

## UPSC Daily Current Affairs| Prelim Bits 11-03-2025

### India Cotton Import

#### Why in news?

*India's Cotton imports increase despite pressure on Indian cotton prices*

- **Scientific name** - Gossypium.
- **Genus** - Of flowering plants in the tribe Gossypieae of the mallow family, Malvaceae.
- **Location** - Tropical and subtropical regions.
- **BT Cotton** - Genetically modified Cotton by the insertion of one or more genes from a common soil bacterium, *Bacillus thuringiensis*.
- **India cotton year** - October 1 to September 30.
- **India's cotton production** - India has 38% of cotton global average and 23% of the global production.
- **Surge in the cotton import** - 7 % decline in production due to reduction in acreage and excessive rainfall (2024-25), weak international cotton price and domestic price has increased by 40 % due to the MSP.
  - India ramps up cotton imports even as domestic prices face downward pressure.
- **Disparity**- Cotton farmers believe that the procurement price for cotton in India is low, while international cotton is being offered at a lower rate."
- **Top cotton producing countries (in Bales)** - China(31 Million bales), India ( 25), USA ( 14.4 ), Brazil( 17) and Pakistan( 5.2 ).
- **Top cotton producing states**- Maharashtra (25 %), Gujarat (20%), Telangana (15%), Andhra Pradesh (10%) and Karnataka (8%).
- **Cotton Mission, 2025**- Announced in the Budget by the Ministry of Finance, to boost the cotton productivity and farmer's income, using science and technology.
  - Through this mission India should focus on enhancing productivity to ensure Indian cotton remains competitive
- **F 5 Principles of Mission Cotton** - Farm to Fibre, Fibre to Factory, Factory to Fashion, Fashion to Foreign.

### Cotton Corporation of India

- **Established** - On July 1970 as a Public Sector Undertaking under the Companies Act 1956.
- **Nodal Agency** - Ministry of Textiles.
- **Location** - CBD Belapur, Navy Mumbai, Maharashtra.
- **Role and functions** - Canalizing the import and purchase of cotton, MSP operations and commercial purchasing operations.

### References

1. [The Hindu | India's cotton import](#)

## Tiger

### Why in News?

To address the growing Tiger population in Maharashtra, the Maharashtra Forest Minister has recently proposed an "animal museum" with the support from Anant Ambani.

- **Scientific Name** - Panthera Tigris.
- **Conservation Status**
  - **International Union for Conservation of Nature (IUCN)** - Endangered.
  - **Wildlife Protection Act, 1972** - Schedule I.
  - **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** - Appendix I.
- **National Tiger Conservation Authority (NTCA), 2005** - Statutory body and Nodal Agency under Ministry of Environment Forest Climate and Change.
- **All India Tiger Estimation** - Conducted by NTCA and Wildlife Institute of India.
  - It is conducted every **4 years**.
  - India is home to **70%** of world's tiger population and Annual growth rate is **6.1%**.
- **Recently** - Madhav National park in MP was declared as 58<sup>th</sup> tiger reserve.
- **State-wise Tiger Distribution in India (2022)** - Madhya Pradesh (Highest in India), which is followed by Karnataka, Uttarakhand, Maharashtra and Tamil Nadu.
- **Methods Used for Estimation**
- **Camera Trapping** - Tigers are identified based on their **unique stripe patterns**.
- **M-STrIPES (Monitoring System for Tigers - Intensive Protection and Ecological Status)** - A GPS-based system for data collection.
- **Sign Surveys** - Tracking **pugmarks, scat**.
- **Line Transect Sampling** - Estimating **prey population** through field surveys.

### Conservation Efforts

Tiger Reserves	<ul style="list-style-type: none"><li>• Protected areas designated under Project Tiger.</li><li>• Governed under the Wildlife (Protection) Act, 1972.</li><li>• Centrally Sponsored Scheme of Project Tiger.</li><li>• <b>58 Tiger Reserves</b> (As of March 2025)(58<sup>th</sup> in Madhav NP, Madhya Pradesh).</li></ul>
International Big Cats Alliance (IBCA)	<ul style="list-style-type: none"><li>• Aimed at conserving seven big cats such as Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma.</li></ul>
International Awards for Tiger Reserves	<ul style="list-style-type: none"><li>• Tx2 Award (2010) aims to double the global tiger population by 2022.</li></ul>
Special Tiger Protection Force (STPF)	<ul style="list-style-type: none"><li>• A dedicated security force in sensitive reserves.</li></ul>
Conservation Assured   Tiger Standards (CA TS)	<ul style="list-style-type: none"><li>• International accreditation ensuring best management practices.</li><li>• 23 tiger reserves of India have received CA TS accreditation.</li></ul>

Strict Wildlife Crime Control Measures

• NTCA has a Standard Operating Procedure (SOP) for tiger deaths, ensuring transparency.

## Reference

[The Hindu | Tiger](#)

## International Symposium on Health Technology Assessment (ISHTA), 2025

### Why in News?

The third “International Symposium on Health Technology Assessment (ISHTA 2025)” was recently held in New Delhi.

- **ISHTA** – Is an *annual conference* that gathers experts to discuss new research and developments in Health Technology Assessment (HTA).
- **Aim** – The symposium focuses on bridging evidence and policy through effective HTA.
- It marked a significant step towards a robust Indian healthcare system.
- **Vision** – Emphasized on a holistic healthcare approach encompassing preventive, curative, and rehabilitative care.
- **Organized by** – The Department of Health Research (DHR) and Ministry of Health and Family Welfare, Government of India, in collaboration with:
  - The World Health Organization (WHO) India Country Office and
  - The Centre for Global Development (CGD).
- **Theme** – “Bridging Evidence to Policy: Health Technology Assessment for Affordable Healthcare.”
- **Significance** – Would Help researchers, policymakers, healthcare professionals, and industry representatives to share ideas and collaborate.
- **HTA** – *It is a commonly adopted approach for generating evidence to inform decision-making in the healthcare sector and for optimizing resource use in health.*
- **HTA India resource centers** – Are spread over 19 states, which serves as an important mechanism for priority setting.
- It has helped immensely in achieving various health goals such as for TB detection, optimizing healthcare costs and incorporating evidence-based data in national health programs.
- **Open Real-Time PCR Kit** – Was recently released by the Union Health Minister which can help for the Diagnosis of Pulmonary Tuberculosis.
- **Health Technology Assessment in India (HTAIn)** – was approved for establishment with 4 divisions on 9 th May 2023.
- **Collaboration & Innovation** – Between researchers, policymakers, and industry, focusing on cost-effective health technologies.
- **Digital Health & Evidence** – Digital health technologies, like eSanjeevani and Ayushman Bharat, are bridging rural-urban gaps.
- **Challenges & Future Scope** – Policy translation and capacity building in HTA methodologies are crucial. Integrating socioeconomic and cultural contexts and

expanding HTA to emerging technologies are vital for future progress.

- The symposium fostered collaboration, knowledge sharing, and strengthened the ecosystem for cost-effective health technologies, contributing significantly to India's "Viksit Bharat" vision.

## Reference

[PIB| ISHTA](#)

## Collision-Less Shock Waves

### Why in News?

*Recently researchers have found that Collision-less shock waves could be the cosmic engines driving subatomic particles in space to extreme speeds.*

- **Shock waves** - Are waves that can transmit waves at faster than the speed of sound through the atmosphere.
- **Plasma** - The shock waves are born in plasma, a gas of charged particles that can conduct electricity and interact with magnetic fields.
- **Collision less shock waves** - When the solar wind hits Earth's magnetic field, it creates special kinds of shock waves called "collision-less shock waves."
- **Occurrence** - Collision-less shock waves occur throughout the universe including:
  - Near pulsars and magnetar
  - In accretion disks around black holes
  - During supernova explosions
  - In interstellar and intergalactic media
- **Key characteristics** - Formation in low-density plasmas where particles rarely collide.
  - Unlike regular shock waves, Collision less shock waves transmits energy transmission through electromagnetic forces.
  - Capability to accelerate particles to relativistic speeds (close to light speed).
- **Natural particle accelerators** - The researchers discovered that these shock waves act like natural particle accelerators, *capable of boosting electrons to enormous speeds.*
- Using data from NASA satellites, they observed electrons reaching up to 86% of light speed near Earth.
- **Electron injection problem** - This discovery helps solve what scientists call the "electron injection problem" which explains how electrons get their initial boost before being accelerated to even higher energies in space.

*The electron injection problem is the scientific term for the mystery of how electrons gain energy in outer space.*

- **Implications for Cosmic Rays** -Cosmic rays could be generated due to similar interaction of planetary electrons (earth magnetosphere particles) with the Stellar winds (similar to solar wind).

## Reference

[The Hindu | Collision-less shock waves](#)

## Minimum Dietary Diversity

### Why in News?

*A new indicator on Minimum Dietary Diversity has been adopted by the United Nations Statistical Commission.*

- **Minimum Dietary Diversity (MDD)** - It is a **yes/no indicator** that measures whether individuals consume at least 5 out of 10 defined food groups within a 24-hour period.
- The 10 food groups include:
  - Grains
  - White roots, tubers, and plantains
  - Pulses (beans, peas, lentils)
  - Nuts and seeds
  - Milk and milk products
  - Meat, poultry, and fish
  - Eggs
  - Dark green leafy vegetables
  - Vitamin A-rich fruits and vegetables
  - Other vegetables and fruits
- **Adopted as** - A new indicator on Minimum Dietary Diversity (MDD) to track progress toward Sustainable Development Goal 2 (Zero Hunger).
- **Global indicator framework** - This indicator adds to the nearly 250 indicators that are already monitored under the global indicator framework for the SDGs adopted in 2017.
- **Managed by** - The indicator would be managed jointly by FAO and UNICEF.
- **Target Groups** - Children and women of reproductive age.
  - **MDD-W** (Women aged 15-49) - **FAO** is the custodian agency.
  - **MDD-C** (Children) - **UNICEF** is the custodian agency.
- **Significance for Global Nutrition** - The MDD indicator addresses a critical gap in SDG monitoring by:
  - Shifting focus from mere calorie intake to nutritional quality.
- Recognizing that no single food group provides all essential nutrients.
- Highlighting the importance of dietary diversity in preventing micronutrient deficiencies.
- Particularly targeting vulnerable populations: children and women of reproductive age.
- **Relevance for India** - For India, with its dual challenges of undernutrition and rising non-communicable diseases, the MDD indicator offers:
  - A tool to evaluate the effectiveness of nutrition schemes like POSHAN Abhiyaan.
  - Metrics to address regional and socioeconomic disparities in diet quality.
  - Framework for designing targeted dietary interventions.
  - Alignment with India's commitment to achieving the SDGs by 2030.

## Reference

[Down to Earth | Minimum Dietary Diversity](#)

<b>One Liners 11-03-2025</b>
<b>History, Art and Culture</b>
<b><u>Child Remains in Lagar Velho</u></b> <i>Child's remains were discovered 27 years ago in a rock shelter called Lagar Velho.</i> <ul style="list-style-type: none"><li>• <b>Lagar Velho</b> - It is an <i>archaeological site</i> near Leiria, central Portugal.</li><li>• <b>Discovered in</b> - <i>1998</i>.</li><li>• <b>Buried skeleton of</b> - 4-year-old child, dating to 25,000 years ago.</li><li>• <b>Why in new now-</b> The Child combine the features of both <i>Neanderthals</i> (Homo neanderthalensis) and <i>modern humans</i> (Homo sapiens).</li></ul>
<b>Polity &amp; Governance</b>
<b><u>Bills of Lading Bill, 2025</u></b> <ul style="list-style-type: none"><li>• <b>Aim</b> - To update and simplify the legal framework for shipping documents.</li><li>• <b>Replacement of</b> - Colonial-era <b><i>Indian Bills of Lading Act, 1856</i></b>, providing a more modern and user-friendly approach to maritime shipping.</li><li>• The 2025 bill replaces the Indian Bills of Lading Act, 1856, a law from the British colonial era.</li><li>• <b>Passed by</b> - <i>Lok Sabha</i> and now presented in the Rajya Sabha.</li></ul>
<b><u>Fisheries Startup Conclave 2.0</u></b> <ul style="list-style-type: none"><li>• <b>Location</b> - Hyderabad.</li><li>• <b>Nodal Ministry</b> - Ministry of Fisheries, Animal Husbandry, and Dairying</li><li>• <b>Promoting Innovation</b> - Encourages startups to develop sustainable solutions for fisheries and aquaculture.</li><li>• <b>Government Support</b> - Showcases funding schemes and policy initiatives for sectoral growth.</li><li>• <b>Enhancing Productivity</b> - Focuses on modern techniques to improve efficiency and sustainability</li></ul>
<b><u>Fisheries Startup Grand Challenge 2.0</u></b> <ul style="list-style-type: none"><li>• <b>Functions</b> - It provides <i>financial assistance of Rs.1 crore</i> each to 10 winning startups for fisheries innovation.</li><li>• <b>Aim</b> - To improve traceability, value chain efficiency, and logistics.</li><li>• <b>Sustainable Growth</b> - Supports technology-driven solutions for eco-friendly fisheries practices.</li></ul>
<b><u>National Fisheries Digital Platform Mobile Application</u></b> <ul style="list-style-type: none"><li>• <b>Digital Identity</b> - Offers fishers, farmers, and vendors a unique ID for easy access to services.</li><li>• <b>Scheme Integration</b> - Connects users to fisheries-related government initiatives digitally.</li><li>• <b>Market Connectivity</b> - Provides real-time updates and linkages for better trade opportunities.</li></ul>

### **Post-Budget Webinar On Employment**

- **Aim** - To last mile delivery of *care with digital infrastructure*.
- **Theme** - Investing in People, Economy, and Innovation.
- **Vision** - Investment based on 3 pillars,
  - Education, Skill and Healthcare.
- It defines the roadmap of Viksit Bharat and impact of theme seen at a large level on the budget.

### **Global Engagement Scheme**

- **Launched in** - 2021.
- **Nodal Ministry** - Ministry of Culture.
- **Aim** - To promote India's rich cultural heritage including Maharashtra, internationally and enhance India's global image.
- Scheme for Promotion of International Cultural Relations renamed as 'Global Engagement Scheme'.
- **Duration** - 5 years (2021-2026).

### **Economy**

#### **Insurance Regulatory and Development Authority of India (IRDAI)**

*IRDAI chairperson term coming to end in a few days.*

- **Established in** - 1999, under Section 4 of Insurance Regulatory and Development Authority of India (IRDAI) Act 1999.
- **IRDAI** - It is *constituted by an act of parliament*.
- **Composition (10 members):**
  - 1 - Chairman.
  - 5 - Whole-time members.
  - 4 - Part-time members.
- **Aims is** - To achieving of Insurance for All by 2047 goal.



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