

NEXT IAS

DAILY CURRENT
AFFAIRS (DCA)

Time: 45 Min

Date: 04-02-2025

Table of Content

Health Insurance Cover for 1 crore Gig Workers

100% FDI in Insurance Sector

Rupee Breaches 87-level Against Dollar

India's Nuclear Energy Roadmap: Union Budget 2025-26

Amplifiers and Their Working

Retreating Himalayan Glaciers

NEWS IN SHORT

Dhimsa Dance

Guru-Shishya Parampara Scheme

Ocean Coordination Mechanism

Makhana Board in Bihar

A New Presumptive Taxation Regime

Extra-long Staple Cotton

GARBH-INI-DRISHTI Data Repository

Framework Agreement on International Big Cat Alliance (IBCA)

HEALTH INSURANCE COVER FOR 1 CRORE GIG WORKERS

Context

- The Union Finance Minister has announced that **gig workers** would be eligible for **healthcare facilities under the Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PMJAY) scheme**.

About

- The total outlay for health in this year's budget has **increased by over ₹9,000 crore**.
 - It will finance key programmes such as the mission to increase infrastructure, Ayushman Bharat, as well as allocation for All India Institute of Medical Sciences-Delhi.
- The Jan Arogya Yojana** provides a **cover of Rs 5 lakh per beneficiary family** per year for secondary and tertiary care hospitalization across public and private empanelled hospitals in India.
 - However, the details on whether the families of gig workers will be covered or not are yet to be provided.

Data on Health Insurance in India (NITI Aayog)

- Only around 10% of India's population have bought private health insurance, while nearly 60% are estimated to be covered by government-funded schemes.
- The remaining 30% – more than 400 million people – still lack any form of health insurance.

Who are Gig Workers?

- Non-standard or gig work consists of **income-earning activities outside of standard, long-term employer-employee relationships**.
- It relies **heavily on temporary and part-time positions** filled by **independent contractors and freelancers** rather than full-time permanent employees.
- The term is borrowed from the music world, where performers book **"gigs"** that are **single or short-term engagements** at various venues.
- The gig economy uses **digital platforms** to connect freelancers with customers to provide **short-term services or asset-sharing**.
 - Examples include **ride-hailing apps, food delivery apps, and holiday rental apps**.

India and Gig Economy

- In 2020, 7.7 million workers were engaged in the gig economy.
- The gig workforce is expected to **expand to 23.5 million workers or 4.1% of total workforce by 2029-30**.

- At present about 47% of the gig work is in medium skilled jobs, about 22% in high skilled, and about 31% in low skilled jobs.
- Its contribution to India's gross domestic product (GDP) is estimated to be substantial, with the potential to **add 1.25% to GDP by 2030**, and **create 90 million jobs in the long term**.

Reasons for a rise in Gig Workers

- Post Pandemic:** The trend accelerated during the 2020 COVID-19 pandemic, as gig workers delivered necessities to **home-bound consumers**, and those whose **jobs had been eliminated turned to part-time and contract work for income**.
- Freedom to work from anywhere:** These types of positions facilitate independent contracting work, with many of them not requiring a freelancer to come into an office.
- Rise of Technology and Internet:** Rise of fast internet and smartphones have made it easier to work from anywhere easily.
- Convenient for Small Organisations:** Employers who cannot afford to hire full-time employees to do all the work will often hire part-time or temporary employees to take care of busier times or specific projects.
- Benefits Employers:** Employers do not need to provide related benefits, such as medical insurance, Provident Fund, and year-end bonuses which make it a better option for them to pay only for work on a unit basis.

Challenges

- Work-life balance:** For some workers, the flexibility of working gigs can actually disrupt the work-life balance, sleep patterns, and activities of daily life.
- Can replace Full time employees:** The number of full-time employees required by the company can be reduced as freelance workers take over the work.
- No regular job benefits:** Many employers save money by avoiding paying benefits such as health coverage and paid vacation time.
 - There is no formal employment relationship with the platform company and there are usually no employee benefits in short-term contracts.

Steps Taken by Government of India for Gig Workers

- Code of Social Security, 2020:** The Government has formulated the Code on Social Security, 2020 which envisages framing of **suitable social**

security schemes for gig workers and platform workers on matters relating to life and disability cover, accident insurance, health and maternity benefits, old age protection, etc.

- However, these provisions under the Code have not come into force.
- **e-Shram Portal:** The Government has also launched e-Shram portal in 2021 for registration and creation of a **Comprehensive National Database of Unorganized Workers including gig workers and platform workers.**
 - It allows a person to register himself or herself on the portal on a self-declaration basis, which is spread across around 400 occupations.

Conclusion

- Not having the health coverage enjoyed by many people who are in traditional full-time employment, gig workers are particularly vulnerable to medical expenses. These costs can sometimes be catastrophic.
- As they often lack job security and associated benefits of full-time employment, government-backed coverage could provide a crucial safety net.

Source: IE

100% FDI IN INSURANCE SECTOR

In News

- Finance Minister Nirmala Sitharaman announced the opening up of the insurance sector to 100% foreign direct investment (FDI), up from the previous limit of 74%, to boost the sector.

Global Comparison:

- Countries like Canada, Brazil, Australia, and China allow 100% FDI in insurance, and aligning India with global standards will make it more attractive to foreign insurers.

The Indian insurance sector

- It has undergone significant transformation, evolving from being dominated by Life Insurance Corporation (LIC) to a more diverse industry with various players offering a wide range of products.
- The transformation has been driven by Economic development, Technological advancements, Demographic changes, Increased consumer awareness, particularly after the COVID-19 pandemic, regarding the importance of financial security through insurance.

- The insurance sector has played a significant role in the economic development of India.

Do you know ?

- In India, the concept of insurance has a long-standing history, with references found in ancient texts such as the **Manusmriti, Yagnavalkya's Dharmashastra, and Kautilya's Arthashastra.**
- These writings discuss the idea of pooling resources to provide financial support during calamities like fires, floods, epidemics, and famines.
- Evidence of early insurance practices in ancient India can be seen in the form of marine trade loans and carriers' contracts, which helped mitigate risks associated with trade and transportation.

Insurance Penetration in India

- Insurance penetration in India showed a slight decline from 4% in FY23 to 3.7% in FY24, despite a 7.7% growth in total premiums, reaching Rs 11.2 lakh crore.
- **Life insurance penetration** decreased from 3% in FY23 to 2.8% in FY24.
- **Non-life insurance penetration** remained stable at 1%.
- **Overall insurance penetration** in India is **3.7%**, which is below the global average of **7%**, presenting a significant gap and growth opportunity.
- **Factors for Low Penetration:** Limited awareness, economic constraints, and cultural preferences for traditional financial practices contribute to India's low insurance penetration.

Conditions for 100% FDI In India

- The enhanced FDI limit will apply to companies that invest the entire premium in India.
- The government also plans to review and simplify current regulations associated with foreign investments
- The **Insurance Regulatory and Development Authority of India (IRDAI)** will continue to regulate the sector to protect policyholders and ensure compliance with Indian laws, preventing foreign dominance.

Impact of 100% FDI on Insurance:

- India's insurance sector has attracted Rs 82,847 crore in FDI since 2000, driving growth and improving operations.

- The government expects the sector to grow at 7.1% annually over the next five years, driven by foreign investment and policy changes.
- **100% FDI** could address the insurance **under-penetration in India**, accelerating the adoption of global best practices and introducing innovative products and services.
- It **will ensure long-term capital**, enhance technology, strengthen distribution, and increase competitiveness.
- The Economic Survey suggests insurers **should target tier 2 and 3 cities**, as well as **rural areas**, where awareness and accessibility are low, to increase penetration and stimulate growth.
- The use of **innovative distribution models** can help include underinsured customers, particularly those already covered by government schemes like Pradhan Mantri Jeevan Jyoti Bima Yojana, Pradhan Mantri Fasal Bima Yojana, and Pradhan Mantri Jan Arogya Yojana.

Benefits for Customers:

- Increased foreign investment will introduce more players into the market, intensifying competition.
 - ♦ Customers can **expect better products**, improved service, and competitive pricing, leading to higher insurance penetration and narrowing the protection gap.
- Greater foreign participation is expected to **boost customer service standards** and contribute to domestic economic growth by investing premiums in India.

Challenges

- Foreign insurers may face challenges navigating India's complex distribution landscape, as the private life insurance sector is dominated by bank-led distribution, while non-life insurance relies on agency channels.
- **Adaptation Challenges:** Foreign insurers will need to adapt their business models to India-specific needs, such as the bancassurance-heavy model in life insurance and agency-led models for health insurance.
 - ♦ Many foreign players are already in joint ventures (JVs), so restructuring may take time.

Conclusion and Way Forward

- The insurance sector in India has played a vital role towards the steadiness and growth of the Indian economy.
- Insurance is a capital-intensive industry, and a move to enhance capital access is beneficial.
 - ♦ This could attract global insurers seeking greater control on the Indian operations
- The opening of the sector to 100% FDI aligns with the goal of "Insurance for All" by 2047, requiring significant capital inflows.
- The government is also considering revisions to FDI regulations, including changes related to key management and board composition, to **create a more favorable environment for foreign investment and sector expansion**.

Source :BS

RUPEE BREACHES 87-LEVEL AGAINST DOLLAR

In News

- The Indian Rupee (INR) has witnessed a sharp depreciation, breaching the **87-mark against the US Dollar**, reflecting broader global economic shifts and domestic financial concerns.

Key Factors Behind the Rupee Depreciation

- **Strengthening US Dollar:** The **Dollar Index** surged **1.24% to 109.84**, reflecting increased investor confidence in the US economy. Robust job data, expectations of prolonged higher interest rates, and rising **US Treasury yields** have made the dollar more attractive.
- **Escalating Trade War Fears:** US President **Donald Trump's tariffs on Canada, Mexico, and China** have heightened global trade tensions. Canada and Mexico, which export over **\$840 billion worth of goods to the US**, have announced retaliatory measures. China faces a **potential 10% tariff**, which has weakened the **Yuan**, indirectly impacting the Indian Rupee.
- **Foreign Institutional Investor (FII) Outflows:** FIIs have been aggressively selling Indian assets since **October 2024**, withdrawing **\$11 billion in Q3 FY25**, adding further pressure on the currency.
- **Widening Trade Deficit:** India's **trade deficit has reached \$188 billion**, up **18% from FY24**, reflecting the high import dependency, especially on **crude oil**.
- **RBI's Intervention and Monetary Policy Outlook:** The **Reserve Bank of India (RBI)** has been managing the currency volatility through forex interventions, selling **\$3.3 billion in reserves over the last seven weeks**. However, with inflation concerns mounting, all eyes are on **the upcoming RBI monetary policy review** later this week.

Implications of a Weak Rupee

The Downside:

- **Rising Import Costs & Inflation:** A weaker rupee makes imports, particularly **crude oil**, more expensive, increasing **production costs** and leading to **inflationary pressures**.
- **Higher Loan Servicing Costs:** Companies with foreign currency loans face a higher debt burden, impacting balance sheets and investment outlook.
- **Capital Flight & FDI Concerns:** A depreciating rupee may trigger **capital outflows**, discouraging **foreign direct investment (FDI)** and leading to economic volatility.
- **Consumer Sentiment Impact:** Reduced purchasing power and costlier imports could affect **demand and economic growth**.

The Upside:

- **Boost for Exporters:** A weaker rupee enhances **export competitiveness**, benefiting industries like **IT, pharmaceuticals, and textiles**.
- **Stronger Remittances:** Indians abroad gain from better exchange rates, leading to higher **inward remittances**, which support domestic consumption.
- **Government's Focus on Self-Reliance:** India can enhance its **competitive advantages** rather than rely on exchange rate adjustments to boost trade.

Conclusion

- The **rupee depreciation** reflects a mix of global economic shifts, trade tensions, and domestic policy challenges.
- While it poses risks, India's **long-term economic resilience**, export sector growth, and **government reforms** could help navigate the crisis. As the global trade war escalates, India's strategic economic measures will be pivotal in determining how the rupee stabilizes in the coming months.

Source: IE

INDIA'S NUCLEAR ENERGY ROADMAP: UNION BUDGET 2025-26

In News

- The government has set an ambitious target of achieving **100 GW nuclear power capacity by 2047**, aligning with the objectives of **Viksit Bharat** to ensure energy security, sustainability, and reduced dependency on fossil fuels.

Key Highlights of the Nuclear Energy Mission

- **Capacity Target:** 100 GW by 2047 (Current capacity: 8 GW).



- **Small Modular Reactors (SMRs): ₹20,000 crore allocation** for R&D and indigenous SMR development.
 - ♦ **Goal:** Five operational SMRs by 2033.
- **Private Sector Participation:** Proposed amendments to key legislations:
 - ♦ **Atomic Energy Act, 1962** – Framework for nuclear energy development and regulation.
 - ♦ **Civil Liability for Nuclear Damage Act, 2010** – Ensuring compensation mechanisms for nuclear incidents.
- **Capacity Expansion: 10 new reactors** (totaling 8 GW) under construction across **Gujarat, Rajasthan, Tamil Nadu, Haryana, Karnataka, and Madhya Pradesh**.
 - ♦ **Approval for a 6x1208 MW nuclear plant in Andhra Pradesh** in collaboration with the USA.
- **Nuclear Partnerships:** Collaboration with the private sector to develop **Bharat Small Reactors (BSRs)** and **Bharat Small Modular Reactors (BSMRs)**.

Bharat Small Reactors (BSRs) & Bharat Small Modular Reactors (BSMRs)

The government is advancing nuclear energy expansion through **BSRs and BSMRs**, ensuring a scalable and efficient power supply for industries and remote areas.

Bharat Small Reactors (BSRs)

- **220 MW Pressurized Heavy Water Reactors (PHWRs)** with a strong safety and operational track record.
- Designed for reduced land requirements, making them suitable for industrial hubs (e.g., steel, aluminum, and metals) to aid in **decarbonization efforts**.

- **Public-Private Collaboration:**
 - ♦ **The private sector** provides land, cooling water, and capital.
 - ♦ **Nuclear Power Corporation of India Limited (NPCIL)** manages design, quality assurance, and operations.

Bharat Small Modular Reactors (BSMRs)

- **Definition:** Advanced nuclear reactors with a power capacity of up to **300 MW(e)** per unit.
- **Modular Construction:** Factory-fabricated components for faster deployment.
- **Applications:**
 - ♦ **Coal plant repurposing**
 - ♦ **Off-grid power generation**
 - ♦ **Grid stability with renewables**
 - ♦ **Hydrogen co-generation (high-temperature gas-cooled reactors)**

Government Initiatives for Nuclear Expansion

India's nuclear roadmap includes multiple initiatives to scale up nuclear capacity, enhance R&D, and integrate advanced reactor technologies.

- **Planned Expansion:** Increase nuclear capacity from **8,180 MW to 22,480 MW by 2031-32**.
- **New Projects:** 10 additional reactors in pre-project stages, aiming for completion by **2031-32**.
- **Fast Breeder Reactor (FBR) Development:**
 - ♦ **Prototype Fast Breeder Reactor (PFBR) - 500 MW** achieved critical milestones in 2024, paving the way for India's closed nuclear fuel cycle strategy.
- **New Uranium Discovery:** Extended the life of **Jaduguda Mines** by 50+ years.
- **Public-Private Collaboration:** **NPCIL & NTPC** formed the **ASHVINI JV** to develop nuclear power plants under existing regulatory frameworks.

Safety, Sustainability & Global Commitments

- **Safety Standards:** Indian nuclear power plants adhere to stringent safety measures, with radiation levels well below global benchmarks.
- **International Commitments:** India aligns with **COP26 targets** to achieve **500 GW non-fossil fuel-based energy by 2030** and fulfill its **Paris Agreement obligations**.
- **Thorium Utilization:** R&D on **Molten Salt Reactors** to leverage India's abundant **thorium reserves** for long-term energy security.

Conclusion

- The **Union Budget 2025-26** underscores India's commitment to a nuclear-powered future, reducing carbon emissions and securing energy reliability.

- The **Nuclear Energy Mission for Viksit Bharat** positions India as a global leader in advanced nuclear technology, with a strategic push toward indigenous innovation, public-private partnerships, and regulatory reforms.
- With robust policy support and technological advancements, India's nuclear sector is poised for unprecedented growth, solidifying its role in a **clean energy-driven future**.

Source: PIB

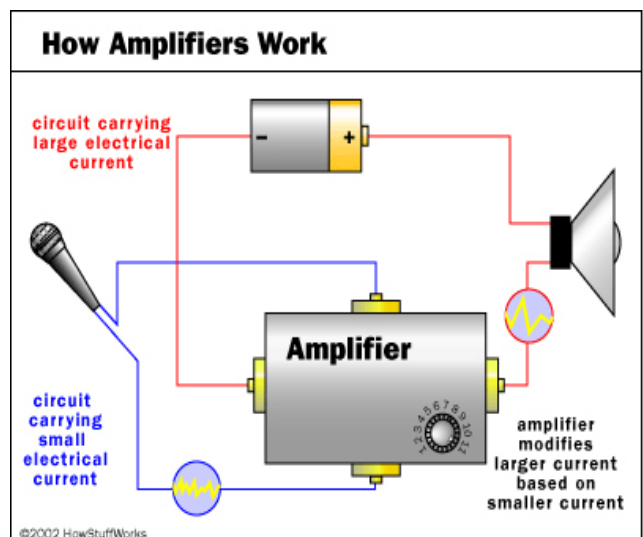
AMPLIFIERS AND THEIR WORKING

Context

- The amplifier remains a transformative invention for being able to receive the human voice and boost it so thousands of people can hear it at once.

Working of Amplifier

- **Invention: Lee De Forest (1906)** is often credited with inventing the Audion tube, also known as the triode vacuum tube, which was the first electronic amplifier.
- **Microphone:** A microphone converts sound into electrical signals. It works as a transducer, changing sound energy into electrical energy.
- **Sound Amplification:** After capturing the audio signal, a preamplifier boosts the voltage, adding energy while minimizing noise.
 - ♦ Impedance matching ensures the signal stays clear. A transistor amplifies the voltage, increasing the strength of the signal.
- **Amplifying Voltage:** A transistor amplifies the voltage by allowing electrons to flow between parts of the transistor, which creates a stronger current.
 - ♦ This amplified signal is then sent to the speaker.



Types of Amplification

- **Power Amplification:** Different amplifier classes (A, B, AB, C, D) are used depending on the application.
 - ♦ **Class A and B amplifiers** are used in basic sound systems and small studios. Home theatres and more intensive use cases prefer Class AB amplifiers.
 - ♦ Antennae emitting radio-frequency signals at a single carrier frequency use Class C amplifiers whereas public announcement systems use Class D amplifiers.

Producing Loud Sound

- The loudness of the sound depends on the power of the input signal.
- The speaker's voice coil, placed within a magnet, vibrates when current flows through it, moving the diaphragm to create sound.
- Higher power input leads to louder sound, and adjusting components like the magnet strength and diaphragm size can enhance the sound for different frequencies.

Source: TH

RETREATING HIMALAYAN GLACIERS

Context

- A recent study has revealed that the eastern Himalayas of Arunachal Pradesh have lost 110 glaciers over a span of 32 years (1988-2020) and highlights the rapid retreat of glaciers, which has significant implications for the region's hydrology and climate.

Key Findings of Study

- **Glacial Lakes:** The study found that the glaciers, covering an area of 309.85 square kilometers, retreated at a rate of 16.94 square kilometers per year.
 - ♦ It exposed bedrock and created glacial lakes, increasing the risk of **Glacial Lake Outburst Floods (GLOFs)**.
 - ♦ The number of glaciers in the region decreased from 756 to 646 during the study period.
- **Causes of Glacial Retreat:**
 - ♦ **Rise in Temperature:** The eastern Himalayas have been warming at a rate surpassing the global average, with temperature increases between 0.1°C and 0.8°C per decade.
 - It is expected to continue, with potential temperature rises of 5-6°C and precipitation increases of 20-30% by the end of the century.

- Over the past century, the region has seen an increase in temperature by approximately 1.6°C, with the eastern Himalayas warming at a rate surpassing the global average.

- **Implications:** For the region's **freshwater supply**, which supports over 1.3 billion people living downstream.
 - ♦ The **Himalayan glaciers**, often referred to as the '**Third Pole**' due to their vast ice reserves, play a crucial role in maintaining the **region's hydrological balance and the global sea level**.
 - ♦ The retreat of glaciers also **affects the region's biodiversity and agricultural practices**. Additionally, the reduced glacial mass can lead to changes in **river flow patterns**, affecting **hydropower generation and irrigation systems**.

Himalayan Glaciers in the India

- These are **broadly divided into three river basins**, namely **Indus, Ganga and Brahmaputra**.
 - ♦ The higher altitudes (*temperate climates*) receive heavy snowfall during winters.

Indus River

- It originates in the **Tibetan plateau near Lake Mansarovar and Mount Kailash** and flows westward, south of **Karakoram Range** and north of the **Great Himalayas to Mt. Naga Parbat** where it turns sharply to the south flowing through Pakistan into the Arabian Sea near Karachi after travelling for 2,880 kilometres.

Ganga River

- It originates from the **Gangotri Glacier** where it is known as **Bhagirathi** which is **joined by Alaknanda at Devprayag** and combined together it is called Ganga.

Brahmaputra River (Yalu Zangbu or Tsang Po)

- It rises in the glacier of the **Kailash range, just south of Lake Konggyu Tsho in Tibet**.
- It ranks **amongst the longest rivers** of the world. It traverses its first 1,625 kilometres in Tibet, 918 kilometres in India and the remaining 337 kilometres in Bangladesh before it **drains into the Bay of Bengal**.

Importance of Snow Fields & Glaciers of the Himalaya

- **Earth's Radiation Balance:** Albedo from snow.
- **Attracting SW Monsoon:** The difference in temperature between the Himalayan snow-fields and glaciers and the Indian Ocean pulls the **South-West monsoon** towards the Indian landmass during summer.

- **Key Indicator of Climate Change:** Snow-fields and glaciers govern the climate system of the Indian land mass at regional and global scales.
 - ♦ Sensitivity of snow-fields and glaciers to variations in temperature makes them a key indicator of climate change.

Mitigation and Adaptation Strategies

- Addressing glacier retreat requires a multi-faceted approach, including reducing greenhouse gas emissions, enhancing climate resilience, and implementing sustainable water management practices.
- International cooperation and local community involvement are essential to mitigate the impacts and adapt to the changing environment.

Source: TH

NEWS IN SHORT

DHIMSA DANCE

In News

- Tribal families in Neelabandha celebrated their first electricity supply since Independence with the 'Dhimsa' dance.

Dhimsa Dance

- Dimsa is a popular dance performed by tribes, including Bagata, Valmiki, Poraja, Khond, Gadaba, Kondadora, Mukadora, Kotia in Andhra Pradesh .
- It represents the unity and cultural heritage of the tribal communities.
- **Themes:** The dance variants are based on themes like mythology, folktales, economic activities, kinship, and marital life.
- **Music and Instruments:** Music is essential to the dance, with instruments like dappu, tudumu, mori, kidgi, gilka, and jodukommulu (now almost out of use) played by men.
- **Performance :** It is performed during festivals, marriages, and religious occasions, with a strong presence during Chaitrapurab (Eetela Panduga) in the agency area of ASR District.
 - ♦ Both men and women can dance together without hesitation, and while songs are not mandatory, music plays a vital role.

Source :TH

GURU-SHISHYA PARAMPARA SCHEME

In News

- Recently, progress of the Guru-Shishya Parampara Scheme was highlighted.

About Guru-Shishya Parampara Scheme

- It is being implemented by The Ministry of Culture implements the "Financial Assistance for Promotion of Guru-Shishya Parampara (Repertory Grant)"
- It provides **financial assistance** to cultural organizations engaged in performing arts (music, dance, theatre, folk art, etc.) for training artists (shishyas) under the guidance of a Guru.
- **Eligibility:** Cultural organizations across the country are eligible to apply, provided they follow the Guru-Shishya Parampara.
- **Target Group:** The scheme supports shishyas aged 3 years and above in dance, music, theatre, and traditional art forms.
- **Financial Assistance:** The scheme offers financial support of Rs. 15,000 per month for each Guru/Director. A maximum of 18 Shishyas in theatre and 10 Shishyas in music and dance can receive assistance under each Guru.
- **Objective:** The goal is to ensure regular training of shishyas by their respective Gurus, following the traditional Guru-Shishya Parampara.

Source :PIB

OCEAN COORDINATION MECHANISM

In News

- The Ocean Coordination Mechanism (OCM) is a new initiative for **ocean conservation**.

About

- Announced by **Intergovernmental Oceanographic Commission (IOC) of UNESCO** on January 14, 2025.
- Focuses on the **Caribbean and North Brazil shelf**, which are rich in biodiversity, coral reefs, and fisheries.
- **Objectives:** Establishes a collaborative framework for ocean conservation.
 - ♦ Builds on lessons from past initiatives like Pacific Islands Regional Ocean Policy (PIROP).
 - ♦ Addresses financial sustainability with an initial \$15 million investment from Global Environment Facility (GEF), plus \$126.02 million in co-financing.

- ◆ Promotes **Blue Carbon Projects** to enhance carbon storage and ecosystem resilience.
- ◆ Integrates traditional knowledge with scientific research for community-driven conservation efforts.

Importance of Oceans

- Cover 70% of Earth's surface, playing a key role in climate regulation, biodiversity, and livelihoods.
- Threatened by pollution, overfishing, climate change, and habitat destruction.
- Coastal ecosystems provide natural barriers against storms and are crucial for economic sustainability.

About Caribbean Sea

- The **Caribbean Sea** is a part of the Atlantic Ocean, located southeast of the **Gulf of Mexico and north of South America**.
- It is bounded by the **Greater Antilles** (Cuba, Jamaica, Hispaniola, Puerto Rico) to the north, the Lesser Antilles to the east, and the coastlines of Central and South America to the south and west.
- It is a major maritime route connecting **North and South America, Europe, and Asia**.
- It is home to one of the **world's largest coral reef systems**, including the Mesoamerican Barrier Reef (2nd largest after the Great Barrier Reef).

Source: DTE

MAKHANA BOARD IN BIHAR

Context

- The **Union Budget 2025-26** has allocated 100 crore to establish a **Makhana Board in Bihar**, aimed at promoting Makhana products.
 - ◆ The Board will provide training, support, and access to government schemes to benefit Makhana farmers.

About Makhana (Black Diamond)

- **Common Name:** Fox nut
- **Botanical Features:** Recognized for its **violet and white flowers**.
 - ◆ Has **large, round, and prickly leaves**, often exceeding **one meter in diameter**.
- **Nutritional & Economic Importance:** Considered a **superfood**, rich in **carbohydrates, protein, and minerals**.
 - ◆ Widely used in **medicine, healthcare, and nutrition**.
 - ◆ **Mithila Makhana** received the **Geographical Indication (GI) tag in 2022**.

- **Cultivation:** Cultivated across **South and East Asia**, with **Bihar contributing nearly 90% of global production**.
- **Major Producing Districts in Bihar:** Darbhanga, Madhubani, Purnea, Katihar, Saharsa, Supaul, Araria, Kishanganj, and Sitamarhi (Mithilanchal region).
- **Climatic & Agronomic Conditions:** Grown in **tropical and subtropical regions**.
 - ◆ Cultivated in **stagnant water bodies** like **ponds, lakes, and wetlands** (depth: **4-6 feet**).
 - ◆ **Optimal Growth Conditions:**
 - **Temperature:** 20-35°C
 - **Humidity:** 50-90%
 - **Annual Rainfall:** 100-250 cm

Source: IE

A NEW PRESUMPTIVE TAXATION REGIME

Context

- The Finance Minister announced a **new presumptive taxation regime** for non-residents providing services in **India's electronics manufacturing sector**.

About

- A **new section — 44BBD** — in the Income Tax Act has been proposed, 25% of revenue from their manufacturing facility in India shall be considered as income and shall be taxed at 35%.
 - ◆ Hence, their effective tax rate will be less than 10%.
- This amendment will take effect from the first day of April, 2026.
- The move could give a fillip to foreign entities working in the electronics sector in India, and help the country's aspirations of becoming a semiconductor manufacturing base.

The Presumptive Taxation Regime

- It is a **simplified tax framework** designed to reduce the tax compliance burden for small businesses and professionals.
- Under this regime, taxpayers are **not required to maintain detailed books of accounts or undergo extensive audits**.
 - ◆ Instead, their **income is presumed based on a percentage of their total turnover or gross receipts**.
- The regime is available to **small businesses and professionals** whose turnover or gross receipts fall below a specified limit.

Benefits:

- **Simplified Compliance:** Reduces paperwork and the need for maintaining detailed accounts.
- **Lower Tax Burden:** Helps smaller businesses and professionals avoid high compliance costs, making tax payments simpler.

Source: IE

EXTRA-LONG STAPLE COTTON**Context**

- The Union Finance Minister announced a **five-year mission** to “facilitate significant improvements in productivity and sustainability of cotton farming, and promote **extra-long staple (ELS) cotton varieties**”.

About

- Cotton is classified, **based on the length of its fibres**, as long, medium, or short staple.
- **Gossypium hirsutum**, which constitutes roughly 96% of the cotton grown in India, falls in the medium staple category, with fibre lengths ranging from 25 to 28.6 mm.
- ELS varieties have fibre lengths of 30 mm and above.
 - ♦ Most ELS cotton comes from the species *Gossypium barbadense*, commonly known as **Egyptian or Pima cotton**.
- It originated in South America, and is mainly grown in **China, Egypt, Australia, and Peru**.
- **Need for the Mission:**
 - ♦ India is highly import dependent on ELS cotton fibres which are known for its use in making high-quality fabrics.
 - ♦ **India’s textile and garment exports** have remained stagnant at around \$35 billion, while Vietnam and Bangladesh have gained market share, bolstered by free trade agreements (FTAs) and Least Developed Country (LDC) status.

Production and Consumption of Cotton in India

- India is the only country which **grows all four species of cotton** *G. Arboreum* & *G. Herbaceum* (Asian cotton), *G. Barbadense* (Egyptian cotton) and *G. Hirsutum* (American Upland cotton).
- Majority of cotton production comes from **9 major cotton growing states**, which are grouped into three diverse agro-ecological zones, as under:
 - ♦ **Northern Zone** - Punjab, Haryana and Rajasthan
 - ♦ **Central Zone** - Gujarat, Maharashtra and Madhya Pradesh

- ♦ **Southern Zone** - Telangana, Andhra Pradesh and Karnataka.
- ♦ Apart from the above the cotton is also grown in the state of Odisha and Tamil Nadu.
- India has **2nd place** in the world with estimated production of 5.84 Million Metric Tonnes during cotton season 2022-23 i.e. 23.83% of world cotton production.
- **India is also the 2nd largest consumer** of cotton in the world with estimated consumption of 22.24% of world cotton consumption.

Source: IE

GARBH-INI-DRISHTI DATA REPOSITORY**Context**

- The Department of Biotechnology has launched the **GARBH-INI-DRISHTI data repository**.

About

- GARBH-INI-DRISHTI is the **Data Repository and Information Sharing Hub** at **Translational Health Science and Technology Institute (THSTI)**.
 - ♦ It provides access to **clinical data, images, and biospecimens** collected from over 12,000 pregnant women, newborns, and postpartum mothers.
- **Significance:** As one of South Asia’s largest maternal and child health databases, GARBH-INI-DRISHTI will empower researchers worldwide to conduct transformative research aimed at improving maternal and neonatal health outcomes.
- **THSTI:** The newly inaugurated THSTI Ferret Research Facility, is a state-of-the-art establishment adhering to the highest biosafety and research standards.
 - ♦ It will serve as a crucial resource for vaccine development, therapeutic testing, and research into emerging infectious diseases.

Source: PIB

FRAMEWORK AGREEMENT ON INTERNATIONAL BIG CAT ALLIANCE (IBCA)**In News**

- The Framework Agreement on the establishment of the International Big Cat Alliance (IBCA) recently came into force, making it a full-fledged, treaty-based inter-governmental international organization.

About International Big Cat Alliance(IBCA)

- The IBCA was launched by Prime Minister Shri Narendra Modi in 2023, during the “**Commemorating 50 years of Project Tiger**” event.
 - ♦ headquarters located in India.
- **Members:** 27 countries have consented to join the Alliance.
 - ♦ Five countries (**Nicaragua, Eswatini, India, Somalia, and Liberia**) have officially ratified and become members of the IBCA.
 - ♦ It was established by the Government of India through the National Tiger Conservation Authority (NTCA), Ministry of Environment, Forest & Climate Change (MoEFCC), with an order dated 12th March, 2024.
- **Focus:** It aims to conserve seven big cat species: **Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma.**
 - ♦ It includes both range countries (countries where these species are found) and non-range countries interested in supporting big cat conservation.
- **Objective:** The primary goal of IBCA is to facilitate global collaboration for big cat conservation, consolidate successful conservation practices, and achieve the common goal of preserving big cats worldwide.
 - ♦ It aims to provide financial support, disseminate conservation best practices, create a central repository of technical knowledge, and strengthen intergovernmental conservation platforms.

Source :PIB

