers have not been installed by NCRTC in Delhi-Meerut Corridor of RRTS. Only a stretch of approximately 125 meters of viaduct has been planned with the installation of noise barrier.

The Committee, therefore, recommend that a detailed study be conducted to ascertain the effect of vibrations on close by buildings and the need to install sound barrier taking the feedback and opinion of the people living and using various infrastructural facilities in close proximity of Delhi-Meerut RRTS corridor. The Committee further recommend that appropriate remedial measures like installation of sound barriers etc. be taken expeditiously as per the outcome of the said study.

Recommendation No.11

Deployment of Para-Medical Staff and CPR Machines

With regard to medical facilities, the Committee has been apprised that provision of first aid has been made. NCRTC have also tied up with various hospitals within 10 kilometer vicinity of Delhi-Meerut Corridors in case of medical emergencies. The personnel of RRTS have also been trained in giving CPR in case of stroke or heart attack.

The Committee while appreciating the efforts made by NCRTC, feel that in cases of health emergencies like heart attack, stroke *etc.*, the response time is very limited. Hence, administering appropriate and fast response becomes crucial in saving the lives of commuters. Availability of para-medical staff and installation of small CPR machines on various stations of RRTS can improve the capability of such response a great deal. The Committee feel that for a system like RRTS which prides itself in providing better passenger facilities and amenities and aspires to compete with best transportation systems in the world, making provision for such medical facilities will improve the trust and perception of the people.

The Committee, therefore recommend NCRTC to consider engaging para-medical staff and installation of CPR machines at various stations of RRTS system for fast and better response in case of medical emergencies.

Recommendation No.12

Exploring the possibility of funding the RRTS project through PPP mode

The Committee are aware that RRTS projects are highly capital intensive with long gestation period and such projects are difficult to be taken up by private players without necessary support from Central and/or State Governments. The Committee note that though, one of modes of funding the project is Public Private partnership, the funding of existing RRTS project is being done with the financial support of Central Government, respective State Governments and through loan obtained from multilateral foreign banks. The Memorandum of Understanding (MOU) of NCRTC also recognizes the role of private entrepreneurs at different stages. So far, the engagement of private players has been confined to operation and maintenance of various sub-systems of RRTS.

The Committee, however, feel that with the right planning, strategy and structuring of RRTS projects and with the availability of encumbrance free opportunities for commercial exploitation in and around the RRTS corridors, there are sufficient scope to induce private sector for participation and funding of RRTS projects.

The Committee, therefore recommend NCRTC to employ best global consultants in transport sector for planning and structuring of future RRTS project so as to enable participation and funding of RRTS projects through PPP mode.

Recommendation No.13

Development of an app for grievance redressal

The Committee note that there are 3 modes for grievance redressal in RRTS viz. the helpline number, E mail and complaint logbook kept at all stations. Further, a timeline of 05 days has been prescribed for redressal of any complaint.

The Committee are of the view that an opaque grievance redressal system creates anxiety and suspicion in the mind of the complainants. Thus, real time information regarding the status of complaints is important to make the grievance redressal system transparent and accountable.

While lauding the effort of NCRTC to develop various apps and deploy technologically advance solutions to facilitate and improve the travelling experience of its consumers, the Committee feel that in addition to the methods of grievance redressal already in place, the tracking of grievances should also be done through an app.

The Committee, therefore recommend NCRTC to develop an app for grievance redressal wherein the customer can lodge and track the real time status of their complaint. The app should also display the name and contact number of concerned official with whom the complaint is pending.

New Delhi;
03rd April, 2025
13 Chaitra, 1947 (Saka)

Shri Magunta Sreenivasulu Reddy
Chairperson
Standing Committee on Housing
and Urban Affairs

(i) The decadal growth of population provided by Mumbai Metro Line-3, Chennai Metro, Hyderabad Metro and Bangalore Kolkata Metro and NCRTC is as under:

Mumbai Metropolitan Region

Year	Population (in Millions)	Decadal growth (%)
1971	7.76	-
1981	11.08	42.78
1991	14.55	31.32
2001	19.37	33.13
2011	22.80	17.71

Hyderabad Metropolitan Area

Year	Population (in Lakh)	Decadal growth (%)
1971	17.96	-
1981	39.33	119
1991	58.18	48
2001	76.30	31
2011	95.80	26

Chennai Metropolitan Area

Year	Population (in absolute no.)	Decadal growth (%)
1971	35,04,000	-
1981	46,01,000	2.76
1991	58,18,000	2.37
2001	70,81,869	1.99
2011	88,76,029	2.28

Bangalore Metropolitan Area

Year	Population(in absolute no.)	Decadal growth (%)
1970	1,615,000	-
1980	2,812,000	74.1
1990	4,043,000	43.8
2000	5,581,000	38.0
2010	8,296,000	48.7
2017	11,990,000	44.6

Kolkata

Year	Population(in absolute no.)	Decadal growth (%)
1971	37,27,020	-
1981	41,26,846	10.7
1991	43,99,819	6.6
2001	45,72,876	3.9
2011	44,96,694	-1.7

Delhi

Year	Population (in absolute no.)	Decadal growth (%)
1971	40,65,698	-
1981	62,20,406	+53.0
1991	94,20,644	+51.45
2001	1,38,50,507	+47.02
2011	1,67,87,941	+21.21

(ii) The estimated current population and future projection provided by Mumbai Metro Line-3, Chennai Metro, Hyderabad Metro, Bangalore Metro and NCRTC are as under:

Mumbai Metropolitan Region

Year	Population (in Million)
2021	26.16
2031	28.78
2041	29.89

Bangalore Metropolitan Area

Year	Population (in Millions)
2025	14.395
2031	16.480

Hyderabad Metropolitan Area

Year	Population (in Lakh)
2024	154.9
2030	186
2040	241
2050	300

Chennai Metropolitan Area

Year	Population (in absolute no.)
2022	1,08,50,000
2046	1,51,56,000
2051	1,60,53,000

Delhi

Year	Population(in absolute no.)
2021	2,06,00,000

2031	2,48,00,000
2041	2,92,00,000

Kolkata Metro has not provided the estimated current and future projection of the population.

MDB loans terms and conditions

Parameter	ADB T1 (USD Mn)	NDB (USD Mn)	ADB T2 (AIIB) (USD Mn)	ADB T3 (Yen Bn)
Amount of loan	500	418 (revised)	500	Yen 37.7375 Bn (USD 250 Mn)
Front-End fee (one-time)	0.00%	0.25%	0.25%	0.00%
Commitment Charges (on undrawn portion of loan)	0.15%	0.25%	0.25%	0.15%
Reference interest rate (variable)	SOFR	SOFR	SOFR	TONA
+ Contractual Spread	0.50%	0.50%	0.50%	0.50%
+ Maturity Premium	0.20%	0.35%	0.50%	0.20%
+ Other Charges	--	0.50%	--	--
+ Borrowing cost margin (surcharge/ rebate)	0.22%	0.43%	0.34%	(-) 0.33%
Total charges	SOFR + 0.92%	SOFR + 1.78%	SOFR + 1.34%	TONA + 0.37%
Net applicable rates on foreign currency	6.17%	7.03%	6.59%	0.37%

SOFR(6M): 5.25% p.a. (as on 13.03.2024) | **TONA (6M): (-) 0.01% p.a.** (as on 13.03.2024),

Loan period: 25-year term, including a grace period of 8 years,

Repayment schedule: Annuity based repayment method with 10% discount rate,

Foreign exchange fluctuation risk not accounted for (applicable at interest payment & principal repayment)

Delhi-Meerut RRTS: Loan repayment schedule

Financial year	ADB Tranche 1 (₹ Crore)	NDB (₹ crore)	ADB Tranche 2 (AIIB loan) (₹ crore)	ADB Tranche 3 (₹ crore)	Total (₹ crore)
2029	49	41	-	-	89
2030	105	88	49	-	241
2031	116	97	105	-	317
2032	127	106	116	24	374
2033	140	117	128	52	438
2034	155	129	141	58	483
2035	171	143	155	64	532
2036	188	157	171	70	587
2037	207	173	189	77	648
2038	229	191	208	85	714
2039	252	211	230	94	787
2040	278	232	253	104	867
2041	307	256	279	114	956
2042	338	283	308	126	1,055
2043	373	312	340	139	1,163
2044	411	343	374	153	1,282

2045	453	379	412	169	1,413
2046	244	204	455	186	1,089
2047	-	-	227	205	432
2048	-	-	-	226	226
2049	-	-	-	122	122
Total	4,141	3,462	4,142	2,071	13,816

**1 USD equals INR 82.83, as on 14 March 2024; foreign exchange fluctuations will be in addition to the above amounts and have to be borne by the NCRTC. This does not include ADB Tranche 4 loan of USD 299 million/ ₹ 2,477 Crore which is yet to be signed by Government of India.*

STANDING COMMITTEE ON HOUSING AND URBAN AFFAIRS

Minutes of the Eighteenth Sitting of the Standing Committee on Housing and Urban Affairs (2021-22) held on Wednesday, 07 September, 2022

The Committee sat from 1100 hours to 1230 hours in Main Committee Room, Ground Floor, Parliament House Annexe, New Delhi.

PRESENT

Shri Jagdambika Pal - *Chairperson*

Members

Lok Sabha

2. Shri Ramcharan Bohra
3. Shri Shankar Lalwani
4. Shri M V V Satyanarayana
5. Shri S. Ramalingam
6. Smt Aparajita Sarangi
7. Shri Sunil Kumar Soni
8. Shri Sudhakar Tukaram Shrangre

Rajya Sabha

9. Shri Ram Chander Jangra
10. Shri Sanjay Singh

Secretariat

1. Shri Vinod Kumar Tripathi Joint Secretary
2. Smt. Archana Pathania Director

Ministry of Housing & Urban Affairs

1. Shri Manoj Joshi Secretary
2. Shri Jaideep OSD (UT) & EO JS
3. Shri Vikas Kumar Managing Director, DMRC

NCRTC

1. Shri Vinay Kumar Singh Managing Director
2. Shri Anil Kumar Shrangariya Director
3. Ms. Namita Mehrotra Director
4. Shri Mahender Kumar Director

2. At the outset, the Chairperson welcomed the Members to the sitting of the Committee convened for briefing by the representatives of Ministry of Housing and Urban Affairs (MoHUA) and NCRTC on the subject, 'Improving the Living Standard and Quality of Living in Urban Cities - Status of Regional Rapid Transit System (RRTS) Projects'.

(Thereafter the witnesses were called in)

3. The Chairperson welcomed the witnesses and noted that to promote sustainable and balanced growth in National Capital Region (NCR), the NCR Planning Board (NCRPB) prepared a 'Functional Plan on Transport for National Capital Region-2032', which recommended development of multimodal transport system for NCR with special emphasis on dedicated rail based high-speed, high frequency RRTS for connecting regional centres in NCR. Accordingly 8-corridors were identified, out of which 3 RRTS corridors were prioritized viz. Delhi-Meerut, Delhi-Panipat and Delhi-Alwar for implementation in the first phase. Among them only Delhi-Meerut corridor had been sanctioned in 2019 at a total cost of Rs. 30,274 crore. The Committee wanted to be informed why other two priority corridors could not be sanctioned so far and by when were they likely to be sanctioned and completed. The Committee also wanted to know about the progress of Delhi-Meerut corridor & its likely date of completion, funding source, the body which would operate this project. Likely Average Daily Ridership vis-à-vis. Actual Average Daily Ridership required for Breakeven, whether automated fare collection system through single card across PRTS & Delhi Metro were being installed, First and Last Mile Connectivity, etc.

4. Thereafter, the representatives of NCRTC made a PowerPoint presentation in which they briefed the Committee about conception of RRTS, 3 priority corridors in RRTS Phase 1, RRTS being a Rail based high speed, high capacity, comfortable and safe commuter service connecting regional nodes which will travel at 3 times faster pace than the average speed of metro, socio-economic benefits of RRTS, multimodal integration at various levels, provision for various Feeder modes- Last Mile connectivity, National Common Mobility Card & other multiple Payment modes, Value Capture Financing (VCF) & Transit Oriented Development in UP & Delhi, Implementation status of Delhi-Meerut RRTS corridor, etc.

5. Subsequently, the Members raised various queries *viz.* whether this inordinate delay in Implementation of RRTS was not defeating its purpose, why other two priority corridors have not been taken up yet, was it possible to connect Delhi-Jaipur, Indore-Ujjain through RRTS, funding aspect of RRTS, *etc.* The representatives of MoHUA and NCRTC replied to various queries raised by the Members and for the queries which could not be answered it was promised to furnish written replies to the Committee in due course.

The Committee then adjourned.

(Verbatim proceeding of this Sitting of the Committee has been kept for record.)

STANDING COMMITTEE ON HOUSING AND URBAN AFFAIRS

**Minutes of the Second Sitting of the Standing Committee on Housing and Urban Affairs
held on Tuesday, 31 October, 2023**

The Committee sat from 1530 hours to 1700 hours in Committee Room 'D', Ground Floor, Parliament House Annexe Building, New Delhi.

PRESENT

Shri Rajiv Ranjan Singh *alias* Lalan Singh - *Chairperson*

Members

Lok Sabha

2. Shri Benny Behanan
3. Shri Ramcharan Bohra
4. Shri Hibi Eden
5. Shri Syed Imtiaz Jaleel
6. Shri Hasnain Masoodi
7. Shri S. Ramalingam
8. Shri MVV Satyanarayana

Rajya Sabha

9. Shri R. Girirajan
10. Smt Jebi Mather Hisham
11. Shri Ram Chander Jangra
12. Shri Kumar Ketkar
13. Dr. K. Laxman
14. Shri S. Niranjana Reddy
15. Dr. Kalpana Saini

Secretariat

1. Smt. Archana Pathania Director
2. Ms. Swati Parwal Deputy Secretary

Ministry of Housing and Urban Affairs

1. Shri Manoj Joshi Secretary
2. Shri Jaideep JS & OSD (UT), MoHUA
3. Shri Vinay Kumar Singh MD, NCRTC

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3. The Chairperson then welcomed the representatives of the Ministry of Housing and Urban Affairs, National Capital Region Transport Corporation (NCRTC) and Dr. Satya Pal Singh, MP, Lok Sabha from Baghpat who was present as an attendee during the sitting with the Chair's approval, to the sitting of the Committee called to take oral evidence of the representative(s) of Ministry on the subject "Regional Rapid Transport System and role of NCRTC."

4. The representatives of the Ministry made a brief power-point presentation before the Committee *inter-alia* explaining the Regional Rapid Transport System, funding pattern, detail status of Phase 1 RRTS Corridors, namely Delhi-Meerut RRTS, Delhi-Panipat RRTS and Delhi-SNB RRTS, *etc.* Thereafter, various issues, such as, criteria adopted for selection of various RRTS corridors, cost of RRTS network vis-à-vis Metro and Sub-urban trains system, challenges from expressways and suburban trains to RRTS in terms of ridership, plan for bringing important centres on RRTS grid, steps taken for simultaneous development of multi-modal integration and last-mile connectivity, fare rationalisation, cooperation by participating States in terms of approving DPR/ signing of MoU/contributing their share, commencement of work on Delhi-SNB and Delhi-Panipat corridors, *etc.*, were discussed by the Committee with the witnesses,

5. The representatives of the Ministry were requested to furnish the replies in writing to various issues/question raised by the Members for which replies are not readily available during the course of the discussion.

* matter not related with the report

The Committee then adjourned.

STANDING COMMITTEE ON HOUSING AND URBAN AFFAIRS

**Minutes of the Third Sitting of the Standing Committee on Housing and Urban Affairs
held on Wednesday, 13 November, 2024**

The Committee held their third sitting on 13th November, 2024 in Committee Room C, Ground Floor, Parliament House Annexe, New Delhi from 1100 to 1300 hours, during which representatives from the Ministry of Housing and Urban Affairs and National Capital Region Transport Corporation (NCRTC) briefed the Committee on the ‘Regional Rapid Transit System and Role of NCRTC’.

PRESENT

Shri Magunta Sreenivasulu Reddy - *Chairperson*

Members

Lok Sabha

2. Smt Lovely Anand
3. Shri Manickam Tagore B.
4. Shri Satpal Brahamchari
5. Shri Hibi Eden
6. Ms. Sayani Ghosh
7. Shri Rambhual Nishad
8. Dr. Gumma Thanuja Rani
9. Shri Chamala Kiran Kumar Reddy
10. Shri Alok Sharma
11. Shri Ram Shiromani Verma

Rajya Sabha

12. Shri Ayodhya Rami Reddy Alla
13. Shri Ram Chander Jangra
14. Shri Debashish Samantaray
15. Shri G.C. Chandrashekar
16. Shri A. A. Rahim

Secretariat

1. Shri Y.M. Kandpal Joint Secretary
2. Smt. Archana Pathania Director

Ministry of Housing and Urban Affairs

1. Shri Jaideep JS & OSD (UT)
2. Shri Yogesh Antil Director

National Capital Region Transport Corporation

1. Shri Shalabha Goel MD, NCRTC
2. Shri Anil Shrangarya Director Project, NCRTC
3. Shri Navneet Kaushik Director Systems, NCRTC
4. Shri Mahendra Kumar Director, NCRTC
5. Smt Namita Mehrotra Director, NCRTC

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3. The Chairperson then welcomed the representatives of the Ministry of Housing and Urban Affairs and National Capital Region Transport Corporation (NCRTC) to the sitting of the Committee.

4. The representatives from the Ministry and NCRTC gave a brief PowerPoint presentation to the Committee, covering topics such as funding structure and the detailed status of Phase 1 RRTS corridors, including the Delhi-Meerut, Delhi-Panipat and Delhi-SNB corridors. Following the presentation, the Committee inquired about several issues and raised questions on various matters including criteria for selecting RRTS corridors, plans to set up RRTS network in other metro cities in the country, cost comparison between the RRTS network and metro or suburban

train systems, potential ridership challenges posed by expressways and suburban trains, plans to incorporate Jewar Airport into the Delhi Meerut corridor of RRTS network, steps for multi-modal integration and last-mile connectivity, fare rationalization, cooperation from participating states regarding DPR approval, MoU signing and contribution of shares, as well as the commencement of work on the Delhi-SNB and Delhi-Panipat corridors etc. which were responded to by the representatives of the Ministry and NCRTC.

5. The representatives of the Ministry/NCRTC were requested to furnish the replies in writing to various issues/questions raised by the Members for which replies were not readily available during the course of the discussion.

*** matter not related with the report**

The Committee then adjourned.

(Verbatim proceeding of this Sitting of the Committee has been kept for record.)

STANDING COMMITTEE ON HOUSING AND URBAN AFFAIRS

Minutes of the Eleventh Sitting of the Standing Committee on Housing and Urban Affairs (2024-25) held on Thursday, 03 April, 2025

The Committee sat from 1515 hours to 1645 hours in Committee Room 2, Parliament House Annexe Extension, Block 'A', New Delhi.

PRESENT

Shri Magunta Sreenivasulu Reddy - *Chairperson*

Members

Lok Sabha

2. Smt Lovely Anand
3. Shri Manickam Tagore B.
4. Shri Satpal Brahamchari
5. Ms. Sayani Ghosh
6. Shri Shankar Lalwani
7. Smt. Mahima Kumari Mewar
8. Shri Naresh Ganpat Mhaske
9. Shri Rambhual Nishad
10. Shri Chamala Kiran Kumar Reddy
11. Smt. Mala Rajya Laxmi Shah
12. Shri Kanwar Singh Tanwar
13. Shri Ram Shiromani Verma
14. Shri Ravindra Dattaram Waikar

Rajya Sabha

15. Shri Ayodhya Rami Reddy Alla
16. Shri Raghav Chadha
17. Shri Mission Ranjan Das
18. Dr. Medha Vishram Kulkarni
19. Smt. Maya Naroliya
20. Shri Debashish Samantaray

Secretariat

1. Shri Y.M. Kandpal Additional Secretary
2. Smt. Archana Pathania Director
3. Ms. Swati Parwal Deputy Secretary

2. At the outset, Hon'ble Chairperson welcomed the Members of the Standing Committee on Housing and Urban Affairs to the sitting of the Committee.

3. The Committee then took up for consideration the Draft Report on 'Regional Rapid Transit System and Role of NCRTC' and adopted the same without any modifications.

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* Matter not related with the Report

The Committee then adjourned.
