

DAILY CURRENT AFFAIRS (DCA)

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GLOBAL PUBLIC DEBT HITS \$97 TRILLION IN 2023

Context

- A report titled "A world of debt: A growing burden to global prosperity", highlights the unprecedented surge in global public debt, which reached a historic peak of \$97 trillion in 2023.
 - ♦ The report was prepared by the **UN Trade and Development (UNCTAD)**.

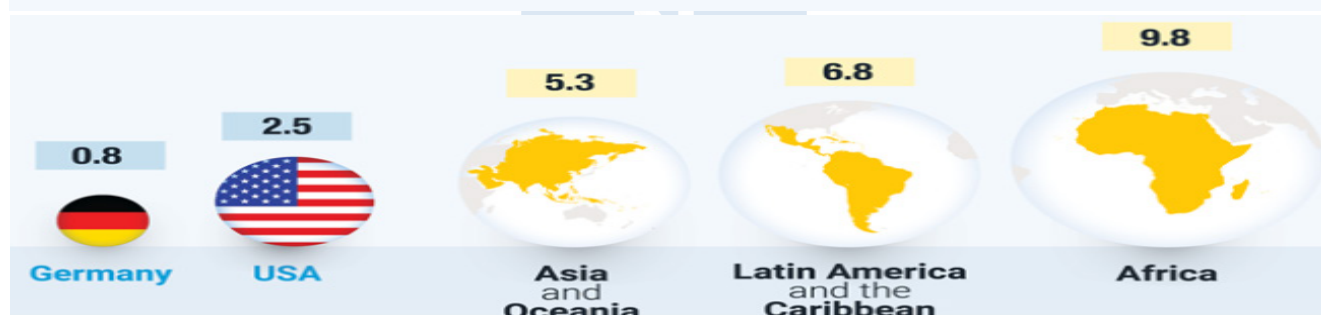
Key findings of the report

- The number of African countries with **debt-to-GDP ratios above 60%** has **increased from 6 to 27** between 2013 and 2023.
- In **2023**, developing nations paid **\$847 billion** in net interest, a 26% increase from 2021.

- The report revealed that 3.3 billion individuals reside in nations where **interest payments exceed spending** on education and health combined.
- In 2023, **public debt in developing countries hit \$29 trillion**, or about **30%** of the total worldwide, an increase from a 16% share in 2010.
- Since **2010**, the portion of external public debt owed to private creditors has risen across all regions, accounting for **61%** of developing countries' total external public debt in **2022**.
- The "**cascading crises**" and the sluggish and uneven performance of the global economy underpinned the rapid increase in global public debt, which is rising at **twice the rate in developing countries** than in richer ones.

Borrowing costs of developing countries are higher than those of developed ones

Bond yields of developing and developed countries (2020-2024)



Public debt of India

- India's public debt-to-GDP ratio has barely increased from 81% in 2005-06 to **84% in 2021-22**, and is back to **81% in 2022-23**.
- As per the **Fiscal Responsibility and Budget Management (FRBM) Act 2003**, the general government debt was supposed to be brought down to **60% of GDP** by **2024-25**.
- The IMF states that India's general government debt, including the Centre and States, could be **100% of GDP** under adverse circumstances by fiscal 2028.
- It has projected the ratio at **82.4% for 2024-25**.
- **Public Debt Management Cell:** It was set in **2015** as an interim arrangement before setting up an independent and statutory debt management agency namely the Public Debt Management Agency (PDMA).

Concerns of rising debt

- **Impact on climate action:** Developing countries need to increase climate investments from their current level of **2.1% of GDP to 6.9% by 2030** to meet the **Paris Agreement targets**. However, they are currently spending more on interest payments than on climate investments.
- **Increase the cost of resolving debt crises:** The increasing complexity of the creditor base makes debt restructuring more difficult as it requires negotiating with a **broader range of creditors** with diverging interests and legal frameworks.
- **Inequalities in the international financial architecture:** Borrowing from private sources on commercial terms is more expensive than concessional financing from multilateral and bilateral sources.

- Countries with high debt **reduce expenditure in public services** such as healthcare, education, and social welfare. This can exacerbate poverty and inequality.

Call to action to finance sustainable development

- The report proposed a plan to revamp the global financial system and boost the UN's Sustainable Development Goals (SDG) stimulus package to tackle the current debt crisis.
- These will entail efforts to:
 - ♦ **Make the system more inclusive:** Improve the effective participation of developing countries in the governance of global financial systems.
 - ♦ **Tackle the rising cost of debt** and risk of debt distress through an effective debt workout mechanism.
 - ♦ **Expand contingency finance** to provide greater liquidity in times of crisis, so that countries are not forced into debt as a last resort.
 - ♦ **Massively scale up affordable and long-term financing** by mobilizing multilateral development banks and private resources.

What is Public debt?

- Public debt is the total amount, including total liabilities, borrowed by the government to meet its development budget.
- The term is also used to refer to **overall liabilities of central and state governments**, but the Union government clearly distinguishes its debt liabilities from the states'.
- In India, the central government broadly classifies its liabilities into two categories — debt contracted against the **Consolidated Fund of India, and public account**.
- The sources of public debt are **dated government securities (G-Secs), treasury bills, external assistance, and short-term borrowings**.

Source: UNCTAD

WORLD'S LARGEST GRAIN STORAGE PLAN

In News

- The Ministry of Cooperation approved the **“World's Largest Grain Storage Plan** in 2023 to address the shortage of food grain storage capacity in India,

- ♦ This ambitious plan is being rolled out as a Pilot Project across different states and union territories (UTs) of the country.

Features

- **Infrastructure facilities:** It envisages creation of various agricultural infrastructure at Primary Agricultural Credit Societies (PACS) level, including warehouses, custom hiring center, processing units, Fair Price Shops, etc
- **Convergence of Existing Schemes:** The plan leverages a whole-of-Government approach by integrating existing schemes. these are
 - ♦ Agriculture Infrastructure Fund (AIF)
 - ♦ Agricultural Marketing Infrastructure Scheme (AMI)
 - ♦ Sub Mission on Agricultural Mechanization (SMAM)
 - ♦ Pradhan Mantri Formalization of Micro Food Processing Enterprises Scheme (PMFME)
- **Financial Support and Subsidies:** PACS can avail subsidies and interest subvention benefits for constructing godowns and other agri infrastructure.
 - ♦ NABARD refinances PACS at highly subsidized rates (around 1%) after incorporating the benefits of the 3% interest subvention under the AIF scheme for projects up to Rs. 2 Crore.

Implementation:

- The Pilot project has been implemented by National Cooperative Development Corporation (NCDC) with the support of NABARD, Food Corporation of India (FCI), Central Warehousing Corporation (CWC), NABARD Consultancy Services (NABCONS) in coordination with States/ UTs concerned.
- Further, the pilot is being extended in 500 additional PACS with the support of State Governments, NCCF, National Buildings Construction Corporation (NBCC), etc.
- The Ministry of Cooperation has constituted an IMC to ensure effective implementation. The IMC can modify guidelines and methodologies as needed.

Benefits

- **Food Security:** By increasing the storage capacity for grains, the plan ensures a more stable supply of food, reducing the risk of shortages and contributing to national food security.

- **Reduction in Wastage:** Proper storage facilities help minimize the wastage of food grains due to spoilage, pests, and other factors, preserving valuable resources.
- **Fair Pricing for Farmers:** It will also prevent distress sale of crops by farmers and enable them to realise better prices for their crops.
- **Financial Inclusion:** Farmers can get finance against their stored crops for the next crop cycle, maintaining cash flow and investing in the next planting season.
- **Empowerment of PACS:** The plan enables PACS to provide storage facilities, Fair Price Shops, and Custom Hiring Centers.
 - ♦ It strengthens the rural economy and benefits millions of farmers associated with cooperatives
- **Global Recognition:** India's efforts toward efficient grain storage will earn international acclaim.

Challenges

- **Infrastructure Development:** Building decentralized storage infrastructure at the local level requires significant investment and coordination.
 - ♦ Constructing godowns, custom hiring centers, and processing units across various regions poses logistical challenges.
- **Implementation Complexity:** Converging ongoing schemes from three ministries involves intricate planning and execution
- **Regional Variability:** India's diverse geography and varying agricultural practices mean that storage requirements differ across states and union territories.
 - ♦ Adapting the plan to meet regional needs while maintaining uniformity is a challenge.
- **Financial Sustainability:** the plan aims to strengthen Primary Agricultural Credit Societies (PACS), ensuring their long-term financial viability remains a challenge.

Conclusion

- The World's Largest Grain Storage Plan is a transformative step toward ensuring food security, reducing wastage, and strengthening cooperative societies.
- It holds immense potential to revolutionize food grain storage in India, benefiting millions of citizens and strengthening cooperative societies.

Source:PIB

CENTER TO FUND STARTUPS FOR DEVELOPING TECHNICAL TEXTILES

Context

- The Union textiles ministry is planning to give grants of up to ₹50 lakh each to 150 startups that are engaged in making technical textiles.

What are Technical Textiles?

- Technical textiles are defined as **textile materials and products used primarily for their technical performance** and functional properties rather than their aesthetic or decorative characteristics.
- They are manufactured using natural as well as man-made fibers such as **Nomex, Kevlar, Spandex, Twaron** that exhibit enhanced functional properties such as **higher tenacity, excellent insulation, improved thermal resistance** etc.
- **Application:** Healthcare, construction, automobile, aerospace, sports, defense, agriculture etc.

Indian Technical Textiles Industry

- The Indian technical textiles market is the **5th largest** in the world and stood at **\$21.95 billion** in 2021-22, with production amounting to \$19.49 billion and imports \$2.46 billion.
- Technical textile accounts for approximately **13% of India's total textile** and apparel market and contributes to **India's GDP at 0.7%**.
- India's exports of technical textile products increased to US\$ 2.85 billion in 2021-22, while imports were **US\$ 2.46 billion** in 2021-22.

Challenges faced by Technical textile industry

- **Lack of Research & Development:** The industry is dominated by Small and Medium Enterprises, which lack the financial resources to invest in advanced technology and R&D.
- **Lack of Awareness:** Benefits of technical textiles are still unknown to the larger masses of the country. This is the result of lack of marketing and basic knowledge about these products.
- **Development of Skilled Workforce:** Technical textiles comprises multiple processes to manufacture different products which require different and high levels of skill sets from workers which is currently absent in the domestic industry.



Steps taken by government

- **National Technical Textile Mission (NTTM):** It was launched in 2020 with the aim to position India as a global leader in technical textiles by promoting research, innovation, and the use of technical textiles in various sectors.
- **Production Linked Incentive (PLI) scheme** for textiles was introduced to encourage domestic manufacturing of technical textiles.
- **New Harmonized System of Nomenclature (HSN) Codes:** In addition to the 207 recognised technical textiles items in 2019, 30+ additional HSN Codes dedicated to technical textiles products:
- **PM MITRA Parks scheme:** The project focuses on the development of integrated large-scale

and modern industrial infrastructure on the entire textile value chain.

- **Standards in technical textiles:** Development of more than 500 BIS standards for technical textiles.
- **Mandatory usage of technical textiles:** 119 technical textiles products have been identified for mandatory usage across ten Central ministries/ departments to derive the benefits of technical textiles in various fields of applications.

Way Ahead

- The technological textile business in India has enormous potential and is a rising sector that will contribute considerably to the **development of a new and developed India by 2047.**

- To position India as a leading and rising nation for technological textiles, the emphasis should be on boosting **R&D in significant fields, Marketing and brand promotion, increasing cost competitiveness, governmental assistance**, etc.

Source: MINT

HORTICULTURE PRODUCTION IN INDIA

Context

- India's horticulture production in 2023-24 is estimated at approximately 352.23 million tonnes, reflecting a decrease of about 32.51 lakh tonnes (0.91 per cent) compared to the final estimates of 2022-23.

Horticulture Sector in India

- Horticulture is the science and art of **cultivating fruits, vegetables, flowers, and ornamental plants**. It encompasses a wide range of activities including plant propagation, production, management, and marketing.
- The Indian horticulture sector contributes about **33% to the agriculture Gross Value Added (GVA)** making a very significant contribution to the Indian economy.
- At present, **India ranks first** in the production of a number of crops like Banana, Lime & Lemon, Papaya, Okra, and the **second** largest producer of vegetables and fruits in the world.

Challenges and Issues Faced by the Sector

- Lack of Infrastructure:** Insufficient infrastructure for post-harvest handling, storage, and transportation leads to significant losses of perishable horticultural produce.
- Water Management:** Horticulture is water-intensive, and water scarcity or inefficient water management practices affect crop yields and quality.
- Pest and Disease Management:** Pests and diseases cause significant damage to horticultural crops, and the misuse of pesticides lead to environmental pollution and health hazards.
- Market Linkages:** Limited market linkages and price fluctuations affect farmers' income and discourage investment in horticultural production.

- Climate Change:** Erratic weather patterns, including unpredictable rainfall and temperature fluctuations, pose challenges to horticultural production and require adaptation strategies.
- Quality Standards and Certification:** Meeting quality standards and obtaining certification for export markets can be challenging for small-scale horticultural producers.

Key Initiatives to Overcome Challenges

- National Horticulture Mission (2005-06):** It aims to promote holistic growth of the horticulture sector by enhancing production, productivity, and quality of horticulture crops.
 - It focuses on creating infrastructure, providing technical assistance, and promoting market linkages.
- National Horticulture Board (NHB):** It provides financial assistance, technical guidance, and market intelligence to horticulture growers, processors, and exporters to promote production, processing, and marketing of horticultural crops.
 - Cluster Development Program** is a component of the **central sector scheme of NHB** that aims at leveraging the geographical specialisation of horticulture clusters and promoting integrated and market-led development of pre-production, production, post-harvest, logistics, branding, and marketing activities.
- Mission for Integrated Development of Horticulture (MIDH) (2014):** It integrates various horticulture development schemes under one umbrella to provide holistic support for the entire value chain, from pre-production to post-harvest management and marketing.
- Rashtriya Krishi Vikas Yojana (RKVY):** It supports states in planning, implementing, and monitoring their horticulture development strategies by providing financial assistance for infrastructure development, capacity building, and other interventions.
- Sub-Mission on Agriculture Mechanization (SMAM):** It supports the adoption of mechanisation in horticulture for activities like land preparation, planting, harvesting, and post-harvest management to improve efficiency and reduce labour dependency.

Source: PIB

NEWS IN SHORT

MILITARY RECRUITMENT FROM FIVE EYES ALLIANCE: AUSTRALIA

Context

- Australia is expanding its military recruitment to include non-citizens in an effort to bolster its defence capabilities.

About

- It comes as the sparsely populated nation faces challenges in meeting recruitment targets.
- It reflects the need to strengthen national security while facing recruitment difficulties.

Key Features

- **Eligibility Criteria:** Permanent residents who have been living in Australia for at least 12 months.
- **Five Eyes Partners:** Citizens from the **United Kingdom, Canada, New Zealand, and the United States** are being favoured for recruitment.
 - ♦ These countries are part of the **Five Eyes intelligence-sharing alliance.**
 - ♦ The focus on Five Eyes partners underscores the importance of international cooperation in defence matters.
- **Struggling to Meet Requirements:** The Australian Defense Forces currently rely on approximately 90,000 personnel, including reservists.
 - ♦ However, finding enough pilots, mariners, and troops to operate and maintain defence assets remains a challenge.
- **Defence Upgrades:** Australia has significantly increased defence spending in recent years, acquiring submarines, jets, and fighting vehicles to address regional tensions. However, the shortage of personnel remains a critical issue.

Source: TH

GLOBAL SOIL PARTNERSHIP (GSP)

Context

- The Global Soil Partnership (GSP), urged for immediate action to enhance soil health, in its 12th Plenary Assembly Hosted by the Food and Agriculture Organization (FAO).

About

- **The Global Soil Partnership (GSP)** was established in **2012** to promote sustainable soil management.

- It brings together international, regional and national organizations that are working in the area of soil protection and sustainable management.
- GSP aims to implement the provisions of the **1982 World Soil Charter**, and maintain the health of at least **50 percent of the world's soils by 2030.**
- **The achievements of the partnership, include:**
 - ♦ The establishment of an Intergovernmental Technical Panel on Soils and related international networks for different soil matters;
 - ♦ The proposal for and annual celebration of **UN World Soil Day (5 December)** and the **International Year of Soils 2015;**
 - ♦ Production of the Status of the World's Soil Resources 2015 report.

Source: FAO

CENTRAL EXCISE BILL, 2024

Context

- **The Central Board of Indirect Taxes & Customs (CBIC)**, has invited suggestions on the draft 'Central Excise Bill, 2024' from stakeholders.

About

- The Bill aims to **enact a comprehensive modern central excise law** with an emphasis on promoting ease of doing business and repealing old and redundant provisions.
- Once enacted, the Bill shall replace the **Central Excise Act, 1944.**
- The Bill comprises **twelve chapters, 114 sections and two schedules.**

Source: PIB

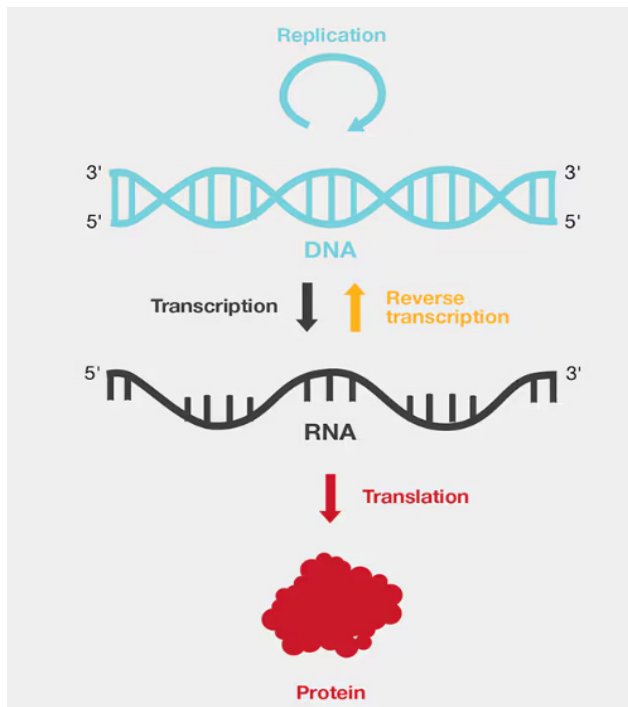
REVERSE TRANSCRIPTASE ENZYME

Context

- Recently, It has been found that the **Reverse Transcriptase** played a pivotal role in **both diagnostic testing and scientific research** related to the **SARS-CoV-2 virus.**

About Reverse Transcriptase Enzyme (aka RNA-dependent DNA Polymerase)

- It is a **DNA polymerase enzyme** that transcribes **single-stranded RNA into DNA.**



- It is able to synthesise a double helix DNA once the RNA has been reverse transcribed in a first step into a single-strand DNA.
- In the 1970s, **the Reverse Transcriptase enzyme** challenged the '**Central Dogma**' which stated that hereditary information flowed only from DNA to RNA and then to protein, and showed that **RNA could give 'rise' to DNA**.
- Clinicians use reverse transcriptase to convert RNA to DNA, allowing them to estimate the amount of viral material in a given sample.

Applications: Molecular Biology Research

- Cells can create DNA copies from RNA using reverse transcriptase.
- Researchers could now **reverse-transcribe messenger RNAs into DNA fragments**, clone that DNA into bacterial vectors, and study the function of corresponding genes.

In Diagnostics

- Clinicians used reverse transcriptase for **RNA-to-DNA conversion in diagnostics**, especially for **RNA viruses**, including Hepatitis B, Human Immunodeficiency Virus (HIV), and Human Endogenous Retroviruses and Neuropsychiatric Diseases.
- **COVID-19 Testing:** During the COVID-19 pandemic, reverse transcriptase became crucial for developing reliable diagnostic tests to detect the SARS-CoV-2 virus.

- These tests have been instrumental in tracking the virus's spread, enabling surveillance efforts, and facilitating vaccine development.

- **Klebsiella Pneumoniae:** Recent research has revealed that the Bacterium *Klebsiella Pneumoniae* uses reverse transcriptase **to cope with bacteriophage infections**.
- When infected by bacteriophages, **K. pneumoniae** employs non-coding RNA with specific motifs to bind reverse transcriptase.
- It creates **DNA copies containing the gene** for a protein called **Neo**.
- **Neo protein** puts the bacterial cell in suspended animation, blocking replication and stopping the bacteriophage in its tracks.

Source: TH

DISCOVERY OF ANT SPECIES FROM SIANG VALLEY

In News

- New ant species discovered from Siang Valley in Arunachal Pradesh.

About the species

- It belongs to the rare genus **Paraparatrechina** and It is a blue-coloured insect that has been named **Paraparatrechina neela**.



- It marks the **first addition to the Paraparatrechina genus** from the Indian subcontinent, since the description of the sole previously known **species P. aseta 121 years ago**.
- **Description:** It has been described as a small ant with a total length of less than 2mm.
 - Its body is predominantly metallic blue, except for the antennae, mandibles, and legs.
 - The head is subtriangular with large eyes and has a triangular mouthpart (mandible) featuring five teeth.

Do you know ?

- Siang District is the 21st district of Arunachal Pradesh State, India.
 - ◆ The name of the district is derived from the mighty Brahmaputra River, which in Arunachal Pradesh is known as the Siang river.
 - ◆ It is predominantly inhabited by the Adi tribe of Arunachal Pradesh.
- **Siang Valley** is part of the Eastern Himalayas.

Source:TH

NETHERLANDS: INDIA'S THIRD-LARGEST EXPORT DESTINATION**In News**

- The Netherlands has emerged as **India's third-largest export destination** after the U.S. and UAE during 2023-24, even as the country's merchandise shipments dipped by more than 3%

Key Points

- The main commodities which registered healthy exports growth in the Netherlands include petroleum products (\$14.29 billion), electrical goods, chemicals, and pharmaceuticals in the last fiscal.

- India's trade surplus with the Netherlands rose to \$17.4 billion in FY24 from \$13 billion in FY23.

Netherlands

- Netherlands, country located in northwestern Europe. The Netherlands is bounded by the North Sea to the north and west, Germany to the east, and Belgium to the south.



- major rivers flow through the Netherlands: the **Rhine**, the Meuse, and the Scheldt.
- The **IJsselmeer** is a lake on the coast of the Netherlands.
- The seat of the international court of justice is at the Peace Palace in The Hague (Netherlands).
- International Criminal Court (ICC) : Headquarters: The Hague, the Netherlands

Source:TH

