

## Cargo transport in Railway

The IR's current strategy for moving general cargo is two pronged the parcels are moved either by passenger trains or special heavy parcel van (VPH) trains.

However, these approaches appear to have gone haywire as loading leased parcel vans and full parcel trains fell by 15% and 8% respectively.

One of the reasons for the decline in the parcel segment is the high tariff; truck rates, an exception being cargo moved to destinations in the northeast.

Other factors are improper terminals, inconsistent weighbridges intensified by excessive penal charges, unreliable transit times, complex booking and delivery mechanisms and self-imposed environmental restrictions

Sustaining a developed market is also difficult as predatory pricing by other CTOs can wean the market away.

The elephant in the room for carriage of general cargo by the IR is that a shipper can either only send a few tonnes under parcel tariff or thousands of tonnes under freight tariff.

General cargo has thousands of buyers and sellers and usually their

shipment sizes are a few to hundreds of tonnes.

The road ahead General cargo is segmented into three categories highly time sensitive (HTSG), medium time sensitive (MTSG) and low time sensitive (LTSG).

HTSG cargo is mostly valuable goods or perishables and they should continue to be moved by passenger trains.

Attaching two to three parcel vans in all popular trains would easily double the parcel loading capacity and these parcel vans can bring around five times the revenue of sleeper coaches and around two times that of AC coaches. MTSG and LTSG cargo are price sensitive and this cargo should be moved under the IR freight rates, which are lower than truck rates.

Even after the addition of first and last leg costs there is a cost benefit to shippers.

However, the problem lies in getting a full train load.

Shippers should be permitted to book individual wagons with provision to run a train to the schedule even if the train is not fully loaded.

Finally, the IR needs to encourage cargo aggregators by tweaking the existing freight forwarder policy.

In the long run new kinds of stocks to optimise pay load and speed would also be required which the IR and the rolling stock industry are fully capable to design and deliver

### Maldives and India

Since his impressive win in the Maldivian presidential election in September 2023, President-elect Mohamed Muizzu has emphasized his desire to send Indian troops out of the country, while pledging to safeguard the Maldives's independence and sovereignty.

In an indication of his priorities after assuming office, he told one outlet that he would return Indian troops on "day one".

His stance stems from the main opposition bloc's 'India Out' campaign, mounted against outgoing President Ibrahim Mohamed Solih, for his foreign policy of 'India first'.

### Is there Indian military presence?

According to the Maldives National Defence Force (MNDF), 75 Indian military personnel stay in the Maldives to maintain and operate the Dornier aircraft and two helicopters gifted to the Maldives by the Government of India.

### Why is Mr. Muizzu opposed to them?

For Mr. Muizzu, his former boss President Yameen, and the political camp they represent, relations with India remain a sensitive matter.

The Yameen administration's pro-China tilt is no secret, and during his term from 2013 to 2018, Maldives India relations were particularly strained, more so after Mr. Yameen's insistence that India take back the helicopters it gifted.

While Mr. Muizzu maintains that he is "pro Maldives" first, and that he will not allow Indian, Chinese, or any other country's military presence in the Indian Ocean archipelago, he has on many occasions sought to highlight the benefits of Chinese assistance to the Maldives, without commenting on Male's debt obligations, including to China.

### What are India's interests?

In the past four years, India has emerged as the Maldives's main security and economic partner, committing \$1.4 billion towards the socioeconomic development needs of Maldivians.

The Indian establishment sees its own security interests closely tied to the Indian Ocean island nation, amid its concerns of a growing Chinese presence in the region.

Maldives is a member of the 'Colombo Security Conclave', that began as a trilateral initiative with India and Sri Lanka, and later included Mauritius, for maritime cooperation in the region.

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### Deep ocean mission

The Deep Ocean Mission (DOM) is India's ambitious quest to explore and harness the depths of the ocean.

With DOM, India will, for the first time, embark on a journey to a depth of 6,000 metres in the ocean using an indigenously developed submersible with a three member crew

DOM is India's ambitious programme for underwater exploration, chiefly implemented by the MoES.

### The mission has six pillars:

- (i) Development of technologies for deep-sea mining and a manned submersible to carry three people to a depth of 6,000 metres in the ocean

- (ii) Development of ocean climate change advisory services, involving an array of ocean observations and models to understand and provide future climate projections;
- (iii) Technological innovations for the exploration and conservation of deep-sea biodiversity;
- (iv) Deep ocean survey and exploration aimed at identifying potential sites of multimetal hydrothermal sulphides mineralization along the Indian Ocean mid-oceanic ridges;
- (v) Harnessing energy and freshwater from the ocean; and
- (vi) Establishing an advanced Marine Station for Ocean Biology, as a hub for nurturing talent and driving new opportunities in ocean biology and blue biotechnology

The 'New India 2030' document outlines a blue economy as the sixth core objective for India's growth.

The years 2021-2030 have been designated by the United Nations as the 'Decade of Ocean Science'

DOM is one of nine missions under the Prime Minister's Science, Technology, and Innovation Advisory Council (PMSTIAC).

It is imperative that DOM supports the blue economy priority area, blue trade, and blue manufacturing in India.

MoES institutes, especially the Centre for Marine Living Resources and Ecology, Indian National Centre for Ocean Information Services, National Centre for Coastal Research, National Centre for Polar and Ocean Research and National Institute of Ocean Technology (NIOT) will collaborate with national institutes and academia to achieve objectives outlined in DOM, albeit with well segregated responsibilities

As a part of DOM, India's flagship deep ocean mission, 'Samudrayaan', was initiated in 2021 by the Minister of Earth Sciences.

In 'Samudrayaan', India is embarking on a groundbreaking crewed expedition to reach the ocean bed at a depth of 6,000 m in the central Indian Ocean.

The Ministry is also working on an integrated system to mine polymetallic nodules of precious minerals from the central Indian Ocean bed.

The minerals we can mine from the ocean bed in the central Indian Ocean region, allocated to us by the United Nations International Seabed Authority (ISA), include copper, manganese, nickel, and cobalt

Polymetallic nodules, which contain precious metals like copper, manganese, nickel, iron, and cobalt, are found approximately 5,000 m deep, and polymetallic sulphides occur at around 3,000 m in the central Indian Ocean

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### SPACE VS OCEAN EXPLORATION

Electronics and instruments find it simpler to function in a vacuum or in space. Conversely, inside the water, poorly designed objects collapse or implode.

Landing on the ocean bed also presents challenges due to its incredibly soft and muddy surface.

Extracting materials requires them to be pumped to the surface, an undertaking that demands a large amount of power and energy.

Unlike controlling rovers on distant planets, remotely operated vehicles prove ineffective in the deep oceans

due to the absence of electromagnetic wave propagation in this medium.

Visibility also poses a significant hurdle as natural light can penetrate only a few tens of metres beneath the surface, whereas space observations are facilitated through telescopes.

All these intricate challenges are further compounded by factors like variations in temperature, corrosion, salinity, etc., all of which must also be dealt with.

### The Matsya6000

The Matsya6000 is India's flagship deep ocean human submersible that aims to reach the ocean bed at a depth of 6,000 m.

Accompanied by three crew members, the submersible carries a suite of scientific tools and equipment designed to facilitate observations, sample collection, basic video and audio recording, and experimentation.

The primary mission of Matsya6000 is exploration.

The U.S.A., Russia, China, France, and Japan have already achieved successful deep ocean crewed missions.

India is poised to join the ranks of these nations. Our focus remains on developing these technologies

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indigenously, aligned with the vision of 'Atmanirbhar Bharat'

### Features

Matsya6000 is designed to accommodate three humans travelling within a specialised sphere of diameter 2.1 m.

The sphere will weigh approximately 28 tonnes and have a short sleeved environment with life support, where oxygen is supplied and carbon dioxide is removed.

Constructed from a titanium alloy, the sphere is engineered to withstand pressures of up to 6,000 bar.

It is equipped with propellers enabling movement in all six directions and features three viewports that allow the crew to observe its surroundings.

There will be about 12 cameras and 16 lights powered by lithium polymer batteries with an energy budget of 1 kWh.

Communication will be through an acoustic phone and modem. The navigation and positioning systems are state-of-the-art, too.

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### Ethics vs Privilege committee

It must be clarified at this point that if an MP takes money for putting

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questions up in Parliament, they will be guilty of breach of privilege and contempt of the House.

Such complaints are invariably referred to the Committee of Privileges for investigation.

This committee, after a proper investigation, submits its findings in a report along with the recommendation for action against the MP in question.

If a case involving illegal gratification for conducting parliamentary work is proven, the MP may even be expelled from the House.

There have been such instances in the Lok Sabha where MPs were expelled from the House on this ground.

In the first case, in 1951, H.G. Mudgal, an MP of the Provisional Parliament, was found guilty of promoting the interests of a business association in return for financial benefits by putting questions up, and moving amendments to a Bill which affected the interests of that business association.

A special committee of the House found that his conduct was derogatory to the dignity of the House and inconsistent with the standards which Parliament is entitled to expect of its members

Thus, complaints of MPs accepting money for parliamentary work are referred to the privileges committee or special committees appointed by the House for that purpose.

However, Ms. Moitra's case has been referred to the Ethics committee although the allegation is about illegal gratification for doing parliamentary work.

The Ethics Committee of the Lok Sabha is a relatively new committee which was set up in 2000, with a mandate to examine every complaint that related to the unethical conduct of MPs referred to it and to recommend action.

It was also tasked with formulating a code of conduct for MPs.

### What is unethical is undefined

An interesting aspect of this committee is that the term 'unethical conduct' has not been defined anywhere.

It is left entirely to the committee to examine a particular act of conduct and decide whether it is unethical or not.

A parliamentary probe is not the same as a judicial probe.

A judicial body probes a matter as in the statutes and Rules, and is conducted by judicially trained persons.



Parliamentary committees consist of Members of Parliament who are not experts.

Since Parliament has the power to scrutinise the executive, which is accountable to it, it possesses investigative power also. It also has the power to punish those including its own members in order to protect its honour and dignity.

But the methods followed by Parliament in investigating a matter are different from those of the judiciary.

Parliament does the investigative work through its committees which function under the Rules of the House.

The usual methods are examination of the written documents placed before the committee by the complainant and the witnesses, oral examination of all the relevant witnesses, deposition of experts, if deemed necessary, sifting of the whole volume of evidence placed before the committee, and arriving at findings on the basis of the evidence.

If the committee examines a complaint against a member of the House, he can appear before it through an advocate and also cross-examine the complainant and other witnesses on permission by the chair

Article 105 of the Constitution gives them the freedom to say “anything” in the House.

This right should be deemed to be extended to the tapping of any source for information for putting questions up or framing Bills or resolutions to be placed in Parliament.

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### Railway accident

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Even after the empanelling of nearly 1.12 lakh candidates, between April 2022 and June 2023, for posts related to operational safety, around 53,180 posts were still vacant, as on July 1, 2023.

There have been measures such as the interlocking of nearly 11,100 level crossing gates (as on May 31, 2023), mechanization of track laying activity by track machines to reduce human errors, provision of electrical or

electronic interlocking system with centralized operation of points and signals at 6,427 stations to eliminate accidents due to human failure, and implementation of the Rashtriya Rail Sanraksha Kosh for the replacement, renewal and upgradation of critical safety assets, to improve the functioning of the railway system, especially safety. But these steps will have no value when lives continue to be lost.

At the very least, there has to be the accountability of the senior railway management, at the divisional level itself, when such an accident occurs.

In addition to installing technology on every train that captures every minute communication, the government should see to it that members of the Railway Board are drawn from a pool of professionals and technocrats outside the railway system.

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### Climate finance

Climate finance has a crucial role in retaining the trust of the developing countries in future climate change negotiations.

Under Article 9 of the Paris Agreement on Climate Change, it is also mandatory for the developed countries to provide in their Biennial Update Reports (BUR), information

relating to the financial resources which they have provided and, also, the projected levels of public financial resources to be provided to developing country parties.

At the Copenhagen Change Conference in 2009, the developed countries made the commitment to mobilize \$100 billion per year by 2020.

Further, the developed countries are required, in accordance with the decision accompanying the Paris Agreement, to collectively mobilise \$100 billion through 2025, before a new collective quantified goal (NCQG) 'from a floor of \$100 billion per year is to be set at the end of 2024'.

At the 26th United Nations Climate Change conference in Glasgow in 2021, the developed countries noted, with deep regret, of being able to mobilise only a total of \$79.6 billion.

The Paris Agreement is based on the self determined efforts of all the parties inscribed in the nationally determined contributions (NDCs), which contain the mitigation efforts to be made by a party for the next five years.

Entire NDCs put together project a picture of overshooting the 1.5° C temperature goal. Going by the needs of countries in the Global South expressed in their NDCs, the amount



quantified for the first time touches close to \$6 trillion until 2030.

For India, its third BUR says that its financial needs derived from its NDCs for adaptation and mitigation purposes for 2015-30 are \$206 billion and \$834 billion, respectively.

Most of the financial needs are required in transitioning towards low carbon, cleaner energy systems from traditional systems, which will not be funded by the designated financial mechanisms of the United Nations Framework Convention on Climate Change (UNFCCC).

Additionally, India has reiterated its demand for a just transition at COP27 as '3.6 million people in 159 districts in India are entrenched in the fossil fuel economy through direct or indirect jobs related to the coal mining and power sector

There is no agreed approach among developed countries to share the burden of this goal.

One analysis suggests that the United States provided just 5% of its fair share in 2020.

The Global Environment Facility, a UNFCCC designated funding agency providing grant and concessional loan to developing countries, is replenished every four years.

A similar approach has been borrowed into the Green Climate Fund (GCF) by the developed countries to mobilise finance.

The GCF, set up to administer a portion of the \$100 billion for developing country parties to switch over to low emissions and climate resilient development path, had its second replenishment on October 5, 2023.

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