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CILT Newsletter

The Chartered Institute of Logistics and Transport-India

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INDIAN RAILWAYS AND SUSTAINABLE GROWTH

Railway plans to increase its modal share in freight from 27% to 45% by 2030, following the National Rail Plan, and Mission of 3000 million tons by 2027

Top News

Can India Deliver? The Project Management Challenge in Infrastructure Development

2024

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INDIAN RAILWAYS AND SUSTAINABLE GROWTH

Vinod Asthana, Vice Chairman, CILT

Indian Railways has witnessed major changes in the last ten years, both in terms of policy initiatives and enhanced investment in Railway infrastructure. This covered both passenger segments as well as freight. Railways as a system of mass transportation play a prominent role in the development of the nation's economy.

Indian economy has shown remarkable & consistent growth in post covid era. As per IMF, India's GDP would be crossing $5 trillion by 2027, overtaking Germany & Japan, emerging as third largest economy. As per the Government's estimate, it will be touching 35 trillion USD by 2047.

The Railway's initiative to keep pace in reducing transit time, bring down logistics cost, increasing modal share, ensuring supply of rolling stock and increasing speed of passenger trains requires heavy investment in infrastructure. Railways having 90% plus operating ratio had hardly any funds to invest for the capital expenditure to enhance the capacity and increase the supply to meet with the growing demand.

The capital expenditure on Railways of over ten lakh crores in last five years through general budgets has enabled growth, freight traffic touching 1.6 bn. tons, Vande Bharat superfast trains, Station redevelopment, etc.

The expansion, strengthening and construction of railway related infrastructure is primarily being carried out by Railway PSUs.

NHSRCL is executing the prestigious high-speed corridor of Bullet train from Mumbai to Ahmedabad, which will be pioneering a technological breakthrough for the Indian Railways. Seven more corridors for high speed are being examined by this PSU.

RVNL works as major construction arm of IR for project implementation and railway infrastructure development providing hardware. They are executing major works of track doubling, 3rd line, Bridges, gauge conversion and new lines like Rishikesh – Karnaprayag.

IRCON also is involved in the construction of Bullet train project of Ahmedabad-Mumbai, Metro construction, Tunnels and bridges of railway related projects. DFCC has nearly completed construction of over three- fourths of the Eastern & Western freight corridors, and has now started working on the plans of new freight corridors.

IRFC provides financial support in procurement of railway wagons, and today over three- fourths of total railway wagons is financed by this Corporation, through leasing.

CONCOR, involved in rail transportation of container traffic, is a Navratna PSU, providing cost effective logistics solution through its network of multi modal terminals.

IRCTC, passenger facilitation arm of Railways, recently conferred Schedule A, provides hospitality, catering, ticket booking and focuses on customer satisfaction of railway passengers.

RITES, also a Navratna, have completed 50 years, providing technical consultancy for transport infrastructure. RailTel is an ICT provider, with pan India optic fiber network.

Many of these Railway PSUs are listed companies. The market capitalization of these public sector units has been the talking point on the stock market. The government initiative to upgrade, develop, modernize & revamp the railway sector with capital allocation in the annual budgets has acted as a catalyst for such buoyancy.

Railway plans to increase its modal share in freight from 27% to 45% by 2030, following the National Rail Plan, and Mission of 3000 million tons by 2027 requires besides crucial line capacity works, increase in wagon procurement. Plan to procure up to 5000 new wagons annually, including replacement and private acquisitions, has given push to wagon manufacturers in the country and also business support to IRFC.

As a follow up of National Logistics Policy, the plans are finding support to set up Gati Shakti Railway terminals to reduce logistics cost, with PPP, to develop freight handling facilities. This is besides commercial development of railway land by RLDA, including Facilitation Centers and upgradation of stations.

The passenger segment has got a major boost with Vande Bharat trains both in terms of speed and comfort. The plans to provide sleeper coaches in Vande Bharat will enable Railways to increase and replace existing services and mobilize coach manufacturing industry for targeted production of such superfast trains, which is taking Railway to the next generation of passenger trains.

Thus, it is seen that Railway PSUs involved in construction of railway assets, mostly are dependent on Government initiatives and capital investment through the annual budget. Other PSUs which are in the service sector like RITES, IRCTC, CONCOR, RailTel are also mostly guided by Railway's policy guidelines, issued from time to time by Railway Board. The continuity of the policies of the Railways is crucial in the performance of such organizations. Any changes in the policies effects the roll out of the commercial activities of the Corporations and also has impact on the overall profitability and viability, as reflected in the balance sheet.

This brings us to the issue of manpower for the railway PSU. All require railway trained and experienced staff with expertise, which is not readily deputed by Railways, for obvious reasons. Moreover, such manpower is also deputed for Metro development in various cities, NCTRC, port connectivity projects and so on. Many have their own recruitment and training, but railway experience manpower is always a desirable asset at senior positions. Structured framework in this regard, is the need of the hour

There is growing need for consolidation of PSUs involved in similar activities, to have economies of scale, reduce administrative cost, develop smart organization as envisaged in the government note of August 2021. Rationalization of the activities of PSUs would also make them cost effective to the Railway Ministry.

The PSUs are involved in essential activities of the Railways, and the challenge is to ensure that they have sustainable growth in the long run with the ever-changing ecosystem. The dependence on capital expenditure through budget is to be gradually reduced and work on company driven growth models.

Nine Success Drivers for investments in Fulfilment Warehousing.

By Subhasis Ghosh, Managing Partner, Apex Group
Business Leader | Independent Director | Mentor of Change

Contents:

- Definition of fulfillment warehousing
- Companies currently investing in the fulfillment warehousing sector
- Prominent technology and automation firms within fulfillment warehousing
- Reasons for investments in fulfillment warehousing
- Success stories resulting from strategic investments in fulfillment warehousing
- Key factors contributing to successful investments in fulfillment warehousing
- Are we accurately measuring the success of our investments in fulfillment warehousing?

Companies like Amazon, DHL, and Walmart continue to invest in Automation, Technology and expand their warehouses to keep up with the growing demand for e-commerce fulfilment services and increase the fulfilment process's efficiency and speed.

Logistics is an essential part of any business, and investing in fulfilment warehousing can provide numerous benefits in terms of increased efficiency, productivity, and competitiveness.

During a recent advisory conversation, we looked at the rationale, drivers and some success stories of companies that have made significant investments in fulfilment warehousing. Here is the outline.

So what is fulfilment warehousing?

Fulfilment warehousing investments refer to the construction or expansion of warehouses used for order fulfilment. It typically includes the purchase or leasing of the land and building and the cost of equipping the warehouse with necessary materials handling equipment, storage racks, information systems and soft infrastructure. Businesses that make these investments aim to improve the efficiency and capacity of a company's fulfilment operations, which can help reduce costs and improve customer satisfaction. Furthermore, there is an increase in investments in sustainable warehouses and last-mile delivery options to address the environmental impact of e-commerce fulfilment.

So which companies have been investing?

Recently, many companies in North America invested in fulfilment warehousing to keep up with the growing demand for online shopping. Some examples of investments made in fulfilment warehousing in **North America** in 2020-22 include:

- Amazon announced plans to open a series of new warehouses, focusing on providing same-day and one-day delivery for customers.
- Walmart announced that it would invest a significant amount to build new fulfilment centres, expand existing facilities, and increase Automation in warehouses.
- DHL Supply Chain announced a $300 million investment in a new, state-of-the-art fulfilment centre in the US, which will use Automation and robotics to improve efficiency and speed.
- FedEx announced plans to open a new, high-tech fulfilment centre in the US, which will use Automation and robotics to increase the efficiency and speed of order fulfilment.
- Wayfair, an online furniture and home goods retailer, announced plans to open a large, new fulfilment centre in the US, which will use Automation and robotics to increase the efficiency and speed of order fulfilment.
- Shopify, an e-commerce platform, announced plans to open new fulfilment centres in the US, which will use Automation and robotics to increase the efficiency and speed of order fulfilment.

Many companies in the e-commerce industry in Latin America have also invested in fulfilment warehousing to keep up with the growing demand for online shopping, as it's a common trend worldwide.

Some regional e-commerce companies, like MercadoLibre and Linio, have expanded their operations and logistics capabilities to serve customers better. Also, many logistics companies like DHL, UPS, and FedEx are investing in the region to improve the logistics infrastructure and delivery services.

In India, e-commerce and logistics companies have been making significant investments in fulfilment warehousing to meet the growing demand for online shopping. Here are a few examples of such investments made in India recently:

- Flipkart, which Walmart owns, announced that it would be investing $1.2 billion in India to build new fulfilment centres and expand existing facilities to increase Automation and improve efficiency. Flipkart announced plans to open ten new fulfilment centres in India, focusing on providing same-day and one-day delivery for customers.
- Amazon India announced plans to open ten new fulfilment centres in India to expand its reach and improve customer delivery speed. The focus is to increase Automation and robotics to improve the efficiency and speed of order fulfilment.
- Delhivery, an Indian e-commerce logistics company, announced plans to invest in building new hi-tech fulfilment centres, which will use Automation and robotics to increase the efficiency and speed of order fulfilment.
- JioMart, the e-commerce arm of Reliance Industries, announced plans to invest significantly over the next two years to build new fulfilment centres and expand its delivery network across India.
- Snapdeal announced plans to open new fulfilment centres, which will use Automation and robotics to improve the efficiency and speed of order fulfilment.

Many other e-commerce and logistics companies also recently made significant investments in fulfilment warehousing in India to meet the increasing demands of online shoppers.

Which are some technology and automation companies in fulfilment warehousing?

Several technology and automation companies specialize in fulfilment warehousing in India. Here are a few examples:

- **GreyOrange:** GreyOrange is an Indian company that designs, manufactures, and sells advanced robotics systems for Automation in warehouses and distribution centres. They offer a range of products, including robots and automated storage and retrieval systems, to help companies improve the efficiency and speed of their fulfilment operations.
- **Intelligrated:** Intelligrated is an American company owned by Honeywell that designs and installs automated material handling systems for warehouses and distribution centres.
- **T-Systems:** T-Systems is a German company with a presence in India. It provides IT services, logistics, and supply chain management solutions, including warehouse automation and consulting in India. They offer a range of automation solutions for warehouses and distribution centres, including warehouse management software, RFID systems, and automated storage and retrieval systems.
- **Infosys:** Infosys is an Indian multinational corporation that provides business consulting, information technology, software engineering, and outsourcing services. They also offer solutions to automate warehouse operations.

- **Swisslog:** Swisslog is a Swiss multinational company with a branch in India that provides automation solutions for warehouses and distribution centres, including automated storage and retrieval systems, conveyor systems, and warehouse management software.
- **Wipro**: Wipro is an Indian multinational corporation that provides IT, consulting, and business process services focusing on automation solutions for warehouses, distribution centres, and e-commerce fulfilment centres.

What is the rationale for investments in fulfilment warehousing?

E-commerce companies have invested in fulfilment warehousing to support the growing demand for online shopping. These investments have increased the efficiency and speed of order fulfilment and reached more customers across the country.

Investment in fulfilment warehousing can help companies improve the efficiency and speed of the fulfilment process, which can lead to better customer satisfaction and increased sales.

It can also help companies reduce fulfilment costs and improve delivery times.

In India, the e-commerce industry has been expanding in the past few years, driven by the increasing penetration of the internet and smartphones and the changing consumer behaviour.

The e-commerce industry has created a massive demand for e-commerce fulfilment services. Companies that have invested in fulfilment warehousing have been able to leverage this trend and grow their business.

Additionally, companies like Amazon, Flipkart, Bigbasket and Delhivery have been expanding their fulfilment centres and investing in Automation and technology, which will increase their warehouse efficiency and speed of order delivery. Improved efficiency would help them to sustain their growth and stay competitive in the market.

Some success stories of successful investments in fulfilment warehousing.

Many companies have seen success with investments in fulfilment warehousing due to the growing demand for online shopping. Some examples of success stories include:

Amazon has built a network of over 175 fulfilment centres worldwide, allowing them to offer fast and efficient delivery to their customers. This investment in their fulfilment network has been a critical factor in their success and has helped them become one of the largest e-commerce companies in the world. According to a report by Forbes, Amazon's investment in logistics infrastructure, including warehouses, delivery networks, and logistics technology, has been a significant driver of the company's growth in recent years.

DHL, one of the world's leading logistics companies, made significant investments in automation technology for their warehouses in recent years. The initiative includes implementing robotic systems and automation technology to increase efficiency and productivity. According to a case study by McKinsey, DHL's investments in automation technology have led to a 15-20% increase in productivity in their warehouses. The initiative has helped DHL stay competitive in the logistics industry and continue to grow its business.

Walmart is another notable example of a company that has successfully invested in fulfilment warehousing. They have built multiple fulfilment centres specifically for online orders and have implemented technology like augmented reality to improve the picking process. According to a report by Business Insider, Walmart's investment in e-commerce and logistics infrastructure has helped the company increase its online sales and better compete with other e-commerce companies.

Retail company Zara invested in a new fulfilment centre in Spain that uses RFID technology to track inventory in real-time. This fulfilment centre has allowed them to quickly respond to trends in customer demand and avoid stockouts, which has helped them maintain their position as a leader in the fast fashion industry.

What drives the success of fulfilment warehousing investments?

Here are some of the critical drivers of success for investments in fulfilment warehousing, not in any particular order:

1. **Location:** Businesses need to choose the location of their warehouse to minimize transportation costs and maximize accessibility to customers. Proximity to major population centres and transportation hubs: This allows for quick and efficient delivery of products to customers.
2. **Infrastructure, including Automation and technology:** Automated systems can significantly increase efficiency and accuracy in the warehouse. Implementing Automation and technology such as robots and automated storage and retrieval systems can increase efficiency and reduce labour costs. Utilizing information technology such as warehouse management systems and real-time tracking can increase visibility and control over inventory and operations.
3. **Robust logistics and supply chain management processes:** This includes having efficient systems in place for receiving, storing, and shipping products, as well as tracking inventory and monitoring performance metrics.
4. **Solid partnerships and relationships** with suppliers and customers can help ensure a consistent flow of products and customers.
5. **Skilled and Motivated Workforce:** An experienced and motivated workforce is crucial for maintaining efficient operations.
6. **Security**: Implementing security measures to protect the facility, employees, and inventory is essential.
7. **Scalability of hard and soft infrastructure:** The warehouse should be able to scale up or down as needed to meet changes in demand.
8. **Flexibility:** The warehouse infrastructure needs to be flexible enough to handle a variety of products, storage requirements and changing customer needs.
9. **Sustainability:** Adopting sustainable practices and investing in renewable energy can help to reduce environmental impact and costs.

Are we measuring the success of investments in fulfilment warehousing?

Depending on the company and the specifics of its investment, the success of a fulfilment warehousing investment can be measured in different ways, such as improved delivery times, increased sales, cost savings, and more.

Measuring success in fulfilment warehousing is crucial for investors and operators to understand the efficiency and effectiveness of their investments. It helps identify areas for improvement and highlights the ROI of specific initiatives. It allows for data-driven decision-making and helps ensure the continued success of the warehouse operation.

I**n conclusion**, investing in fulfilment warehousing can significantly improve the supply chain's efficiency, productivity, and competitiveness.

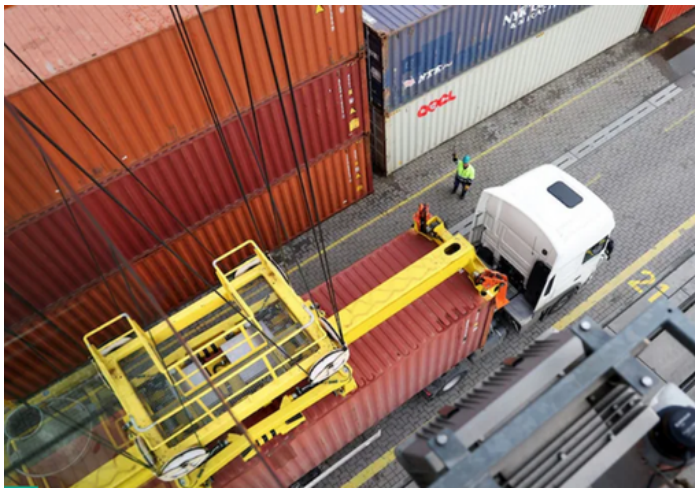
Whether you're a large e-commerce company or a small business, investing in fulfilment and warehousing can help you meet the demands of your customers and reach new heights of success.

It's, however, essential to conduct a thorough analysis of your specific needs and goals and then make informed decisions about where and how to invest in fulfilment warehousing.

A pathway to transform India's Ports

By Veni Mathur is Vice-Chairperson, CILT - India

Like the Logistics Policy, where the central government led the way; creating guidelines and states subsequently developing their own aligned versions, India needs to follow the same pattern as far the maritime policies are concerned



India's trade has witnessed significant growth with key corridors such as India-Africa, India-UAE, and India-China registering substantial increase. For instance, the trade corridor between India and Africa has seen a spurt in trade volumes, growing 12 percent annually over the past five years. Similarly, trade with the UAE and China has shown consistent growth, contributing significantly to India's economic expansion.

While progress has been made in recent decades, a more comprehensive overhaul is required to propel India's port sector to the forefront of global competitiveness.

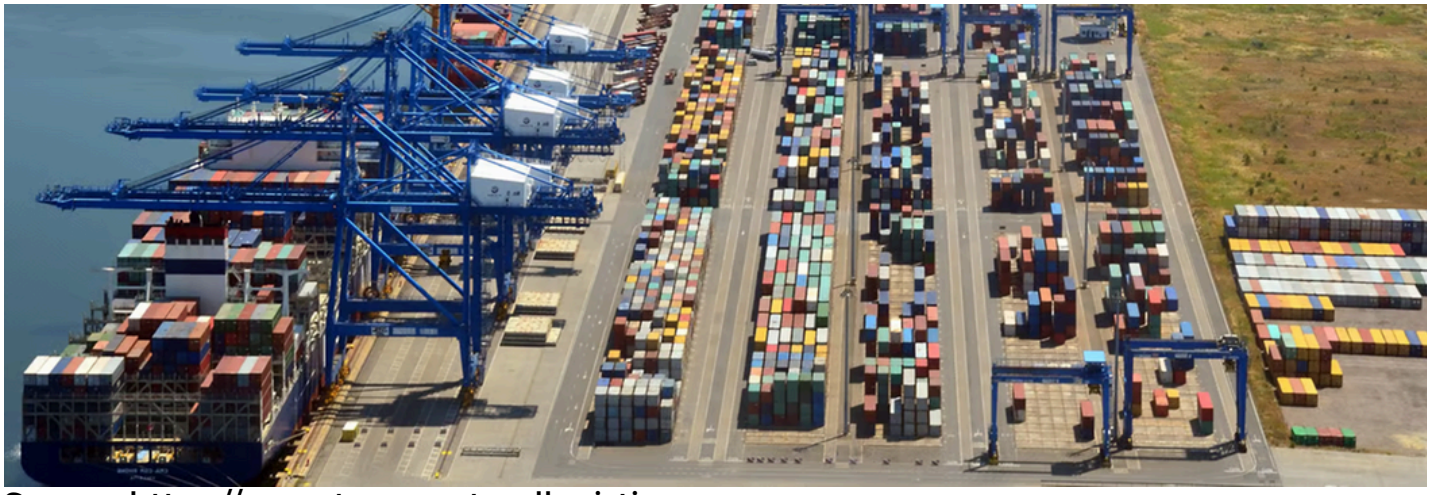
Recognizing this imperative, the Indian government has demonstrably embarked on a regulatory evolution through the Model Concession Agreement (MCA), the Maritime Amrit Kaal Vision 2047, and Sagarmala which initiatives hold significant promise for the future of Indian ports.

However, to fully unlock India's port potential, it is crucial to move beyond policy-formulation and delve deeper into port transformation. This necessitates seamless integration of global best practices into the Indian context. Here, collaboration between central and state governments becomes paramount. By preparing comprehensive port policies that are regionally relevant yet aligned with national goals, India can truly propel its port sector to the forefront of global competitiveness.

Tweak concessions to promote stability

One area that demands immediate attention is the concession duration. With several major port concessions nearing their end, such as the Pipavav Port and Karaikal Port in 2028, a comprehensive evaluation of the growing needs of the country is warranted. Concession periods must be aligned with the long-term vision for the sector, enabling sustainable investments and operational efficiency.

Globally, ports have started granting longer concession tenures and have successfully implemented provisions that allow for the co-terminus extension of sub-concession tenures to match the primary concession period. This approach keeps the same terminal operators in place, fostering long-term business continuity and operational stability within the ports.



Source: https://www.transportandlogisticsme.com

Here, India can draw inspiration from global best practices implemented in The Port of Singapore, Brazil, South Africa, the UK and the US. Singapore's port operations are primarily led by the Port of Singapore Authority (PSA Corporation Ltd), which has extended sub-concession tenures to align with the primary concession periods.

Data from the Maritime and Port Authority of Singapore shows that the port's container throughput grew from 33.6 million TEUs in 2018 to over 37.2 million TEUs in 2021. This growth is attributed to improved operational coordination and investments stemming from tenure security. With the alignment of tenures between the primary concessionaire and terminal operators, the Port of Santos has reported a 25 percent improvement in cargo handling speeds.

The Port of Durban in South Africa reported a 10 percent increase in overall efficiency with quicker turnaround times and reduced congestion after extending tenures for operators. The Port of Rotterdam offers a compelling model, granting long-term leases with the inherent option of extending sub-concessions aligned with the primary concession. This approach not only incentivizes performance but also provides a stable and conducive environment for private players to thrive.

Ports in Rio de Janeiro, Los Angeles, New York, Singapore and Santos have successfully implemented performance-based sub-concession extension policies, fostering a culture of continuous improvement and accountability.

The Port of New York, New Jersey, and Los Angeles employ a performance-based approach, focusing on a range of operational and environmental KPIs. The implementation of environmental KPIs in the Port of Los Angeles resulted in a 30 percent reduction in emissions from port operations. The Port of New York and New Jersey, focusing on a range of operational criteria, led to an increase in container handling speed and container throughput.

Pricing needs to be benchmarked to global standards

Furthermore, it is crucial to benchmark India's ports against global standards in areas such as port charges and average drafts. Many leading international ports have implemented competitive pricing strategies and maintained deeper drafts to

accommodate larger vessels, enhancing their competitiveness and attracting more trade. India should aim to adopt similar best practices to position its ports as attractive destinations for global maritime trade.

As India aims to transcend the **"trailer stage"** and unlock its true economic potential; adopting global best practices in the port sector becomes imperative. However, this process should not be a mere copy-and-paste exercise; instead, it should be a thoughtful adaptation tailored to the local market conditions.

The comprehensive legal framework employed by the UK, the performance-based extension provisions in Singapore and the US, and the proactive strategies of authorities in the Netherlands and Australia in rolling out the red carpet for private investment in the port sector are all examples worth considering as the new government in India seeks to propel the economic growth story to new heights. Additionally, learning from successful global examples, India should consider adopting policies such as the co-terminus extension for terminal operators along with the primary concessionaire.

By embracing these global best practices and integrating them into the Indian context, the port sector can undergo a transformative journey as it has set its sight on ambitious maritime expansion with plans to develop six mega ports by 2047 with capacity exceeding 300 MTPA at Vadhavan, Tuna Tekra, Chennai, Cochin, Paradip and other non-major port clusters which will significantly boost its cargo handling capacity.

A reformed and revitalized port sector will not only contribute to India's economic growth but also position the country as a formidable player in the global trade landscape. Like the Logistics Policy, where the central government led the way; creating guidelines and states subsequently developing their own aligned versions, India needs to follow the same pattern as far the maritime policies are concerned. This will ensure a cohesive and efficient ecosystem, facilitating seamless operations and attracting investments across the country.

Can India Deliver? The Project Management Challenge in Infrastructure Development

by Prof. (Dr.) Jitesh J. Thakkar, Dean (Academics) & Professor (School of Management), Gati Shakti Vishwavidyalaya (GSV), Vadodara

Executive Summary

India's ambitious infrastructure plans hold immense promise but are hindered by significant project management challenges. This article examines challenges in India's large-scale Infrastructure projects and extends key recommendations for the effective execution of the infrastructure projects critical to society, citizens and nation. Cost and time overruns are rampant, impacting economic growth and development. This article delves into the root causes of these issues, including policy gaps, institutional weaknesses, and execution failures. It offers strategic recommendations to enhance project management capabilities, improve governance, and foster a culture of accountability, ultimately enabling India to realize its infrastructure potential. This article sets the future directions for an effective infrastructure project management in India.

Infrastructure, the underlying framework of a society, is instrumental in determining the quality of life and work. In India, where a significant portion of the population grapples with poverty and inequality, the creation, quality, and optimal utilization of infrastructure are paramount for ensuring dignity of life and labor.

Infrastructure as a Catalyst for Dignity

Rural Infrastructure:

- **Roads**: Good quality roads connect villages to markets, schools, and healthcare facilities. This empowers farmers to transport their produce efficiently, children to attend school regularly, and people to access emergency medical care.
- **Electricity**: Reliable power supply is essential for agriculture, small-scale industries, and domestic use. It enhances productivity, creates employment opportunities, and improves the overall standard of living.
- **Irrigation**: Proper irrigation facilities ensure food security and reduce farmers' dependence on the monsoon. This safeguards livelihoods and prevents distress migration.

Urban Infrastructure:

- **Housing**: Affordable and adequate housing is crucial for the well-being of urban dwellers. It provides a safe and secure environment for families and prevents the spread of slums.
- **Transportation:** Efficient public transport systems reduce travel time, improve air quality, and enhance accessibility to jobs and opportunities.
- **Waste Management:** Proper waste disposal systems protect public health, prevent environmental pollution, and create employment opportunities in waste management.

Quality Infrastructure: The Cornerstone of Sustainability

- **Durability:** Infrastructure projects must be built to last. Poor quality construction leads to frequent repairs, increased costs, and inconvenience to the public.
- **Safety:** Safe infrastructure is essential to prevent accidents and fatalities. Bridges, roads, and buildings must adhere to safety standards.
- **Accessibility:** Infrastructure should be designed to accommodate people with disabilities. This ensures inclusivity and equal opportunities for all.
- **Sustainability:** Infrastructure should be environmentally friendly and resource-efficient. Using renewable energy sources and adopting sustainable practices is crucial.

Optimal Utilization: Maximizing Benefits

- **Public-Private Partnerships (PPPs):** Collaborating with the private sector can bring in expertise and resources for infrastructure development.
- **Technology:** Leveraging technology for efficient infrastructure management can improve service delivery and reduce costs.
- **Maintenance**: Regular maintenance is essential to prolong the life of infrastructure assets and prevent deterioration.
- **Skill Development:** Investing in the skills of the workforce is crucial for the effective operation and maintenance of infrastructure.

The Pradhan Mantri Awas Yojana (PMAY) aims to provide affordable housing to all by 2022. This initiative has the potential to significantly improve the lives of millions of urban and rural poor by providing them with shelter, a basic human right. However, the quality of construction and long-term maintenance are critical to ensure the sustainability of these homes.

Infrastructure, when created with quality and utilized optimally, is a powerful tool for uplifting the lives of millions of Indians. It is essential for creating a just and equitable society where every individual has the opportunity to live and work with dignity. In the Union Budget 2024-25 presented on July 23, 2024, the allocation for capital expenditure, which includes infrastructure projects, is ₹11,11,111 crore. This represents 3.4% of India's GDP and is an 11.1% increase compared to the previous year's budget.

The key points regarding infrastructure in the budget presented by Finance Minister are:

Focus on infrastructure: The Finance Minister highlighted that the government's significant investment in infrastructure has had a multiplier effect on the economy and will continue to provide strong fiscal support for infrastructure development over the next five years.

- **Increased outlay:** The ₹11,11,111 crore allocation represents a substantial commitment to infrastructure projects and is expected to drive economic growth.
- **Private investment:** The government aims to promote private investment in infrastructure by formulating suitable policies and regulations.
- **Specific sectors:** The budget also mentions allocations for various infrastructure sectors, such as roads, railways, and urban development.
- **State support:** A provision of ₹1.5 lakh crore for long-term interest-free loans to states is intended to support their infrastructure investments.

(Source: Summary of the Union Budget 2024-2025: https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2035618; b) Highlights of Union Budget FY 2024-25 for Infrastructure Sector: https://www.bankbazaar.com/tax/union-budget-on-infrastructure.html)

Infrastructure projects are typically large-scale, complex, and have a significant impact on the economy and society. Infrastructure project management is a complex but essential function that requires a combination of skills, knowledge, and experience. It is the backbone of successful infrastructure development, ensuring that projects deliver maximum value to the community while minimizing risks and costs. Effective project management is crucial to ensure these projects are delivered on time, within budget, and to the required quality standards. A typical force-field analysis (driving forces v/s restraining forces) of infrastructure projects in India is presented below. By carefully analyzing the forces at play and implementing targeted strategies, India can overcome challenges and accelerate its infrastructure development.

Driving Forces	Restraining Forces
• Economic growth: Increasing demand for infrastructure to support economic expansion. • Government policies: Focus on infrastructure development as a key policy area. • Public-private partnerships (PPPs): Increased involvement of private sector in infrastructure financing and development. • Technological advancements: Innovations in construction and project management. • Global integration: India's growing role in the global economy necessitates better infrastructure.	• Land acquisition challenges: Difficulty in acquiring land for projects, leading to delays and cost overruns. • Financial constraints: Limited public funding and difficulty in attracting private investment. • Corruption: Prevalence of corruption leads to inefficiency, cost overruns, and delays. • Environmental clearances: Lengthy and complex process for obtaining environmental approvals. • Skill shortage: Lack of skilled workforce in project management and construction. • Weak project management: Ineffective planning, execution, and monitoring of projects. • Infrastructure bottlenecks: Existing infrastructure limitations hindering new projects.
Balancing the Forces: Key Recommendations	
• Strengthen driving forces: Increase public-private partnerships, invest in research and development, and promote policies that support infrastructure development. • Weaken restraining forces: Simplify land acquisition processes, enhance transparency and accountability, and improve skill development programs. • Identify and address trade-offs: Balancing economic growth, environmental impact, and social equity.	

Why infrastructure project management is critical?

Large, complex infrastructure projects significantly impact society and the economy. Effective project management is essential to deliver them on time, within budget, and at the required quality. **Infrastructure Project Management is highly critical to realize the following benefits for the society and Nation.**

- **Cost control:** Optimizes budgets, mitigates risks.
- **Time management:** Meets deadlines, allocates resources efficiently.
- **Quality assurance:** Ensures compliance with standards, minimizes defects.
- **Risk management:** Identifies, assesses, and mitigates risks.
- **Stakeholder management:** Communicates effectively, resolves conflicts.
- **Resource optimization:** Maximizes resource use, manages supply chain.
- **Environmental & community impact:** Considers sustainability and minimizes negative impacts.
- **Economic impact:** Creates jobs and contributes to economic growth.

Infrastructure projects are typically large-scale, complex, and have a significant impact on the economy and society. Infrastructure project management is a complex but essential function that requires a combination of skills, knowledge, and experience. It is the backbone of successful infrastructure development, ensuring that projects deliver maximum value to the community while minimizing risks and costs. Effective project management is crucial to ensure these projects are delivered on time, within budget, and to the required quality standards. A typical force-field analysis (driving forces v/s restraining forces) of infrastructure projects in India is presented below. By carefully analyzing the forces at play and implementing targeted strategies, India can overcome challenges and accelerate its infrastructure development.

Infrastructure Project Management (IPM) is a specialized field within project management that focuses on the planning, execution, and control of complex projects designed to develop, upgrade, or maintain physical assets that support societal functions. These assets encompass a wide range of sectors, including transportation (roads, bridges, airports, railways), energy (power plants, transmission lines, pipelines), water (dams, reservoirs, treatment facilities), telecommunications, and public buildings.

Infrastructure Project Management is the Backbone of India's Growth. India's ambitious infrastructure development plans, aimed at propelling the nation to a $5 trillion economy, necessitate robust project management. It's the fulcrum that ensures projects are delivered on time, within budget, and with the desired quality. Infrastructure Project Management is highly crucial for India for the key reasons such as **a)** Economic Growth Engine (Efficient project management ensures maximum returns on investment, creating jobs, stimulating business activity, and improving living standards); **b)** Addressing Infrastructure Deficit (India has a massive infrastructure gap. Effective project management is crucial to bridge this gap and provide essential services like transportation, energy, water, and sanitation); **c)** Global Competitiveness (It is essential for attracting foreign investments and competing globally. Efficient project management enhances India's image as a business-friendly destination); **d)** Sustainable Development (Infrastructure projects must be environmentally and socially responsible. Project management ensures adherence to sustainability goals and minimizes negative impacts); **e)** Regional Development (Infrastructure projects can help reduce regional disparities. Effective management ensures equitable distribution of benefits across the country).

India has witnessed a surge in infrastructure projects in recent years. Some notable examples include:

Dedicated Freight Corridor (DFC): It is a railway line exclusively designed to transport freight, separate from passenger trains. This infrastructure upgrade is crucial for enhancing the efficiency and capacity of India's freight transportation system. India is currently developing two major DFCs: Eastern Dedicated Freight Corridor (EDFC): This corridor stretches from Ludhiana to Dankuni, covering a distance of approximately 1,839 km, Western Dedicated Freight Corridor (WDFC): This corridor connects Jawaharlal Nehru Port Trust (JNPT) in Mumbai to Dadri near Delhi, covering a distance of approximately 1,483 km.

DFC will ensure the key benefits such as: **a)** Increased freight capacity (can handle significantly more freight traffic compared to traditional rail lines, reducing congestion and improving transportation speed); **b)** Reduced transit time (by segregating freight and passenger trains, DFCs can significantly reduce travel time for goods, leading to faster delivery and reduced inventory costs for businesses); **c)** Improved efficiency (DFCs are designed for optimal freight handling, with larger loading and unloading facilities, and better connectivity to ports and industrial areas); **d)** Cost reduction (Faster transportation and efficient operations can lead to lower logistics costs for businesses, making Indian products more competitive in the global market); **e)** Environmental benefits (Shifting freight from road to rail can reduce carbon emissions and other pollutants, contributing to a cleaner environment).

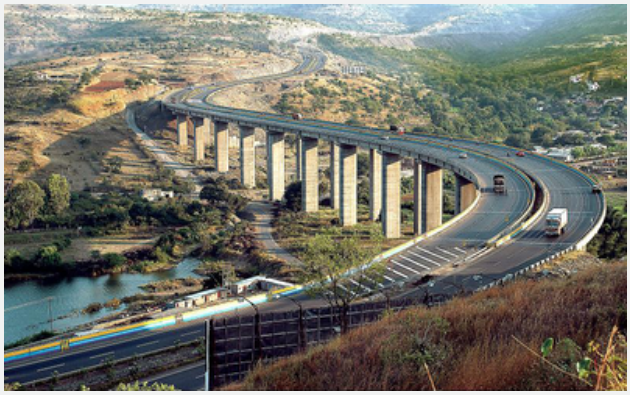
National Infrastructure Pipeline (NIP): A massive investment plan to develop infrastructure worth trillions of rupees. Effective project management is crucial for its successful implementation.

Bharatmala Pariyojana: Aims to improve connectivity and reduce logistics costs. Efficient project management ensures timely completion of road and highway projects.
Sagarmala Project: Focuses on port modernization and coastal development. Project management is essential for optimizing port operations and attracting investments.

Jal Jeevan Mission: Aims to provide piped water supply to all rural households. Effective project management is crucial for ensuring timely and efficient implementation.

Metro Rail Projects: Expanding metro networks in major cities requires meticulous project management to minimize disruptions and deliver world-class infrastructure.

While India has made significant strides, challenges such as land acquisition, environmental clearances, financial constraints, and skilled manpower shortages persist. Overcoming these challenges through effective project management is crucial for the success of infrastructure initiatives. At the same time, India presents immense opportunities for project managers.



The growing infrastructure sector offers a vast array of projects, demanding skilled professionals capable of delivering complex projects within budget and timeline. Infrastructure project management is indispensable for India's progress. By effectively managing projects, India can harness the full potential of its infrastructure investments, driving economic growth, improving quality of life, and solidifying its position on the global stage.

India has witnessed several instances of poor infrastructure project management, leading to cost overruns, delays, and suboptimal outcomes. Some prominent examples include:

Transportation Infrastructure

- **Delhi Metro Phase III:** Despite being a successful project overall, it faced delays due to land acquisition issues, technical challenges, and cost escalations.
- **Highway Projects:** Often marred by land acquisition problems, environmental clearances, and corruption, many highway projects in India have faced significant delays and cost overruns.
- **Bridge Collapses:** Several bridge collapses across the country have highlighted issues with construction quality, maintenance, and oversight.

Power Sector

- **Power Plant Delays:** Many power plants, both thermal and renewable, have faced delays due to financial constraints, equipment procurement issues, and environmental clearances.
- **Distribution Losses:** Inefficient power distribution networks lead to high losses, affecting the reliability of power supply.
- **Smart Grid Projects:** Implementation of smart grid technology has been slow due to lack of clear policies, inadequate funding, and technological challenges.

Other Infrastructure

- **Housing Projects:** Affordable housing projects have often faced challenges in terms of quality, delays, and lack of basic amenities.
- **Irrigation Projects:** Inefficient water management, corruption, and lack of proper planning have led to suboptimal utilization of water resources.

Underlying Issues

Several factors contribute to these challenges:

- **Corruption:** Corruption at various levels leads to inflated costs, substandard work, and delays.
- **Land Acquisition:** Complex land acquisition processes often hinder project timelines and increase costs.
- **Environmental Clearances:** Lengthy and cumbersome environmental clearance procedures delay projects.
- **Financial Constraints:** Inadequate funding and cost overruns often lead to project delays or abandonment.
- **Lack of Expertise:** In some cases, a lack of skilled project management personnel contributes to challenges.

Overcoming these challenges requires a combination of strong governance, transparent processes, efficient project management, and adequate funding. India has made significant strides in infrastructure development, but addressing these issues is crucial for achieving optimal results.

Can India Deliver? –
Recommendations to address Project Management Challenge in Infrastructure Development

In view of the escalating infrastructure development in India, it is highly recommended to critically focus on following key areas in Infrastructure Project Management.

- **Impact and Criticality Assessment** of Infrastructure Projects with a focus on project life cycle, stakeholders, and project governance.
- **Engineering Economics and Financial Management:** Cost-benefit analysis, financial appraisal, risk assessment, and project financing.
- **Project Management Principles:** Project initiation, planning, scheduling, and monitoring.
- **Engineering Geology and Geotechnical Engineering:** Soil mechanics, rock mechanics, and site investigations.
- **Environmental Impact Assessment:** Environmental regulations, impact assessment methodologies, and mitigation measures.
- **Construction Technology and Management:** Construction materials, methods, equipment, and quality control.
- **Contract Law and Administration:** Contract types, tendering process, dispute resolution, and claims management.
- **Quantity Surveying and Cost Estimation:** Measurement, pricing, and cost control.
- **Project Risk Management:** Risk identification, assessment, mitigation, and contingency planning.
- **Infrastructure Planning and Design:** Project feasibility studies, design criteria, and standards.
- **Infrastructure Project Management:** Advanced project management techniques, project controls, and earned value management.
- **Infrastructure Financing and Economics:** Public-private partnerships, project appraisal, and financial modeling.
- **Infrastructure Policy and Regulation:** Infrastructure development policies, regulatory frameworks, and public-private partnerships.
- **Sustainable Infrastructure:** Green infrastructure, climate change adaptation, and life cycle assessment.
- **Infrastructure Project Implementation:** Project execution, monitoring, and control.
- **Analysis of Benchmark** Real-world Case Studies in Infrastructure Project.

Gati Shakti Vishwavidyalaya is India's first and only University in the transportation and logistics sector (sponsored by Ministry of Railways, Government of India). The University has a unique mandate to contribute in the ecosystem of multimodal logistics covering all modes of transport (Rail, Road, Air, Water) with a focus on all three dimensions - Infrastructure (Technology), Services (Management) and Regulatory Reforms (Policy) boosting the performance of logistics sector in India. GSV is committed to enrich the ecosystem of infrastructure projects through a) advancement of infrastructure project management knowledge and practice; b) development of a highly skilled workforce capable of delivering complex infrastructure projects; c) improved project outcomes in terms of cost, time, and quality.

Sustainable Aviation Fuel: How prepared are airlines and supply chains to meet industry targets?

Co-authored by Debayan Sen and Ira Gupta. Based on research undertaken by Avinia team.

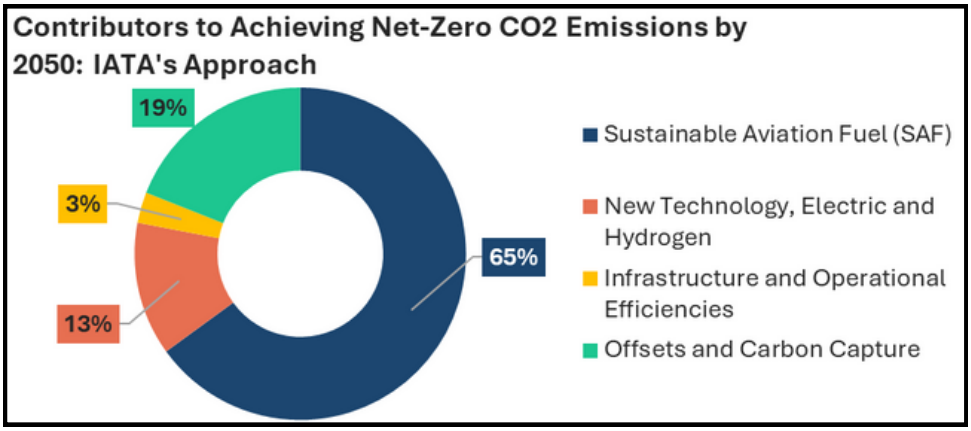
1.0 Introduction

With a growing focus on decarbonization in the aviation sector, Sustainable Aviation Fuel (SAF) has emerged as a solution of choice to help the industry move closer to its net zero commitments. SAF has several advantages over other alternative fuel options and can be developed from biological or non-biological resources. According to the International Air Transport Association (IATA), it must meet key criteria such as lifecycle carbon emissions reduction, limited fresh-water requirements, no competition with biofuels needed for food production and no deforestation.

IATA's member airlines have pledged to achieve net zero emissions by 2050. IATA estimates that SAF could contribute around 65% of the reduction in emissions needed by aviation sector to reach net zero. This is also supported by the International Civil Aviation Organization (ICAO), of which India is a member.

2.0 SAF and the feedstock

As of 2023, annual global SAF production was estimated to be around 100 million liters. This is expected to grow significantly as more facilities come online and investments increase. The IATA has set a target for SAF to make up 10% of the global jet fuel supply by 2030, which will require production to ramp up to around 7 billion liters annually. This is a plausible number considering that globally 149 renewable fuel projects have announced an intent to start producing SAF.

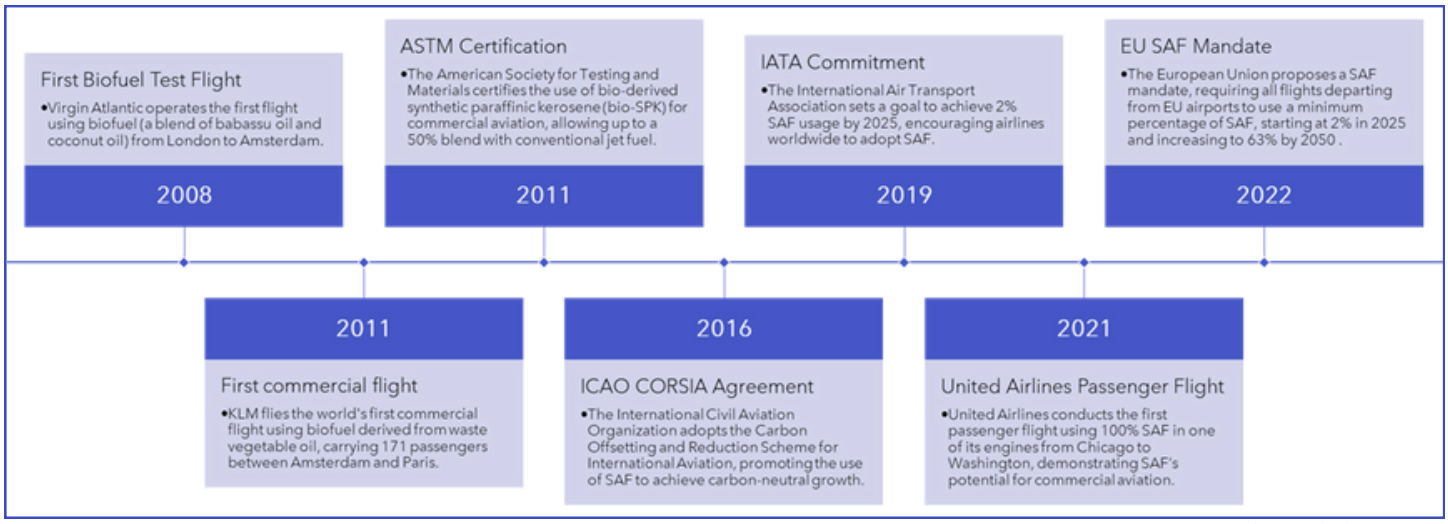


Source: https://www.iata.org/en/programs/environment/sustainable-aviation-fuels

The feedstock for SAF can be both biological or synthetic. The processes for producing SAF vary accordingly. The 'bio' feedstock types include plant materials such as oilseeds (e.g., camelina, jatropha), sugarcane, and algae which have been cultivated sustainably. The waste-based feedstock includes municipal solid waste, waste oils, fats and agricultural and forestry residues.

Synthetic feedstock involves using technologies like the Alcohol to Jet (ATJ) and the Fischer-Tropsch process to convert non-biological sources, such as carbon dioxide and hydrogen (syngas), into liquid hydrocarbons. This method can utilize captured carbon from industrial processes, contributing to a circular carbon economy.

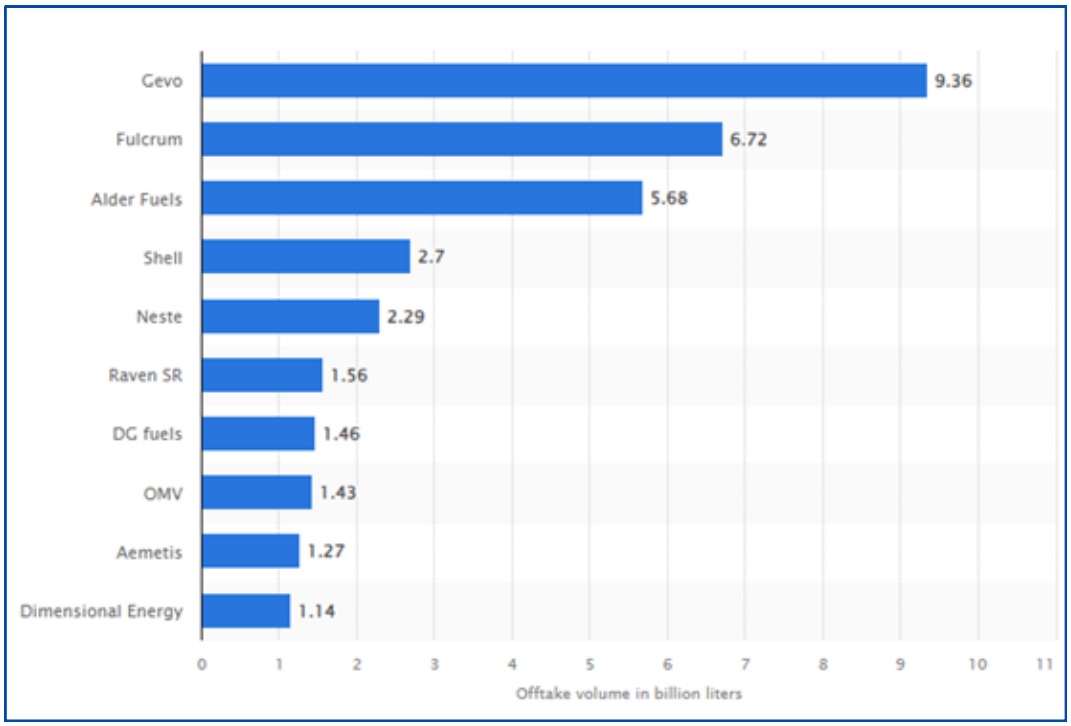
3.0 Global timeline and production:



Source: Market Analysis, Avinia, 2024

As of February 7th, 2023, the U.S. American chemicals and biofuels company Gevo was the lead producer of SAF with an offtake volume of more than 9.3 billion liters. Fulcrum ranked second with over 6.7 billion liters.

Main producers of sustainable aviation fuels (SAF) as of February 2023, by total offtake volume (in billion liters):

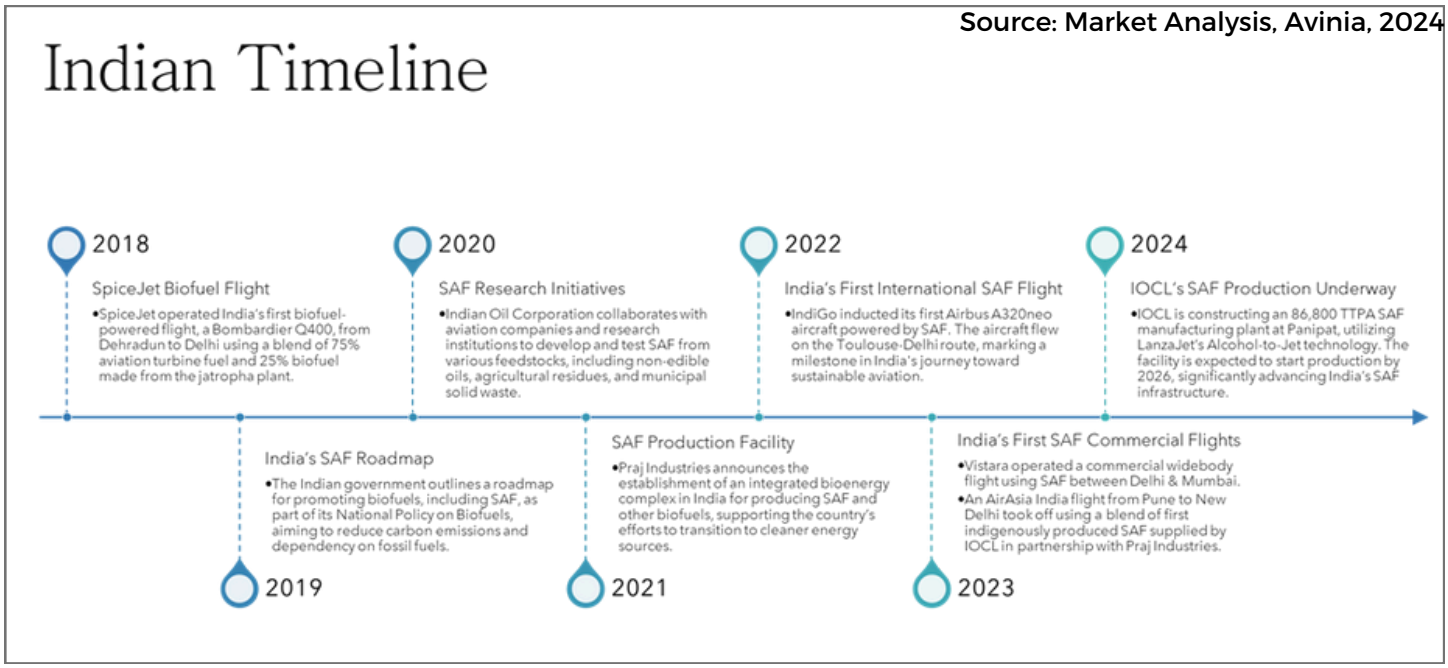


(Source: https://www.statista.com/statistics/1365117/announced-offtake-volumes-saf-by-producer/)

4.0 India timeline and production

India's foray into SAF has been fairly recent compared to its global counterparts. We see renewed momentum in the last few years on both the production front and test flights by airlines.

Source: Market Analysis, Avinia, 2024



5.0 Global commitments

In 2023, the European Parliament put forth a plan to increase the share of SAF from 2% in 2025 to 70% in 2050. This is yet to be approved by all EU member states. Many nations are reviewing the future availability of SAF before committing to this ambitious target.

For example, the UK has mandated that by 2025 2% of total UK jet fuel demand should be serviced by SAF with a target to reach 22% by 2040. Japan has set a target of 10% SAF blending by 2030. The United Arab Emirates government intends for at least 1% of the fuel supplied to the country's planes at UAE airports by 2031 to come from sustainable local production. India's National Biofuels Coordination Committee has set a target to blend 1% SAF with conventional jet fuel by 2027 and increase this to 2% by 2028. Discussions are on with key stakeholders before this is converted into policy.

6.0 Challenges to adoption: The view from India

India has access to abundant raw materials that can be used for SAF production. This includes agricultural residues, municipal waste and non-edible oils. Hence the availability of feedstock is not a barrier, although supply chains need to evolve significantly to meet quality and value.

Ongoing stakeholder engagement on SAF production suggests that the Alcohol-to-Jet (ATJ) pathway is preferred in India due to the abundant availability of ethanol and supportive government policies like the Ethanol Blending Program. However, challenges in scaling SAF production in India stem from a number of factors:

- **Pricing:** Globally, SAF is priced 2 to 3 times the price of conventional fuel. Indian domestic carriers pay around 65 percent higher price for jet fuel than their global counterparts. SAF blending could increase this cost further by it 1.5 times depending on the total cost at the delivery point (airport). To kickstart widespread SAF adoption, appropriate financial and tax incentives and viability gap funding for price differentials may be required before attaining the economies of scale that will allow price per unit of SAF to be on par with conventional jet fuel in India.

- **Supply Cost:** Maintaining a consistent and affordable supply of SAF is a significant barrier to adoption. Large Indian airports may not require substantial infrastructure upgrades for delivering blended fuel but ensuring consistent supply chains and controlling logistics costs are challenges that must be addressed to increase SAF usage.

- **Policy and Infrastructure:** Apart from the targets set by the National Biofuels Coordination Committee, India has yet to announce a policy. Mandates by themselves will not lead to higher SAF production. The uptake of SAF is dependent on economic incentives and regulatory frameworks that promote research and investment in this sector.

- **Lack of Technology:** The production process, such as gasification, Fischer-Tropsch synthesis and hydro-processing of oils requires cutting-edge technology that is currently underdeveloped or in the early stages of adoption in the country.

- **Skilled Manpower:** Producing SAF involves highly technical processes that require specialized expertise in biofuel technology, chemical engineering and large-scale industrial processes. India needs further investment in training and upskilling manpower for SAF-specific production techniques.

7.0 Way forward

We believe the long-term outlook for SAF production and use in India is positive. In the short-term, the government needs to undertake further stakeholder discussions with airlines, airports, OEMS and SAF producers to create a policy that supports all optimal pathways. Creating intermediate milestones combined with a well-thought out incentive regime will stimulate the wider supply chain to accelerate their growth plans.

About the authors:

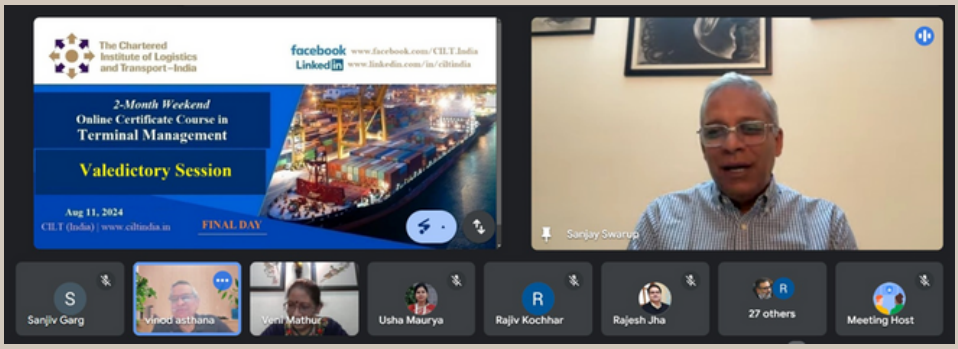
Debayan Sen is the founder and MD of Avinia which provides planning and business advisory services to the aviation industry.
Ira Gupta is a multi-modal specialist working in the area of sustainable transport and energy transition.
For further information, please write to hello@avinia.com or hello@ixomconsulting.com

CILT Diary

Two Month "Terminal Management Training" 15 June -11 Aug 2024.

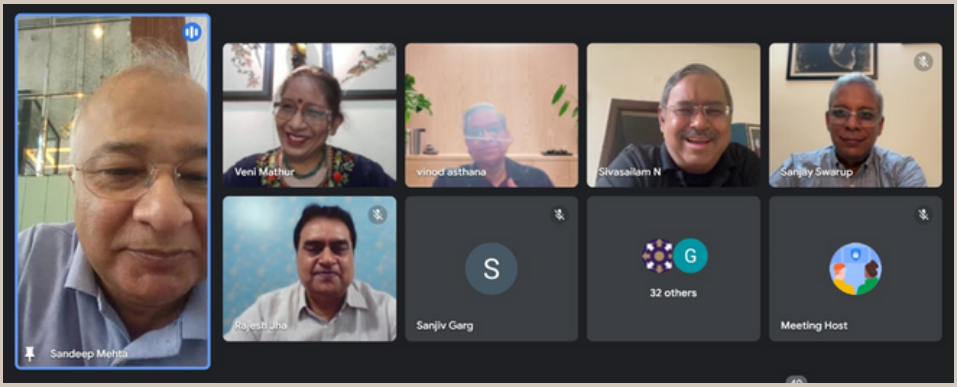
CILT India has successfully completed the fourth edition of its flagship Two months On-line Professional Certificate Program on Terminal Management on 11 Aug 2024.

There was a total of 35 participants from 16 different organisations, which included a team of 11 international participants from Tanzania. All participants, who've embraced this transformative journey, were appreciated as CILT India's Terminal Management Program will help them elevate their career, expand their skills, and stay ahead in the dynamic world of logistics.



Keynote address:
Sh. Sanjay Swarup IRTS,
CMILT,
CMD, Container Corporation of India Ltd.
(A Govt. of India's Navratn U/T - Ministry of Railways)

Valedictory address :
Capt. Sandeep Mehta,
CMILT,
CEO (International Ports),
The Adani Harbour International, Dubai



Other Speakers:
Sh. Manish Puri, CMILT,
Managing Director,
Rail Runner Innovations

Sh. N. Sivasailam, IAS (Rtd.),
FCILT, National Chairman,
CILT India

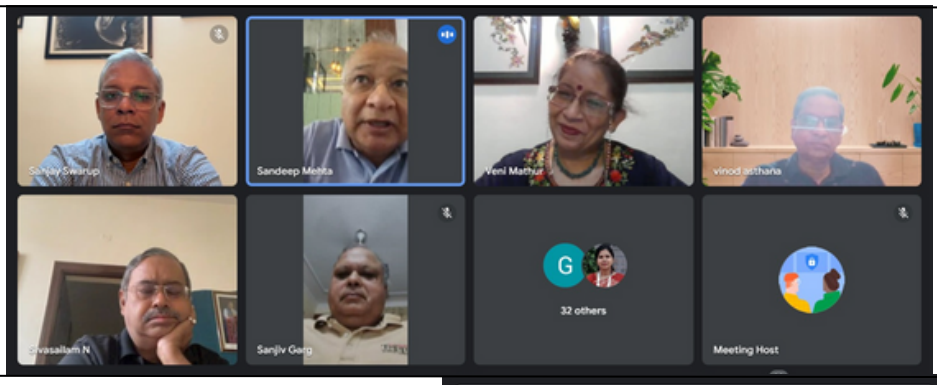
Nominating Organisations:

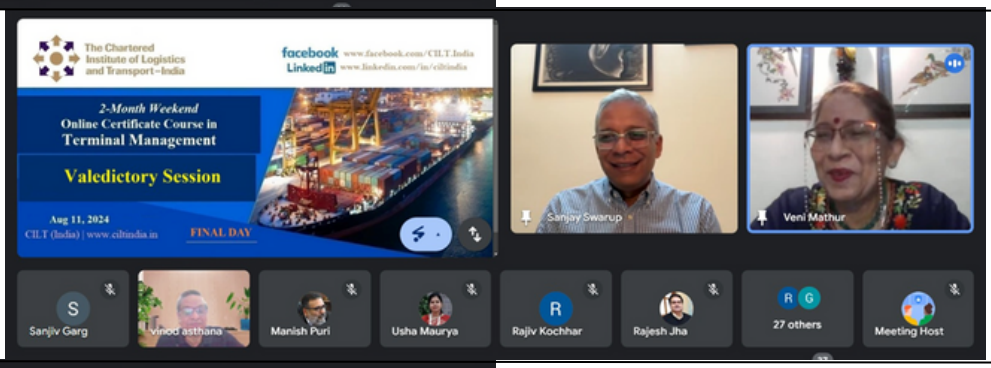
1. Tanzania International Container Terminal Services, Dar es Salam, Tanzania
2. Bharat Mumbai Container Terminals Pvt Ltd (PSA MUMBAI)
3. PSA Cargo Solutions
4. Inland Waterways Authority of India
5. Container Corporation of India Ltd.
6. Maruti Suzuki India Ltd.
7. Super Handlers Private Limited
8. K+S Fertilizers (India) Pvt Ltd.
9. LP (India) Logistics Private Limited
10. Visakha Container Terminal Private Limited -CFS
11. Xpressbees Logistics
12. UPES -Dehradun,
13. Indian Institute of Tourism and Travel Management (IITTM) Noida
14. J M Baxi Ports & Logistics Ltd.
15. Pegasus Inland Container Pvt. Ltd.
16. Interways Logistics Private Limited

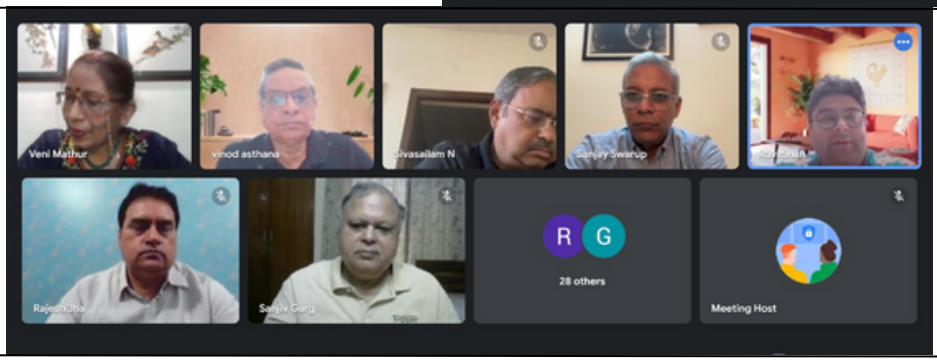
The popular Topics of the Terminal Management Training was covered with hands-on practical activities, such as

- Master Planning of Terminals
- Policies, Acts & Procedures for Terminals
- Terminals & Rail Sidings
- Innovation in Designing Containers for Customer Facilitation
- Efficiency Parameters for Terminal Operations
- Terminal Planning (Traffic Projection, Location & Layout)
- Maintenance of Heavy Equipment at Terminals
- Importance of Terminal Management – Perspectives
- Exim Traffic - Documentation Procedure & Facilitating Agencies
- Law of Carriage of Goods by Sea Act (COGSA)
- Terminalisation in the Port Sector & Technology Introduction
- Coastal Multimodal Transport
- Brand Building, Customer Satisfaction & Retention, Market & Customer Segmentation and Creating a Competitive edge for Terminals

Snapshots







A workshop on "Logistics Costs Framework" by Ministry & Commerce & Industry, Govt. of India in

Shri Sanjiv Garg IRTS (Retd.), CMILT, Former MD, Pipavav Rail Corporation Ltd. & Former Addl. Member (Railway Board) has participated as an invitee by DPIIT (Department for Promotion of Industry and Internal Trade), Ministry & Commerce & Industry, Govt. of India in the workshop on "Logistics Costs Framework", for assessment of Logistics Costs in India for the FY 2023 – 2024 in association with NCAER (National Council of Applied Economic Research).

The event was held on 05 July 2024 from 1000 Hrs. onwards at "Vanijya Bhawan", Ministry of Commerce & Industry, New Delhi, India.

New Individual Life Members (July-September 2024)

S. No.	Name & Designation	Membership
1	Kartik Hegadekatti	LM-1353
2.	Nitish Narayan Joshi	LM-1354
3.	Rajesh Prasad	LM-1355
4.	Ashim Kumar Maitra	LM-1356
5.	Girish Chandra Gandhi	LM-1357
6.	Gaurang Patel	LM-1358
7.	Shobhit Bhatnagar	LM-1359

New Corporate Member of CILT INDIA (July-September 2024)

வ.உ.சி துறைமுக ஆணையம்
வி.ஓ.சி पत्तन प्राधिकरण
V.O.C Port Authority
Global Connect

Corporate Membership No.# OM/62/2024

V. O. Chidambaranar Port is a port in Thoothukudi, Tamil Nadu, and is one of the 12 major ports in India. It was declared to be a major port on 11 July 1974. It is the second largest port in Tamil Nadu and third largest container terminal in India.

V.O. Chidambaranar Port is an artificial port. This is the third international port in Tamil Nadu and it is second all-weather port. All V.O. Chidambaranar Port Authority's traffic handling has crossed 10 million tons from 1 April to 13 September 2008, registering a growth rate of 12.08 per cent, surpassing the corresponding previous year handling of 8.96 million tons. It has services to USA, China, Europe, Sri Lanka and Mediterranean countries. The Station Commander, Coast Guard Station Thoothukudi is located at V.O. Chidambaranar Port Authority, Tamil Nadu under the operational and administrative control of the Commander, Coast Guard Region (East), Chennai. The Coast Guard Station V.O. Chidambaranar Port Authority was commissioned on 25 April 1991 by Vice Admiral SW Lakhar, NM, VSM the then Director General Coast Guard. The Station Commander is responsible for Coast Guard operations in this area of jurisdiction in Gulf of Mannar. V.O. Chidambaranar Port Authority Thoothukudi is an ISO 9001:2008, ISO 14001:2004 and International Ship and Port Facility Security (ISPS) Code compliant port.

New Corporate Member of CILT INDIA (July-September 2024)

Corporate Membership No.# OM/63/2024

Chitkara University was established by the Punjab State Legislature under "The Chitkara University Act". Chitkara University, is a government-recognized university with the right to confer degrees as per the Sections 2(f) and 22(1) of the UGC Act, 1956. The Chitkara University has conferred Section 12 B status because of its excellent performance in research and innovation related to community.

Chitkara University, Punjab, is also a leader in academic excellence and a hub for cutting-edge research and innovation, recognized globally for its contributions to higher education. In the *QS World University Rankings: Asia 2024*, Chitkara was celebrated for its academic reputation, employer ties, and strong faculty-student ratio, reflecting the university's commitment to both teaching and employability. It also ranked in the *QS World University Rankings for Sustainability 2023*, showcasing its commitment to environmental and social sustainability. These achievements underscore the university's holistic approach to education, blending academic rigor with real-world application.

Chitkara University was featured in the *Times Higher Education (THE) Young University Rankings 2024*, solidifying its place among the world's fastest-growing educational institutions, particularly in research output and international collaborations. The university's performance in these global rankings highlights its rapid ascent as a top educational institution, not only in India but also internationally. Chitkara University got ranked in Times Higher Education Impact Rankings 2024 also because of its consistent performance and activities related to the 17 UN Sustainable Development Goals.

Chitkara University's success is driven by its state-of-the-art **Centers of Excellence**, which are designed to foster innovation, research, and industry collaboration. Notable centers include the **Chitkara University Research and Innovation Network (CURIN)**, which supports patent filing, incubation, and entrepreneurship. CURIN has been instrumental in transforming research ideas into practical solutions, contributing significantly to Chitkara's patent portfolio and publications. Other centers, such as the **Centre of Excellence in Artificial Intelligence and Data Sciences** and the **Centre for Sustainable Development**, focus on equipping students with skills in emerging fields, aligned with global industry needs.

Domestically, Chitkara University continues to dominate rankings, placed among top 50 at the national level in several rankings. The university's collaborations with global institutions like Deakin University and Arizona State University offer students unparalleled international exposure, preparing them for the competitive global workforce. It has more than 180 international partners, 190 industry partners, 12 adopted villages, more than 200 startups, three incubators and various other govt./non govt. partners as part of Chitkara Community.

The Chartered Institute of Logistics and Transport

Who we are

As a leading authority in logistics and transport excellence, the Chartered Institute of Logistics and Transport (CILT) India embodies a vibrant community of industry leaders and professionals. Our organization unites experts from various transportation sectors, including rail, road, maritime, air, and inland waterways.

Our vision is to become the preferred professional body for individuals in the supply chain, logistics, and transport sectors nationwide, while also serving as a premier platform for knowledge sharing in supply chain, logistics, and transport management.

Contact us

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CILT (India) provides
Connection || Professional Voice || Professional Recognition || Personal Development