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DAILY CURRENT AFFAIRS



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Kolkata Topper

VAISHNA BISWAS

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TODAY'S DATE

29 OCTOBER 2026

---THURSDAY-----

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RANK - 597
FORMER ASST. COMMANDANT IN BSF
CITY COLLEGE KOLKATA

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IRS SARLA JAKHER
AIR 593
CITY COLLEGE KOLKATA



IRS TANMAY
AIR 346
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DAILY CURATED NEWS | EXAM ORIENTED ANALYSIS | SMART NOTES & INFOGRAPHICS | BOOST YOUR PREPARATION

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DAILY CURRENT AFFAIRS-

1. **Gene-Edited Rice Varieties in India**
2. **Salt Marshes as Natural Coastal Defences**
3. **India–New Zealand Free Trade Agreement (FTA)**
4. **India Releases Four Publications on Biodiversity Conservation, Biosafety and Access and Benefit Sharing**
5. **Pradhan Mantri Viksit Gram Swaraj Yojana**
6. **India's Participation in G20, Quad and CHOGM Meetings**

1.Gene-Edited Rice Varieties in India

Source: The Hindu, Pg. II

Why in News?

- India approved and released its first two gene-edited rice varieties in 2025: DRR Dhan-100 (Kamala) and Pusa DST Rice-1, developed using CRISPR-Cas9 technology to improve crop productivity and climate resilience.

Key Highlights

- DRR Dhan-100 (Kamala), developed by ICAR–Indian Institute of Rice Research (IIRR), Hyderabad, is an improved version of Samba Mahsuri. It offers up to 19% higher yield, matures 20 days earlier in around 130 days and has drought tolerance.
- Pusa DST Rice-1, developed by ICAR–Indian Agricultural Research Institute (IARI), New Delhi, is derived from MTU1010. It is designed to tolerate saline and alkaline soils and can deliver a 10–30% yield increase under stress conditions.
- Both varieties use CRISPR-Cas9 gene editing, which enables precise changes to a plant's existing genetic material without introducing foreign DNA.
- Gene editing can help address climate change, water scarcity and soil salinity while improving food security and reducing cultivation costs.
- India has exempted certain gene-edited plants without foreign genes from the stricter regulatory approval process applicable to transgenic genetically modified organisms (GMOs).
- Researchers are exploring apomixis, a process through which plants produce seeds without sexual reproduction, to preserve hybrid traits across generations and potentially reduce farmers' seed costs.
- Professor Venkatesan Sundaresan received a share of the 2024 Wolf Prize in Agriculture, while Sundaresan and Imtiyaz Khanday received the 2025 VinFuture Special Prize for their work on self-cloning crop technology.

- Globally, HB4 drought-tolerant wheat, a transgenic variety developed by Bioceres Crop Solutions, has been approved in countries including Argentina, Brazil, the United States and Australia.

Significance

- Gene-edited crops can improve productivity, shorten crop duration and increase tolerance to drought and soil salinity.
- The development of varieties by public institutions such as ICAR can support wider farmer access and strengthen India's climate-resilient agriculture and food security

2.Salt Marshes as Natural Coastal Defences

Source: The Hindu, Pg. II

Why in News?

- A study by Wageningen University & Research found that salt marshes can significantly reduce ocean wave heights, highlighting their role in protecting coastlines against storms, erosion and rising sea levels.

Key Highlights

- Salt marshes are intertidal ecosystems dominated by salt-tolerant vegetation that stabilises coastal sediments and supports diverse wildlife.
- India has approximately 290 sq. km of coastal salt marshes, mainly in Gujarat, with smaller areas in Tamil Nadu, Andhra Pradesh and Maharashtra.
- The study found that salt marshes could reduce the height of 75-cm waves by 6–22% and 2-metre waves by up to 6%. During certain severe storms with waves up to one metre high, wave-height reduction could exceed 10% and potentially reach 50%.
- Researchers transplanted 306 sq. metres of living salt marsh into the 300-metre-long Delta Flume at the Deltares Research Institute in the Netherlands for large-scale wave testing.
- Dense plant stems dissipate wave energy, while underground root networks stabilise sediments even when above-ground vegetation is severely damaged.
- Wave attenuation becomes less effective as wave height increases, limiting protection against extremely large waves. Flexible-stemmed plant species may also withstand extreme waves better than stiffer species.
- Salt marshes face threats from expanding aquaculture and coastal development.

Significance

- Conserving and restoring salt marshes can provide a nature-based solution for reducing coastal erosion, flooding and storm impacts.
- Protecting these ecosystems can strengthen climate-change adaptation and improve the resilience of vulnerable coastal communities.

What are Salt Marshes?
They are coastal wetlands that are regularly flooded and drained by salt water brought in by the tides. Unlike mangroves, which are dominated by trees, salt marshes are characterized by **herbaceous plants**—grasses, sedges, and shrubs that can tolerate high salinity.

- **Location:** Primarily found in **middle to high latitudes** (temperate and arctic regions), whereas mangroves dominate the tropics.
- **Environment:** They thrive in protected, low-energy coastal areas like **estuaries, bays, and lagoons** where sediments can accumulate.
- **Soil Profile:** The soil is often composed of deep mud and **peat** (decomposing plant matter). Due to waterlogging, these soils are **anoxic** (oxygen-depleted), leading to the characteristic "rotten-egg" smell caused by sulfur-producing bacteria.

3.India–New Zealand Free Trade Agreement (FTA)

Source: The Hindu, Page 8
Subject: International Relations | Indian Economy | International Trade

Why in News?

- The India–New Zealand Free Trade Agreement (FTA) reportedly entered into force on October 20, 2026, aiming to expand bilateral trade, investment and services cooperation.
- Bilateral merchandise trade currently stands at approximately $1.2 billion, while India accounts for only 1.9% of New Zealand's merchandise imports.
- New Zealand has offered duty-free access across all tariff lines for Indian goods, according to the supplied article.

Key Provisions of the Agreement

- Trade in goods: Duty-free access for Indian exports is expected to improve competitiveness in the New Zealand market.
- Labour-intensive sectors: Apparel, leather and home textiles are expected to benefit from tariff elimination.

- Manufacturing: Indian exporters could gain opportunities in machinery and vehicles, where India currently has a relatively small market share.
- Pharmaceuticals: Greater use of regulatory evaluation reports could reduce duplication in compliance procedures and facilitate market access.
- Services: The agreement includes commitments across 118 services sectors.
- Professional mobility: A quota of 5,000 visas for skilled professionals at any given time, with stays of up to three years.
- Investment: New Zealand has committed to facilitating $20 billion in FDI into India over 15 years, as stated in the source.

Economic and Strategic Significance

- Export competitiveness: Lower tariffs can improve the price competitiveness of Indian products in New Zealand.
- MSME growth: Labour-intensive industries may gain export opportunities and support employment generation.
- Services exports: Professional mobility provisions can create opportunities for Indian skilled workers.
- Investment and technology: Greater investment can support manufacturing, innovation and industrial development.
- Indo-Pacific engagement: The agreement can strengthen India's economic ties with the wider Indo-Pacific region.
- Supply-chain diversification: Deeper trade links can help Indian businesses diversify export markets and international partnerships.

Challenges and Way Forward

- Market awareness: Indian exporters need reliable information about New Zealand's demand, standards and regulatory requirements.
- Distribution networks: Businesses must develop local partnerships and distribution channels to convert tariff benefits into actual exports.
- Competition: Indian firms face competition from established suppliers such as China, Australia, the United States, South Korea and Japan.
- Implementation: Effective use of the agreement requires awareness among MSMEs, streamlined export procedures and sustained engagement with investors.

Types of Trade Agreements

Agreement	Main feature
Preferential Trade Agreement (PTA)	Reduces tariffs on selected products.
Free Trade Agreement (FTA)	Eliminates or reduces tariffs on a broad range of goods, subject to exclusions and agreed conditions.
Comprehensive Economic Cooperation Agreement (CECA)	Covers trade in goods and services and may include other areas of economic cooperation.
Comprehensive Economic Partnership Agreement (CEPA)	Generally covers goods, services, investment and broader economic cooperation.
Trade and Economic Partnership Agreement (TEPA)	A framework for trade and economic cooperation, with provisions determined by the specific agreement.

India's Recent Trade Agreements: As Reported in the Source

- India–UK CETA: Reported as in force from July 15, 2026, with provisions covering goods and services.
- India–New Zealand FTA: Reported as in force from October 20, 2026, with emphasis on trade, services and mobility.
- India–Oman CEPA: Reported as in force from June 1, 2026, with emphasis on energy and market access.
- India–EFTA TEPA: Reported as in force from October 1, 2025, with a focus on investment and high-technology sectors.
- India–EU FTA: The supplied article describes negotiations as concluded, with signing expected in December 2026.

UPSC Prelims Practice

Q. With reference to Free Trade Agreements (FTAs), consider the following statements:

1. FTAs generally reduce or eliminate tariffs on a broad range of goods.
2. FTAs can include provisions relating to services and investment.
3. An FTA necessarily eliminates all regulatory requirements for trade between participating countries.

Which of the statements given above are correct?

(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (a) 1 and 2 only

Explanation: FTAs reduce trade barriers under agreed terms but do not automatically eliminate regulatory requirements, product standards or customs procedures.

UPSC Mains Practice

Q. "Free Trade Agreements can improve export competitiveness and attract investment, but their benefits depend on domestic industrial capacity and effective implementation." Discuss with reference to the India–New Zealand FTA.

4.India Releases Four Publications on Biodiversity Conservation, Biosafety and Access and Benefit Sharing

Source: PIB

Why in News?

- India released four publications on biodiversity conservation, biosafety and Access and Benefit Sharing (ABS) during a side event at the 17th Conference of the Parties (COP-17) to the Convention on Biological Diversity (CBD) in Yerevan, Armenia.

Key Highlights

- The event was organised by the Ministry of Environment, Forest and Climate Change (MoEFCC), National Biodiversity Authority (NBA) and United Nations Development Programme (UNDP).
- Union Environment Minister Bhupender Yadav emphasised translating global biodiversity commitments into effective implementation, strengthening institutional capacity and mobilising sustainable finance.
- The four publications released were:
    - Guidelines for India's Other Effective Area-Based Conservation Measures (I-OECMs), which recognise conservation outcomes beyond conventional protected areas.
    - The 5th National Report on the Cartagena Protocol on Biosafety, highlighting India's biosafety governance and reporting.

- The Convention on Biological Diversity Handbook, providing reference material for participation in international biodiversity processes.
- India's ABS Success Story, highlighting India's achievements in Access and Benefit Sharing.

- The Minister highlighted the Kunming-Montreal Global Biodiversity Framework and the LiFE (Lifestyle for Environment) initiative, which promotes sustainable lifestyles and responsible consumption.
- India emphasised international cooperation, including South-South learning, to share successful approaches and adapt them to national contexts.

Significance

- The publications aim to strengthen biodiversity conservation, transparent reporting, responsible biosafety governance and fair sharing of benefits arising from the utilisation of genetic resources.
- India stressed that progress should be measured through effective implementation, benefits delivered and sustained conservation outcomes.

5.Pradhan Mantri Viksit Gram Swaraj Yojana

Source: PIB, 29 October 2026

Why in News?

- The Union Cabinet approved the Pradhan Mantri Viksit Gram Swaraj Yojana on 28 October 2026, with a total outlay of ₹7,395.55 crore.
- The Centrally Sponsored Scheme aims to strengthen Panchayati Raj Institutions and promote integrated, participatory and digitally enabled rural development.

Key Features

- Duration: 2026-27 to 2030-31.
- Coverage: All States and Union Territories, including traditional rural local governance institutions.
- Planning: Targets the preparation of over 2.55 lakh Gram Panchayat Development Plans (GPDPs) and online audit plans annually.
- Public Awareness: Aims to reach at least one crore citizens through each awareness-generation intervention.
- Capacity Building: Supports around 32 lakh governance stakeholders annually, including elected representatives and Panchayat functionaries.

Six Focus Areas

- Strengthening Panchayats as local governance hubs.
- Promoting holistic and participatory development planning.
- Expanding digital governance and service delivery.
- Aligning local development with national priorities.
- Building the capacity of elected representatives and officials.
- Ensuring transparent and efficient utilisation of resources.

Digital Governance Platforms

- eGramSwaraj: Digital platform for Panchayat planning, accounting and monitoring.
- PANCHAM: Platform identified under the scheme for supporting implementation.
- AuditOnline: Facilitates online audits of Panchayat accounts and improves financial transparency.

Significance

- Strengthens decentralised governance and grassroots democracy.
- Promotes transparency, accountability and citizen participation in rural development.
- Supports the effective utilisation of resources during the Sixteenth Finance Commission period.
- Aligns rural development with the vision of Viksit Bharat by empowering Panchayats as self-reliant and accountable institutions of local self-government.

6.India's Participation in G20, Quad and CHOGM Meetings

Source: The Hindu, 29 October 2026

Why in News?

- External Affairs Minister S. Jaishankar is scheduled to visit Atlanta, USA, for the G20 Foreign Ministers' Meeting and the Quad Foreign Ministers' Meeting, followed by the Commonwealth Heads of Government Meeting (CHOGM) in Antigua and Barbuda.

Key Highlights

- G20 Foreign Ministers' Meeting: Scheduled for 30–31 October 2026 in Atlanta, USA, to discuss global economic challenges, geopolitical tensions and energy security.
- Quad Foreign Ministers' Meeting: To discuss Indo-Pacific security, maritime cooperation and economic resilience among India, the USA, Japan and Australia.

- CHOGM 2026: Scheduled for 1–4 November 2026 in Antigua and Barbuda under the theme "Accelerating Partnerships and Investment for a Prosperous Commonwealth."
- G20 Leaders' Summit: The Atlanta meetings will contribute to preparations for the summit scheduled for 14–15 December 2026 in Miami, Florida.

India–US Relations

- Jaishankar's recent discussions with US Secretary of State Marco Rubio focused on energy security and defence cooperation.
- India and the USA are working towards finalising an interim trade agreement framework announced in February 2026.
- Both countries aim to strengthen trade, energy cooperation and defence equipment sales.

Significance for India

- Multilateral Diplomacy: Provides opportunities to coordinate with major economies on global challenges.
- Indo-Pacific Security: Strengthens cooperation on maritime security and regional stability through the Quad.
- Economic Cooperation: Promotes trade, investment and energy partnerships.
- Commonwealth Engagement: Enables India to strengthen cooperation with member countries on development and investment.

The **Group of Twenty (G20)** is the premier international forum for global economic cooperation, representing about **85% of global GDP**, 75% of international trade, and two-thirds of the world's population.

Evolution and Membership

Initially formed in **1999** at the level of Finance Ministers and Central Bank Governors following the Asian Financial Crisis, it was upgraded to the **Heads of State** level in **2008** to address the Global Financial Crisis.

The Rotating Presidency & Troika

The G20 operates without a permanent secretariat. Instead, its leadership rotates annually. Continuity is maintained by the **Troika**, consisting of the previous, current, and incoming presidencies.

G20 Summits (2023–2026)

Year	Host Country	Key Theme / Priorities
2023	IN India	Vasudhaiva Kutumbakam — "One Earth, One Family, One Future"; African Union admitted as a permanent member.
2024	BR Brazil	Building a Just World and a Sustainable Planet; launch of the Global Alliance Against Hunger and Poverty.

2025	ZA South Africa	Solidarity, Equality, Sustainability; focus on debt sustainability, disaster resilience and development finance.
2026	US United States	Focus on economic growth and prosperity, affordable and secure energy supplies, and innovation in AI and emerging technologies. The summit is scheduled for 14–15 December 2026 in Miami, Florida. SDG Knowledge Hub+2

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