

RAIL CANVAZ

A TrainTrackers' Initiative

August 2026

DUDHSAGAR
DIARIES

Indian Railways is not about making you reach the destinations only, it's also about the journey itself. For our national carrier, the old adage of 'the journey being more beautiful than the destination' sits pretty well as some of our railway pathways portray journey through the canopies of forests, through the sands of the arid deserts, through the crest of high mountains, through the waves of untamed seas or through the gushing waters of a plunging waterfall. So, it goes without saying that our railway journeys are as diverse as the geography of the country itself which testifies the fact about the tough terrains through which some of the routes have been built. One such delightful and enchanting, yet challenging course is the Londa-Vasco railroad.

It traverses through one of the toughest gradients of the country, negotiates curves and then handles a free falling Mandovi from the horizon in the form of Dudhsagar Waterfalls that drenches every element in its vicinity while thundering down the tracks with a mighty roar. Our 'Cover' for this 80th Independence Day issue by **Anamitra Bose** captures the might and delight of the Dudhsagar Falls as it dwarfs the EMD and Wabtec giants that rule the grades in three separate chapters. To add to the context, **Edwin D'souza** reminisces his childhood journeys through the erstwhile 'Meter Gauge' route caressing the Dudhsagar in *Chhuk-Chhuk Gaadi*. **Soumik Chowdhury** complements the Cover Story with some scintillating frames of the falls through his lens.

After the chapters of romance with the Dudhsagar Falls, it's time for some historical facts and anecdotes. The presentation of the first part of *The Railway That Bound Two Empires* by **PK Mishra** throws light on the background of a famous 'Mughal Firman' that changed the course of history resulting in convergence of the British and Portuguese interests ultimately favouring the creation of the WIPGR (West of India Portuguese Guaranteed Railway), one of the iconic railways of Indian subcontinent, for reaping mutual benefits.

Keeping matters germane to the historical perspective and insights, two more authors take us across the seas penning two distinctive articles – if **Paul Whittle** writes home about the legendary *Lynton and Barnstaple Railway*, then **Hrishik Mukherjee** thrills us with *Big Boy 4014* on the recent heritage run by the largest, heaviest and most powerful operating steam in the world by Union Pacific amidst an exceptional fanfare.

If history has taken precedence so far, it is time to dwell on the 'recent history' created in the ranks of our national carrier. One of those two new episodes include *The Hydrogen Horizon* by **Anamitra Bose** whose introduction though ushers a new dawn in Indian Railways but it also has created a huge furore amongst the countrymen with some of the great minds debating its utility. The other landmark event is the carving out of a new zone in South Coast Railway covered by **Somanko Tiru** that equally hogs the limelight for being another step towards a better operational viability of the vast network that we have.

Changing tracks, we have **Tapan Pal** scripting *The Philosophy of Railfanning* that digs deep into the minds of rail aficionados decoding the factors that keeps them going despite facing huge challenges from several fronts while **JL Singh** delves into the functionality of the *Diesel Locomotive Sheds*.

On the 'Tramverse', **Roberto De'Andrea** describes in his *A Near Death Experience* as to how TramJatra & CTUA espoused the causes for the revival of trams through thorough campaigns by hitting streets every fortnight with some awareness events or street corner meets for reaching out to every electoral candidate of the then opposition parties before the ensuing elections to the State Assembly and also to every citizen of Kolkata and Bengalis around the globe. **Rudranil Roy Chowdhury** completes the circuit with his report on the contemporary event on Kolkata Trams in *Tram Rathajatra*.

We close out the issue with the introduction of a new feature in *Crossword Corner* that tests the knowledge base of our followers and keeps them glued.

As we take leave, we gleefully add another year to our freedom from the British Raj, we must ponder though how much freedom we actually have gained from the Colonial Legacy left behind by our 'rulers'; we must introspect how much Amrit we have had in our Amrit Kaal and how much Vikshit we have become in this Vikshit Bharat! While the Chenab has been bridged in the high Himalayas connecting Kashmir, while Ladakh may soon get featured in the map of Indian Railways, while Manipur, Mizoram and the seven sisters have come closer to the capital through railways, while the Dedicated Freight Corridors are running double-stack freights giving a huge fillip to material transportation across the nation, but what we must not forget is the workload that is becoming



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more of a load than work for those soldiers who keeps the railways moving, 24 X 7. Deprivation from proper rest, sleep etc. is hampering their sleep patterns and biological cycles which is tiring them down that eventually impacts our railways in a negative way thereby affecting the overall service quality. Logistic support and Human Recourse Management are yet to strike a balance in a nation of billions. Prioritizing and fast tracking these key elements under the auspices of the government holds the key to a smoother and healthier service that will make the railways thrive. At the end of the day, we must remember the invaluable words of Thomas Jefferson, the ex-U.S. President – “I like the dreams of the future better than the history of the past.”

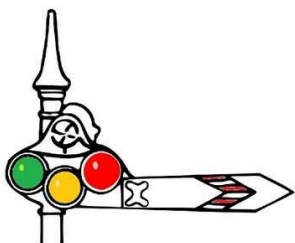
Jai Hind.

Somsubhra Das



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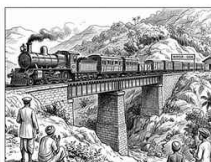
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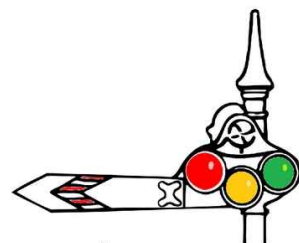
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DIESEL LOCOMOTIVE SHEDS

J L Singh

A Diesel Locomotive Shed (DLS) is where diesel locomotives are homed. This is where the locomotives are serviced and maintained. The only maintenance other than what is done in a DLS is when the locomotive goes to a workshop for Periodical Overhaul (POH). This is normally once every 6 years or so. Thus, responsibility for the normal maintenance and fitness of a locomotive is that of the DLS.

How does one judge which DLS is good and which isn't? How do you compare two DLSs? After working in DLSs for two decades and being a professor for diesel locomotives at the Indian Railways Institute of Mechanical and Electrical Engineering at Jamalpur, I feel that the following criteria are perhaps the best way to judge the efficiency and proficiency of a DLS. Similar criterion would apply to an Electric Locomotive Shed as well.

1. Availability: Expressed as a percentage, this indicates the percentage of locomotives of the DLS that are available for traffic on an average over a given period. The period normally considered is a month. It will be good to note that right from the start, availability of diesels on the Indian Railways has been in excess of 85%. This figure is with

reference to the ALCOs. You can increase availability by taking shortcuts in the maintenance and not carrying out all the items that are laid down in a particular inspection. But if you do that, then your next criterion is likely to suffer.

2. Reliability: This is judged by the number of failures of its locomotives a DLS has. Normally expressed as the number of failures per 100,000 kilometres run by the locos over a period like a month. Good maintenance normally leads to low failures and vice versa. Failures are normally of two types – those that occur on line and affect train operations; and those that occur in yards or stations and do not affect operations. It is the former than is more important when comparing DLSs.

3. Kilometres Per Loco: This is a good criterion for judging how good your locos are. Of course, the DLS that operates a large number of passenger trains will have a higher figure compared to one that manages only freight trains. Therefore, when comparing, this and other operating conditions need to be taken into account.

4. Fuel Consumption: A good loco will consume lesser fuel than



one that is poorly maintained. This is therefore a good criterion for comparisons of not only DLSs but also individual locos. The only catch here is what I had found in a study in Tanzania. Their fuel consumption was extraordinarily high for YDM4s that the Indian Railways had exported to the country. The main reason was found to be pilferage. Therefore, it is necessary that all loopholes of pilferage are plugged and detailed account of fuel issues maintained. The fuel consumption should be judged based on litres per tonne-kilometres hauled. Obviously, if there is pilferage of fuel, it will reflect in the performance of the shed.

5. **Lube Oil Consumption:** This is another criterion that gives a good indication of the condition of the locomotive's engine. The figure that is normally worked out is the lube oil consumption as a percentage of the fuel oil consumed. All engine designers give a figure that applies to a particular engine. For the ALCOs, this had to be less than 1.5%.
6. **Cost of Maintenance:** This is a good criterion as it takes all factors into account including the attached stores

purchasing policies, warehousing, quantities of spare parts used or overused, etc. DLSs can use this and other criterion for not only comparing with other DLSs but their own performance from month to month and from year to year. One comparison method quite common on the railways is to compare any criterion to the previous month and to the corresponding month of the previous year.

7. **Injuries:** This is not a criterion to judge the condition of the locomotives but to ascertain the safety consciousness of the DLS. If safety standards and procedures are well-laid and observed, injuries to staff members should be zero.

Since all DLSs have their peculiarities and idiosyncrasies, comparison of sheds is not easy or perfect. Many of the above criterion also depend on traffic and the kind of operations the locos are doing and not only on the DLS itself. However, taking all the above criterion into account will give a good basis for comparison.

A lot also depends on the kind of staff and supervision that the DLS has. In the late 1970s and the early 1980s, Indian Railways exported YDM4 class locomotives to Tanzania and



Vietnam. 15 locos were exported to each country. While the locos failed in Tanzania, they ran very well in Vietnam. The reason was that the Tanzanians expected the locomotive to run like a refrigerator, i.e. you buy it and it runs. No maintenance needs or inspections to follow for preventive maintenance. The YDM4, on the other hand, needs careful handling and if maintained well and all laid down inspections done, will also work very well. Since the Tanzanians did not realize this, the locos did not do well at all. The Vietnamese had been used to war for the last 30 years. They were conditioned to work in difficult conditions. They gave the locos the attention it required, and the locos ran very well. Of course, what I am mentioning is almost half a century back. I am sure that the same YDM4s will now run well in Tanzania as well. A similar situation applies to our country also. If the staff of a DLS are well-trained and motivated, the DLS will do well. If not, the results will be seen in terms of poor availability and failures.

Last but not the least, the condition of the locos of a DLS depends a lot on the kind and quality of POH given by the



workshop where the POH is carried out. If the POH is below standard, the locomotive will give a lot of trouble for no fault of the DLS. This is another factor that needs to be taken into account if any comparison is to be done.

Concluding, comparisons are difficult as the underlying factors of each DLS are different. However, in my opinion, the above criterion taken together will give a very good means of a good comparison.

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Railway Revival

THE LYNTON AND BARNSTAPLE RAILWAY

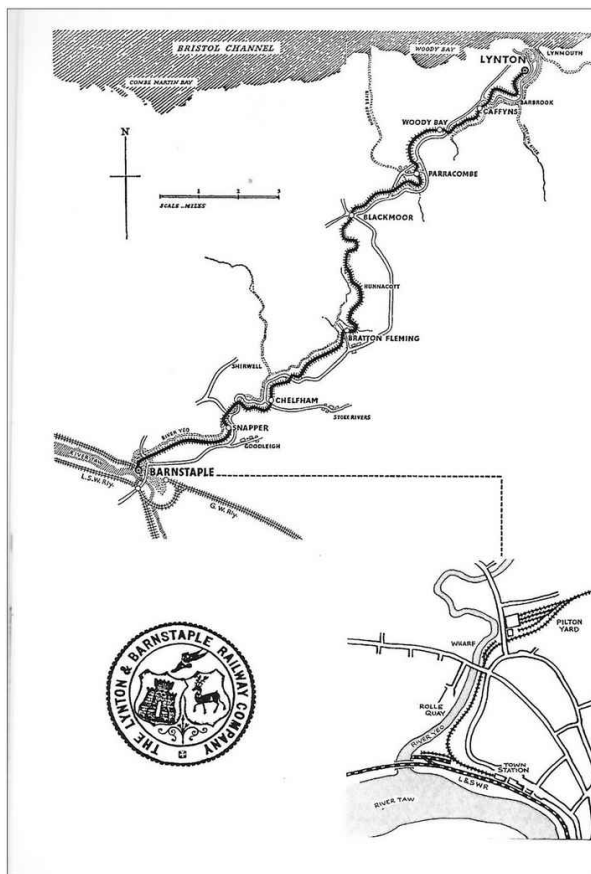
Paul Whittle

Most overseas rail enthusiasts seeking narrow gauge lines in the UK will naturally head straight for North Wales. There is so much to choose from. The Ffestiniog and Welsh Highland Railways, The Talyllyn Railway, The Corris Railway, The Vale of Rheidol Railway, The Welshpool and Llanfair Railway. All operating beautifully restored rolling stock amidst equally beautiful scenery. You are truly spoilt for choice.

But my personal favourite is a short but attractive line in North Devon, southwest England – the Lynton and Barnstaple Railway (L&B). Opened on 11th May, 1898 to a 597mm gauge (inspired by the Ffestiniog Railway) it ran for about 31 km from a junction with the London and South Western Railway at Barnstaple, heading northwards on the edge of Exmoor to serve the twin towns of Lynton and Lynmouth, both popular with holiday makers.

Authorised under its own private act of Parliament it was built to higher (and more costly) standards than similar railways of the time and was the only narrow gauge railway in Britain required to have main-line standard signalling.

Despite heavy but short seasonal tourist loadings, much of the year saw only very modest traffic. For a short period, the Company made a modest return for its shareholders, but for most of its existence it made a loss. In 1923, the L&B was taken over by the Southern Railway but despite cost-cutting and extra investment the losses continued and the line was closed on 29th September, 1935. Understandably, many passengers had been deterred by the slow service – the 20 miles took 90 minutes – and the Lynton terminus was some

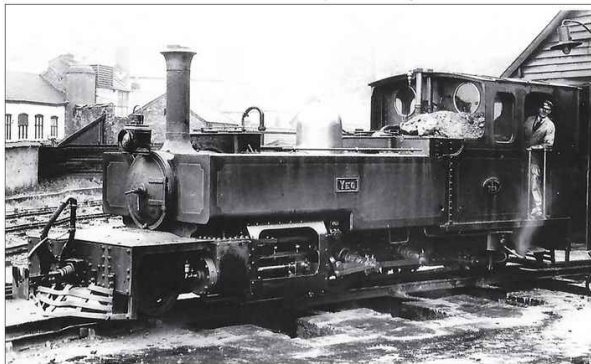


Map of the Lynton and Barnstaple Railway (L&B Archive)

distance from the town itself and the cliff railway down to Lynmouth.

The L&B used only coal-fired steam motive power. Initially, the fleet consisted of three 2-6-2 T locos from Manning Wardle & Co of Leeds, and named after the local rivers *Yeo*, *Exe* and *Taw*. However, the Company soon realised that this number was

Steam Loco 'Yeo' at Pilton Loco Works Jun 1926 (L&B Archive)



Steam Loco 'Lyn'

insufficient, so a 2-4-2T *Lyn* was supplied by the Baldwin Locomotive Works of Philadelphia USA, shipped across the Atlantic in parts and reassembled at the Company's works at Barnstaple. A fourth Manning Wardle *Lew* was acquired by the Southern Railway in 1925. Sadly, on closure, the locos were sold for scrap except for one, *Lew*, which disappeared without trace after being shipped to Brazil.

Initially, the line had sixteen passenger carriages built by the Bristol Wagon and Carriage Works Co. Ltd., all solidly constructed and to a very high standard. Unlike the locos, upon closure many of the carriage bodies survived as garden sheds and farm stores, and thanks to hard work by willing volunteers it has been possible to recreate a complete train of authentic passenger stock.

In essence, the L&B was a mainline in miniature with numerous cuttings through solid rock and eighty bridges. The line's most impressive

L&B Carriages





Goods wagons. Formerly in use at Ministry of Defence depots

engineering structure is Chelfham Viaduct. Its eight 13m wide arches reach 21m above the Stoke Rivers Valley and is the *largest narrow gauge railway structure in England*. Fully restored in 2000, but awaiting trains to return, it is close to the beautifully restored Chelfham Station. There was a second lesser viaduct at Lancey Brook, but this was blown up in WW2 by Royal Engineers practising for the D Day invasion.

The line's closure in 1935 was much regretted by local people and large crowds gathered to ride the packed last service or simply to wave goodbye. Indeed, a grieving local gentleman arranged for a wreath of bronze chrysanthemums to be placed on

The last train entering Woody Bay Station. 29th Sep, 1935. (L&B Archive)



Woody Bay Station - View towards Lynton

the buffer stop at Barnstaple inscribed with the inspiring message "To Barnstaple and Lynton Railway with regret and sorrow from a constant user and admirer - Perchance it is not dead but sleepeth".

And the wonderful outcome is that now, after many years of 'sleep', the L&B is indeed slowly awakening! In 2006, the Lynton and Barnstaple Railway Trust re-opened a short section of track from its HQ at Woody Bay Station, at 305m *the highest railway station in southern England*. The building had been constructed in the so-called Swiss Chalet style at a time when the promoters of Victorian Lynton were marketing the area as 'The English Switzerland'.



Station dog Henry along with his companion John

Today, trains are normally hauled by *Lyn* – a modern replica of the original Baldwin, but employing several advanced steam technologies including roller bearings, welded tanks and a high-pressure boiler. There is also a replica of the Manning Wardle *Lyd*, but this is normally based at the Ffestiniog Railway although it pays an occasional visit to the L&B.

There is also a small fleet of diesel locos, the most powerful being a 180hp 0-6-0 diesel mechanical built in 1952 by EE Baguley of Burton-upon-Trent to work on the 2 ft gauge lines of Australian sugarcane fields. On acquisition by the L&B, it was named *Pilton* after the L&B's original workshop at Barnstaple.

After closure, the entire track bed was sold, sometimes to the original owners, and in seeking to extend the line there is the continuing challenge of raising funds, negotiating with numerous different land owners and obtaining the necessary planning consents from the local authorities. Inevitably, this is a lengthy and at times frustrating activity, but almost 40% of the original route has now been purchased.

If you happen to visit the line at delightful Woody Bay, do say 'hello' to the Station Dog *Henry* who may well be on duty to greet you along with John, his

companion. You will notice that on his back, *Henry* has a replica Southern Railway collecting box, a reminder of the bygone days when such dogs could be seen at mainline stations collecting donations for railway staff homes and orphanages. Almost all the L&B staff are volunteers and you will be made most welcome!

For further information about the L&B do visit their web site at:

www.lynton-rail.co.uk

It opens with some delightful video footage and you can also download the L&B's exciting plans for the next few years.

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Paul Whittle

the Vice Chairman of the Darjeeling Himalayan Railway Society (DHRS) and also, he is a member of several UK steam railways and the Wey and Arun Canal trust. Started his professional career in banking, latterly became a human resources manager. He served the Territorial Army, Royal Signals for 34 years. He has written and published the history of his regiment and is a keen military historian apart from having a great interest in heritage transport as well.

www.dhrs.org

Mr Whittle & his partner Sue





The Railway That Bound Two Empires

The Extraordinary Story of the West of India Portuguese Guaranteed Railway

Part-1

P. K. Mishra

An IRSME of 1986 batch, a former General Manager of Indian Railways with over four decades of experience in railway manufacturing, industrial transformation, infrastructure development, sustainability, and heritage conservation. He headed the **Modern Coach Factory (MCF), Raebareli**, and **Rail Coach Factory (RCF), Kapurthala**, and played a key role in the manufacturing ecosystem of India's flagship **Vande Bharat** trainsets, achieving record production levels. He is particularly recognised for the successful turnaround of India's first **Forged Wheel Plant at Raebareli**, transforming it into a high-performing strategic manufacturing unit under the **Make in India** initiative.

He has also served as **DRM of Asansol and Malda Divisions of Eastern Railway** and **AGM of South Western Railway (SWR)**. A strong advocate of sustainable industrial development, he led initiatives in **afforestation, water conservation, renewable energy, and biodiversity enhancement**, helping transform MCF Raebareli into one of Indian Railways' greenest industrial campuses.

A leading railway historian of India, Mr. Mishra is widely recognised for promoting **railway heritage conservation** and restoring numerous historic railway buildings through innovative, self-sustaining models. An accomplished **author, researcher, and public speaker**, he has written extensively on railway history, industrial heritage, and colonial infrastructure, combining technical expertise with a deep commitment to preserving India's cultural and environmental legacy.

Publications: *Rails Through Raj; Highways of Hindostan; Tracks of Necessity: Railways, Famine, and Empire in the Deccan; When History was Created in the 19th Century Colonial India: Establishment of East Indian Railway*, besides numerous research papers, heritage articles and essays. He has also produced **coffee-table books on railway heritage restoration**, integrating technical documentation with visual narratives.

Current Work: Engaged full-time in research and writing on railway history and heritage, and currently working on a forthcoming book on the **early history of the East Indian Railway and Indian Railways**.



There are certain railways that seem so perfectly at home in the landscape that we rarely pause to imagine a time before they existed. The line climbing eastwards from the deep natural harbour of Mormugão through the dense forests of the Western Ghats towards Castle Rock is one such railway.

Few railways in India owe their existence to such a dramatic chain of events. The origin of WIPGR is a story of political history, diplomacy, intense lobbying and protracted back-room negotiations involving the British Government, the Portuguese Crown, the Government of India, the Governor-General of Portuguese India, the Bombay Presidency, influential commercial interests and the powerful Stafford House Committee.

It is a fascinating story; a story of last desperate attempt by former colonial power to regain its former glory by investing in transport infrastructure to rejuvenate the economy, a story of statecraft & diplomacy where Britain acceded to Portuguese request to construct a port and connecting rail lines to its territories only to grab host of trade concessions & monopolies.

It is a story of intrigue, manipulations & "private enterprise at public" risk by Aristocratic British capitalists, a story of an era when Railways would lay rail lines and also develop a port, a story of Railways rising to occasion and complete the work departmentally when its contractors would quit in case of major challenges, a story of human grit & determination to

complete the work against all odds, a story of "*Labor omnia vincit*" (work conquers all), a story of first transnational link joining two foreign territories ensuring seamless movement of traffic and a story of cut throat competition and unfair trade practices adopted by MSMR & BICI to strangle WIPGR, a story of WIPGR turning proverbial white elephant for Portuguese.

Goa, the "Rome of East" was the prized jewel of Portuguese empire and the administrative centre of a maritime network extending from East Africa to the South China Sea.

When Vasco da Gama first rounded the Cape of Good Hope in 1498, he discovered a direct sea route to the fabled riches of the east. It gave Portugal an advantage enjoyed by no other European kingdom. By the middle of the nineteenth century that advantage had almost disappeared. Dutch commercial expansion had broken Portuguese dominance of the spice trade, British naval supremacy controlled the Indian Ocean, steamships had begun replacing sailing vessels, and Bombay—little more than an insignificant settlement during Goa's golden age—had emerged as the principal commercial port of western India. Trade followed new routes.

The consequences for Goa were profound.

J. B. Amâncio Gracias, prominent Goan historian, archivist, and civil servant in Portuguese India, who later worked as a financial adviser to the West of India Portuguese Railway, wrote:

*"By the mid-19th century Goa, which once was a major trading hub outside Lisbon, a fulcrum of vast trading empire from East Africa to East Asia, had become a pale shadow of itself, reduced to a colonial backwater of a minor colonial power, and an economic liability to Portugal. Mormugão had become a minor port used primarily by small vessels engaged in coastal shipping up and down the West Coast whose main destination was often Bombay, the great entrepôt."*¹

Andrade Corvo, a Portuguese Foreign Secretary in the 1870s lamented that there were years, he lamented, during which *no ship from Europe reached Goa*, while countless Goan families depended upon remittances sent by relatives working in Bombay and elsewhere in British India.²

Could Goa once again become commercially important in an age transformed by steam navigation, industrial capitalism and railways?

The question assumed particular urgency because Portugal itself had entered a period of energetic national reconstruction. Under the influence of the engineer and statesman Fontes Pereira de Melo, the country embarked upon an ambitious programme of public works—later known as Fontismo (The Regeneration)—inspired by Saint-Simonian ideas that regarded modern infrastructure as the principal engine of national progress.

Saint-Simonianism was an ideology created in the late 18th century by the Frenchman Claude-Henri de Saint-Simon, which aimed to end social conflicts and establish a universal

association among nations to foster economic growth.

Roads, ports, telegraphs and railways were no longer viewed simply as engineering works. They became instruments of economic transformation. Explaining the philosophy, Fontes Pereira de Melo called it a "*civilising crusade based upon the prominence of intelligence over force executed by Steamers, Railways and Telegraph.*"³

In 1860, Regenerator Party deputy Ponte e Horta warned of the need to accelerate railway construction in Portugal, remarking that "*even the mummies of Egypt, that symbol of historical immobility, are already riding on railways.*"

Portuguese India seemed to offer precisely such an opportunity.

A Railway across Goa and into British India to tap natural resources of Deccan and stimulate greater use of the harbour at Mormugao seemed to be the magic solution for Goa's prosperity. If the harbour could be connected by railway with the cotton-growing districts, forests and mineral resources of the Deccan, ships might once again crowd its waters, trade might revive, customs revenue might recover, and Goa might cease to be an economic liability to Lisbon.

Railway, the most spectacular symbol of this age, pioneer of civilization, conqueror of time and space, unrivalled promoter of migrations, settlement and resource extraction, was marketed as tool of peace and harmony by its Saint-Simonianist promoters.

It was an inspiring vision, but its fate hinged on the British cooperation and diplomacy. The proposed line would necessarily cross into British territory, connect with the expanding railway system of the Bombay Presidency, attract British investment, and satisfy British strategic and commercial interests. Every mile of railway depended first upon diplomacy and the Mughal Firman, a forgotten imperial order issued more than a century and a half earlier by a Mughal Emperor.

That forgotten *Firman* would become the unlikely point at which the story of the West of India Portuguese Guaranteed Railway truly began.

There are moments in historical research when an apparently insignificant document quietly takes centre stage and writes a new history.

The West of India Portuguese Guaranteed Railway offered me one such moment. While researching its origin, I came across a Mughal Firman issued by Emperor Farrukhsiyar, hidden among Parliamentary Papers and India Office correspondence.

As the *Précis of Official Papers* (1881) observed:

"The signing of the Lisbon Treaty originated in the suspension by the British Government, in July 1872, of the privilege... enjoyed by the Portuguese Factory at Surat since the year 1714, under a Firman of the Mogul Emperor Ferokhsir."

At the beginning of the eighteenth century, the Mughal Empire remained the dominant political power across much

of the Indian subcontinent. European trading companies were still petitioners rather than rulers, seeking commercial privileges from Indian sovereigns whose authority they readily acknowledged. Surat ranked among the greatest ports of Asia, linking northern India with the Persian Gulf, the Red Sea and East Africa. It was in this commercial world that Emperor Farrukhsiyar granted the Portuguese Factory at Surat important customs privileges.

The Firman placed:

"Goods carried in Portuguese vessels and owned by Portuguese traders... on the favoured footing, in respect of customs duties."

For more than a century and a half, successive governments accepted these privileges. British official papers acknowledged that they had been:

"From time to time recognized as in existence by the executive and legislative action of the British Government."

The old privilege might have remained an interesting constitutional relic had the commercial world around it not changed beyond recognition. During the nineteenth century Bombay emerged as the commercial metropolis of western India, while the railway created possibilities that neither Farrukhsiyar nor the Portuguese merchants of 1714 could possibly have imagined.

Large quantities of wine and spirits were imported from Goa and Daman to Surat, where, under the Firman, they paid the privileged duty of only 2½ per cent ad valorem, and were then re-exported to Bombay, where they entered free. Other official papers record an even more ingenious variation in which goods from bonded warehouses in Bombay were landed at Daman, carried in Portuguese coastal vessels to Surat under certificates of Portuguese ownership, and then:

"at once retransmitted by Railway to Bombay."

The traffic grew sufficiently large to attract the attention of English merchants, who complained that Bombay was being supplied with brandies *"at rates which would be quite unremunerative in other parts of India."* The Governor-General in Council recorded that certificates establishing Portuguese ownership had become *"too readily obtainable,"* British merchants themselves entered the trade, profits became substantial, while the resulting loss of customs revenue brought *"urgent remonstrances and memorials"* from the Bombay Trades' Association and the Bombay Chamber of Commerce.

The losses to the British customs revenue amounted to 60,941/- between June 1870 and June 1872, and were increasing so rapidly as to have reached 1,299/- in the month of May 1872 alone.

The Government of India finally intervened.

On 26 July 1872, the Bombay Government published a notification in the *Official Gazette*, declaring that the Firman privilege under which Portuguese goods had hitherto been admitted at Surat at the uniform duty of 2½ per cent would cease from 1 September 1872. The action had the approval of

the Duke of Argyll, while the Secretary of State for India requested the Foreign Office to begin negotiations with Portugal for the complete abolition of the privilege.

The Government of Portugal protested against what it described as:

"an injury to their commerce, and an invasion of a long-recognized right of the Crown of Portugal."

The Firman, they maintained, granted a perpetual right to trade at duties fixed at 2½ per cent ad valorem, a privilege exercised continuously for more than one hundred and fifty years and repeatedly recognised by successive British governments. If abuses had arisen, Portugal declared itself willing to suppress them; but the summary suspension of the privilege was, in its words, *"contrary to usage between friendly and allied nations."* A claim for damages arising from the suspension of the privileges was subsequently made against the British Government.

The Government of India argued that the Firman was *"simply an order, not containing any reference to the future, or anything to imply that the privilege... was granted in perpetuity."*

It further maintained that the privilege had been abused, causing serious loss to British Indian revenues, and that its withdrawal violated no treaty obligation whatsoever.

The Governor General of Goa referred the matter an arbitration in 1873, The *Bombay Gazette* reported—

"His Excellency the Governor-General (of Goa) has referred to the Home Government the important question regarding the Surat Factory, about which official notes have been exchanged between the Governments of England and Portugal. It appears to be now decided that both Powers have agreed to refer the question to the arbitrament of M. Thiers, the ex President of the French Republic. The English Government have written a long despatch to our Government on certain points relative to the factory; and Senhor Conselheiro Rivara, secretary to the Governor, has prepared an elaborate reply, which, after approval, will be transmitted to England."

For almost three years the correspondence continued without result until Lord Salisbury concluded that prolonging the exchange served little purpose, while the Earl of Derby decided merely to acknowledge the latest Portuguese note and close the discussion. It appeared that the dispute had reached an impasse.

It had not, and the controversy over an eighteenth-century Mughal Firman would soon reopen in an entirely unexpected form.

The negotiations formally entered a new phase in November 1875, when Lord Northbrook, then Viceroy of India, suggested that Sir Louis Mallet, who was shortly to visit India, should negotiate directly with the Governor-General of Portuguese India for the settlement of the customs and excise disputes that had arisen between the two countries.

Portugal's response was unexpected.

Rather than insisting upon the restoration of the old Firman privileges, the Portuguese Government indicated its

willingness to surrender those historic rights upon an entirely different basis. In return, it proposed four major concessions. The first—and by far the most important—was the joint construction of a railway from the port of Mormugão to the frontier of British India. This was followed by free transit of British goods through Portuguese territory, reductions in customs duties, and an agreement for the mutual extradition of criminals.

The British Government declared itself willing to facilitate the railway by granting land within British territory upon the same conditions as other guaranteed railway companies and reserving the right to construct future branch lines, including one to Karwar.

The Government of India refused to accept that the surrender of the Firman privileges should be treated as compensation requiring payment in another form. The privileges, it maintained, had been “rightly abrogated,” and therefore could not constitute a legitimate basis for negotiation.

Government of India held that the proposal to connect the port of Marmagao with some point, presumably New Hubli, on the contemplated railway from Bellary, could not be entertained with a due regard to the essential interests of British India. *“The line, crossing a most difficult portion of the Ghâts, would be so costly to the Portuguese Government, even with the aid of a liberal subsidy, as to preclude any hope of its proving financially remunerative.”*

Even if completed, they argued, it appeared politically and commercially *“unwise to concentrate the trade of the Southern Mahratta country at a foreign port, in preference to utilising the British port of Karwar.”*

João de Andrade Corvo, Minister for Foreign Affairs of Portugal, looked beyond the immediate controversy over customs duties. His ambition was nothing less than the economic regeneration of Portugal's overseas possessions. According to the official British report, he sought to restore them “to their former reputation and affluence, by remodelling their fiscal and administrative institutions in accordance with the most liberal systems approved by modern experience.” In the proposed railway he recognised “the means of securing for this design the fullest practical development,” opening “new outlets for its produce, new sources for industry, and a full participation in the prosperity of British India.”

Reconciling these conflicting visions fell to Robert Barnet David Morier, the newly appointed British Minister at Lisbon. The official report summarised his mission with following statement:

“To reconcile these conflicts of interest, and to strike out a via media neither distasteful nor detrimental to either Government, was the somewhat arduous task which devolved on Robert Barnet David Morier... and to which he devoted himself with much sympathy and zeal.”

The negotiations remained difficult.

Following numerous conferences at Simla between Senhor Soares, Sir Alexander Arbuthnot and T. C. Hope, the delegates found themselves unable to agree on some of the most important provisions of the proposed treaty. Disputes arose over commercial privileges, salt, indemnity, mixed commissions and several other issues. The British delegates finally informed Senhor Soares that, since he was unwilling to accept the revised draft in its entirety, “the Government of India considered itself free from every obligation which might otherwise have arisen from the negotiations.”¹⁰

While negotiations in India reached an impasse, Morier quietly resumed discussions in Lisbon with Andrade Corvo. Their patience, flexibility and mutual respect gradually produced a revised draft acceptable to both governments. Lord Cranbrook informed the Government of India that *“the negotiations carried on at Lisbon resulted in the practical acceptance”* of the revised treaty, with modifications ‘favourable to India.’¹¹

The Portuguese accepted that Britain would remain free to construct a competing railway to Karwar, while Britain undertook to provide every reasonable facility for the Mormugão line without direct financial subvention.

On the surface, the Treaty signed at Lisbon on 26 December 1878 appeared to resolve a long-standing dispute between Britain and Portugal concerning customs privileges, commercial relations and administrative cooperation in their respective Indian possessions. In reality, it marked the beginning of the greatest economic experiment ever attempted in Portuguese India.

While discussions in India had reached an impasse, Robert Barnet David Morier continued patiently working with Andrade Corvo in Lisbon. Neither man allowed the larger objective to disappear beneath immediate disagreements. Through months of correspondence and negotiation they gradually fashioned a compromise acceptable to both governments. Lord Cranbrook later informed the Government of India that the negotiations conducted at Lisbon had resulted in *“the practical acceptance”* of the revised draft, incorporating modifications considered ‘favourable to India.’¹²

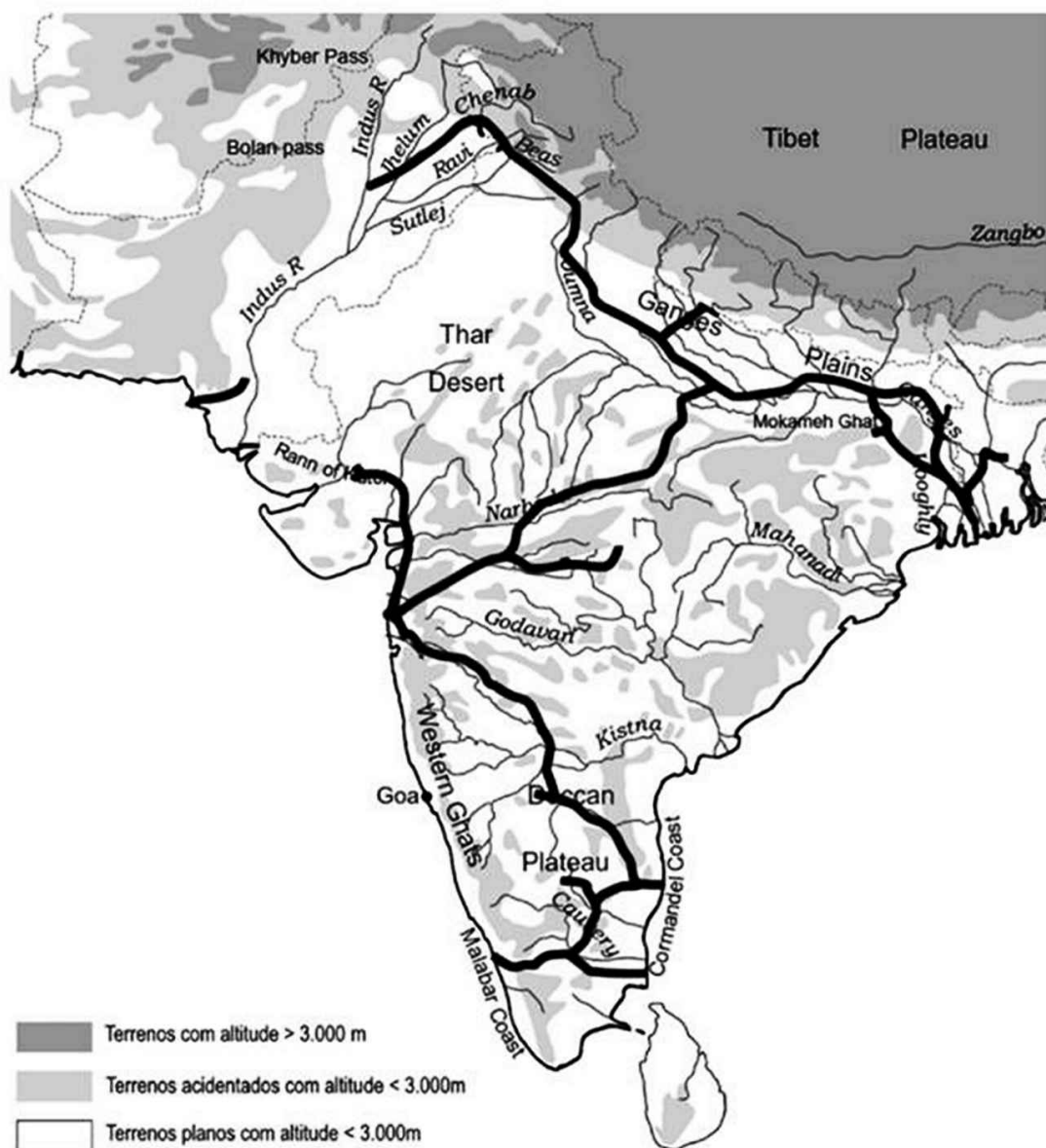
The opening articles of Treaty make it immediately clear that Britain and Portugal were attempting something much more ambitious than the settlement of an old customs dispute.

One clause declared:

*“The Portuguese Government engages to construct a railway connecting the harbour of Mormugão with the frontier of British India...”*¹³

With those few words the proposed railway ceased to be a political aspiration and became an international obligation undertaken by a sovereign government.

Recognising that a railway without an efficient maritime outlet could never fulfil its larger commercial purpose, it linked the line inseparably with improvements to the harbour itself.



Mapa 1. Mapa orográfico da Índia com indicação da rede-férrea indo-britânica no início da década de 1870 (Kerr 2007: 4 e 21, adaptado)

The physical setting in which Portugal imagined a railway from Goa into British India: an orographic map of India showing the Indo-British railway network in the early 1870s.

Reproduced from Hugo Silveira Pereira, "O tratado luso-britânico de 1878: história de um acordo tecnodiplomático em três atos," Revista de História da Sociedade e da Cultura, 17 (2017), p. 236, Map 1;

Adapted there from Ian J. Kerr. image credit: Arquivo Histórico Ultramarino, Caminho de Ferro de Mormugão, maço 2589, ofício of 8 July 1875.

The Treaty therefore required:

"...the execution of the harbour works at Mormugão necessary for the accommodation of ocean-going vessels..."¹⁵

The negotiators clearly understood that railway and harbour formed a single commercial organism. The success of each depended entirely upon the success of the other. Long before expressions such as *multimodal transport* entered economic vocabulary, the architects of the Treaty had already grasped the principle.

Another clause ensured that it would become part of a much larger network.

The Treaty provided that the Portuguese line would connect directly with the railway system of British India, thereby opening communication between Mormugão and the vast hinterland beyond the Western Ghats.¹⁶

Portugal was not building a railway merely for Goa. It was attempting to capture the commerce of an entire region.

No one understood this better than Andrade Corvo. His objective, he explained, was "*restoring the foreign possessions of Portugal to their former reputation and affluence*," while the railway would provide "new outlets for its produce, new sources for industry, and a full participation in the prosperity of British India."¹⁷

Corvo sought to create—a commercially prosperous Goa whose future rested upon trade rather than conquest, railways rather than fortresses, and economic integration rather than imperial expansion.

The Government of India never fully shared that optimism.

Its earlier objections had not disappeared simply because a treaty had been signed. Officials continued to doubt whether the proposed line could justify the enormous expenditure required to cross "*the most difficult portion of the Ghâts*," and remained convinced that "it seemed unwise to concentrate the trade of the Southern Mahratta country at a foreign port, in preference to utilising the British port of Karwar."¹⁸

Portugal saw Mormugão as the gateway to economic resurrection, while the Government of India saw Karwar as the natural outlet for British commerce.

The Treaty represented not the triumph of one vision over the other, but a carefully negotiated compromise between them.

The Treaty of Lisbon could oblige governments to cooperate, but it could not persuade investors to part with nearly two million pounds.

During 1877–78, F. Campbell made overtures to the British and Portuguese governments for construction of the Mormugão–Bellary railway and obtained a concession subject to specified conditions, but was unable to raise sufficient money to take it up. Yet the proposal itself attracted considerable attention. *Allen's Indian Mail*, reporting upon the concession in April 1877, immediately recognised its novelty:

"The importance of the experiment thus ventured upon can

hardly be over-estimated, for it appears to be the first instance of private enterprise coming forward to construct a Railway in India without requiring the State to secure it against all possible risks."

The journal even ventured that, with ready access to the interior, "*the old Portuguese city may regain something of its former splendour*."¹⁹

For nearly three decades British investors in Indian railways had grown accustomed to guarantees. The great railway companies of the 1850s had attracted enormous quantities of London capital precisely because inadequate traffic did not necessarily mean inadequate dividends: behind the railway company stood the revenues of India. Mormugão offered neither an established traffic nor, initially, the familiar guarantee of the Government of India.

Campbell's failure might therefore have ended the matter had the project not attracted the attention of an extraordinary circle gathered around George Granville William Sutherland-Leveson-Gower, third Duke of Sutherland.

The Duke belonged to one of Britain's wealthiest aristocratic families, but his interests extended considerably beyond his estates. Stafford House, his magnificent London residence, had become associated with international philanthropy and public causes; Sutherland himself possessed a longstanding enthusiasm for railways and had accompanied the Prince of Wales during his Indian tour of 1875–76. Around him gathered men with experience extending across diplomacy, Indian administration, shipping, finance and railway promotion—Sir Thomas Douglas Forsyth, William Mackinnon, Sir Henry Green and Frederick Youle—who came together as the Stafford House Committee.

Their appearance was timely, for the Portuguese Government had originally expected the Treaty itself to unlock British capital. Contemporary Portuguese papers recorded the confident expectation that, once the agreement had been concluded,

"não faltariam companhias que a empreendessem sem subvenção nem garantia de juro"—

"companies would not be wanting which would undertake it without subsidy or guarantee of interest."

No company came forward upon those terms.

The Stafford House Committee first sought to discover whether the railway was technically and commercially practicable. In the autumn of 1879, under Sutherland's presidency, an arrangement was reached with Portugal for detailed surveys of Mormugão harbour and the proposed railway towards New Hubli. Ernest Edward Sawyer, accompanied by G. H. Stephens and G. S. Owen, travelled to India, while the Government of India deputed W. Lind of the Public Works Department to accompany the survey, watch British interests and report independently.

The Committee was equally concerned with the political geography through which its railway would pass. In July

1879 it asked the India Office whether Portugal might eventually acquire the railway, whether the Government intended to proceed with the rival route to Karwar, and whether Britain would undertake not to sanction such a competing railway after the Mormugão concession had been granted.

The answers were hardly reassuring. Portugal would not be allowed proprietary rights over a railway in British territory; a survey towards Karwar had already been undertaken; and the Government would give no assurance that the rival route would never be constructed.

Thus, even before investors subscribed their capital, the promoters faced the possibility that the Government controlling most of the railway's anticipated hinterland might eventually provide that traffic with another route to a British harbour.

By July 1880, the Stafford House Committee estimated that approximately £1.8 million would be required for the railway and harbour works. The Portuguese guarantee alone proved insufficient to raise the whole amount in London. The Committee therefore approached the Secretary of State for India seeking either a 4 per cent guarantee upon the capital required for the British section or an annual subsidy extending over twenty years.

The old Mormugão-Karwar port controversy resurfaced again. The Government of India had never entirely abandoned its preference for directing the trade of the Southern Mahratta country towards a British harbour, and the project again came close to foundering upon the conflicting interests of London, Calcutta, Bombay and Lisbon. Only after intervention by the Secretary of State for India, Lord Hartington, did the Mormugão connection finally prevail.

Meanwhile Lisbon had to decide how much it was prepared to concede in order to obtain the railway.

When Anselmo José Braamcamp, President of the Council of Ministers, placed the Stafford House proposal before the Portuguese Chamber of Deputies in May 1880, he spoke with considerable respect of the men with whom his Government was negotiating. They were, he said, *"a group of capitalists of the first rank, and gentlemen who in every respect enjoy the highest consideration in England."*

"uma sociedade de capitalistas de primeira ordem, e cavalheiros que por todos os respeitos gosam da maior consideração em Inglaterra"

Yet Braamcamp made another admission during the same debate acknowledging *lack of sufficient and positive data concerning the construction of this railway:*

"não temos dados suficientes e positivos a respeito da construção d'este caminho de ferro"

The Government possessed merely *"a summary statement sent to us by the engineers entrusted with the surveys":*

"uma exposição resumida que nos foi mandada pelos engenheiros encarregados dos estudos"

Nogueira Soares, during the negotiations which preceded the formation of the company, had described the Mormugão railway as an improvement for which Portugal should make *"every sacrifice compatible with the national dignity and with the resources of the Treasury":*

"todos os sacrificios compatíveis com a dignidade nacional e com os recursos do thesouro"

The sacrifice now acquired a precise financial form.

The law of 17 June 1880 authorised the arrangement, and on 18 April 1881, Sir Thomas Douglas Forsyth, acting with the Duke of Sutherland, William Mackinnon, Sir Henry Green and Frederick Youle, concluded the agreement with the Portuguese Government. Portugal guaranteed 5 per cent upon the first £800,000 of capital; additional capital of £550,000 subsequently carried a guarantee of 6 per cent, while the company also received concessions concerning land and taxation. Revenues arising from payments made to Portuguese India under arrangements connected with the Treaty of 1878 were employed as security for the guarantee.

The arrangement was ingenious. It also gave an unexpected meaning to the experiment which Allen's *Indian Mail* had praised four years earlier as private enterprise proceeding without requiring the State to secure it *"against all possible risks."*

The Government of India had escaped the conventional guarantee, but the risk had simply crossed the frontier.

On the Portuguese side of that frontier, not everyone shared the confidence of the railway's promoters.

In Margão in 1879, before the Stafford House contract had even been signed, the young Goan writer Constância Roque da Costa, describing himself as a *filho da Índia*—a 'son of India'—published an extraordinary pamphlet attacking the Treaty. He recorded *"the cry of pain and indignation against this Treaty, perhaps the most disastrous of all those hitherto concluded":*

"o grito de dôr e indignação contra esse tratado, talvez o mais desastroso de todos os d'antes havidos"

Costa reserved some of his sharpest language for Andrade Corvo, whom he called "a puppet in the hands of Mr Morier":

"um títere nas mãos do sr. Morier"

and even recorded the accusation of having been bought with English gold:

"de ter sido comprado pelo oiro inglez"

The provisions concerning salt and the introduction of the British fiscal system governing alcoholic beverages were, he wrote, *"the death sentence of this unfortunate land."*

Costa also noticed an uncomfortable asymmetry which bore directly upon the railway. The concessions surrendered by Portuguese India under the Treaty were immediate; the great compensating promise upon which so many hopes for Goa's regeneration depended—the railway connection through British territory—was not secured with comparable certainty.

The misgivings were not confined to Goa.

When the Treaty came before the Portuguese Parliament in secret session on 11 June 1879, members supporting the incoming Progressive Government themselves acknowledged '*fundados erros*'—'serious errors'—in the agreement. Emídio Navarro, although prepared to vote for ratification, described the Treaty in three memorable words: '*obra nefasta e monstruosa*'—"a baneful and monstrous work."

Yet he voted for it because:

"da sua rejeição poderiam vir inconvenientes graves"—
"grave consequences might arise from its rejection."

By the time the Stafford House Committee signed its agreement in April 1881, therefore, almost every ingredient of the enterprise was already present: enormous hopes for Mormugão, British capital seeking acceptable security, Portuguese willingness to make substantial sacrifices for the railway, doubts within the Government of India, competition from Karwar, incomplete knowledge of construction costs, and voices in both Goa and Lisbon warning that the bargain might prove expensive.

From these negotiations emerged the West of India Portuguese Guaranteed Railway Company, responsible for the harbour and the railway through Portuguese territory to the frontier, while the Southern Mahratta Railway Company, formed shortly afterwards, would carry the connection onward through British India. The two enterprises initially shared important financial and directing interests, with Sutherland and Mackinnon among the prominent investors.

On 26 April 1881, barely eight days after Sir Douglas Forsyth and his colleagues signed the concession with the Portuguese Government at Lisbon, a new company, The West of India Portuguese Guaranteed Railway Company Limited, quietly came into existence in London.

Behind that rather cumbersome title lay one of the most ambitious corporate charters granted to any railway company operating in India.

The Memorandum of Association reveals that its promoters were not establishing merely another railway undertaking. They were creating an integrated transport corporation whose responsibilities extended from the quays of Mormugão to the frontiers of British India. The registered office would be in England, but its field of operations stretched across Portuguese India and, potentially, deep into the railway system of British India.

The Company's first object was naturally to acquire the concession granted by the Portuguese Government under the Convention of 18 April 1881. Besides constructing and operating the railway and telegraph, the Company was authorised to acquire further railway concessions in British India, purchase running powers over other railways, construct telegraph and telephone lines, build harbour works, operate docks and warehouses, own ships and lighters, perform the functions of a harbour authority, levy port dues, and even acquire shares in other transport companies.

The promoters understood that railways alone generated little wealth unless connected seamlessly with ports, warehouses, shipping and inland transport. Mormugão was therefore conceived not as the terminus of a railway but as an integrated maritime gateway serving the Deccan.

The capital of the Company was fixed at £800,000, divided into 40,000 shares of £20 each, a substantial sum for the period and one that reflected the scale of the undertaking.

Portugal granted the Company the exclusive right to construct and operate the railway, telegraph and harbour works for ninety-nine years, while undertaking to provide land free of cost, exempt construction materials from customs duties, permit the free extraction of timber, stone, gravel and other building materials from Government lands, exempt the Company's income from taxation, and guarantee a 5 per cent annual return on the first £800,000 of capital, with 6 per cent on additional capital required to complete the works.

Proper safeguards built into the agreement.

Engineering drawings required Government approval, disputes were to be settled through arbitration, a Portuguese Government Director sat on the Company's Board with unrestricted access to its accounts, while every major disagreement could ultimately be referred to independent referees in London. It was a sophisticated contractual framework designed to balance private enterprise with public oversight.

The names appearing beneath the Memorandum read like a directory of Victorian imperial enterprise. Sir Thomas Douglas Forsyth, diplomat and explorer; Frederick Youle, London merchant; Edward Easton, civil engineer; John Morris, solicitor; together with distinguished military officers and businessmen, each subscribing fifty shares to launch the new company.

The incorporation of the West of India Portuguese Guaranteed Railway Company marked far more than the registration of another limited company. It represented the moment when diplomacy became corporate enterprise.

The Company would now attempt the far more difficult task of transforming diplomatic promises into iron rails, masonry, breakwaters and a working harbour. It will be transforming dreams into reality!

Endnotes

1. J. B. Amâncio Gracias, *Caminho de Ferro e Porto de Mormugão*, quoted in P. K. Mishra, *West of India Portuguese Guaranteed Railway: Planning & Construction*.
2. Bernard Dale Ethell, *Portugal and Portuguese India, 1870–1961*, quoted in P. K. Mishra, *West of India Portuguese Guaranteed Railway: Planning & Construction*, on Andrade Corvo's observations regarding the economic condition of Goa.
3. Fontes Pereira de Melo, 1849, quoted in P. K. Mishra, *West of India Portuguese Guaranteed Railway: Planning &*

Construction.

4. *Précis of Official Papers* (1881), "Protracted Negotiations and Signing of the Treaty of Lisbon," tracing the origin of the Treaty directly to the suspension of the Mughal Firman privileges.

5. *Report of the Governor-General of India in Council to the Marquis of Hartington*, Simla, 5 August 1881, on the operation and misuse of the Firman privileges, including the movement of wines and spirits through Daman, Surat and Bombay, certificates of Portuguese ownership, and the resulting representations from Bombay commercial interests.

6. *Précis of Official Papers* (1881), suspension of the Firman privileges, Portuguese protest and claim, British legal interpretation of the Firman, and the diplomatic deadlock preceding the negotiations that eventually produced the Treaty of Lisbon.

7. *Report of the Governor-General of India in Council to the Marquis of Hartington*, Simla, 5 August 1881; *Précis of Official Papers* (1881), proposal of Lord Northbrook to negotiate a wider settlement.

8. *Précis of Official Papers* (1881), Portuguese basis for negotiation, including the proposal to construct a railway from Mormugão to British India.

9. *Ibid.*, objections of the Government of India to compensation and to concentrating Southern Mahratta trade at Mormugão.

10. *Ibid.*, Andrade Corvo's vision for the economic regeneration of Portuguese India through the railway; proceedings of the Simla negotiations recording the breakdown of discussions and the declaration of the Government of India that it considered itself free from obligations arising out of the negotiations.

11. *Ibid.*, Robert Barnet David Morier's mediating role and Lord Cranbrook's despatch reporting the successful conclusion of the Lisbon negotiations.

12. Proceedings of the Simla negotiations recording the breakdown of discussions and the declaration of the Government of India that it considered itself free from obligations arising out of the negotiations.

13. Lord Cranbrook to the Government of India, reporting that the negotiations at Lisbon resulted in the "practical acceptance" of the revised draft treaty.

14. *Treaty of Commerce and Extradition between Great Britain and Portugal relating to their Possessions in India*, signed at Lisbon, 26 December 1878, Article VI, relating to the construction of the Mormugão Railway.

15. *Ibid.*, Article relating to the execution of harbour works at Mormugão.

16. *Ibid.*, Article VI, provisions for connection with British India and for a Mixed Commission to examine the comparative feasibility and advantages of Mormugão and Karwar.

17. Andrade Corvo's statement explaining the larger objective

of the railway as an instrument for restoring the prosperity of Portuguese India.

18. Government of India observations regarding the proposed diversion of Southern Mahratta trade towards Mormugão instead of Karwar.

19. *Allen's Indian Mail*, 21 April 1877, reporting an early Bellary-Goa concession and describing it as the first major experiment in constructing an Indian railway through private enterprise without a Government guarantee.

20. *Investors Chronicle and Money Market Review*, Vol. 46, on the anticipated connection with the Southern Mahratta Railway and Mormugão as the 'natural outlet' for the surrounding country.

21. *Report of the Governor-General of India in Council to the Marquis of Hartington*, Simla, 5 August 1881, on F. Campbell's unsuccessful concession and the subsequent Stafford House Committee survey under E. E. Sawyer.

22. *Précis of Official Papers* (1881), Stafford House Committee correspondence with the India Office concerning Portuguese ownership, the rival Karwar railway and assurances sought before construction.

23. *Ibid.*, July 1880 request for assistance in raising approximately £1.8 million and proposal for either a 4 per cent Government of India guarantee or a twenty-year subvention.

24. Gaspar Cândido Correia Fino, *Legislação e disposições regulamentares sobre caminhos-de-ferro ultramarinos*, Vol. I (Lisbon, 1908), on the Portuguese guarantee, land and fiscal concessions.

25. Agreement of 18 April 1881 and subsequent organisation of the WIPGR and Southern Mahratta companies.

26. *Memorandum of Association of the West of India Portuguese Guaranteed Railway Company Limited*, 26 April 1881, objects of the Company and registered office.

27. *Ibid.*, authorised capital of **£800,000** divided into **40,000 shares of £20 each**.

28. Convention between the Portuguese Government and the Stafford House Committee, signed **18 April 1881**, granting the concession for the railway, harbour and telegraph.

29. *Ibid.*, provisions relating to arbitration, Government supervision and appointment of a Portuguese Government Director to the Board.

30. *Memorandum of Association*, list of original subscribers and witnesses.



DUDHSAGAR DIARIES



Chapter I : A Sleepless Night in a Misty Station

Anamitra Bose

Everyone in this mortal world has some wishes in his bucket list; every traveller has some places in his wish list to visit; likewise, every ferroequinologist has some journeys or places in his checklist to fulfil in his lifetime. The Dudhsagar Waterfalls definitely features in such list of 'must go' places, whether one is a rail aficionado or an explorer. I am no exception either.

Every year, the South West monsoon ensures that the Western Ghats receive one of the highest volumes of rainfall in the country. Starting from the southern fringes of Satpura range, the Western Ghats extend upto the tip of the Indian Peninsula down south in Tamil Nadu through Maharashtra, Goa, Karnataka and Kerala facilitating torrential downpour across extensive regions of windward side of these states. The Western Ghats, also known as the Sahyadris, though

has a continuous presence along the western coast have three significant gaps in Goa Gap, Palghat Gap and Sengottai Gap. The Goa Gap is the iconic one as it hosts one of the most breathtaking railway routes running through it connecting Goa with the hinterlands of Karnataka.

The Dudhsagar Waterfalls is synonymous with this route as a plunging Mandovi river descending from the horizon forms the mesmerizing falls that bathes every passing train in its prime during the monsoons. With every passing year, this falls, forming the natural border between the states of Karnataka and Goa, has become the principal point of attraction for all and sundry. But its wild beauty remains heavily guarded by its accessibility or the lack of it. The only way to access the falls and get the sight of its magnificent cascade forming the backdrop of every passing train through

the Braganza Ghats (the stretch between Castle Rock in Karnataka and Kulem in Goa) is alighting at the station named after the falls.

This route is a part of the Guntakal-Hubli-Vasco Da Gama railway line of Indian Railways within the jurisdiction of South Western Railway. It was constructed as a part of the plan to link Mormugao Harbour in Portuguese-occupied Goa with British India in a 'Meter Gauge' avatar. A treaty was signed in Lisbon between Portugal and Great Britain to take up this project in 1878. A company named West of India Portuguese Guaranteed Railway (WIPGR) came into being and the route was completed for train operations in and around 1885.

Coming back to the present, I had hatched a plan long back to frame running trains in the backdrop of Dudhsagar falls. In 2025, I had set target since April to execute the plan of trekking all the way to Dudhsagar in August when the water flow would be majestic. Soumik Chowdhury, an SWR based railfan and one of my boon companions joined me to fulfill the dream. Accordingly, my acquaintance along with yours truly reached Hubballi (Hubli) to obtain requisite permission from Rail Soudha – the zonal headquarters of South Western Railways. Our prior request for permission was successfully approved by the Chief Public Relations Officer (CPRO) as we obtained the official permit to trek and photograph at the Dudhsagar station and its surroundings.

It is noteworthy to mention here that alighting from the train, let alone off-board photography, is completely prohibited between Castle Rock to Kulem stations following some earlier mishaps; hence, all these formalities for prior permission. Accordingly, we had been granted permission to visit and do photography at the spot from 7am to 5pm of the day. The geographical aspect of the train route across the Ghats needs special mention for it being a 1 to 37 ruling gradient indicating one of the steepest climbs up the hill. The route from Karnataka to Goa is downhill where trains need 'braker locomotives' to help in braking power, while route from the other way round is uphill where trains require 'banker locomotives' to push them up the gradient from behind. Apart from the few regular passenger trains, the route is pivotal for transportation of principal commodities like imported coal from Mormugao Harbour for steel plants in Karnataka along with iron ore.

We boarded the train bound for Vasco Da Gama from Hubballi with a plan of spending the night at Castle Rock and boarded the first train down the hill at dawn. This is because while going downhill, all trains stop at every station enroute for brake testing but for uphill, most of the trains skip the stations. As a result, if we need to deboard at Dudhsagar station, we need to stay at Castle Rock overnight otherwise there is no train from this side before noon. We took along enough water and food to spend the night as well as the next day as there will be no catering in the wild. After departing Hubballi Junction, we took a catnap to recharge ourselves. At about 1 am, past midnight, we were woken up by the alarm



and the train was almost approaching Castle Rock. We got off with our belongings at Castle Rock. Post deboarding, we got greeted with chilled winds, light drizzles as mists enveloped the station completely. Castle Rock is a small station and we needed to find some place to keep ourselves and our belongings for the night.

This sudden change in weather conditions was my first concern as I was not carrying any jacket, courtesy my own reluctance to be aware about the prevailing weather conditions. Fortunately, I had a raincoat to shield myself from the incessant rains coming down heavily from the open sky. My trip-mate and I looked for a waiting room, if any. But to our utter dismay, things were not meant to be as per our sweet will – the waiting room was undergoing renovation. We tried to find some space in the first floor of the otherwise small station building to sit the night out but there wasn't such scope. We went outside in search of some hotels or lodges only to discover being surrounded by deep jungle as we stepped outside the station. A few small lights of station building were glowing, beyond which, it was sooty-black. So, instead of venturing out, we chose to fall back on the last resort. We approached the on-duty Station Master who not only permitted us to keep our luggage in his room but also let us use his washroom. At last, we found some luck!

This definite act of gesture from a 'Good Samaritan' helped us, in a big way, to spend the night in the deserted station. No words of appreciation are enough for this favour. We charged our power banks for the next long day. Instead of sitting idle, we decided to take a stroll around the station. The station is so different from any other countryside one. Not a single vendor or passenger is to be spotted in the platform. As the night deepened, the clouds and mists started descending in higher proportions as we felt like being in Darjeeling or Ghoom Railway Station instead of Karnataka! The distant signals on both sides looked like red eyes of the devil keeping constant vigil on us through the mists as the drizzle went on and off. To keep the time flowing, we two engaged ourselves over some materialistic



issues along with everything related to this passion. Meanwhile, one of the tracks began to produce some rumbling noises as we saw the headlamps of an approaching locomotive. Within a few minutes, a coal-laden freight arrived. The station got a touch of life as the crew ended their duty and a fresh pair of loco pilots took charge of the consist from there. Pointsman and other station staff also got engaged, as braker locomotives were getting attached to the train. The otherwise silent station got a bit lively with the humming of the locomotives and activities of the crew. After about half an hour, the train departed with loud honk and towards Goa. As the last wagon went past the premises, it was all about silence again. It was then coming down heavily and we took shelter again in the Station Master's space. We had some insightful conversations with him and other staff who informed us about risking their lives to keep the services going, especially in the monsoons. Adding to the danger was a black panther which had been spotted much recently in the vicinity of the Dudhsagar Falls. All these anecdotes pushed us to the edge of our seats!

After spending nearly an hour with the master, we decided to

take a doze off a bit over the cement benches of the station. The station was still engulfed in clouds, mists and the never-ending rains. The caressing of cool breeze ensured we slipped into deep slumber only to be awakened by a pair of honking EMDs changing tracks to position themselves for their next assignment. Alas, it was another two hours to go for the Goa Express to arrive. We strolled around the platform with our music gears on, playing some tracks that added to the ambience. Meanwhile, a couple of burning eyes began to approach us. No, it wasn't the black panther as it got bigger and bigger. A pair of locomotives was arriving to put up their boots after another strenuous day in the Ghats. The locomotive was chiselling through the passing clouds and heavy mist. It was a sight to behold as the clouds got lightened up by the headlights of the locomotive, seemingly replicating a scene from a horror flick. As the rain again got intense, we decided to stay indoors and nod off again as the quant station kept witnessing these activities, just like any other night.

As my alarm rang, it was time to pick up our bags from the Station Master's office room and get ready to board the train for Dudhsagar falls. Dawn was also breaking as blue sky gradually began to take over the cloudy sky. Concurrently, at the Castle Rock station, pairs of BOXNHL rakes had arrived waiting for their turn to descend the Ghats with penta-EMDs in their lead. The triplet in front of them would act as brakings providing additional braking power to the train. On the other track, another BOXNHL rake patiently waited for crew change after a tedious ascent through the Ghats. This one had twin Wabtec ES43ACi locomotives at its rear to push the train uphill. The continuous downpour created white fumes as the rain droplets underwent instant evaporation after coming in direct contact with the red-hot radiators.

We bade good bye to the station and its master, not before thanking him for all the support extended to us when it mattered most. We boarded the train and set off for our destination as an exciting day waited us....

'The Dudhsagar-Day', as we called it, had just begun!







Chapter II : The Dudhsagar Day

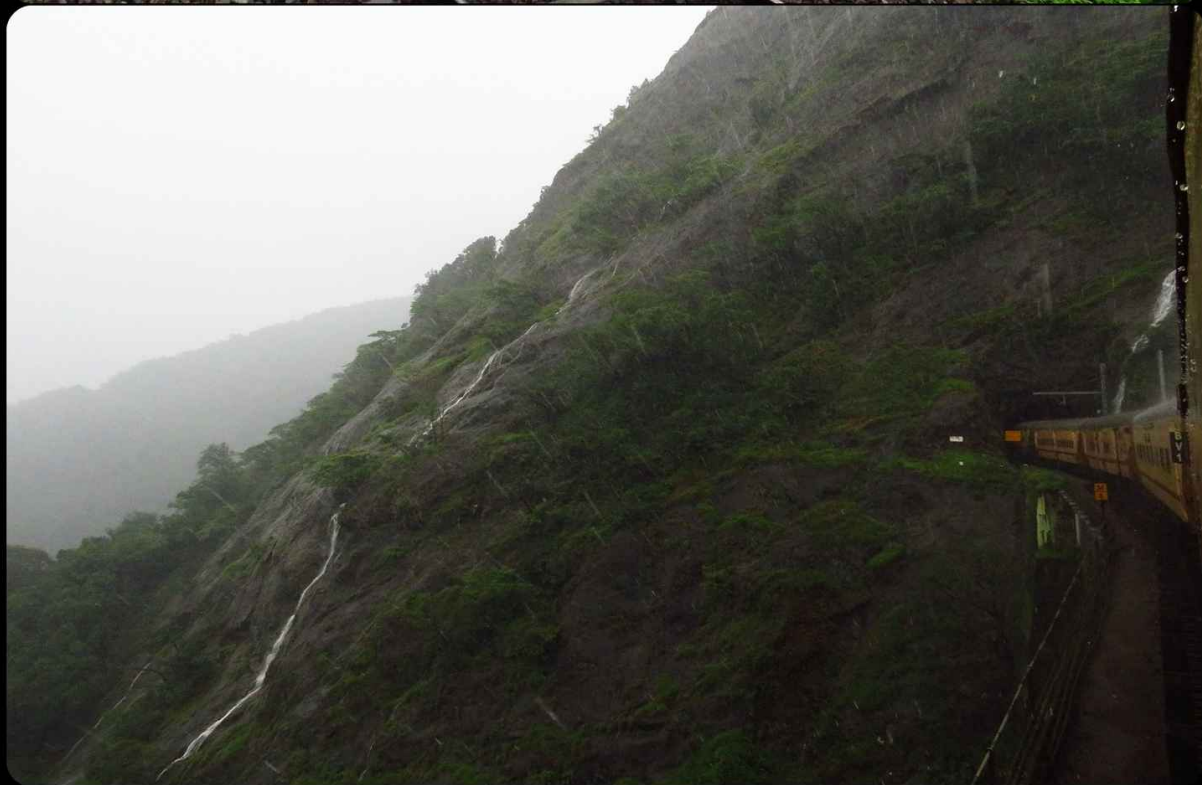
Anamitra Bose

After a 'Sleepless Night' in a misty Castle Rock station, we set off for our **Mission Dudhsagar** in Goa Express as gloomy daylight gradually pierced through the dark and impenetrable rainclouds. But still it was coming down like anything! Our train departed from Castle Rock station with a WDP4D in the lead with a pair of Hubli DLS homed EMDs acting as brakers. The Hubli braker pair consisted of WDP4B #40036 which has a unique retrofitted shell after it had an accident with Hampi Express; the other locomotive was the "Namma Karunadu" WDP4B # 40057 painted in a special livery. Slowly, the train picked up pace and started its brief uphill climb upto the Braganza Ghats. The board 'Ghat Begins' soon appeared as the EMDs marched on towards the ghats.

As the train cut through dense forests of Dandeli, the topography underwent drastic changes. Lush greenery encapsulated the hills and the tracks, almost covering

anything that came in its way. It looked like a green carpet had been laid everywhere which was drained by small rivulets and streams flowing through the hills. As the rains continued incessantly, the streams chuckled in their own charm. The train hustled through the tracks and the babbles from the streams combined with it to create a great symphony. Our train crossed tunnels and bridges with each curve offering a new frame to photograph; it advanced through Caranzol, the last station in Karnataka.

The train gradually slowed down at Dudhsagar Halt station and that meant we had to disembark on the tracks. As trekking was banned, RPF was already on the tracks and near compartment doors to prevent any alighting. Once we were on the tracks, RPF approached us and the first question was, "Why you're here?" in a tone that we are quite accustomed to from these men in uniforms. We assured them we had proper permissions and documents though it seemed they





were not convinced. They took us into the station room, which was small and minimal. We produced the original letter from the CPRO office and from their expression, it seemed they were taken aback. They had to reluctantly let us go and surely missed opportunities to harass us and send us back by the incoming train. Taking express permission from the Station Master in charge, we dropped our belongings at the station room and took only minimal items to carry. As it drizzled, we went off on our way towards the falls – our spot for the day.

The entire route was walking and trekking along the tracks, which is otherwise strictly banned during this part of the year. We started to walk through the rain on the slippery concrete sleepers very carefully. After walking around 500 meters, we helped ourselves into a tunnel. There was no natural or artificial light inside the tunnel as pitch darkness prevailed. We used our mobile phone flashes to act as our guiding light. The tunnels themselves have stories to tell; they had damp, marshy sidewalls dating back to 19th century with the fear of encounter with venomous snakes, scorpions and insects looming large; It was some minutes of pure thrill.



There were streams of water flowing through the tunnels that seeped in. One of the tunnels enroute had a natural opening in the form of rock crack from where sunlight and rainwater made their way into the darkness of the tunnel. The synthesis of rain droplets and light rays created a magic though we had to mind our every step. Finally, after around 2 kilometers of walk we reached the zenith - the majestic and colossal Dudhsagar Falls. The Mandovi river came down with all her might armed with the monsoon rain waters to hit the base creating a white wall of water. The four-tier plunge from the catchment along the lush green slopes of the Western Ghats looked like enormous streams of milk, living upto its name Dudhsagar or 'Sea of Milk'. We didn't spare much time to appreciate the beauty of the falls and treaded the viaduct that bridges the falls. The walk on that viaduct was itself a sensational experience with the mist and vapour from the gushing falls coupled with heavy rains holding everything under siege. We got completely drenched; the raincoats and umbrella didn't hold enough to prevent the onslaught.

After crossing one more tunnel and a trek of around one





kilometer, we ultimately reached the spot where we meant to be. The spot was perpendicular to the waterfalls and offered mesmerizing panoramic views of the trains passing the falls. As the overhead equipment were already in place, our target was to minimize the noise of electric poles and wires from our frames. We discovered an excellent place to spend our day, a gangman's hut with an attached small facility for them to freshen up and stay protected from relentless rains and wild animals. Soon after we reached the spot, a coal consist with penta-WDG4 crossed – the one which we spotted at Castle Rock. After that, it was turn for another coal rake, this time from the Kulem side, hauled by Gooty WDG4Gs and banked by Hubli WDG4 triplet crossing the spot. Meanwhile, rain ceased and the conditions improved a bit for photography. Soon, a Hubli WDP4D showed up with the 17040 Vasco - Hyderabad Express and was banked by a pair of Hubli WDP4B and WDP4D. The bankers at the end of the train created a marvelous scene with the backdrop of the falls. But the rain-free phase was soon over as a fresh spell of heavy showers came lashing in. Such was the intensity of the rain, the falls in front of us became almost invisible. Adding



to the utter misfortune, the most interesting combination of twin WDG6G from Gooty DLS, a pair of 12000+ horsepower had arrived came from the Castle Rock side during this turmoil. The cameras could not be blamed as torrential rain played havoc on our photos which were laden with haze. The train had no brakemen as the dynamic braking of the Diesel pair was enough to stop the train effectively in the downhill.

We soon saw a silent guardian of the tracks, gangman





approaching us. He was on his patrolling duty and performed validations on his way to the hut. After reaching the hut, he took a breather to freshen up. We were relieved as there was no chance of objection or further pacification as the permission letter threw all the weight behind us. He took a power nap in the middle to recharge himself in his ever-challenging job profile. Meanwhile, another coal carrying service led by Hubli WDG4 arrived from the Castle Rock side reverberating the area. After he was getting ready for his next assignment back to Kulem, we engaged ourselves with some fruitful conversation. He hailed from Maharashtra and was working in the Hubli division. The most significant point of the conversation was the recent sighting of a black leopard in the area. We could instantly relate with the words of the Station Master of Castle Rock, a few hours ago. Though black leopards are mostly found in various reserved forests of Karnataka, it's a bit uncommon in that area. He advised us that if we stayed in the hut, we would be mostly safe from any wildlife confrontation or natural hazards. Meanwhile, his phone rang up and came the intimation of the incoming Amaravati Express to Shalimar. We got ready with camera to

capture the incoming pair of Gooty WDP4Bs 40007 and 40009 roaring through Dudhsagar with all their might and aptly assisted by the celebrity WDP4B pair of 40036 and 40057. The Hubli WDP4B pair in front of Dudhsagar Ghats was the frame of the day. That certainly ticked one of my bucket list items. Though trekking was strictly banned for commoners by the state governments of Goa and Karnataka, still some over enthusiastic tourists showed up with their howls and unruly behaviour, defying everything. It was almost 1 PM and we were able to spot some freights passing by the falls. It was time to return to the falls to manage another frame of the Vasco bound Amaravati Express and any other freights, if they are destined to pass.

As soon as we reached the falls after negotiating the tunnel, another heavy spell of shower came down. It was impossible to stay in the temporary huts, rather we climbed to the nearby Officers Rest House of the South Western Railway. The already swelling falls showed its might. It was like a monster fuming and washing away everything that came in its way. The vapours generated from the frantic streams of the falls completely soaked us as we decided not to walk further until the intensity of the rain relented. We took the stairs to the topmost deck of the rest house which gave another staggering view of the gigantic falls on the left with the tracks on the right. The water slashes from the falls still lashed away and we had to resort to our umbrellas even while standing under the roof. After about an hour, we climbed down to spot the incoming Amaravati Express. The quadruple EMDs roared past ignoring the monsoon rains. The locomotives in lead were Hubli WDP4D + 40010 WDP4B while the original link was WDP4B 40008 and WDP4D 40270 from Gooty DLS. The roar of 18000 horsepower almost deafened us. After the train left, we realized we had to utilize that gap to reach Dudhsagar Halt station. We set off on foot. Our purpose of the visit had been fulfilled as we enjoyed a few delightful hours with both the beauty and the beast of mother nature.

We reached Dudhsagar station and picked our bags up which had been securely locked over there. We thanked the generous Station Master and the staff as we waited for our next journey. Dudhsagar Waterfalls is not merely a waterfall – it's a magnificent display of nature's raw power, beauty and grandeur....









CHAPTER III : LEAVING BEHIND...

Anamitra Bose

After an action-packed day, it was pack up time. As we walked our way to the Dudhsagar station, we heard a honk resonating through the hills. The unique meandering layout of the railroad for climbing or getting down the hills keeps you guessing about the exact location of the locomotives at the instance of a honk only. It keeps coming back as echoes play their part to haunt you and to make you believe about the proximity of the locomotive though they may be far away in reality!

After about ten minutes of pondering about the position of the locomotives, a pair of WDG4s, hailing from Golden Rock DLS appeared on the curve. They roared from the Kulem side into Dudhsagar with a BOXNHL rake banked by a Hubballi WDG4 triplet. The raw power and tractive effort of the electromotive diesels seemed to rule the roost. After about another half an hour of silence, there was an indication bell in the Station Master's room that a train has departed Castle

Rock and was approaching Dudhsagar. The Station Master confirmed that the train was a freighter and would be proceeding towards Kulem. We realized that it was our golden opportunity to reach Kulem on time. Accordingly, we picked up the belongings from the Station Master after acknowledging his unconditional support towards us. We decided to convince the crew of the locomotives to let us get in for a short ride upto Kulem. As the penta-WDG4 gradually came to a screeching halt, we advanced towards them.

We approached the crew on the braker locomotives first and they told us to take permission from the actual loco pilot of the train who was in charge of the WDG4 duo, behind the triplet brakiers. We sought for permission from them to get onboard by explaining our situation. Initially, he was hesitant but asked for the permission letter issued from the end of CPRO. We produced the same following which he let us in. It was like a dream come true! That day, not only we



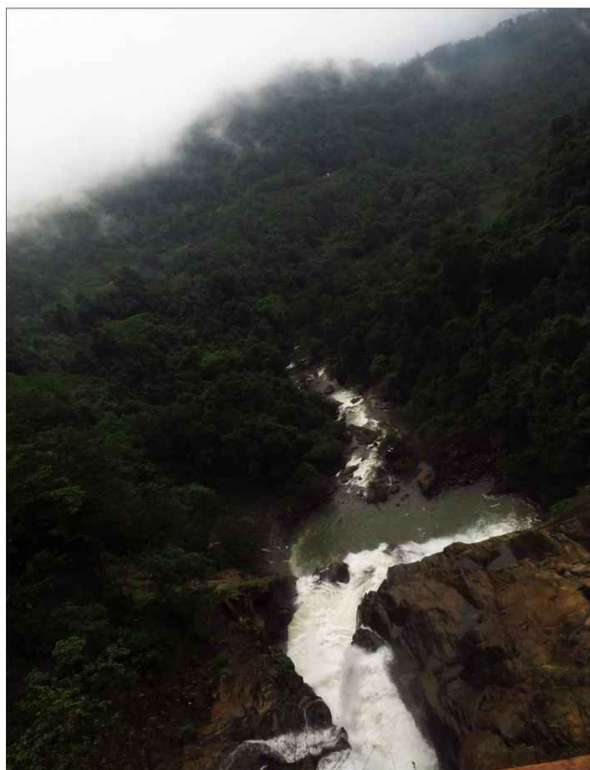
got the chance to footplate a WDG4 Locomotive but that also in a 'penta formation'. So, it was a double delight.

We got into the cockpit of the mighty GT46Mac where the analogue consoles communicated with EM2000 computers to negotiate the tricky Ghats in those challenging weather conditions. Soon, the train honked and picked up pace slowly, countering wheel-slip and the slippery tracks. We followed the protocol of not taking any photo or video from or



inside the cab for obvious reasons; our loco pilot did appreciate our move as we were soaking ourselves with the wonderful feeling of being onboard a penta-WDG4 led coal train amidst the grand ambience of the Ghats. That experience is yet to sink in till date.

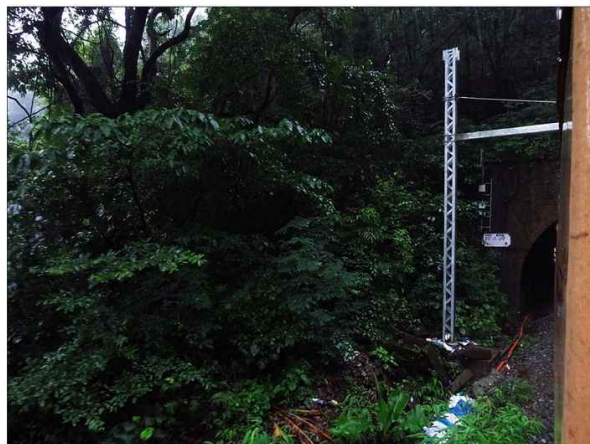
The rain was lashing hard and we gradually approached the Dudhsagar Falls, for the third time of the day. It was an incredible and lifetime experience when the V16 engine made its way through the deluge of the mighty falls. The enormity





of the falls coupled with the roar of water splashing over the locomotives completely silenced the thunderous sound made by the penta-machines. Nature, as always, was the clear winner over the manmade machines that looked like toys in front of the humongous falls. The wipers worked tirelessly and the only visible object we could recognise was the SHF of the last WDG4 of the triplet leading our train. Witnessing the falls from the track vis-à-vis the deck were two completely different experiences.

After crossing the falls, the only 'noise' except the clatters of the rain was the whistling sound of the dynamic brakes of the five GT46MACs. And that's no noise to a railway aficionado, it's music to the ears and symphony of love for the passion that we live, day in day out. As the five different locomotives worked in tandem, they sounded like performing in an orchestra. The squeaking of the wipers on the windshields added an extra dimension to the ongoing 'concert'. The locomotive sets made a penultimate halt for brake test in Sonaulium. We were now within the jurisdiction of Goa. The intensity of rain had gone up by then as we had a crossing with Hubli based WDG4 led departmental rake.



Post crossing, we departed with a long honk as the descent towards Kulem started. Standing inside, we could clearly feel the train hurtling downhill.

On reaching Kulem, we were greeted by a fresh spell of heavy showers as we thanked the onboard crew after deboarding. We refuelled ourselves to survive the next few hours unto Londa Jn. As expected, Kulem was all saturated with BOXNHL rakes carrying coal or iron ore. The clock kept ticking as evening descended with daylight fast losing ground. Finally, came the announcement of our incoming train – 12779 Goa Express. It hummed into the station with the same Pune WDP4D with whom we had started our day. Rain was intensifying with every passing moment as lack of shed on the platform completely drenched us, though for the n^{th} time for the day. We boarded the train and decided to give ourselves some rest after a long and arduous day. On our way back, we bid adieu to the majestic falls, we bid au revoir to the railway staff with whom we had spent the day, one last time!!!

At Castle Rock, where we had stayed the previous night, the bankers were detached with the train having conquered the Braganza Ghats. In no time, we reached Londa Jn. bringing an end to an amazing day; a day worth remembering throughout our lifetime. Maybe, things will never be the same again as electrification has made its mark already and soon the diesels may give way to the electric runners which have hitherto served this route. The thrill, the adventure together with several factors of uncertainty had made this visit a truly memorable one that we keep cherishing all the time. We seemed to have experienced a perfect symphony between the might of nature with that of the manmade machines that keeps pushing us for another visit....

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DDS – Through Soumik Chowdhury's Lens



DDS – Through Soumik Chowdhury's Lens





CHHUK-CHHUK GAADI

Edwin D'souza

I was born in the year 1967, the year when a young Independent India had put behind its teen years to celebrate its 20th year of freedom from the British. And though I was born in an even younger State of Goa, I only remember the days from my early childhood and growing up in Badnera. My father was employed in the Indian Railways and stationed at Badnera. He was a loco pilot who was stationed at Badnera.

Badnera is a small town in Amravati district of Maharashtra. It is located on the main line and so is an important railway junction under the Bhusaval Division of the Central Railway connecting the eastern part of Maharashtra and India with the western part of the State and the country. A passenger train of four coaches would let the locals and long-distance passengers commute between Badnera and Amravati that would take about 20 minutes to cover 10 kilometers distance.

Badnera had beautiful railway quarters, a loco shed, a library and a railway hockey ground next to the railway station. While many of the railway employees lived in the railway quarters, we had our own house in the midst of a large field

about two kilometers away at the eastern end of the town. Yet, we got to enjoy a clear view of the railway tracks and the trains running east-west along the Satpura mountain range. As children, we often would stand by the door for hours and wave and shout above our voices at the trains that passed by in the hope our father piloting it would hear us.

Back then, the railways employed "call boys" to notify the drivers of their next duty and I still remember an elderly gentleman carrying an umbrella in one hand, a lantern in the other, a call book tucked under his arm and a pen placed behind the ear visiting our home, sometimes at odd hours and under pouring skies to notify my dad.

Those were the years when children were considered '*bhagwan ka roop*'; Godlike; when parents would thank teachers for punishing their children; when we learnt writing by dipping the pen nib in ink; when families could barely afford a set of uniform; when the broken strap of *chappals* were held in place with wires; when one, two, three, and five paisa coins called *khadkus* would buy pocketful of *goli-biscuits*; when friends would join in searching a candy lost in soil for hours and then share a direct bite on finding; when

gilli-danda game was more popular than cricket; when the red velvety rain bugs or "*Laal Gat*" would appear after the first rains and we would carry them to school as pets in grass-filled match boxes; when the width of bell-bottom pants were used as one-upmanship by elders; when newspapers printed thousands of roll numbers of S.S.C. and H.S.C. board exam pass outs; when strangers would ask time to passersby wearing a wrist watch; when clicking a photograph was an event in itself; when households would eagerly wait for the *pheriwalla* selling kerosene door-to-door on metal drum loaded cycle rickshaws with a *bhopu* horn; when the shopkeepers sat at the road-facing counter to greet and attract buyers; when bicycles were rented on hourly basis; when the black rotary dialer telephones would make the 'tring-tring' sound and the callers had to scream to be heard at the other end; when visiting Bombay (now Mumbai) would be the talk of town for days and Goa was like overseas; when friend clubs would send song requests to radio stations; when Tata-Birla was synonymous to being wealthy; when Ameen Sayani and his Binaca Geetmala on Radio Ceylon would rule the airwaves every Wednesday evening; when Rajesh Khanna was the one God in the sky for all; and when trains mostly hauled by steam engines called the "*chhuk-chhuk gaadi*" were glorified as well as feared by the people.

All this was to come to an abrupt end when the American space station, Skylab, was to fall to the ground and the people would not know of the end of the world until the radios announced it hours later. This created a mass

hysteria until it turned out to be a damp squib, quite literally. But that was to happen in the year 1979.

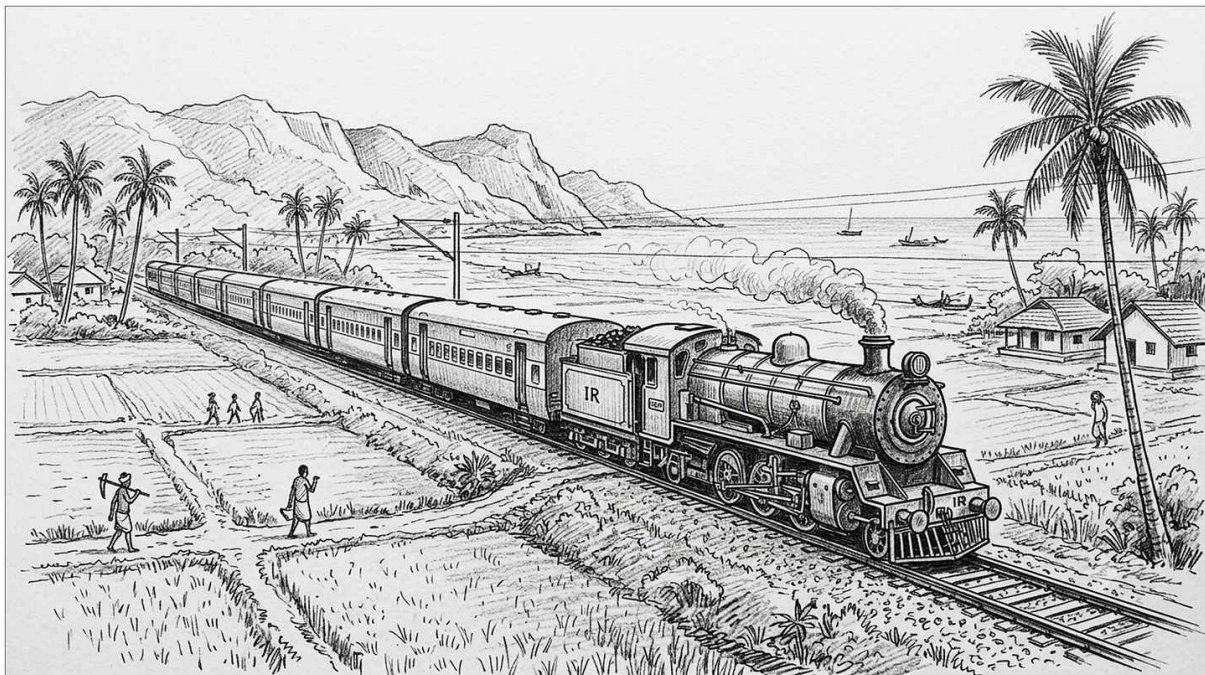
It's 1974 and I was seven years old. The romantic 'Prem Nagar' of Rajesh Khanna was crumbling to the rage of the angry young man, Amitabh Bachchan. A young independent India was also growing angry over "the high cost of living". The President of the All India Railwaymen's Federation, George Fernandes, led a historic twenty-day nationwide railway strike paralyzing the country. Trains ran late by days forcing the Indira Gandhi government to detain thousands of union leaders and employees. The railway strike was to precipitate the imposition of the national emergency in 1975.

My dad was also among those arrested and imprisoned. I don't know how much that incident affected his decision of leaving the Indian Railways and going to Saudi Arabia to join their railways as a driver. But that came later. My dad was a much disciplined and respected loco pilot reputed for running the trains punctually and safely. He was released after a month of detention and had rejoined his duties.

The country was now a year into the emergency when our family got an invitation to my cousin's marriage in Goa. My dad was entitled to three first-class railway passes for our family of seven in a year, yet he rarely took leave for holiday-travel. Unlike the Edmondson thick cardboard railway tickets that had the details printed and punched on them, a railway pass was more like a visa paper.

Back then, there was only this 1039 DN/1040 UP Maharashtra Express running between Nagpur and Kolhapur





to take us out of Badnera and put us on the way to Goa. It was started on 1st November, 1971 and hauled by a massive black beauty of a steam engine with a huge star on its bulging forehead. Those steam engines were classified by a letter denoting track gauge followed by a letter for their designated haul. Thus, the WP engines marked the broad-gauge passenger trains and WG, the broad-gauge goods trains. The meter gauge engine was marked 'Y' and the narrow gauge 'N'.

Maharashtra Express is a broad-gauge train that originated at Nagpur. However, it now starts 160 kilometers ahead of Nagpur, precisely, from Gondia. The other change is the abolition of the third-class coaches having wooden benches from all trains under the Indian Railways.

A steam locomotive journey came with its own special effects – both audio and video; from the iconic long eerie whistling like a child's scream, white steam blowing out from the sides of the moving engine after a halt, black smoke and soot billowing high in the blue sky from the chimney on top of the engine that left the faces and clothes of passengers in the compartments behind blackened, the classic chugging of the steam engine which gave out the "chhuk-chhuk" sound earning the "chhuk-chhuk gaadi" epithet, to the typical handkerchief or bandana tied to the head of the loco pilots. Some of the old Hindi films and songs have immortalized these scenes.

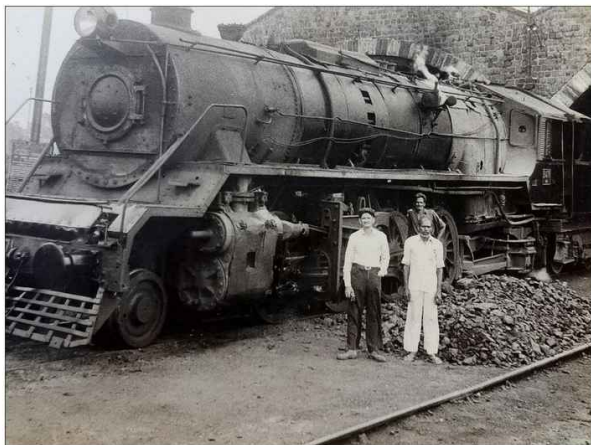
On the day of the travel, my dad would go to the station in the morning and find out the running position of the train as they usually ran late by few minutes to even hours and

passengers waiting to board had no choice but to bid their time at the platform or in the waiting room and listen to the announcements on the public address system that would start with few minutes delay and gradually go up in count until going silent and leaving the passengers to figure out for themselves by leaning over the platform and waiting for the semaphore signal arm to tilt downward and the train to appear from afar.

There was no smart luggage then. Passengers would carry their belongings in heavy iron, tin or wooden trunks. A coarse cloth 'holdall' serving as a bag when rolled up and bedding when rolled out was the only "smart" thing of that time.

Maharashtra Express' scheduled arrival at Badnera was two o'clock in the afternoon. Having a railway pass, that too first class, meant we had no hassle boarding the train with the bulky luggage within those two minutes' halt nor having to chase the ticket checker later for finding berths. And after we boarded the 4-person lockable cabin of the first-class compartment, as the compartment was called, our journey was like a family of five siblings and parents travelling in our own *'Room on Wheels'*.

As the train "chuk-chukked" on tracks and "ruk-rukked" at platforms, passed station after station, the view outside would gradually change from the drier eastern plains to the greener western landscape. What didn't change much all through the journey was the "chai-chai", "dudh-dudh" cries of hawkers, passengers scrambling to drink water directly under the taps and fill their canvas water bags that would be



My father (left with cap) at the Badnera loco shed

Photo provided by the Author

tied to the train windows for cooling, the "coolie-coolie" callouts and the iconic A.H. Wheeler bookstores selling newspapers, magazines, novels, travel accessories and even toys.

As children, we would try to capture the name of each station, halt or no halt, and write them down for boasting later. But that was possible only until evening as this was an overnight journey. By the time we woke up in the morning to the bread, butter and tea breakfast served by the railways to all first-class passengers, we would have missed out on most of the stations. Next day, the train would reach its last station of Kolhapur at about 4 o'clock in the evening covering almost 1200 kilometers without crossing the border of the state at any point. However, we would break our journey a little before at the Miraj junction. That gave us enough time to visit another aunt and cousins at Miraj and return for the overnight stopover at the waiting room of the station.

Our onward journey would commence very early the next morning with the Miraj-Vasco Express train. This was also a switchover from the Broad Gauge to Meter Gauge, from the WP to YP engine, from 1039 DN/1040 UP to 205 DN/206 UP and from Central Railway (CR) to South Western Railway (SWR). Call it the travesty of destiny, for while the more powerful Nagpur Kolhapur Express engine got to run along a relatively flat route, the lesser powered Miraj-Vasco Passenger engine was made to toil hard to haul its load up and down the steep Western Ghats. And so, it took its own sweet time of 8 to 10 hours to cover a distance of about 300 kilometers!

But as a reward, it had the privilege of traversing the famous Dudhsagar (literally meaning 'Sea of Milk') waterfalls while skirting the 26 kilometers long Braganza Ghat demarcating the States of Goa and Karnataka. We would clamour at the windows of our cabin to witness the Mandovi waters plummet nearly 310 meters from the Western Ghats as the Dudhsagar Falls before gushing into the Arabian Sea near Panjim. The train was also generous enough to give us multiple views as it climbed the steep forested gorge in the



ghats. The Dudhsagar waterfalls was the highlight of our two-night, two-train journey which was about to end soon at Margao (also Madgaon) station and the onward journey to our cousin's home in Assagao would commence in a colourful and loud Kadamba bus.

Few years later, my dad who mastered the steam engines in India, went on to pilot the trains in Saudi Arabia. After his return from there, our family left Badnera to settle in Pune for good.

So, here I am standing on the railway bridge across 1976 to 2026 overseeing the Badnera railway station; many trains have since passed under this. But the bridge isn't that part of my journey exactly fifty years back in time. Yet it still connects me to all those golden memories of the black "chhuk-chhuk gaadi" era I shared here. Though I don't have a single photo of this illustrious journey but those golden memories still linger and won't just fade away....

Jai Hind!

All photographs have been generated using artificial intelligence and are intended for representational purposes only, unless mentioned otherwise.

Cover photo sketch by Somsubhra Das.



Edwin D'souza is a Hindi and English story, screenplay and copywriter. He is associated with the web series 'Taali', a Marathi TV reality show 'Ghe Bharari... Mala Pankh Milale', and the upcoming film 'Eetha'. He is the winner of the 'Copywriter of the Year', 'Best Copywriter', and 'Best Corporate Film - Jury' awards.



Railway Sketches





BIG BOY 4014

WITNESSING AN AMERICAN LEGEND

Hrishik Mukherjee

Unlike in India, where the railways remain largely under a single national operator, the Indian Railways, the American railway (or railroad, as the Americans call it) industry has spent the last century undergoing wave after wave of consolidation. Railroadng was a very profitable endeavor, and as a result, there were hundreds of such companies across the nation. But as the market evolved, many of these companies gradually merged into national giants, while many disappeared through bankruptcies and acquisitions. Today, the vast majority of American railroadng is carried out by just a handful of Class 1 railroadng companies – CSX, Norfolk Southern (NS), BNSF, Union Pacific (UP), Canadian National (CN) & CPKC.

Consolidation still remains a defining theme of the American railroadng industry. Periodically, proposals emerge for

further mergers among the major remaining railroads. The most major recent example of this was as late as 2023, when Canadian Pacific and Kansas City Southern merged to form CPKC. Merger proposals often promise larger, more unified and efficiently connected networks. But given the size of these railroadng companies, these mergers often attract intense regulatory and anti-competitive scrutiny. Against this backdrop, railroads often use history and public outreach to reinforce their brands and connect with communities.

Few symbols are as powerful and moving in American railroadng history than UP's Big Boy no. 4014. Originally built in 1941 by the American Locomotive Company in Schenectady, New York to haul heavy freight over the Wasatch Mountains in the states of Utah & Idaho, the world's largest operational steam locomotive has become a

traveling ambassador for Union Pacific. The 8,200 hp beast served Union Pacific for 20 years before finding itself at a retirement home (some people like to call them rail museums) in Pomona, California. In 2013, Union Pacific re-acquired the locomotive and restored it in 2019. Since, then Union Pacific has carried out excursion trips of the 4014 almost every year.

The eve of 250 years of Independence of the US happened to coincide with the recently announced merger application of Union Pacific and NS. Their merging would create the first truly transcontinental railroad company in the country. So, when Ed Dickens, the Senior Manager of Heritage Operations at Union Pacific posted pictures of inspections of track on what was on the eastern side of the country, deep in NS territory, rumors started rumbling about a possible Big Boy excursion to the east. After all, having been made in New York, the locomotive had never been anywhere east of the Mississippi river since then.

The rumors came true as Union Pacific announced details of the Big Boy's first East Coast tour. The unthinkable had just happened. A once in a lifetime event was revealed. To mark 250 years of independence, the Big Boy would be in Philadelphia on the 4th of July. Union Pacific announced plans to conduct this tour on NS tracks in the East. And as someone living in Boston, this was the best chance I had to see the Big Boy in action. And so, did I.

June 13th was the day I chose. On June 13th, the Big Boy was scheduled to make the trek down to Nesquehoning, PA from Binghamton, NY. I drove from Boston, MA to Ithaca, NY the previous night and started my day at the crack of dawn. I drove about 70 miles before arriving at my first stop of the day, a small gap between Route 11 and the NS Sunbury Line. When I arrived, a groUnion Pacific of around 40 people were already there and consisted of both locals and railfans. Having departed at 7:37am from Binghamton, NY, the Big Boy took its own sweet time to cross us at Hallstead only at 8:56am. This was my first spotting of the Big Boy ever and it



was very special! The consist was led by the celebrity itself, with NS EMD SD70ACe 1776 and Union Pacific EMD SD70M 1776 idling as back Union Pacifics, followed by 12 historic Union Pacific and NS passenger service coaches. The last time any of these companies actually ran passenger service was in 1979, which is when Southern Railway, one of the companies that merged into NS handed over its Crescent service to Amtrak and in 1983, which is when Denver & Rio Grande Western, one of the companies that merged into Union Pacific, handed over its Rio Grande Zephyr to Amtrak.

As soon as the train crossed, a lot of us rushed to our cars parked beside Route 11 to head to the next stop – amongst the most stunning stops of this tour, the Tunkhannock Creek Viaduct in Nicholson, PA. With Google Maps describing traffic conditions as 'Unusually Heavy Traffic' my car was crawling along the NS Sunbury Line amidst a long convoy of vehicles on a road that otherwise remained pretty secluded. I was lucky enough to grab a few more shots of the train from my car as the train stopped before a bridge on a culvert for inspection by Union Pacific staff, before the alignments diverged. All spots close to the track were crowded with enthusiastic visitors who wanted to get a glimpse of the Big Boy. Entering Nicholson, PA was very problematic – a town of 700 people saw almost 20,000 visitors wanting to see the Big Boy on the Tunkhannock Viaduct. I gave Union Pacific on making it all the way to the spot I had marked on maps with my car and parked it almost 1 mile away. Walking on completely jammed streets was fun however, as I met so many people who had turned this into an entire outing – barbecues, music and what not.

At around 10:10am, the Big Boy announced its arrival on the Tunkhannock Creek Viaduct and was received with a huge round of applause and cheering from the crowd. Hundreds of camera shutters started clicking away as the Big Boy came to a stop on the bridge for an official photoshoot consisting of photography crew on the ground and on the bridge itself, along with drones and private airplanes circling around in the skies over the bridge. An occasion so special, the US





national flag was hoisted in Nicholson. After about 20 minutes, the Big Boy tooted its whistle and departed for Pittston, PA in the Scranton metro area. And as it left, so did the hustle and bustle among the thousands of visitors, many of whom were chasing the Big Boy further on its trek that day. The mile back walk felt longer than any ever, but I was able to get out of the area. Hoping to catch Union Pacific with the Big Boy a bit sooner, I tried chasing it to a viewpoint on the Scranton Expressway but much to my surprise, it had already crossed. The traffic jam, slow speed on country roads and the downhill gradient from Nicholson to Scranton meant that the Big Boy was already past Scranton. Without stopping anywhere, I continued on to Old Forge, PA and made it there just in time for a final spotting of the Big Boy before lunch.



Having successfully started the day by spotting the Big Boy at three different places, it was time to hit another important piece of railroading history in Scranton – the Steamtown National Historic Site. Situated in downtown Scranton, this is a heritage railroad museum at the site of the former Delaware, Lackawanna & Erie Railroad, which eventually merged into NS. The museum features a working roundhouse and turntable. The most notable installation at the museum however, is the Big Boy 4014's long lost cousin, Big Boy 4012. The stage was being set for the Big Boy Reunion, amongst the most anticipated events of the Big Boy's east coast tour, where 4012 and 4014 would be placed for display together. Since this was on a Monday and Tuesday (June 15th and 16th), I wasn't able to make it – but a lot of people did. The Steamtown site usually receives around 60,000 visitors annually but as per local newspaper Scranton Times Tribune, the site received 47,000 visitors on those 2 days alone. What I did not miss however were the multiple signs posted by the Pennsylvania Department of Transportation on Route 81 and 84 near Scranton hyping Union Pacific the Reunion while also warning the public regarding the heavy traffic.

After a long lunch break in Scranton, it was time to get back on the chase. This time however, instead of NS tracks, the Big Boy would be heading to Nesquehoning, PA on a regional Class 2 railroad – the Reading, Blue Mountain & Northern Railroad (RBMNRR). RBMNR runs its own steam excursion trains with RBMN 2102 – which unlike the Big Boy's firebox still uses a coal powered firebox. My next stop was Mountain



Top, PA, specifically RBMNR's Penobscot station. And like the previous places, I bumped into huge crowds here as well. Union Pacific, NS and RBMN had planned a parallel departure of 2102 and 4014 from here. At around 3:30pm, 2102 arrived with the Nesquehoning bound excursion train. Around 10 minutes later, 4014 turned Union Pacific and with both steam engines now huffing and puffing together, it was time for the parallel departure. 2102 filled Union Pacific on some water and about 30 minutes later, the large crowd got what it had been waiting for – the magic of a parallel departure of the two steam giants.

The next and last stop of the day was Nesquehoning itself. I managed to reach there by 5pm and as you would expect, there were huge crowds throughout the small town. We did have a test of our patience though, because it seemed 2102 faced some issues and needed RBMN's diesel helpers which caused a lot of delays for both 2102 and 4014. At around 6:30pm, the diesel headed 2102 and its consist crossed, followed by 4014 right on its toes. With another video taken, it was time to get some rest after a hectic 15-hour session of spotting and chasing the Big Boy, with the hot, sunny



weather not being really helpful. As mentioned, I did not get any pictures here, however I did spot the Big Boy one last time the next day on its return trip to Pittston, PA where it got another parallel departure with the RBMNR 2102.

The drive back from Scranton to Boston was spent thinking about everything I had seen over the previous two days. Whatever the reason behind Big Boy No. 4014's visit – whether it was simply a goodwill tour, a celebration of railroad history or something that signaled further consolidation of the American railroading industry – almost didn't matter. Standing trackside with thousands of people, hearing 4014's deep exhaust echo through northeastern Pennsylvania's rugged landscape and watching the world's largest operating steam locomotive roll past is one of those experiences that stays with you. It wasn't just about seeing a famous locomotive; it was about witnessing a living piece of American railroad history in motion. Long after the whistle had faded into the distance, that feeling stayed with me all the way home.

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“Cogito, ergo sum
(I think, therefore I am)

– René Descartes

FEATURE



THE PHILOSOPHY OF RAILFANNING

Tapan Pal

'Cogito, ergo sum', ('I think, therefore I am') - René Descartes.

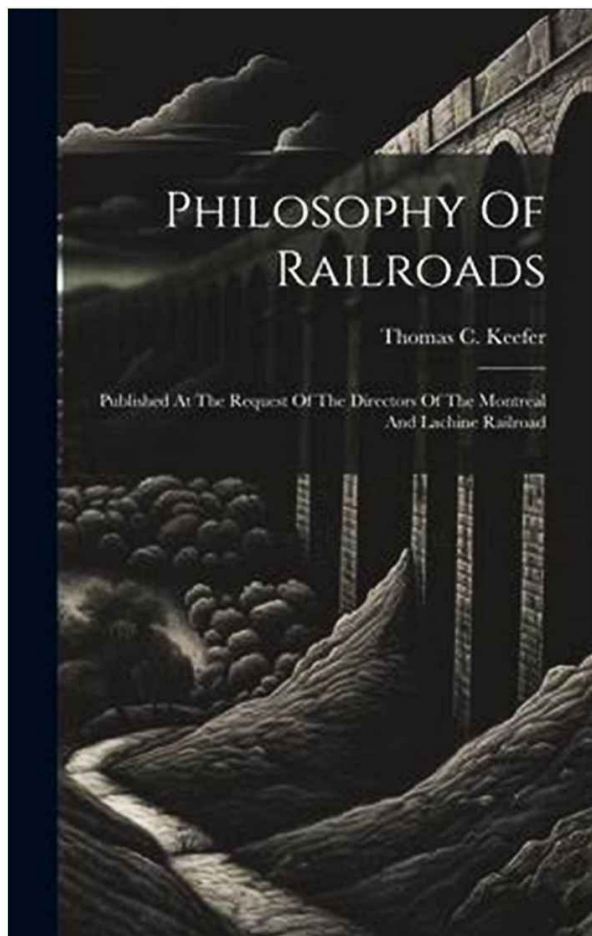
Whenever someone studies too much, universities award him a Ph. D. to stop him. It is the highest academic degree awarded by universities involving extensive, independent original research and the completion of a dissertation that expands the boundaries of knowledge. It prepares candidates for careers in academia, science, and specialized research. After all, Bertrand Russell told us long ago that 'There is much pleasure to be gained from useless knowledge'.

So far, so good! But why Philosophy? If I do my research on accounting principles, say, 'Treatment of Depreciation in Indian Railways' Accounting System' as I had once contemplated, why should I be awarded a degree on Philosophy? It is a question that confronted me in my sophomore days. And reply to this query came from the legendary Mr. Dipak Banerjee, the father of Nobel laureate Mr. Abhijit Vinayak Banerjee, the Indian American economist. He told that historically, "philosophy" meant the love of wisdom. In the Middle Ages, all academic studies were

grouped under the heading of "philosophy"; a word that combines two Greek words – philein (to love) and sophia (wisdom). Doing a Ph. D requires you to use logic, analyze data and question assumptions. This critical thinking is the root of philosophy.

Likewise, railfanning – in its upper echelons have a philosophy of its own, above the nitty-gritty like trainspotting, photography, chainage, modelling, footplating, propulsion technologies, signalling, bridges, collecting old tickets, signs and signage, timetables and locomotive plates. Ironically, we do seldom talk about this 'philosophy' of railfanning – why to pursue railfanning, in what way it enriches practicing individuals in general and the society in particular, in what way it widens the horizon of knowledge, is there enough channels for exchange of concepts ideas between the railway administrators and the practicing railfans.....and so on.

How many of us have heard about the essay 'Philosophy of Railroads' by Thomas Coltrin Keefer (4 November 1821 – 7 January 1915), a Canadian civil engineer. In 1851, he



surveyed a railway between Kingston and Toronto and determined the site for the Victoria Bridge that crosses the St. Lawrence River into Montreal. His 'Philosophy of Railroads' is one of the greatest hymns of praise to railroad system; and by extension of steam power as the British believed in the invincibility of steam power as a catalyst of change and progress to win over the Nature. The invincibility of steam is best illustrated in 1840, when a small contingent of around 4000 British soldiers set sail for China in First Opium War (1839 - 1842). The small force inflicted mammoth defeats to the army and navy of Qing Empire. And it was for steam powered battleship 'Nemesis', the first British ocean-going iron warship built by John Laird's yard at Birkenhead and William Fairbairn & Sons at Millwall. She lived up to her name. The Chinese referred to her as the "devil ship".

The essay shows why railroads were seen as the arteries of the Canadian nation during the nineteenth century. Simultaneously, it talks about the dilemma of the men associated with the new technology, its probable long-term

effects on the society and the nature. Surprisingly, much of his observations, mutatis mutandis, apply to India as well, presumably because – (a) the time frame was same and (b) both being British colonies had an underlying similarity in their collective perception. The 1849 article outlines his hopes for the development of the Montreal region and in passing reveals the philosophical foundation upon which they rest; the Sequel to the Philosophy of Railroads, a fascinating illustration of the problems the first engineers faced in raising their trade from a scramble for money and prestige into a legitimate profession; and a final essay on railways written in the early 1860s – expressing Keefer's disillusionment at the failure of railways to fulfill their promise. Alongside, it says a great deal about railroads and about Canadian society in the nineteenth century; at another they represent a cycle, from enthusiastic idealism to realism, in one man's thought; and at yet another they introduce us to the historian's problem of establishing relationships between ideas and the material conditions within which they appear.

He wrote an essay 'The Canals of Canada : their prospects and influence' in 1850 for a prize of Fifty pounds offered by the Earl of Elgin and Kincardine, Governor General of Canada. The essay argued that deep, large canals were vital to build Canada's economy. Canals are unlike rivers as they are man-made, but share the common trait with rivers to make water flow by gravitational force. Canals in Canada are usually made to connect lakes and oceans to help ships travel. Keefer believed Canada's rivers and the Great Lakes – Great Lakes of North America (Superior, Michigan, Huron, Erie, and Ontario) — could become the best trade route in the world if they were connected by deep canals. Through the Great Lakes St. Lawrence Seaway System, these lakes form a massive inland shipping lane allowing oceangoing vessels to travel deep into the North American interior. His writing helped convince the government to build major shipping routes like the St. Lawrence Seaway and improve canals around tough areas like Niagara Falls. He became chief engineer of the Montreal Water Board and also built the Ottawa Water Works, and constructed Hamilton Waterworks and designed the foundations of the Victoria Bridge ("Keefer's Shoes").





Whenever I take an EMU ride from Sealdah to Dumdum Junction – a distance of around 7 KMs in electrified Quadrupled Broad Gauge – I remember him; simply for the meandering canals underneath. Kolkata is full of canals – Tolly's Nullah (Adi Ganga), Bagjola Canal, Krishnapur Canal, Circular Canal, Beliaghata Canal, Chowbaga Canal, Begor Khal. They serve as arteries for the city's storm-water, connecting runoff to the East Kolkata Wetlands. I took the Canal Zone and let Congress debate; and while the debate goes on, the canal does also' – Theodore Roosevelt.

Let me rest my case with an existential dilemma.

"सत्यं ज्ञानम् अनन्तं ब्रह्म"

Taittiriya Upanishad (2.1.1).

What does philosophy do? With my limited IQ, I can try to break it as under:

- I. Philosophy investigates reality and knowledge; it asks fundamental questions about what exists (metaphysics) and how we can be sure we actually know things (epistemology) – the foundation of modern sciences.
- II. Philosophy defines and redefines morality and values; examining and reexamining concepts like justice, beauty and ethics. It teaches us how to live lives and how to treat others.
- III. Philosophy encourages critical thinking. It teaches us to construct valid arguments, identify flawed reasoning, and clarify complex ideas.
- IV. Philosophy shapes societal perceptions like human rights, political systems and economic concepts like

capitalism or democracy.

"The unexamined life is not worth living" – Socrates. Here lies the necessity of developing the philosophy of the cult of railfanning – to lay its guiding principles, to bring clarity into the miasma. We have wasted much time looking for the trees and missing the woods. It is time to build a holistic conceptual framework. We owe that to future generations of railfans. We must remember the old Eskimo adage – 'Yesterday was wood; tomorrow will be ashes. Only today does the fire shine bright'.

But why am I writing all these? It is because as a railfan in the classical sense of the term, I feel threatened. I feel vulnerable – I feel that my species will be endangered in near future and extinct in not-so-distant future.

When I joined the bandwagon some five decades back, it was a hobby. We spend our money, time and energy to have fun. Railfanning, those days, was a 'Gurumukhi Vidya' where you had to learn the nuances of the trade from a mentor through personal initiation and intensive teaching, emphasizing that expertise is experiential. Now, anybody owning a smartphone is a 'railfan'. Then we had to join 'Groups' to share and learn; now I have every right to feel that I am a cult figure in railfanning hardly having anything more to learn, and open a Page/Group in social media to share rail photos. And most importantly, we took it as a hobby and spent money on it; now it is a viable career option for making reels and Youtube feeds. I have nothing against any lawful means of livelihood; my objection stands when they claim that they are railfans. 'When the fox preaches, take care of your geese' – a German



proverb.

And our sense of humiliation and insecurity get validated when we see that railways administration recognizes and pampers them more than 'academic' railfans. Bureaucracy loves to be cajoled and doing someone else's job free of cost is the ultimate form of flattery. These boys make publicity material for Zonal CPROs and as a quid pro quo get preferential treatment.

We can choose to sit back and watch or we can step up and lead. The choice is ours.

ॐ असतो मा सद्गमय। तमसो मा

ज्योतिर्गमय। मृत्योर्मामृतं गमय।

ॐ शान्तिः शान्तिः शान्तिः॥

Lead me from the unreal to the real (Satya), from darkness to light, from death to immortality.

Brihadaranyaka Upanishad (1.3.28)

Acknowledgements:

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All photographs have been generated using artificial intelligence and are intended for representational purposes only.



Tapan Pal

He did his Post Graduation from Calcutta University in 1980. He joined West Bengal Audit & Accounts Service the same year to retire in 2019. Bappa to his railfan friends, he is an avid railfan whose area of interest lies on rail history and rail-accounting and rail - economics. He is also a member of Bombay Natural History Society.



A NEAR DEATH EXPERIENCE: VOTE 1 TRAMS

KOLKATA'S TRAMWAY 'BACK ON TRACK'?

Roberto D'Andrea

Kolkata's once extensive tramway has had a near death experience. This update details the fight to save the tramways of Kolkata and I'm happy to report that after staging a successful pre-election campaign and seeing in a 'change of government', there is renewed hope that once again Kolkata and its citizens will see the regeneration and revival of their once great tramway.

Over the past decade under the TMC Government, we have witnessed a steady decline in Kolkata's tram network. Many routes were withdrawn, bitumen laid over good quality tram track that had been renewed and relayed in mass concrete from the mid 2000's, and significant sections of the tramway infrastructure like the overhead electrical dismantled. At the time of writing only two tram routes remain, Route 5 from Shyambazar to the Esplanade and the 25 from Gariahat to the Esplanade. There are only 23 tram drivers left to run the system with the tram maintenance skill base at the Nonapukur Tram Workshops run down. The previous

government was starving the tramways to death, no employment of new trammies and the selling of depot land to developers and land sharks. They were a car centric government that largely spent transport budgets on roads and flyovers. Throughout this period, the Kolkata Melbourne Tramjatra team and Calcutta Tram Users Association (CTUA) have consistently campaigned for the preservation and revival of this unique, environmentally sustainable mode of public transport.

Following the recent change in government, there has been renewed interest in reviving Kolkata's tram system. The new BJP government has expressed its commitment to restoring, upgrading and modernising the network. Transport Minister Arjun Singh, has also spoken about studying Melbourne's internationally acclaimed tram system, including the possibility of introducing innovative technologies such as solar-powered tram infrastructure where appropriate.

PRE-ELECTION TRAM CAMPAIGN - VOTE 1 TRAMS

The Kolkata Melbourne Tramjatra started the pro-tram election campaign back in late January. We had three months to make the future of the tramways an 'election issue'. It is my belief that if you don't use democracy, you lose democracy. I stood as an independent tram candidate in the 1999 Victorian State election and together with other pro-tram friends we had some success. It was my hope that this form of democratic activism could be useful in Kolkata as both the Australian and Indian political system is British based with many similarities. As Kolkata is now one of the most polluted and congested cities in the world, we felt that we should make the future of the tramways an 'election issue' and let the people have their say. Initially, a small dedicated group from Tramjatra started the ball rolling. First up Dr Greg Gardiner from Melbourne wrote to MP's, all 290 of them. He funded the printing of another batch of Kolkata Melbourne Tramjatra calendars which were sent to 'important people', political parties, government and opposition candidates and media, with a Tramjatra cover letter. The Kolkata Melbourne Tramjatra Press Release and Dr Gardiner's letter best sum up why we wanted to make trams an 'election issue'.

TRAMJATRA MEDIA RELEASE - VOTE 1 TRAMS!

*An open letter from the Melbourne Tram Expert Roberto D'Andrea and co-founder of Tramjatra Mahadeb Shi, who have been advocating to save trams in Kolkata since 1996. Tramjatra dreams of a modern tramway for Kolkata. **Vote 1 Trams!***

*We, the co-founders of the Melbourne Kolkata Tramjatra have joined hands with lovers of clean air, healthy lungs, reduced traffic congestion, the Sundarban and our friends from the global tram community to encourage you to make the future of Kolkata's tramway a part of your election manifesto. **Vote 1 trams!***

*Kolkata needs a government that will change tact ... from tramway closure to tramway revival. Does Kolkata want to become a global laughing stock and go down in history as the last city in the world to close a tramway, against the global trend which is seeing a huge global tramway revival? While trams continue to track in Kolkata, we remain a member of a prestigious global tram family alongside cities like Hong Kong, Vienna, Prague, Toronto, San Francisco, Melbourne and Sydney. **Vote 1 trams!***

*Does Kolkata want to become the last city in the world to fall prey to claims that use outdated 1950's language that trams cause congestion, when the opposite is true! Today, to help lower traffic congestion, toxic levels of air pollution and carbon dioxide emissions, not only have continuous use tramways expanded but light rail systems have been rebuilt in France, Turkey, England, Europe, the USA, Canada, Brazil and Australia. **Vote 1 trams!***

We believe Kolkata should give its citizens a high frequency tramway with new and modern tramcars. Trams help lower traffic congestion and air pollution! By being anti-tram, it seems the present government cares little about the health and wellbeing of its citizens and has made our beautiful city one of

*the most polluted metropolises in the world. A joint study by Chittaranjan National Cancer Institute (CNCI), West Bengal Department of Environment and the Central Pollution Control Board (CPCB) has found that around 70% of people in the city of Kolkata suffer from respiratory disorders caused by air pollution. The survey summarized that the main cause of the air pollution is Transportation, where vehicles use petrol, diesel and other fossil fuels. **Vote 1 for clean electric trams!***

*Almost 50% of the air pollution and toxins that are slowly killing the Sundarban mangrove woodlands are coming from the 'transport sector' in Kolkata. The result of building flyovers and encouraging 4-wheeler, 3-wheeler and 2-wheeler use, increasing traffic congestion. The Sundarban protects Kolkata from strong cyclones. If it dies, so does Kolkata. For more information on the plight of the Sundarban - www.sundarbantramjatra.net **Vote 1 trams!***

*During the 2000's most of Kolkata's tramway was renewed at great expense with help from our Tramjatra friends in Melbourne. Most of the tram track was relayed in mass concrete that shows little deterioration after monsoonal flooding. The overhead electrical system was renewed and new tramcars built. It is unfortunate that a bus stand has been built on new tram track on the Esplanade - Kidderpore, on the popular Maidan tram route. **Vote 1 trams!***

*Kolkata's tramway has been a good source of employment for its citizens. Tram drivers, conductors and the skilled workers from the Nonapukur Tram Workshops - tram engineers, tram designers, tram maintenance jobs, tram electrical experts and a raft of skilled jobs. **Vote 1 trams!***

*For honesty and integrity, a healthy urban environment and Sundarban, less traffic congestion and a future where we are not poisoned by toxic air pollution, we need your political party to support Kolkata's tramway. Campaigning for a modern tramway in Kolkata would be a brilliant strategy to gain additional votes in Kolkata and elsewhere in Bengal, as many Bengalis who live outside of Kolkata want their beloved tram to return to the city. **Vote 1 trams!***

DR. GREG GARDINER LETTER TO POLITICAL PARTIES & CANDIDATES

Dear Candidate,

"I am writing in regard to the announced intention to close the remaining tramways of Kolkata. I appreciate that you will be extremely busy, but wish to state here my views on tramways and their great advantages. I have visited Kolkata several times and love the city, its culture and people. I am a former Head of Research in the Parliamentary Library in the State Parliament of Victoria, and Executive Officer for Parliamentary Committees. I also chaired the Parliament's Science Committee, one function of which was to enhance MPs understanding of climate change. In my early years I was a tram driver, and based on my experience, and research, I recently self-published a history-memoir of Melbourne's tramways from the 1880s to today.

The abolition of a city's tramways may be viewed as an act of progress, but in fact it is a backward step. Around the world, tramways are being revived - from Paris to Manchester, Portland to Sydney, Nanjing to Perth, and in many other major cities, trams are being reintroduced where once they were abolished. In some instances, old systems are being rejuvenated, while in others current systems are being



extended. What is behind this contemporary enthusiasm for tramways amongst policy-makers? Why is the global trend now firmly in the direction of a tramway- led public transport revival?

The advantages of tramways are several:

Efficiency: On any measure, trams are far more efficient than cars as a mode of commuter transport. A single articulated Kolkata tram can carry upwards of 200 passengers, occupying the same road space as approximately 10 average Indian passenger cars, carrying no more than 20 passengers, a ratio of 10 to 1. Electric engines are far more efficient than combustion engines.

Cost: Tramways are initially expensive, but only a fraction of the cost of a car fleet carrying the same number of people. Trams are also more efficient and cost-effective than buses, which also emit high levels of emissions, carrying far fewer passengers. Well-maintained trams rarely breakdown, and last for decades. Cars (and buses) are expensive to maintain and last for approximately 10 years – a city's car fleet will need to be renewed many times over while the same trams are still running.

Emissions: Car ownership in Kolkata has skyrocketed by 100% in the period 2015-25. Cars, buses and other heavy vehicles are responsible for 75% of CO2 emissions in the city, and contribute significantly to all forms of airborne particulate matter. Trams, however, run on electricity, which can use renewable energy as its source, as they are in Melbourne, where 100% of trams are powered by renewables. Vehicular pollution severely impacts health outcomes, creating ongoing and widening costs for health services.

Economic benefits: Tramways create employment in a safe industry. Once established, maintenance of tramway infrastructure is relatively cheap in comparison to general road maintenance for heavy vehicles and cars. Once started on a car-only future, a city enters a spiral of more and more roads, freeways, flyovers. The drain on public finances of such projects is enormous.

Less Deaths and Injuries: Over 150 people died in car traffic accidents in Kolkata in 2025, thousands more were injured. Trams are immeasurably safer than cars, with recorded deaths on trams extremely rare, the most common form in Kolkata related to bicycles and tram track accidents.

Community: Trams provide a form of collective identity that is completely absent in a car culture. Kolkata's trams, like Melbourne's, are part and parcel of the history of the city, deeply embedded in the story of these great cities. A good, modern, efficient tramway system is a source of pride to a city's people, and part of its heritage. Trams bring people together in a shared space, and link a city's present to its past and future. Large metropolitan cities around the world are facing similar crises in commuter transportation. Policy-makers have looked at the evidence and determined that unless public transport is boosted, their cities face an unsustainable future of gridlock, emissions and loss of standards of health and living. In short, investing in trams makes sense - socially, politically and economically. Please see the links below for more information.

Yours sincerely

Dr Gregory Gardiner, Melbourne, Australia. Former Tram Driver & Retired Head of Research, Parliament of Victoria, 5 February, 2026.

With Dr Gardiners and Tramjatra letters and calendars sent and delivered to sitting MP's, Opposition Parties, Candidates and the media, the next phase of the campaign involved the younger generation. The voice of youth.

5th ANNUAL ALUMNI INTER SCHOOL TRAM DEBATE

We first met Arpita Bhattacharjee during the 2025 Sundarban Tramjatra and she has become an active member of the CTUA. Arpita is an educator and works with schools and students. She helped organise an important tram debate between students on the 8th of February. Hosted by Our Lady Queen of Missions School and the Alumni Association, the tram debate was titled '**Tram routes in Kolkata need to be revitalised to manage pollution in the city**'. The pro-tram debaters won the day and the print media gave the event extensive coverage. Thank you Arpita! The younger generations voice had been heard and overwhelmingly they were pro-tram.

Meanwhile, led by Tramjatra's Mahadeb Shi, we started contacting opposition political parties asking them if they had any tram policies? The CPM, Congress and BJP were all contacted. Trinamool Congress (TMC) did not reply. This was an important phase as many candidates would join the pro-tram campaign the closer, we got to voting day on April 28.

OUR LADY QUEEN OF
THE MISSIONS SCHOOL

ALUMNI ASSOCIATION
Presents

5TH ANNUAL
INTER SCHOOL
ALUMNI
DEBATE

8TH FEBRUARY, 2026 | 11 A.M.
Subarna Jayanti Bhavan, Vivekananda Hall,
Gate 4, Jadavpur University

Moderators:
Dr. Kunal Sarkar
Ms. Preeti Roychoudhury

Motion:
*Tram routes in Kolkata need to be revitalized
to manage pollution in the City.*

Admit One

Please be seated by 10.45 A.M.



153rd ANNIVERSARY of KOLKATA'S TRAMWAY

The next colourful tram election event was staged by the CTUA on the 153rd anniversary of Kolkata's tramway on February 24. Ever since the highly successful 150th anniversary of Kolkata's tramway as a part of the 2023 Kolkata Melbourne Tramjatra, every year it has now become 'tradition' to decorate some trams and stage a pro-tram event, reminding citizens of the importance of trams in the life of the city. Led by the CTUA's President, Dr Debasish Bhattacharyya, the 153rd anniversary event was well attended by young and old alike, this time many women came in support of the tramways. This event received



Tram-lovers seek revival of key routes on 153rd anniversary

Kolkata: Tram lovers and supporters across the city gathered here on Tuesday to mark the 153rd anniversary of the city's tramway. The gathering was held at the city's tram depot, where a large number of people gathered to celebrate the occasion. The tramway, which was established in 1875, is one of the oldest in the world. The gathering was led by the CTUA's President, Dr Debasish Bhattacharyya, who urged the government to revive the key routes of the tramway. He said that the tramway is an important part of the city's infrastructure and should be given priority in the city's development plan.

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City marks 153 years of tram services with century old wooden rake run

KOLKATA: A historic tram service was inaugurated on Tuesday to mark the 153rd anniversary of the city's tramway. The service, which was run on a century-old wooden rake, was a nostalgic reminder of the city's tramway heritage. The tram was decorated with garlands and had a large number of people on board. The service was inaugurated by the CTUA's President, Dr Debasish Bhattacharyya, who urged the government to revive the key routes of the tramway. He said that the tramway is an important part of the city's infrastructure and should be given priority in the city's development plan.

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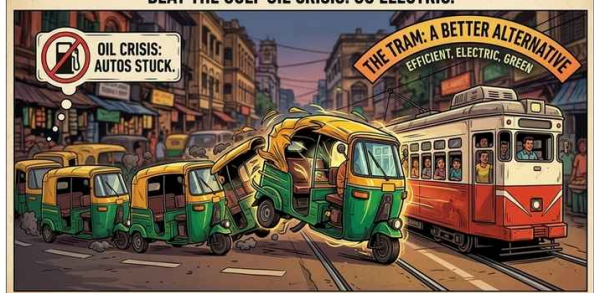
extensive media coverage and gave members of the CTUA the confidence to continue campaigning in the lead up to the election.

Online campaigning and contacting candidates continued through March. With around 1 month before polling day left, something important happened which super-charged the tramway election campaign. Co-founder of the Kolkata Melbourne Tramjatra and General Secretary of the CTUA, Mahadebn Shi decided to make a special trip to Kolkata from London and lead the tram election campaign, joining with Dr Debasish Bhattacharyya. Together they became a potent force and from then to election day tram events were staged on a regular basis.

USA IRAN OIL WAR

When the USA invaded Iran and the Strait of Hormuz was closed to oil tankers on February 28, the shortage and increase in the cost of oil and LNG, gave the pro-tram campaign extra energy. Pro-tram campaigning had been centred on air pollution, traffic congestion, decarbonising and electrifying transport, tram land sale corruption and Kolkata's tramway as a cultural entity and heritage symbol. The shortage of oil and LNG saw the price of fuel increase. For those driving cars the increase was steep and Auto Rickshaw fares rose sharply. Dependency on oil coming from the Middle East and Russia was questioned. The USA and its military industrial complex have kicked an own goal. Countries are now questioning their dependency on imported

BEAT THE GULF OIL CRISIS. GO ELECTRIC.



Tram-lovers seek revival of key routes on 153rd anniversary

Krishnendu.Bandyopadhyay
@timesofindia.com

Kolkata: Tram users and transport activists on Monday renewed their demand for the restoration of services on key corridors, marking the 153rd birth anniversary of Asia's oldest surviving tram system with a blend of celebration and concern.

With tram operations now confined to only two truncated routes — Shyambazar-Dharmatala — and services running irregularly, commuter groups said the shrinking network deepened the city's transport crisis. They argued that despite skeletal operations, trams continued to at-



Heritage coach 498 chugs on tram services' 153rd birth anniversary

tract a steady stream of passengers, reflecting a latent demand for the zero-emission mode of transport.

"To see such a clean transport system with ready infrastructure being slowly dismantled is unfortunate," said

Debashish Bhattacharya, president of the Calcutta Tram Users Association (CTUA).

To commemorate the milestone, enthusiasts flagged off a festively decorated vintage tram that completed a round trip along the two opera-

tional stretches. Passengers and tram lovers gathered on-board, cut a birthday cake, and held small cultural programmes, blending nostalgia with advocacy.

The highlight of Monday's observance was tram car number 498, a wooden-bodied carriage built at the Nonapukur workshop during World War II. According to tram chronicler Sagnik Gupta, the car was constructed under extraordinary circumstances. "With Japanese air raids targeting the then British city and strict deadlines from the Calcutta Tramways Company headquarters in London, workers built these L-Class trams at night by candlelight," Gupta said.

City marks 153 years of tram services with century old wooden rake run

OUR CORRESPONDENT

KOLKATA: A Second World War-era wooden tram ran from Gariahat to Shyambazar on Tuesday to mark 153 years of the city's tram services, with supporters renewing their demand for restoration and expansion of the shrinking network.

The commemorative service began at 9.30 am from Gariahat Tram Depot, reached Esplanade at 11 am and departed for Shyambazar. Organised by the Calcutta Tram Users Association, led by Debashish Bhattacharya, the run drew a lot of tram enthusiasts.

Inside car number 498, association members interacted with guests and underprivileged children. Tiffin was



Tram enthusiasts celebrating after the commemorative run

distributed, postcards were circulated to gather public opinion and calendars were distributed and sold. The tram reached Shyambazar around 11.30 am, where a cake was cut in front of the vehicle.

Kolkata's tram services began on February 24, 1873, with horse-drawn cars operating between Sealdah and Armenian Ghat. Electric trams were introduced on March 27, 1902, on the Dharmatala-Kid-

derpore route. In 2011, trams operated on 37 routes across the city; at present, only two routes remain functional — Gariahat-Esplanade and Esplanade-Shyambazar. The future of the tram network is under judicial consideration.

The heritage tram used for Tuesday's run, nearly a century old, is preserved at the Nonapukur tram depot for most of the year.

Association representatives said over one lakh vehicles were registered in the city in 2025, taking the total to more than 23 lakh. They argued that expanding the electric tram system could help curb rising air pollution and urged the state government to modernise and restore services instead of phasing them out.

- ⚡ **Electric Trams**
- ⚡ **No LPG Dependency**
- ⚡ **Clean & Sustainable Transport**

But today...

- ❌ Depots are neglected
- ❌ Routes are disappearing
- ❌ Vision is missing

THIS IS THE HIGH TIME.

- ⚡ Stop blaming for oil & LPG
- ⚡ Start restoring tram depots
- ⚡ Start reviving the tram network
- ❌ Autos & Totos are not the future
- ✅ Electric mass transport is

THE CITY THAT ONCE LED INDIA... MUST LEAD AGAIN.

SAVE TRAMS | **SAVE KOLKATA'S FUTURE**

oil including India. Electric powered tramways are the perfect solution. Sovereign Risk was discussed and powering a tramway by renewable energy became an attractive alternative to imported oil. The TMC's car dependency model with transport focused around cars and autos began to unravel.

MARCH-APRIL PRO-TRAM ELECTION PROTESTS

**Against acquisition of Tram land
& demanding restoration of Route 24/29
tram service**

PROTEST MEETING

 In front of
Tollygunge
Tram Depot

Wednesday,
11 March 2026
🕒 5:00 PM

Organised by
Calcutta Tram Users' Association
In association with
Citizens for Better Tollygunge

Save the Tram • Save the Environment

Our City. Our Heritage. Our Future.

SAVE KOLKATA TRAMS

DON'T REMOVE. MODERNISE

UPGRADE TODAY FOR A BETTER TOMORROW.

CLEAN AIR **LESS TRAFFIC** **AFFORDABLE**

CLEAN AIR
Zero emissions,
harmless Koolhaas

senior citizens

JOIN THE

TWITTER STORM

SUNDAY | 3 AM

SUNDAY | 7-8 PM

TWEET. RETWEET. MAKE IT TREND.

#SaveKolkataTrams | #Modernise3

#SaveKolkataTrains | #Modernise

With confidence that our tram campaign was having an effect and with Mahadeb now in Kolkata leading the charge with Debasish, there were another 3 major events staged by the CTUA and Tramjatra in the lead up to voting day on Wednesday April 29. The first of these was an event staged at Tollygunge Depot on Wednesday March 11. The theme for this protest meeting was to highlight the selling of Tram Land and demanding the re-opening of the well patronised Tollygunge to Ballygunge Route 24/29. Online campaigning continued with our pro-tram 'tech heads' leading the way by staging Twitter Storms and the like on social media.

BENGALI NEW YEAR - A NEW BEGINNING

On April 15 another major tram event was staged. With only 2 weeks before polling day the Tramjatra and the CTUA staged a Bengali New Year tram gathering. Volunteers decorated three tramcars. The Times of India covered the event with Journalist Krishnendu Bandyopadhyay writing, *"Tram enthusiasts in Kolkata observed Bengali New Year with a rally that aimed at reviving the city's iconic tram network. They distributed a Tram Manifesto among citizens, commuters and contestants of the upcoming poll on Wednesday.... three decorated trams carried students, campaigners and locals through key stretches of the city"*.

By this stage local candidates from all opposition political parties, the BJP, CPM and Congress were campaigning with us. They all expressed pro-tram sentiment.

2nd TOLLYGUNGE DEPOT PROTEST - NARENDRA MODI SPEECH

Two days out before polling day another protest rally was

ট্রামের হাত ধরে হোক নববর্ষের সূচনা।



এক নজরে

THIS IS A FREE EVENT. ALL ARE WELCOME.

ট্রামের সাথে বর্ষবন্ধ: রাতের ১০:০০ শোশী ট্রাম যাত্রা: ট্রামের হাত ধরে হোক নববর্ষের সূচনা।
 আসুন হাত ধরে চলো, কলকাতা এক নতুন যাত্রা ট্রাম শীটবিটীতে বেরে - Long Live Kolkata Tram
 বৌদে ট্রামশাখা/বিশ্ববন্ধু & কালকাতা ট্রাম শীটবিটীতে আসতে/আসতে
 সময়সীমা: ট্রামশাখা ১০:০০ - এগারোটা সকাল ১০:০০ - শায়াবাজার - দুপুর ১২:০০

A New Dawn with the Kolkata Tramway

Let the turn of the year be more than a calendar shift; let it be a movement towards a sustainable, connected, and vibrant future.

This Poila Baishakh (15 April), we invite you to a Padajatra followed by a special tram ride from Gariahat Tram Depot. Join us as we redefine our city's journey, starting this Noboboroho.

Long Live Kolkata Tram !

09:00 AM	Gather in front of the Gopabandhu Ramkrishna Mission main entry gate for padajatra. Leaves at 11:58 AM
09:45 AM	Reach Gariahat Tram Depot
10:00 AM	Prata conference at the Gariahat Tram Depot, followed by trains leaving for Esplanade
11:00 AM	Trains arrive at Esplanade and leave for a short break
12:00 PM	Trains reach Shyamabazar Tram Terminus
12:30 PM	Trains leave Shyamabazar Tram Terminus
02:00 PM	Trains return to Gariahat Tram Depot via Esplanade

 **tramjatra**
 **calcuttatrामwayassociation**

শুভ নববর্ষ ১৪৩৩

এসে হে বিশাখ



ট্রামে চড়ে করি বর্ষবরণ

"Tram's with Poila Baishakh: Welcome to 1433 Baishakh! Tram Ride: "Let the tram be the start of the new year." Let's join hands and start a new journey. Long Live Kolkata Tram Jointly Organized by: Tramjatra & Calcutta Tram Users Association Schedule: Gariahat Depot - 10 am, Esplanade - 11 am, Shyamabazar - 12 pm"



“We will ensure that Kolkata's tram legacy is preserved.”

Prime Minister of India Mr. Narendra Modi speaking at a political address in West Bengal, 27 April, 2026



We sincerely thank our esteemed Prime Minister, Mr. Narendra Damodardas Modi, for his pledge to preserve and safeguard our cherished tram.

We look forward to the new Government fulfilling this promise and preserving this invaluable legacy for future generations.



staged at Tollygunge Depot by the CTUA and Tramjatra, the 2nd Tollygunge rally in the space of 6 weeks on April 26. Then to our joy and surprise, the day before people went to the Polling Booths, India's Prime Minister, Narendra Modi came to Kolkata for an election campaign rally. During his speech he spoke in favour of reviving and rebuilding Kolkata's Tramway. The BJP would go on to win the election in West Bengal in a land slide. We have continued

A gathering and procession to demand the resumption of route 24/29 (Ballygunge-Tollygunge)
5.30 PM - 7PM, 26 April, 2026



5:30 PM – Participants assemble at the gate of Tollygunge Tram Depot with placards and banners carrying pro-tram messages. A short opening programme will be held.
6:00 PM – The march begins. Participants will proceed peacefully and in a disciplined manner along one side of the road towards Rashbehari Avenue Crossing.
6:45 PM – Arrival at Rashbehari Avenue. A brief concluding session will take place with short speeches from the organisers.
7:00 PM – Event concludes.

RSVP: Indrani Banerjee (+91 94332 68466) Sagnik Gupta (+91 98306 94950)
CTUA
facebook.com/calcuttatramusersassociation

MAY DAY TRAM JATRA
KOLKATA, INDIA
CELEBRATE THE JOURNEY OF LABOUR & HERITAGE
সম্মেলন ও যাত্রার মাধ্যমে শ্রমিকদের কল্যাণ

ROUTE: CTC → ESPANADE → GARIANAT
MAY 1st ROUTE: SHYAMBAZAR → ESPANADE → GARIANAT
MEMBERS OF THE INDIAN TRAMWAY ASSOCIATION
SAVE TRAMS
SAVE TRAMS
SAVE TRAMS

campaigning since their election win and have since staged events for trammies on May Day, World Environment Day on June 6 and a Rath Tramjatra in early July. Tramjatra and the CTUA are committed and we won't give up until tram services increase and Kolkata's Tramway returns to its rightful place as a major part of sustainable transport in Kolkata.

A NEW GOVERNMENT AND NEW TRANSPORT MINISTER

The anti-tram TMC Government's control of West Bengal is now over. Newly elected MLA, Swapan Dasgupta, who attended our rallies is now Finance Minister. Another newly appointed MLA Roopa Ganguly, who also attended our events continues to speak in favour of trams. Arjun Singh has been appointed the new Transport Minister and he's also speaking in favour of trams. Indian based company RITES has been given the job of writing a tramway revival proposal for the new government. The Kolkata Melbourne Tramjatra team and CTUA are continuing to lobby for the gradual revival of Kolkata's tramway. We would like to see the immediate training and employment of new tram drivers, conductors and Nonapukur Workshops staff. We would like to see a budget allocated for the repair and rehabilitation of the tram fleet before regular, higher frequency tram services can resume. The structural condition of most tram bodies remains good. However, since nearly 90% of the fleet has been out of service since 2017, some mechanical and electrical components will need to be replaced or refurbished before the trams can be made operational. Trams stored under cover at Belgatchia, Tollygunge and Kidderpore Depots should be given priority and taken to the Nonapukur Workshops for maintenance checks. An audit of all tramcars is required. Wooden bodied trams: The best of the wooden bodied trams, K, L and 'Bombay' trams need to be preserved. Spare parts can be obtained from K, L and Bombay tramcars that are not possible to repair. These trams will have a future in a Tram Museum at Kalighat Depot.

New designs for the Burns Standard and Jessop tramcars can begin. These tramcars will need an overhaul. Priority

TRANSPORTATION OVER HERITAGE: BJP MLA SWAPAN DASGUPTA BATS FOR CALCUTTA'S TRAMS

Trams will not be reduced to a mere symbol of heritage but retained as a mode of urban transport. BJP's Rashbehari MLA Swapan Dasgupta said on Friday, raising fresh hopes that a change in government could reverse the fortunes of Calcutta's trams.

Dasgupta, who attended Tramjatra, an awareness programme organised by the Calcutta Tram Users Association, said the state government would not allow tram depots as well as trams to be sold off but would plan ways to integrate them into the city's transport network.

“We will not trust tram depots to be sold off. We will integrate them into Calcutta's transport network and keep them running as a vital part of the city.”

— SWAPAN DASGUPTA
BJP MLA, RASHBEHARI

KEEP CALCUTTA'S TRAMS RUNNING

- Heritage and Identity
- Environment friendly
- Less Congestion
- Cost Effective
- People's Transport

Calcutta's trams are not just memories, they are the fabric of sustainable urban transport. SAVE TRAMS. SAVE CALCUTTA.

THE NEWLY APPOINTED TRANSPORT MINISTER OF WEST BENGAL, ARJUN SINGH, HAS EMPHASISED THE REVIVAL OF KOLKATA'S TRAM

ON THE FOLLOWING POINTS:-

1. Restoration and modernisation of the iconic tram network
2. Explore integration of trams with the metro system
3. Stop offloading transport infrastructure and assets.

THE MINISTER HAS ADDITIONALLY WARNED OF CONSEQUENCES DUE TO SALE OF DEPOT LANDS WHICH HAVE CRIPPLED TRAM SERVICES DIRECTLY.

should be given to all fibre-glass trams and they should be made fit for passenger service. Fibre-glass trams were designed as a high-capacity lightweight tram at the Nonapukur Workshops.

RITES need to be made aware that most of Kolkata's tram track is in reasonable to good condition. They need to be made aware of the large-scale track renewal program undertaken from the early-mid 2000's and that all track in Belgatchia and Tollygunge Depots is new. Other depots like Park Circus, Rajabazar and Kalighat need more major works. Immediate work should start designing new tram stops on wide roads like AJC Bose Road and Rashbehari Avenue, so passengers can enter and exit trams safely. To speed up tram services track reservation should be reinstated on wide tram roads like Rashbehari Avenue, AJC and APC Bose roads. As tram driver and conductor numbers increase attention should be given to the publishing of timetables for each tram route. Tram Drivers can be issued with timetable cards to stop the bunching of trams. Tram stops can have timetable boards on poles. Kolkata should aim for a 10-minute tram frequency on all routes with a published timetable. Tramway modernisation can then follow after the existing tramway is revived. There's so much that needs doing with your tram friends from Melbourne willing to help. Stay tuned for the next exciting episode when we should be able to update Rail Canvaz readers on tram revival progress. Long live the tramway of Kolkata!

All photographs provided by the author & are copyright protected.

ENVIRONMENT DAY TRAMJATRA



Organised by



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PLACE
MAKING
INDIA

WORLD ENVIRONMENT DAY 2026

5th June

"THE EARTH IS WHAT WE ALL HAVE IN COMMON."
- WENDELL BERRY

KOLKATA TRAMS: DRIVING A CLEANER FUTURE.

#BEATPOLLUTION

KOLKATA SUSTAINABILITY INITIATIVE
WORLD ENVIRONMENT DAY, JUNE 5, 2026





TRAM RATHA YATRA

When Lord Jagannath Chose Kolkata's Timeless Tram

Rudranil Roy Chowdhury

"Some ideas are born in meetings. Some emerge from years of planning. And then there are ideas so beautifully simple that they instantly capture the imagination of everyone who hears them."

The **16th of July, 2026** shall undoubtedly remain etched in the history of Kolkata's tramways. On a day when millions across the world celebrated the sacred **Ratha Yatra of Lord Jagannath**, Kolkata witnessed something that had never happened before—not merely in India, but perhaps anywhere in the world. For the very first time, *Lord Jagannath*, accompanied by *Lord Balabhadra* and *Devi Subhadra*, embarked upon a *Ratha Yatra* aboard *Asia's oldest continuously operating electric tram system*. It was not merely another heritage tram ride. It was not merely another religious procession. It was a remarkable confluence of faith, heritage, history, culture and environmental consciousness. It was the *Tram Ratha Yatra 2026*.

The journey began not on tram tracks but on a computer screen. The seed of this extraordinary event was sown by Indranil Banerjee, a member of the Calcutta Tram Users Association (CTUA). Out of sheer curiosity and creativity, he generated an AI-assisted visual depicting a beautifully decorated Kolkata tram transformed into a magnificent Rath carrying Lord Jagannath. The image spread rapidly among members of CTUA. Initially admired simply as a creative concept, someone eventually posed a simple question: *"Can this actually be done?"* That single question changed everything. What started as an imaginative AI-generated artwork slowly transformed into a mission. Discussions gathered pace. Enthusiasm grew. Members realised that if Kolkata was the only city in the India still operating its historic electric tram system, then perhaps it deserved a celebration equally unique. Thus, was born the idea of the *world's first Tram Ratha Yatra*.



The AI generated image by Indranil Banerjee

Transforming an imaginative concept into reality required far more than enthusiasm. Permissions had to be obtained. Logistics had to be coordinated. A tram had to be hired. Designs had to be prepared. Religious arrangements had to be made. Volunteers had to be mobilised. Media had to be informed. The event demanded hours of planning and execution. The responsibility was collectively shouldered by the volunteers and members of Calcutta Tram Users Association (CTUA) and Tramjatra, who worked tirelessly behind the scenes. Among the principal driving forces behind the initiative was Mahadeb Shi, Founder Member of Tramjatra and General Secretary of CTUA along with a few core members of CTUA, whose relentless effort ensured that every small yet significant aspect of the program was executed successfully. From personally meeting government officials and coordinating with the authorities to arranging the tram, supervising preparations, overseeing late-night printing of flexes and banners, and finally decorating the tram itself, the core team worked almost non-stop in the days leading up to the event. What the public witnessed on 16th July was merely the final chapter of weeks of dedicated hard work.

One of the encouraging developments preceding the event was the positive response received from West Bengal Transport Minister Arjun Singh. As the concept of the Tram Rathayatra was explained to him by CTUA, the Minister reportedly expressed genuine interest and appreciation for the uniqueness of the program. For the members of CTUA,



Volunteers on the job

Image courtesy: Sagnik Gupta

who have spent nearly three decades campaigning for the protection and revival of Kolkata's tramways, such encouragement carried significant emotional value. Every positive acknowledgement matters when one has spent years fighting against indifference.

Perhaps the most memorable stories are always those that remain invisible to the public. Long after the city had retired for the night, CTUA volunteers continued working. Flexes were being printed. Banners were being checked. Decorative materials were being assembled. Garlands arrived. Frames were adjusted. Last-minute arrangements continued almost till 9:30 am of the event day. There were no professional event management companies. No extravagant budgets. Only dedication. The volunteers knew perfectly well that they could never recreate the stunning AI-generated concept in reality within such limited time and resources. Yet they refused to compromise on sincerity. And that made all the difference.

Inauguration time finally arrived. Standing on the tracks at Gariahat Tram Depot was something Kolkata had never seen before. The heritage tram had transformed into a moving Rath. The exterior was tastefully decorated with colourful

Ready for the occasion

Photo by author





Getting ready for a starter

Image courtesy: Sagnik Gupta

colourful floral arrangements, Jagannath motifs and devotional banners. Inside the second coach sat Lord Jagannath, Lord Balabhadra and Devi Subhadra upon their beautifully adorned singhasana. The idols radiated serenity. Devotees offered prayers before boarding. Visitors paused to take photographs. Curious commuters stopped in amazement. The AI image had certainly appeared more elaborate, but reality possessed something no computer-generated artwork ever could. It possessed soul.

Lord at Simhasana

Image Courtesy Sohini Chakraborty



Rupa Ganguly @ Tram Ratha Yatra Gariahat

Image courtesy: Sagnik Gupta

The occasion was graced by several distinguished personalities, including MLA Rupa Ganguly, along with eminent guests and CTUA President Debashish Bhattacharyya. During her address, Ms. Ganguly spoke about Kolkata's historic tramways and highlighted the State Government's interest in exploring avenues for their revival. For most listeners, these were simply encouraging words. For CTUA members, however, they carried far greater significance. For nearly thirty years, the organisation has relentlessly campaigned to save Kolkata's tramways. Their movement has endured route closures, depot closures, removal of tracks, shrinking operations, administrative indifference, public ridicule and repeated announcements predicting the tram's demise. Therefore, hearing positive words regarding tram revival from a representative of the ruling establishment was genuinely unprecedented. It rekindled hope. Whether these aspirations eventually materialise remains to be seen. Nevertheless, hope itself has immense value for those who have spent decades preserving a heritage system against overwhelming odds. Ms. Ganguly also fondly reminisced about her childhood journeys aboard Kolkata's trams, reminding everyone that the city's oldest public transport system is deeply intertwined with the memories of generations.

At approximately 10:30 AM, amid devotional chants by Swarnabha (a CTUA core member), camera flashes and enthusiastic applause, the Tram Rath gently rolled out of Gariahat towards Shyambazar via Esplanade. As the tram

Rolling out from Gariahat Depot

Photo by author



glided through the streets of South Kolkata, people instinctively turned their heads. Many initially believed it to be a film shoot or a promotional campaign. Only upon coming closer did they realise they were witnessing something entirely unique. Passengers looked on with curiosity. Motorists slowed down. Pedestrians stopped walking. Mobile phones emerged almost instantly. Photographs and videos flooded social media within minutes. Adding to the delight was CTUA's decision that *any passenger boarding the tram during the journey would enjoy a complimentary ride for the day*, making the experience even more memorable. The uniqueness of the concept naturally attracted extensive media attention. Television crews, newspaper photographers, digital media platforms and independent content creators all wanted to document what was possibly the world's first Tram Ratha Yatra. The decorated two-coach tram carrying the deities through Kolkata quickly became one of the city's most talked-about Rath Yatra attractions.

The tram reached Esplanade, the historic heart of Kolkata's tram network, for a brief halt where media interactions, photography sessions and devotees' prayers continued amidst tremendous public curiosity. Soon the bell rang once more, the controller moved forward and the steel wheels gently began turning. The Tram Rath entered the narrow streets of North Kolkata where residents watched from balconies, shopkeepers stepped outside, children waved enthusiastically and many elderly citizens smiled nostalgically at the sight of the decorated tram passing through neighbourhoods where trams had once been an inseparable part of daily life. Finally, the historic journey concluded at Shyambazar, where another round of media interactions and photographs marked the successful completion of this unprecedented pilgrimage. The divine journey of Lord Jagannath aboard Kolkata's iconic tram had come to an end, but a new chapter had just begun.

To perceive the Tram Ratha Yatra merely as a religious celebration would be to miss its deeper significance. The

Arriving at Esplanade junction



Group Photo at Esplanade

Image courtesy: Sagnik Gupta

event represented a powerful message. It demonstrated that heritage can remain relevant when presented creatively. It showed that tramways are not obsolete relics but living symbols capable of connecting generations. It reminded Kolkata that its trams possess immense cultural, environmental and tourism potential. More importantly, it proved that ordinary citizens can create extraordinary movements through imagination, perseverance and collective effort.

The Tram Ratha Yatra 2026 may have lasted only a few hours, yet its significance extends far beyond that single day. Perhaps years from now, historians documenting the preservation movement of Kolkata's tramways will remember this event not simply because Lord Jagannath travelled by tram, but because it demonstrated that heritage survives when people continue to believe in it. What began as a single AI-generated image evolved into a living reality. A dream rolled onto steel rails. Faith travelled through the streets of Kolkata. And somewhere between Gariahat and Shyambazar, history quietly found another track to travel upon.

Jai Jagannath!!!

Photo session at Shyambazar Depot

Image courtesy: Sagnik Gupta





THE HYDROGEN HORIZON

A NEW DAWN IN INDIAN RAILWAYS

Anamitra Bose

What about a train that emits only water vapour as its by-product, no smoke or gases directly or indirectly to impact the environment – a diametrically opposed approach from the ages of 'holy smoke' emissions of diesel and steam locomotives! Yes, I am referring to the 'Hydrogen-powered Train' that our nation has recently introduced. Finally, India has made it to the elite list of operating a hydrogen-powered train christened as *NaMo Green Rail*.

The train has started operations between Jind to Sonipat, an 89-km stretch, from July 17, 2026 and is basically a Multiple Unit rake converted from a DEMU (Diesel Electrical Multiple Unit) and has 10 coaches. Out of 10 coaches, 8 are Trailer Cars and 2 are Driving-Power Car (DPC). The DPC has the hydrogen cells and Battery Stack that are the mitochondria of the train. The propulsion system is a hybrid of hydrogen fuel cell and battery stack that powers the train. Hydrogen fuels generate the electricity and battery stack powers the traction motors and auxiliary equipment. The electricity generated by hydrogen fuels are stored in the battery stack.

The technology behind the train is reverse electrolysis of hydrogen and oxygen to form electricity with water and heat as by-products. Like an electrolysis chamber, the DPC houses the PEM [Cell



where two electrodes are present: Anode (Negative) and Cathode (Positive) poles]. Hydrogen and oxygen flows into the compartment. Hydrogen goes to anode and releases protons. The protons flow through the electrolytic solution towards the cathode and

oxygen anions atoms absorb them. The electrons flow through the external circuit connected between cathode and anode and generate electricity. Water vapour is released due to this reaction which is vented into the air. The hydrogen cells act like batteries, just





the difference is that it needs regular refueling of hydrogen.

The pilot retrofitting project in the DEMU was carried out by Medha Servo Drives who awarded the contract to Ballard Power Systems of Canada who supplied 8 fuel cells of 100 kW

each for this rake. The Ballard's fuel cell is based on proton exchange membrane stacks. The membrane used is Perfluorosulfonic-acid of the Nafion family. Platinum-group Metal (PMG) coating on the electrodes acts as catalyst and drive the electrolysis. These form the core





of the hydrogen fuel cell. Carbon fibre paper forms the gas diffusion layers, the porous sheets that distribute the gases evenly. The hydrogen tanks are of 350 bar rating, 27 in number per DPC.

The battery stacks are of high-density Lithium-

Ion type with DC-DC converters to power the traction motors. The output from each DPC is 1600 hp totaling around 3200 hp for the entire train. The propulsion software and the computer is supplied by Medha Servo Drives Ltd. The traction motors can act as generators





during braking and charge the battery stack, resulting in regenerative braking thereby saving energy.

A refueling hydrogen plant has been set up at Jind with 1MW electrolyzer capacity and 3000 kg storage which can produce 420 kgs of hydrogen each day. The 11KV electricity supply is a thing to ponder, whether it's really coming from a green energy source or from the main grid which is mainly powered by non-renewable sources. Then the whole point of zero emission comes into a slab of serious introspection.

However, this train is of Indian origin, the battery stacks, propulsion are mostly Indian. But the hydrogen fuel cell cores and some of the major components in the process are still dependent on import from foreign suppliers. Nevertheless, this achievement brings India at par with the nations operating H₂ trains. The train has a capacity of ferrying around 2,600 passengers per trip with a top speed upto 75 kmph. Maybe, in near future, we may make substantial progress to raise the bar and lead the world in this genre of trains.

All photographs taken by Arkopal Sarkar and are copyright protected.

Disclaimer: All photographs of the Hydrogen Train featured in this article were captured with due permission from the competent authorities and in compliance with applicable safety and operational protocols.



SOUTH COAST RAILWAY



THE NEW ZONE OF INDIAN RAILWAYS

Somanko Tiru

The History:

It was 2014 when the Andhra Pradesh Reorganization Act was passed and when enacted, it became a catalyst for the formation of a new railway zone. After 5 Years, in the year 2019, on 17th February, the Government of India, announced a new Zonal Railway with Headquarters at Visakhapatnam which is one of the most important cities not only of Andhra Pradesh but also of India. 11 days later, on 28th February 2019, the Union Cabinet approved the detailed project. Then, after a long wait of another 6 years, the Hon'ble Prime Minister of India Shri Narendra Modi, laid the foundation stone for the construction of the new Zonal Headquarters at Visakhapatnam, on 8th January 2025. The union cabinet gave post-facto approval to the final Detailed Project Report of the new railway zone with partial modifications to it on 7th February 2025. The zone was named as South Coast Railway (acronym SCoR) with 4 divisions, namely Vijayawada, Guntur, Guntakal and Visakhapatnam – all to be formed after carving out areas from East Coast Railway (ECOR) and South Central Railway (SCR).

On 28th April 2026, the Hon'ble Minister of Railways, Shri

Ashwini Vaishnaw announced that the new SCoR zone will come to existence from 1st July 2026 and on 4th May 2026, the Gazette Notification was published for the same. So, the 18th Star finally paved its way to be on the Indian Railways Logo on 1st June 2026. The stars on the Indian Railways Logo represent the zones, one for each zone. Previously, 17 Stars were present in the logo, the last of the 17 Stars was for Metro Railway, Kolkata and now the 18th Star was added for South Coast Railway.

The Jurisdiction:

Now let us analyze the South Coast Railway Jurisdiction in a detailed way along with the formation of a new Division, Rayagada for East Coast Railway. As South Coast Railway, with its 4 divisions were approved, the existing Waltair Division of East Coast Railway was planned for restructuring. A new division with Headquarters for East Coast Railway at Rayagada, Odisha was also approved. The 1106 route km of the now extinct Waltair division was distributed between East Coast Railway – Rayagada division, Khurda division and South Coast Railway – Visakhapatnam division.



Zonal Jurisdiction Board

The reorganized divisions of South Coast Railway are given below :

1. Vijayawada Division (ex SCR) [Reorganized after the addition of Kondapalli to Motumari Jn (excl.) section from Secunderabad division]
2. Guntakal Division (ex SCR) [Reorganized with the transfer of the Raichur (incl.)-Wadi section to Secunderabad]
3. Guntur Division (ex SCR) [Reorganized with the transfer of the Vishnupuram (incl.)-Pagidipalli-Janpahad section to Secunderabad]
4. Visakhapatnam Division [Formed from the reorganized, bifurcated Waltair division and strengthened by the strategic addition of the Palasa – Ichchapuram (incl.) section from Khurda Road]

Roughly 97.75% of the zone's tracks fall within Andhra Pradesh with small route extensions into Karnataka, Telangana, and Tamil Nadu.

At present, South Coast Railway administration is controlling the zone from 6th and 7th floor of The Deck, VMRDA located Siripuram, Visakhapatnam as the permanent South Coast Railway Head Quarters is under construction on a 52.2-acre site at Mudasarlova in Visakhapatnam, Andhra Pradesh by Rail Vikas Nigam Limited, the project has a target completion date of February 2027.

The Deck - current South Coast Railway HQ



Visakhapatnam Station Main PRS Counter

The new South Coast Railway also gets the control of following loco sheds to cater their needs –

- 1) ELS Visakhapatnam
- 2) DSL Visakhapatnam
- 3) ELS Vijayawada
- 4) DSL Vijayawada
- 5) ELS Guntakal
- 6) DSL Gooty

It is to be noted that the new age freight locomotives D9 (Siemens), WDG 4G and WDG 6G (Wabtec) are also available with South Coast Railway as DSL Visakhapatnam homes D9 and DSL Gooty homes both the Wabtec variants.

Our Visit:

On 2nd of June 2026, myself along with two rail enthusiasts Soham Das and Suvoodeep Bhattacharya, departed for Visakhapatnam. It was for the first time that we entered the South Coast Railway jurisdiction after it became operational. On 3rd of June, we paid a brief visit to Visakhapatnam Divisional Head Quarters and then set out for South Coast Railway Head Quarters, located at the Deck, Siripuram. Dr. Amit Gupta, IRSME, posted as the Principal Chief Mechanical Engineer/South Coast Railway gave us a warm welcome as we spoke about our enthusiasm and discussed about various railway related topics. He also arranged a visit to the DSL Visakhapatnam for us. On 4th of June, we visited DSL Visakhapatnam and along with the existing fleet of locomotives we also got to see the new D9 Locomotives. D9 is

Coach Indicator at Visakhapatnam with SCoR





GY WDG 6 at TATA Yard



D9 Loco inside VSKP Yard



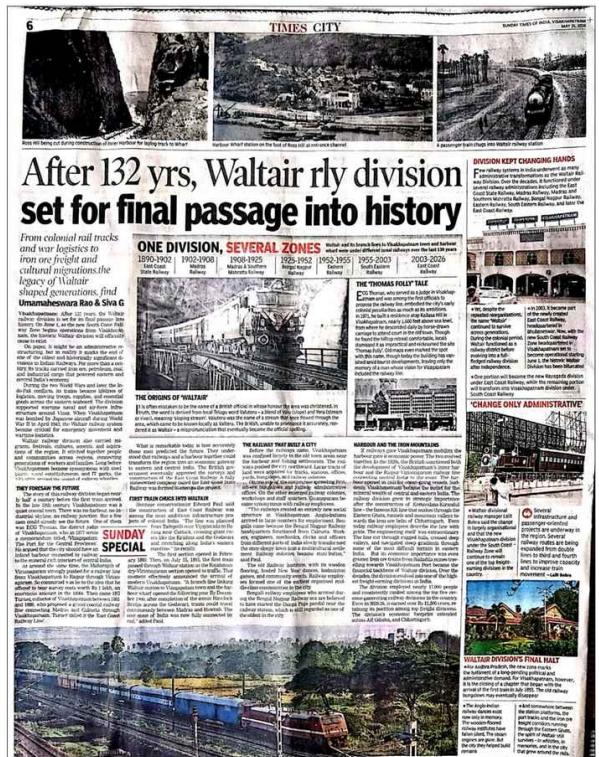
With Dr. Amir Gupta, IRSME, (PCME/SCoR)

a 9000 Horse Power Locomotive developed by the Siemens Mobility for Indian Railways, assembled at Dahod, Gujarat. As per the contract between Indian Railways and Siemens Mobility, 1200 numbers of D9 locomotives are to be manufactured and delivered by the next 11 years and with service maintenance for 35 years. The four sheds nominated for housing D9 are DSL Visakhapatnam, DSL Raipur, ELS Kharagpur and DSL Pune. DSL Visakhapatnam is the first of the 4 sheds nominated to receive them.

We interacted with both the IR Officials and Siemens Officials at the DSL Visakhapatnam. They explained that the D9 Locomotives are full of new features and the locomotive is very crew friendly. The Broad Gauge 'Co-Co' locomotive, D9, operating at 25 kV 50 Hz, are designed to haul 4,500-ton loads at speeds of up to 120 km/h along the Dedicated Freight Corridors featuring advanced propulsion systems, manufactured locally at Siemens facilities in India. To ensure maximum efficiency and reliability, Siemens Mobility utilizes its Railigent platform for optimal performance and availability. Artificial intelligence has been utilized in the locomotives to predict failures before they occur. They are also equipped with Kavach (Automatic Train Protection System) and features an improved monitoring and diagnostic platform with an advanced continuous real-time tracking through GPS. The temperature of the Air Conditioners installed in the Locomotives can be set as per requirement of crew. CCTV Cameras are installed at various critical position on the locomotives to monitor performance and detect issues. Central Crew Assistance Number also set up by Siemens in case for troubleshooting assistance. D9 Locomotive is the first rolling stock in India to get certified under the stringent EN-14363 (UIC-518) (Criterion 4) for assessment of rolling stock dynamic behaviour.

Trials were conducted by the Research Design and Standards Organisation (RDSO) and were completed in late 2025 on the Nagpur-Itarsi and Jodhpur sections and are now in service with freights. They are regular haulers in the Kothavalasa-Kirandul (KK) section. As of 26th July 2026, 56 numbers of D9 locomotives have been handed to DSL Visakhapatnam.

The Wabtec Diesel Locomotives are available with Gooty DSL which is also a part of South Coast Railway. It should also be mentioned that the Chittaranjan Loco Works manufactured



An article on Waltair Division published by Times of India, Visakhapatnam on 31st May 2026

EF 12K Locomotives are also homed at South Coast Railway by ELS Visakhapatnam.

Another point that needs to be added is that Visakhapatnam ELS was the only loco shed of East Coast Railway to home WAP-7 Locomotives for Passenger operations. After South Coast Railway became operational, Angul ELS under East Coast Railway jurisdiction was given WAP-7 allocations for catering East Coast Railway needs.

Conclusion:

The formation of South Coast Railway not only created new divisions and re-arrangements of railway track jurisdiction but also gave a major boost in rationalizing of rolling stocks across the concerned zones. It is just the beginning of South Coast Railway and we believe in future South Coast Railway will serve all the stake holders in a great manner and bring initiatives related to rail enthusiasm.

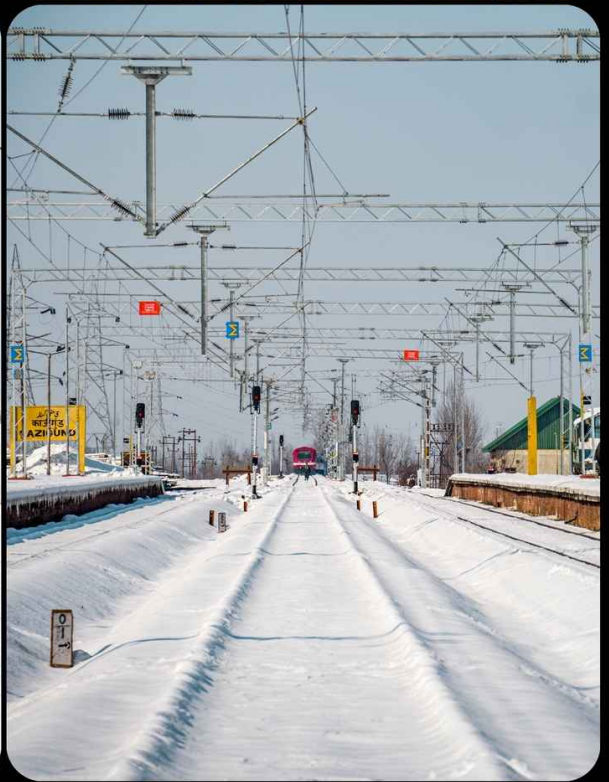
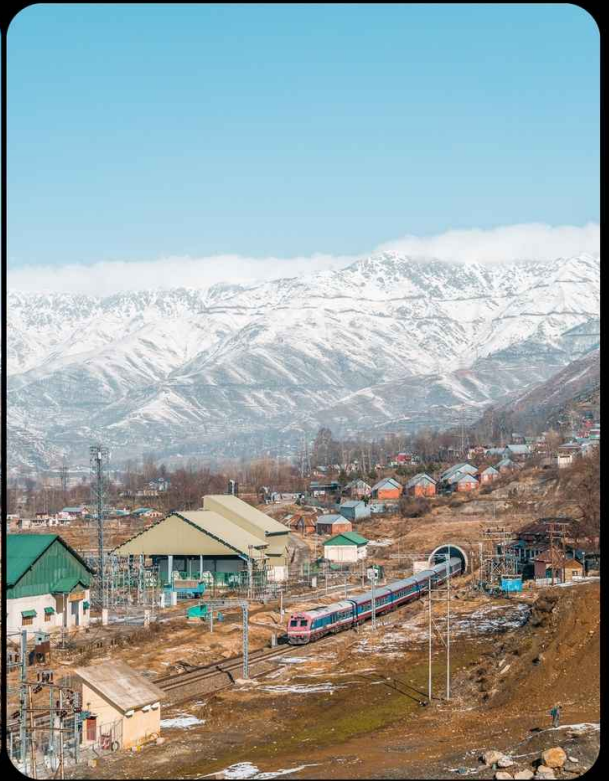
We thank J L Singh Sir, Secretary Rail Enthusiasts Society for the guidance and arranging a meeting with Dr. Amit Gupta, PCME/SCoR. Thanks to Dr. Amit Gupta for arranging all our visit across Visakhapatnam and to the officials of South Coast Railway HQ, Visakhapatnam Division HQ and DSL Visakhapatnam for all the assistance in Visakhapatnam and Siemens Officials for explaining us about D9 Locomotives.

Photo Junction

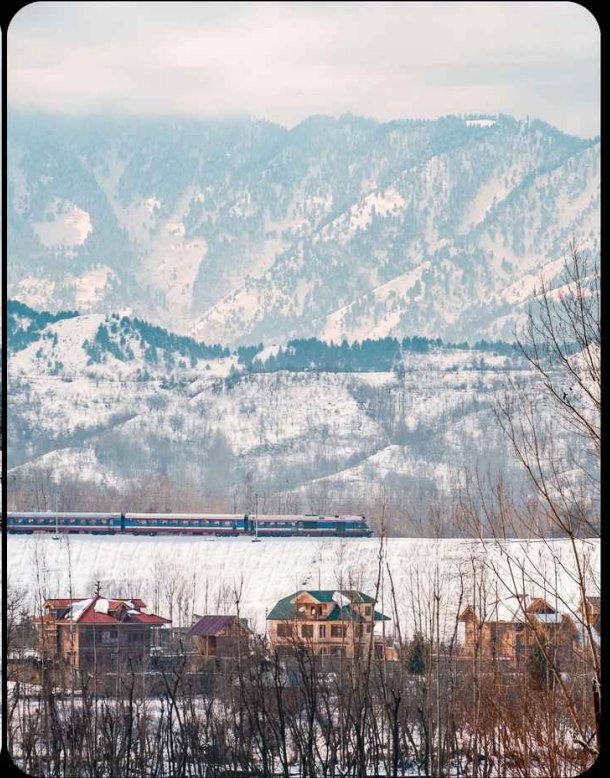
KASHMIR RAILWAY

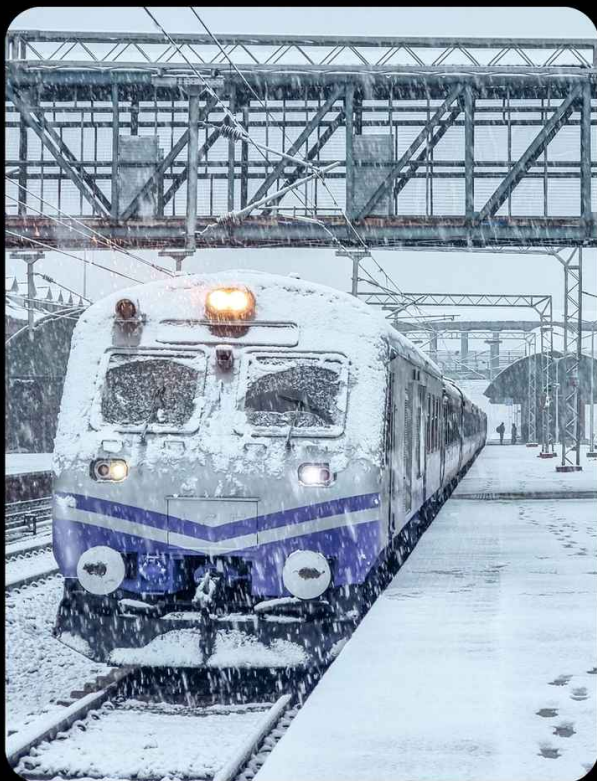


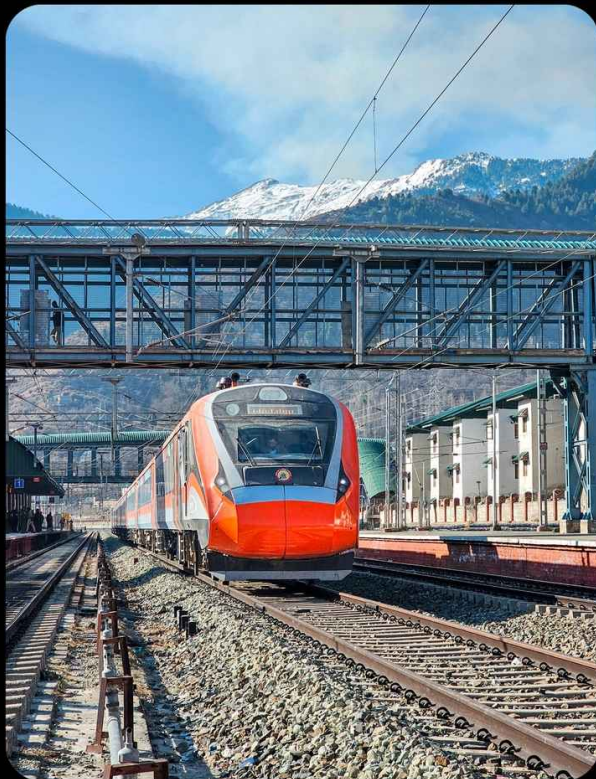
By
Saurabh Kumar





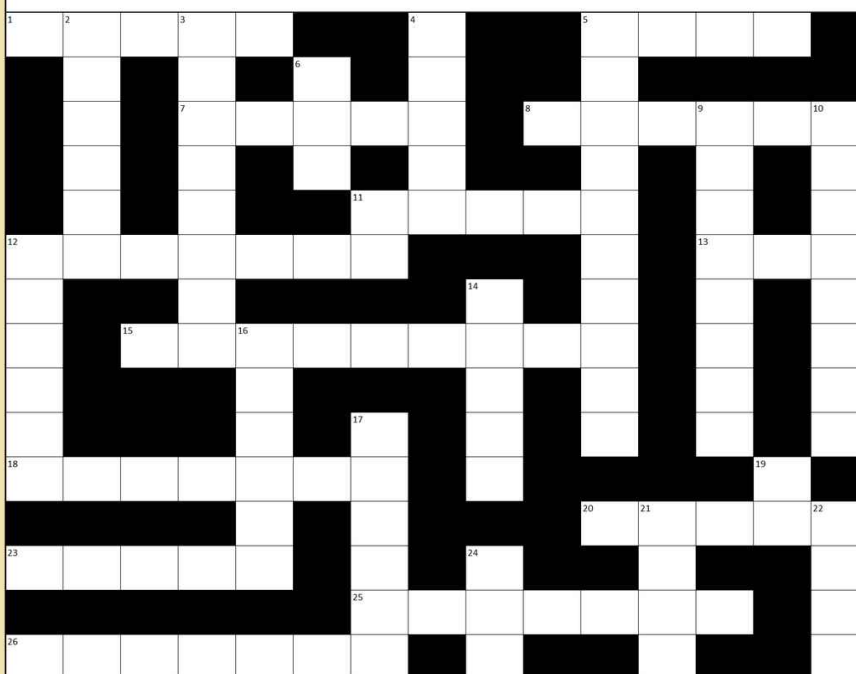








Rail Canvaz Puzzle No. 1



Hints

Across	Down
1 Urban Rapid Railway	2 Station serving North Chennai's industrial belt
5 Passenger Tariff	3 India's first premier fully air-conditioned train
7 Few modified WDM2 affectionately called as	4 Southern Railway Loco Shed
8 Traction type of Indian Railway	5 Oldest Working Steam Loco
11 Core element interlocking systems	6 Code of an important Cantt station in Haryana
12 Coastal MG Junction in Gujarat	9 Introduced as fastest AC premium service
13 Station code in Southern Railway	10 Auxiliary track beside the main line for crossings & overtakes.
15 Premium coach offering panoramic views	12 Western Railway major Loco Shed
18 Non-stop premium train service	14 Passenger-carrying vehicle attached to a train.
20 Section of track between two stations	16 Device that governs train movements
23 Prominent MG Junction of Yester years in Gujarat	17 Coastal Zone of Indian Railway
25 Scheduled entry of a train into a station	19 Railway Code for a Station of a Twin-city
26 Premium & Fastest Express train apart from VandeBharat	21 Front loco of Mued unit
	22 Station in Rajasthan famous for coaching centres
	24 Station code of erstwhile Princely state in Gujarat

NEWS STATION

Memus Start Operation In Tripura

For the first time in the Northeast Frontier Railway and North East India, a MEMU train started its operations between Agartala to Karimganj. Previously, operated by DEMU, the service was replaced by an electrically powered MEMU rake. This is a step closer towards operating more faster and reliable train operations for common people of the region and improving connectivity. The rake has started its operations in the first week of July, 2026.

Heart For Transplant Gets Transported By Vande Bharat From Surat To Ahmedabad

In a first for in India, a live organ was transplanted through railways for transplant on July 31st, 2026. The live organs were transported from NCH, Surat to Ahmedabad by Mumbai-Ahmedabad Vande Bharat Express. Gujarat Police, RPF, Railwaymen formed a team to make this possible. The whole transportation was made possible in 217 minutes including train travel and road travel to the hospitals in Ahmedabad.

Eastern Railway Rescue Team Helps In Taratala Rescue

In late June, when a warehouse collapsed in the port area of Taratala, Eastern Railway Liluah Workshop, Howrah Division and Sealdah division rescue teams joined the rescue operations. They joined hands with the NDRF, Police, Indian Army and other rescue forces to work for the common cause of rescuing the injured staff and clearing the debris.

Lucknow-New Delhi Tejas Express Gets Branded As 'Sprite Tejas'

The Lucknow New Delhi Tejas Express gets renamed as 'Sprite Tejas Express' after a recent deal of IRCTC with Sprite for 6 months. From August 19, it will be announced as the same in all the stations. The 82901/82902 Lucknow Jn-New Delhi Tejas Express also happens to be the first private train of India.

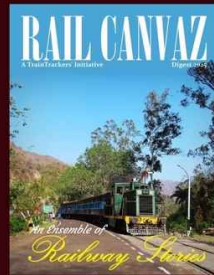
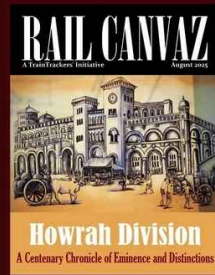
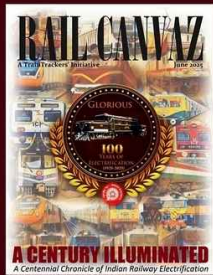
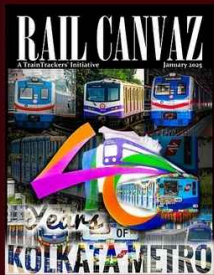
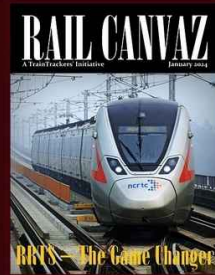
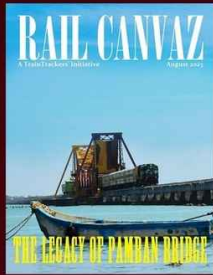
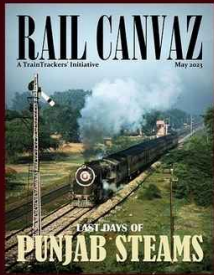
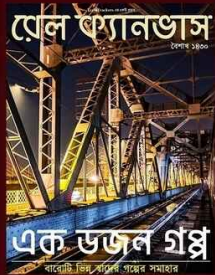
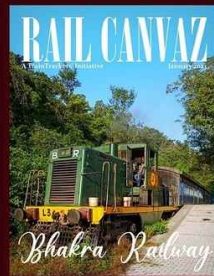
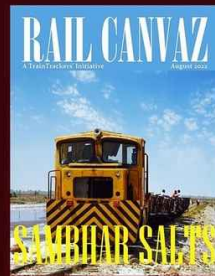
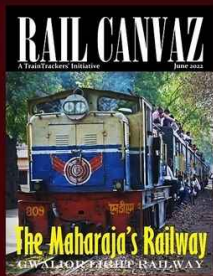
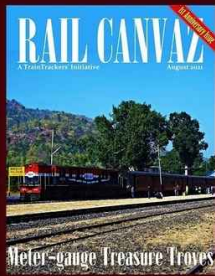
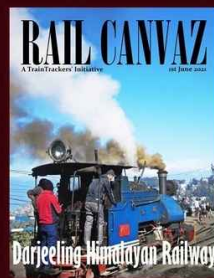
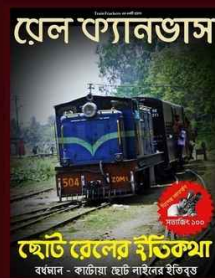
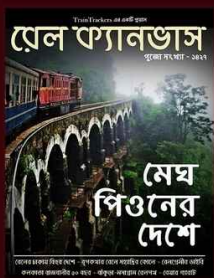
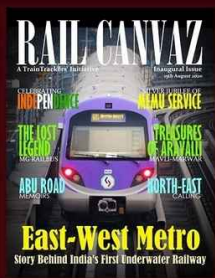
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