

7. Shortnews

1. Hydrogen Fuel Cell Passenger Vessel

India launched its first fully indigenous hydrogen fuel cell-powered passenger vessel in Varanasi, marking a major step toward green, zero-emission inland water transport.

Features of the hydrogen fuel cell-powered passenger vessel

Powered by a Low Temperature Proton Exchange Membrane (LT-PEM) hydrogen fuel cell system, emitting only water. Eight-hour operational endurance on a single hydrogen fill. Equipped with a hybrid system integrating hydrogen fuel cells, batteries and solar power. Service speed around 6.5 knots; certified by the Indian Register of Shipping.

Significance- The vessel advances India's green mobility transition, reducing emissions, easing urban congestion, boosting tourism and showcasing Make-in-India leadership in clean inland water transport.

Low Temperature Proton Exchange Membrane (LT-PEM) hydrogen fuel cell system

The LT-PEM fuel cell system uses a polymer membrane to conduct protons, generating electricity from hydrogen and oxygen at relatively low temperatures (around 80°C). Electricity is produced by electrochemical reaction where hydrogen gas is fed into the anode, oxidized to release protons, which then travel through a polymer membrane to the cathode, where they react with oxygen to produce electricity and water. It offers benefits like quick startups, high power density, compactness, and quiet operation. They are ideal for vehicles and portable power, though water management.

2. INDIA-ITALY JCEC

India and Italy signed the protocol of the Joint Commission for Economic Cooperation (JCEC), outlining a roadmap to deepen bilateral trade, investments and industrial collaboration.

India-Italy Joint Commission for Economic Cooperation (JCEC)

The JCEC is a bilateral mechanism aimed at strengthening economic relations by facilitating structured dialogue on trade, investment, technology and industrial partnerships between India and Italy.

Key Components

It provides an institutional framework to enhance cooperation in sectors such as manufacturing, auto components, textiles, defence, agriculture and food processing. It promotes collaboration in research, innovation, education and advanced technologies, supporting diversification of industrial linkages. SAIL has awarded three major steel plant projects to Italy's Danieli Group, which will supply state-of-the-art green technology representing a contract value of around €500 million. It aligns bilateral efforts with broader India-EU engagement to unlock new economic opportunities, including progress on the proposed India-EU Free Trade Agreement.

Current Status of India-Italy Trade

Bilateral Trade Volume- India-Italy bilateral trade was around €14.24 billion in 2024, with India's exports to Italy at €9.02 billion and imports from Italy at €5.22 billion, maintaining a trade surplus in India's favour.

Merchandise Trade Patterns- In FY25, India exported goods worth about US\$7.7 billion to Italy and imported roughly US\$6 billion, showing significant two-way merchandise flows.

Balance of trade- It remains in India's favour with EUR 3.8 billion. It has been in India's favour since 1988.

3. Mahakavi Subramania Bharati

The Prime Minister paid tribute to Mahakavi Subramania Bharati on his birth anniversary, highlighting his role in shaping India's cultural awakening, social reform, and nationalist consciousness.

Mahakavi Subramania Bharati- Subramania Bharati, known as Mahakavi for his poetic brilliance, was a revolutionary poet, freedom fighter, and social reformer from Tamil Nadu. His writings infused courage and nationalism, powerfully influencing India's freedom movement and cultural renaissance.

Life- Born in 1882 at Ettayapuram, Tamil Nadu. He displayed extraordinary literary talent from childhood and grew into a major voice of modern Tamil literature. He worked as a journalist, joining Swadesamitran in 1904 and later editing the Tamil weekly India and the English paper Bala Bharatham.

Contribution to Freedom Struggle

His fiery nationalist songs mobilised the masses in Tamil Nadu and strengthened the spirit of India's independence movement. Exiled by Britishers to French-controlled Pondicherry in 1908, he spent a decade writing powerful political and social commentary. He supported revolutionary nationalists, collaborated with Aurobindo Ghosh in Pondicherry, and wrote extensively against colonial oppression.

Literary Contributions- Major works include Panchali Sapatham (Paanchaali Ka Pran), Kuyil Pattu (Koyal Geet), and Kannan Pattu (Krishna Geet) which introduced new forms of poetic expression. He also translated Vedic hymns, Patanjali's *Yoga Sutra*, and the *Bhagavad Gita* into Tamil, enriching Tamil intellectual tradition.

Death- He passed away in 1921 in Madras after returning from his exile in Pondicherry.

4. 2025 Champions of The Earth Award

UNEP announced the 2025 Champions of the Earth Award recipients, including Tamil Nadu's ACS Supriya Sahu.

ACS Supriya Sahu

Introduction- Supriya Sahu is the Additional Chief Secretary of Tamil Nadu's Department of Environment, Climate Change and Forests and a leading climate governance innovator.

Contribution- She implemented nature-based solutions, low-tech and high-tech climate interventions, strengthened vulnerable communities' resilience and advanced large-scale green livelihood generation.

Inspiration and Action - Supriya Sahu She delivered integrated climate solutions through sustainable cooling, ecosystem restoration and heat adaptation, creating 2.5 million green jobs.

UNEP Champions of the Earth Awards

Introduction- The Champions of the Earth is UNEP's highest environmental honour recognising transformative contributions to environmental protection and sustainability worldwide.

Origin- The award was established in 2005 and is conferred annually by the United Nations Environment Programme (UNEP).

Categories- The award is presented under five categories (2025 Awardee)

1. Lifetime Achievement (Manfredi Caltagirone)
2. Policy Leadership (Pacific Island Students Fighting Climate Change)
3. Inspiration and Action (Supriya Sahu)
4. Science and Innovation (Imazon)
5. Entrepreneurial Vision (Mariam Issoufou)

5. No Sand Mining Near Adichanallur

The Madras High Court has prohibited sand mining near the Adichanallur Iron-Age archaeological site or within the village.

Adichanallur archaeological site

It is an ancient Iron Age urn burial site that showcases the megalithic culture.

Location- It is located on the right bank of the Thamirabarani River, in the Thoothukudi district, Tamil Nadu.

Dated- The site is associated with a pre-1600 BC civilisation.

Cultural Linkages- The site lies close to Korkai, the ancient Pandyan seaport extensively referenced in Sangam literature.

First Excavated- The site was first excavated extensively by Alexander Rea of the Archaeological Survey of India in 1903-04.

Archaeological Significance- Excavations have revealed urn burials, skeletal remains, iron objects, pottery and copper artefacts.

Protection Measures- The Archaeological Survey of India (ASI) is conducting excavations, and the site has been fenced to prevent encroachment and mining-related damage.

6. Prime Minister Visit to Jordan, Ethiopia And Oman

Prime Minister Narendra Modi will undertake a three-nation visit to Jordan, Ethiopia and Oman to strengthen India's ties in West Asia and Africa.

Key Focus of the Visit

It aims to deepen strategic, economic and developmental partnerships with Jordan, Ethiopia and Oman while enhancing India's engagement with West Asia and Africa. It focuses on advancing cooperation in trade, investment, defence, energy, security, technology, agriculture, culture and regional stability. It also marks milestone anniversaries of diplomatic ties of 75 years with Jordan and 70 years with Oman expanding collaboration and strengthening Global South solidarity.

About Jordan

Jordan is a key West Asian nation known for its political stability and strategic regional role with capital at Amman.

Location- It is located in the Levant region of West Asia, positioned between Africa and Asia.

Bordering Nations- Jordan shares borders with Saudi Arabia to the south and east, Iraq to the northeast, Syria to the north and Israel and Palestine to the west.

Geography- Its geography features the Jordan Valley, the Dead Sea Coast (Earth's lowest point on Surface) and arid desert landscapes across much of the country.

About Ethiopia

Ethiopia is a major East African nation and an important partner in the Global South with its capital at Addis Ababa.

Location- It lies in the Horn of Africa with a strategically important position connecting East Africa and the Red Sea region.

Bordering Nations- Eritrea to the north, Djibouti and Somalia to the east, Kenya to the south and Sudan and South Sudan to the west.

Geography- It is characterised by the Ethiopian Highlands, the Great Rift Valley and diverse plateau regions.

About Oman

Introduction- Oman (Capital- Muscat) is a key Gulf nation with deep historical and strategic ties with India.

Location- It is located on the southeastern coast of the Arabian Peninsula along the Arabian Sea and Gulf of Oman.

Bordering Nations- Oman borders the UAE to the northwest, Saudi Arabia to the west and Yemen to the southwest.

Geography- Its geography includes long coastlines, the Hajar Mountains and desert interiors central to its strategic maritime importance.