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## ORIGINAL ARTICLE

### K-Rail- An Opportunity in Disguise for Kerala

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#### ABSTRACT

Nordic countries are well known for their progressive socio-economic policies that are impactful in people's lives. The state of Kerala is the closest example to have adopted it and established a social-democratic model known as the Kerala model. Despite having a high per-capita income, and minimal poverty, the state is infamous for its lack of industries, investment, and economic opportunities. The current issues such as the rising youth unemployment rate, lack of skilled jobs and reduced industrial growth are a result of the failed one-sided implementation of the Social Democratic model. A new opportunity is knocking at the doorstep of Kerala, i.e. the controversial K-Rail and Silverline Project. This project has the potential to change the way in which Kerala will be seen by the business community and utilise the change giving the utmost priority to wooing investors and fixing the economic pitfalls of the Kerala model. This article elaborates on the need to change the deficient model Kerala has been following and how K-Rail can fix that.

**Keywords:** KRail; Silverline Project; Kerala; Kerala Model; Social Democracy; High-Speed Rail; Investments

## INTRODUCTION

Kerala is well known for its high literacy rate, improved HDI rank, and best-in-class education and healthcare system. The ruling dispensation of the state has established a social-democratic model, otherwise known as the Kerala model comparable to the Nordic countries (Sandbrook et al)<sup>1</sup>. However, despite the positive achievements in social indicators, this model has been criticised for its lack of focus on infrastructure and industrial growth. Despite having a high per-capita income, and minimal poverty, the state is infamous for its lack of industries, investment, and economic opportunities. The rising youth unemployment rate, lack of skilled jobs, and reduced industrial growth are a result of the failed one-sided implementation of the Social Democratic model. The inability of the political class to make the state capable of providing wider opportunities, meeting people's economic aspirations, and providing an improved quality

of life has been evident with the reduced economic output and decreased industrial and agricultural growth of the state. Kerala is overburdened by welfare schemes, salaries, and pensions which are rolled out without giving a second thought on how they are not sustainable without a strong economic backing.

## KERALA MODEL - A CRITICAL APPRAISAL

Despite the success in health and education, the ruling establishment has failed to recreate the success bringing the economic style of Nordic countries, which also have a strong productive foundation. Their infrastructure, transportation, skill-based jobs, industry-based economy, etc. were never adopted. Kerala's economy is thus largely dependent on tourism, cash crop-based agriculture, and foreign remittances. Patrick Heller has done extensive research on Kerala society and politics. In his essay, Kerala as a radical social



democracy (Cambridge University Press, 2007)<sup>1</sup> talks about Kerala's agricultural sector and the local rural population that is engaged in Medium and Small-Scale industries like the Coir industry and compares it to various small European countries. This model may not be helpful in the long run with changing local and global scenarios. The Centre for Developmental Studies, Trivandrum article talks about the developmental issues in the state in the light of the 2018 floods and the pandemic (Kannan, 2018)<sup>2</sup>. It has actively criticised the Kerala model which has always used remittances to fund its social programs ignoring employment generation and reducing tax collection efficiency (Rajwi, 2022)<sup>3</sup>. These are all amidst the situation that Kerala has a high population density and distinct demographic features contrary to the rest of the country. Even when South India is claimed to be relatively prosperous, all types of investments, manufacturing, industries, and jobs are moving to other states such as Karnataka, Tamil Nadu, Andhra Pradesh, and Telangana. Kerala has failed to prove attractive to the wealth generation compared to the other four states of the south located within the same vicinity despite having a better educated and healthy population.

Kerala is now a consumer state, with most of its food supplies coming from other states with declining Agricultural output. The state has currently one of the highest unemployment rates in the country. There is a large two-way migration happening, with aspirational youth moving to foreign countries and other industrialised states in India, albeit there is a massive influx of non-skilled migrant labourers to the state and engaging the jobs that the locals are not into (The New Indian Express, 2021)<sup>4</sup>. Kerala's Ease of Doing Business Rank in 2019 was '28', way below a lot of states in India with a much poorer ranking on social indicators (Mathrubhumi, 2021)<sup>5,6</sup>. The unemployment rate in Kerala increased to 15.77% amidst the pandemic, while amongst youth, it stands at 40% way above the national average of 21% (The News Minute, 2021)<sup>7</sup>. All these figures show the deficient model that was followed in the state. Alongside, the strong Labour Unions and continuous political partisanship, have been successful in opposing capitalistic economic models. Welfare programmes have always been funded by either tax payer's money or by borrowing from the Centre. Since the pandemic and flood, Kerala's debt has been mounting, forcing the state government to tax more and borrow further. Even the roll-out of GST has disadvantaged a consumer state such as Kerala. The Centre-State relations have significantly been affected by the fight over the release of central funding.

The legendary leader of the CPI-M, EMS Namboodiripad and later E K Nayannar in the 1990s post-liberalisation, said that Kerala should start wooing investors and enable an investor-friendly environment in the state (Parayil, 1996)<sup>8</sup>. The LDF government has tried to shift its ideology in recent years, trying to make Kerala a better destination for private

entrepreneurship, IT, MSMEs etc. Despite all the efforts, the state is currently witnessing, an immense amount of well-educated and aspirational youth which should have been the workforce of the state moving to other countries either seeking better employment opportunities or seeking a quality Western education. Albeit most of the current leaders in the state have failed to understand the aspirations of the youth of the state. The government has extremely failed to prevent the migration of youth outside the state which has only increased in the past years.

Through the lens of the Kerala Model and its failure to provide better aspirations for the people of Kerala, the discourse investigates the example of the K-Rail Silverline Project and how it can fill this particular void. More discussion and debate on the same in media and public will create the need for alternative arrangements in society leading to the public demanding better services.

## WHAT IS THE K-RAIL PROJECT?

Kerala Railway Development Corporation Ltd (KRDCL) initiated the Kerala-Rail/K-Rail in collaboration with the Ministry of Railways of the Government of India to build railway infrastructural projects in the state. Started in 2017 as a public joint venture company under the Government of Kerala and the Government of India. The aim of establishing K-Rail as a whole is closely aligned with the central government wanting the participation of state governments in the railway development of respective states. Hence, establishing bodies such as K-Rail across various states in providing decentralised railway development. K-Rail is a group of five different sub-projects, with the Silverline project being the most prominent, prestigious, and controversial. The four other projects include the Thalassery-Mysore broad gauge line, the Nilambur-Nanjagud Railway line, the Ponnuruni Coaching Terminal Complex in Kochi, 27 Railway Overbridges, and the long-time pending Sabari Railway Line. The Nilambur-Nanjagud Railway line would reduce the time and distance between Kerala and Karnataka. The Sabari Railway line would enable direct rail connectivity to the Sabarimala, which is Kerala's most important pilgrimage centre. Ponnuruni Coaching Terminal Complex will be an extensive facility for a goods shed, marshalling yard, coach repair centre and much more. Following are the features and specialities of the Silverline Project.

### *The unique features of the Project*

Silverline project is the most attractive yet the most controversial amongst the others. The Silverline Project is a Semi-High-Speed Rail System, connecting the two ends of the state- Thiruvananthapuram and Kasaragod. The length of the project is 530 km, the type of railway gauge that will be used is Standard Gauge (1435 mm) and it will have 11 stations and a depot at Kollam. The operational speed of the



train will be up to 200 kmph which is standard for a semi-high-speed system. The project will benefit ten out of fourteen districts in Kerala which will be a big boost to Kerala's connectivity. District administrative headquarters of these ten districts are chosen with the priority for the location of the Silverline railway stations. Almost all of Kerala's economic centres and administrative centres are connected by this project. Often the public and media discourse when referring to K-Rail, refers solely to the Silverline project.

### ***Secondary features of the Project***

Along with the main railway system, the project comes with more auxiliary features. The current line will include feeder services for last-mile connectivity, focus on passenger safety and comfort, passenger convenience such as digital payments, integration with One Nation-One Card, access to travel information, disabled-friendly infrastructure, and the latest security features such as CCTV and security staff. The facility can also be used for healthcare emergencies such as timely organ transportation aiding Kerala's healthcare sector.

### **K-RAIL- A "SILVERLINE" FOR KERALA'S FUTURE**

Besides all the projects under the K-Rail banner, the Silverline stands out as the most significant, talked about and publicly opposed project. Hence, the section will focus solely on the Silverline Project. The argument favouring the Silverline Project was mainly led by the experts who feel that the Kerala model has been dysfunctional on the economic and infrastructural front. The biggest push for this project was lobbied by the LDF government, which wanted to prove that this would lead to a revolution of developments in the state, ironically by the same party that has resisted foreign investments and crucial infrastructure development in the past. The ideological change was backed by the Left in the state transforming itself to a new coalition of voters. The party of CPI-M wants to project that it is no longer merely the party of labour and land but also development and progress. The party also realises the need for changing times in the wake of their wipe out across the country. The country is also a witness to high speed rail projects that are either in the planning or construction stage in various parts of the country such as Ahmedabad-Mumbai, Delhi-Varanasi, Mumbai-Nagpur, Delhi-Amritsar and many more. There is no way Kerala should be kept apart from similar projects amidst the neglect of Kerala by the policymakers in Delhi.

### ***The advantages of the project are explained as follows:***

- **Improved connectivity**

Geographically Kerala has a very long coastline of 600 km. The time taken to travel from the south end to

the north end is 12 hours by both road and rail. The capital Thiruvananthapuram needs better connectivity with other parts of the state for effective administration and convenience of the people. The Silverline DPR suggests that Kerala's traffic increases by 10% every year, and the present system will not be able to cater to that high demand. The existing transportation has proven inefficient with an increasing number of vehicles and no change in the width of highways and railway lines. There is a significant limitation on railways increasing the demand as well as the reality that high-speed trains cannot use the existing rail infrastructure which uses broad gauge and has a speed limit. The entire stretch has 627 curves which remains a hurdle in bringing high-speed trains (Kerala Kaumudi, 2021)<sup>9</sup>.

- **Reduced travel time and improved speed**

The average speed of trains in Kerala is 45 kmph (Krail, 2017)<sup>10</sup> one of the lowest in the country due to the high density of population and hence the highest number of stops for each train as of today. The existing premium trains like Rajdhani and Jan Shatabdi have proven ineffective in providing high-speed travel to Keralites due to the high frequency of stoppage. Compared to the road development in the state for the past few years, the railway has not seen such a massive improvement. Despite providing massive revenue to the Indian Railways, Kerala has only been a slow recipient of drastic improvements in facilities and services. Both UPA and NDA have not been so kind in giving the same attention as people expect them. With increasing petrol and diesel prices followed by a volatile global crude oil market, reliance on a fossil fuel-driven economy is unsustainable. In contrast, countries like Japan, Germany, and China, having the best High-Speed Rail Infrastructure, will benefit in the present and future (Nikkei, 2014)<sup>11</sup>.

Despite having excellent services such as four international airports, one major port, and another one in construction, Kerala still lacks a lot of road and rail infrastructure that will not only cater to current demand but also to the future. Those prioritising road over rail are ignoring the potential of public transport in an overpopulated and overcrowded state like Kerala. People deserve to travel from town to town faster than wasting hours only for commutation. The Silverline project is set to reduce total travel time from 12 hours to 4 hours. The project will be entirely zero-emission resembling a bullet train system. India's existing railway lines are based on Broad Gauge which has speed-based limitations. Standard Gauge on the other hand is more internationally acclaimed and provides high-speed trains to ply over the tracks. Besides a few isolated accidents, train travel is globally considered a safe mode of transportation.

- **Environmental Benefits and a step towards Sustainable Development**

The long-term environmental benefits are innumerable and sustainable. In the longer run, the Silverline Project



will achieve an immense amount of reduction in carbon emissions achieving the UN SDG 13- Climate Action. As a state has been at the forefront of achieving UN Sustainable Developmental Goals among all the Indian States. The buildings and structures that will be constructed for the project can be made sustainable following all the Green Building Guidelines. The entire system can work on green energy as soon as Kerala achieves its renewable energy targets.

- **Enhanced Quality of Service, Jobs, and Economic Development**

A loss-making enterprise like Kerala State Road Transport Corporation (KSRTC) and the Private Bus Operators could never provide the needed Quality of Service, which they have never been able to fulfill in the past. Post-pandemic, the state is facing a shortage of bus drivers, thus, the demand for increasing buses on the road can never be fulfilled. An increasing number of bus staff is also not sustainable as the state will have to pay wages for the driver and pension (Onmanorama, 2021)<sup>12</sup>. Many private operators have left the business with the onset of the pandemic, and the sector is yet to make a recovery. The DPR of the project also mentions the increasing number of accidents on the road, with Kerala topping the charts in the country based on accidents per capita. The existing model does not cater to long-run demand, lack of transportation facilities, and future expansion which will hurt the mobility of people and adversely affect the tourism sector. The key to better investments and job opportunities is investing in infrastructure.

- **Overall Infrastructural development**

Kerala Infrastructure Investment Fund Board (KIIFB) was created to gather funds for various infrastructure projects. The idea of improving infrastructure has always been a challenge and priority for the government. The lack of availability of land and delays in land acquisition have always hurt Kerala's infrastructural development. This must change for the betterment of the state. Hence, the Silverline Project will set a precedence in the state to show that infrastructure projects are welcome. This will be a successful initiative aimed at solving the transportation problems in the state besides the Kochi metro, Kochi Water metro, Vyttila and Kundanoor flyover, Alappuzha, Kollam and Mahe bypass, K-SWIFT bus services, Kazhakoottam flyover, etc. As former Minister Dr Thomas Isaac said, better infrastructure will help get investments and business opportunities (The Times of India, 2022)<sup>13</sup>. If done in an efficient manner, the government under LDF will be in a position to choose development and change the way politics have been viewed in the long run despite setbacks in the short run. The Silverline project will also enable smaller projects like feeder service, RO-RO, and tourism-related developments in the

future to improve its last-mile connectivity as well. The project, in both the short and long run, will create both skilled and non-skilled jobs.

- **Criticisms and the public outrage against the Silverline Project- Politics and Policy**

The prime issue with the project came not only from the opposition parties but from social groups and the public at large. The major portion of the Silver Line route passes through rural areas, which have been a safe haven for the ruling party, CPI-M. This has raised massive questions against the policy of the ruling party, which has always stood for people's cause, and against massive projects that hurt people's inhabitation and livelihood. When the project cuts through various environmentally sensitive areas like fields, coastal areas, wetlands, etc. can adversely affect the ecology and sustainability of the region. Environmentalist R.V.G. Menon has come against this project, citing those concerns. North Kerala as part of the Western Ghats, is home to various species of plants, animals, insects etc. and their existence can be endangered by such a massive project (Shamsudeen & Mathew)<sup>14</sup>. Other experts have alternatively suggested straightening the railway lines and overhauling the signalling system should be given priority over this mammoth project to speed up the existing railway network. Kerala is losing its paddy fields at a rapid pace and no doubt that this project will have to acquire them as well.

A letter from Minister Ms Nirmala Sitharaman shows that the party does not have a solid stance, and the opposition to the project is political in nature. BJP, on the other hand, has been suggesting Vande Bharat Express, which runs at 160 kmph, as an alternative and which will use the existing tracks for the service. In April 2023, PM Modi gifted Kerala its first Vande Bharat Express (NDTV, 2023)<sup>15</sup>. Even then, covering 11 districts, the train takes 7.5-8 hours which is approximately double the time that Silverline promises. Hence, the idea of using existing railway lines will not be sufficient. Jan Shatabdi train on the other hand takes similar time but charges less than one-fifth of the same price. Hence, Vande Bharat is not affordable to the general public. Also, the train plies only two times a day which does not serve the purpose of establishing a permanent solution to Kerala's transportation woes.

BJP has been following ambiguity in its stance. The state level of the BJP has been campaigning against the project while the central leadership claims that the project is still on the table. The Minister of Railways in the parliament claimed that the DPR is incomplete and more technical details are waiting for clearance. Chief Minister Pinarayi Vijayan's meeting with PM Modi for support and assistance from the Centre for the project is indicative of the same. The railway minister also stated that the project is still active. A new proposal by Dr E Sreedharan at the behest of the Kerala Government has come out with an alternate plan that makes





suggestions to the existing plan (Vailipatt, 2023)<sup>16</sup>.

The public anger against the project is evident throughout the state with stronger sentiments in the opposition stronghold of Central Kerala. People are convinced that their land will be lost and their years of hard work in building their dream home. People themselves have taken the initiative to obstruct the survey process, engage in sloganeering, and uproot the survey pillars. The main issue raised by the public was regarding the 10m buffer zone on each side of the planned rail line. Those suggesting road development and widening of the existing roads as an alternative have missed that, the land acquisition for the same is going to be harder and a time-consuming process. Kerala is land scarce and widening of the roads has never been in pace with increased traffic and people opting for private transport.

There were scholarly claims that it might take over 127 years to complete this project which was taken by keeping the Kochi metro as a benchmark which took six years to build a 25 km rail line (The News Minute, 2022)<sup>2</sup>. The same claims also asked Dr Thomas Isaac to prove that the speed of the transport indicated the economic development of a region. Financially, K P Kannan estimated the cost to be 4.79 lakh crore, way above the K-Rail estimate and NITI Aayog report. He has also claimed that High-Speed Rail has been a failure in Spain, Japan, and China. Metroman E Sreedharan has also raised the issue of cost and lack of technical details in the DPR and raised environmental concerns about the project. Albeit, he had previously said that the entire project could be constructed using an elevated track, and it would take more than ten years to complete the project not five years (Mathrubhumi, 2022)<sup>6</sup>. He also dismissed the already completed ariel survey and called for a proper study on the matter. Ecologist, Prof. Madhav Gadgil said that this project is going to adversely affect the environment indirectly (The Hindu, 2022)<sup>17</sup>. Alok Verma is one of the scholars who was at the forefront of the opposition to the project citing the negative socio-economic effects of the project (Nair, 2022)<sup>18</sup>.

The centre of criticism from reputed economists has been the cost of the project- Rs 64,000 as included in the feasibility report, which seems unrealistic as the NITI Aayog estimates the cost at Rs 1.24 lakh crore. At the present cost estimate, how the government plans to fund the project is not clear yet. With Kerala Finance Minister talking about the fall in revenue and debt post-COVID-19 shows that the state is not ready for such humongous spending. Amidst the economic crisis, the government is looking for long-term loans from Japan and elsewhere for the Silverline project (Kerala Kaumudi, 2022)<sup>19</sup>. Industries and investment will not reach the state of Kerala when it has a weak state of the economy, and it cannot be fulfilled by K Rail alone. With Kerala's backbone such as KSRTC being in a financial crunch, will such a massively funded and operated public company will be beneficial or will be a burden on the state exchequer or not is something that concerns the public and

the experts. Joseph C Mathew who was the IT advisor to CM Achuthanandan is openly at odds with the government on the project.

### • Criticisms against the project and plausible solutions

The rising inflation and the increasing fuel cost through the successive budgets have raised the price of petrol and diesel in the state. Given that the budget was highly inflationary in nature which will bring irreversible price rise to conventional forms of transport in the state. The challenge of bringing people's confidence in public transportation especially post COVID-19 must be taken care of to encourage to population to opt for a cultural shift.

The government, despite staying adamant on its stance, should embrace compassion, be complacent, and be open to criticism. The party that has led the people's movement and fought for people's problems, CPI-M, needs to mobilise itself to hear public opinion and act accordingly. Minister Saji Cherian's initiative to visit the areas that will be affected in his own constituency of Chenganoor, which is located at the tri-junction of three districts- Alappuzha, Pathanamthitta, and Kottayam is appreciated. Similarly, CPI-M's effort to enter each house to ensure public confidence and reiterate its promise of proper compensation given to people who give up land should be seen as a changing accommodative strategy.

Concerns on the technical aspect of the project raised by critics must be addressed properly by considering the opinion of the academia. Prof K P Kannan's remarks on the timeline are an over-exaggeration of reality. Most projects like these are planned and executed parallelly to save time. Work across the project routes is done simultaneously to save time and cost. The Kerala Government and Central Government have to negotiate and reach an agreement on the implementation of the project and the financial feasibility of the same rather than outrightly rejecting the project idea. Dr E Shreedhan who has pioneered several projects in the country has advised the government with minor changes to the project and suggested the same, to the government. Taking all the same into account, the project can be made more technically sound which would be beneficial in the longer run. Opposition parties have raised valid concerns, mostly being vocal on people's issues. The importance of compensation to be granted to people and their resettlement. Despite opposing the project, no opposition party has clearly rejected the idea of having an alternate transport system.

The enumerated details display the importance of addressing all the valid criticisms before proceeding with the project. The aforementioned criticisms in the previous sections do not nullify the need for such an important infrastructural project but rather show the significance of this project for Kerala. Similarly, there needs to be a disciplined way of executing such important and crucial ideas in the state. It is to be noted that E Sreedharan, despite



his criticism, has supported the concept of the Silverline Project. He also emphasised that projects like these are beneficial in the long run; at the same time, he also dismissed the idea of Vande Bharat Express as a viable alternative (Mathrubhumi, 2022)<sup>6</sup>.

### THE WAY FORWARD FOR SILVERLINE PROJECT AND THE KERALA MODEL

Kerala's unemployment problem and low ranking in the Ease of Doing Business is not solely attributed to a lack of proper transport infrastructure but also to how both ruling alliances have pursued strict policies against big industries and businesses. The Trade Unions mostly aligned with the ruling party continued to create friction between businesses and the public, hampering any change in the system. Without addressing these fundamental problems and creating an environment for hope and well-being for businesses, K-Rail's Silverline Project itself may not be the antidote to all of Kerala's economic problems.

The government's stance of currently not paying heed to any protest, like in Sabarimala 2018, where it still believes it is on the right side despite public anger, will backfire. There has been a slight softening of the government's stance after public outrage. This project will also need to pass the test of better Centre-State relations in ensuring that development projects are not hindered. The opposition, despite having supported such projects in the past when in government, believes this is the perfect time to show its unity, engage its groundwork, and gain back its lost glory.

Standing alongside the public has always been the stance of Kerala's political discourse whenever an issue of prime importance or controversy arises. The state government is creating a development image by putting forward developmental projects and schemes. It is yet to be seen that CPI-M and LDF's policies have changed a lot on the policy front, also with reference to CM's idea of making Kerala investor-friendly.

The Silverline project's benefits outweigh its limitations and criticisms. Acknowledging critics and their valid points, staying close to the public, and gaining their confidence even if it delays the project for a few years is essential. That is the only way forward in democracy rather than imposing policies through the top-down approach, which the Kerala Government tried to do on Sabarimala and the Central Government on Farmer's laws. High-speed railway is the solution to transportation problems across the globe despite its high initial and maintenance cost, also taking into account the environmental concerns. Public projects are built for the public to provide services and not to make a profit. The Kochi metro has succeeded in changing the face of the city of Kochi by bringing more opportunities, investments and doubling the IT industry profits (TNIE, 2021)<sup>4</sup>. Silverline Project and K-Rail at large will act as a catalyst for infrastructural development and transportation in the state.

### CONCLUSION

Kerala has been successful in providing quality education, healthcare, and social security for its people. Kerala Model hailed as one of the unique success stories of implementing a social welfare state in India needs a revamp. Lack of business-friendly environment, shortage of land and high density of population has failed to ensure a strong economy that is needed to continue its welfare. This one-sided and flawed implementation of Nordic social democratic model has started to backfire. The K-Rail Silverline Project is a new opportunity at the doorstep to fix not only its infrastructure but also to improve its image that Kerala is welcome to investment and restructure its economy. This is a project that can potentially boost Kerala connectivity, reduce travel time, boost its tourism sector, and most importantly improve its economic prospectus. By taking into consideration of all sides and fixing the pitfalls, this project can be pursued in an efficient way.

### REFERENCES

1. Sandbrook R, Edelman M, Heller P, Teichman J. Kerala: Deepening a radical social democracy. In: Social Democracy in the Global Periphery: Origins, Challenges, Prospects. Cambridge University Press. 2007;p. 65–92. Available from: <https://doi.org/10.1017/CBO9780511491139.003>.
2. K-Rail will take 127 yrs to build if Kochi Metro is an indicator: Economist KP Kannan. 2022. Available from: <https://www.thenewsminute.com/article/k-rail-will-take-127-yrs-build-if-kochi-metro-indicator-economist-kp-kannan-161382>.
3. Rajwi T. The 'Kerala Model': a mixed bag of successes and spectacular failures. 2022. Available from: <https://www.thehindu.com/news/national/kerala/the-kerala-model-a-mixed-bag-of-successes-and-spectacular-failures/article66049212.ece>.
4. Kallungal D. In 8 years, migrant workers will equal one-sixth of Kerala's population. 2021. Available from: <https://www.newindianexpress.com/states/kerala/2021/dec/29/in-8-years-migrant-workers-will-equal-one-sixth-of-keralas-population-2400694.html>.
5. Ambiguity over K-Rail buffer zone: Owner granted permission for house repair after months. 2022. Available from: <https://english.mathrubhumi.com/news/kerala/ambiguity-over-k-rail-buffer-zone-owner-granted-permission-for-house-repair-after-months-1.7431138>.
6. Mathrubhumi. K Rail can be implemented effectively using elevated tracks: Metro Man E Sreedharan. 2022. Available from: <https://english.mathrubhumi.com/news/kerala/k-rail-can-be-implemented-effectively-using-elevated-tracks-metro-man-e-sreedharan-1.6420612>.
7. Kuttappan R. Kerala's unemployment rate among youth rises to 40.5%: Here's why. 2021. Available from: <https://www.thenewsminute.com/article/kerala-s-unemployment-rate-among-youth-rises-405-here-s-why-143614>.
8. Parayil G. The "Kerala model" of development: Development and sustainability in the Third World. *Third World Quarterly*. 1996;17(5):941–958. Available from: <https://doi.org/10.1080/01436599615191>.
9. Vishnu MH. With 626 curves in tracks, Vande Bharat trains won't be able to run at half its proposed speed in Kerala Read full news at <https://keralakaumudi.com/en/news/news.php?id=742993&u=with-626-curves-in-tracks-vande-bharat-trains-wont-be-able-to-run-at-half-announced-speed-in-kerala>. 2022. Available from: <https://keralakaumudi.com/en/news/news.php?id=742993&u=with->



- 626-curves-in-tracks-vande-bharat-trains-wont-be-able-to-run-at-half-announced-speed-in-kerala.
10. K-rail: Silver Line. . Available from: <https://keralarail.com/silverline/>.
  11. Kotani H, Suzuki J, Yamada K. Catalyst or catastrophe? Lessons from Asia's high-speed rail failures. 2018. Available from: <https://asia.nikkei.com/Business/Business-trends/Catalyst-or-catastrophe-Lessons-from-Asia-s-high-speed-rail-failures>.
  12. Ilankath U. Unfit buses deployed for service, allege KSRTC officials at a high-level meet. 2021. Available from: <https://www.onmanorama.com/news/kerala/2021/11/17/ksrtc-buses-unfit-for-service-depots.html>.
  13. K-Rail project will bring investment to industrial corridors: Former Kerala minister Thomas Isaac. . 2022. Available from: <https://timesofindia.indiatimes.com/city/kochi/k-rail-project-will-bring-investment-to-industrial-corridors-former-kerala-minister-thomas-isaac/articleshow/88723275.cms>.
  14. Shamsudeen RSM, Mathew G. Diversity of Butterflies in Shendurny Wildlife Sanctuary, Kerala (India). Kerala (India. 2010. Available from: [https://www.researchgate.net/publication/342782301\\_Diversity\\_of\\_Butterflies\\_in\\_Shendurny\\_Wildlife\\_Sanctuary\\_Kerala\\_India](https://www.researchgate.net/publication/342782301_Diversity_of_Butterflies_in_Shendurny_Wildlife_Sanctuary_Kerala_India).
  15. Adani Foundation Gets 'Van Pandit Award' for Planting Over 1.7 Lakh Trees In Gujarat. 2024. Available from: <https://www.ndtv.com/india-news/pm-modi-flags-off-vande-bharat-express-in-kerala-the-states-first-3976878>.
  16. Vailipatt J. Tvm to Kannur in one hour: Metroman Sreedharan open to taking up high-speed rail project. 2023. Available from: <https://www.onmanorama.com/news/kerala/2023/07/12/metroman-e-sreedharan-proposes-high-speed-rail-project-kerala.html>.
  17. It's in Kerala's interests to drop K-Rail: Gadgil. 2022. Available from: <https://www.thehindu.com/news/national/kerala/its-in-keralas-interests-to-drop-k-rail-gadgil/article38190074.ece>.
  18. Nair S. SilverLine debate: CPM double standard on free speech. 2022. Available from: <https://www.onmanorama.com/news/straight-talk/2022/04/28/silverline-debate-cpm-double-standard-on-free-speech.html>.
  19. The loan for K-Rail is being given by Japanese bank JICA, not companies: K-Rail Development Corporation. 2022. Available from: <https://keralakaumudi.com/en/news/news.php?id=779874&u=>.

