# **NEWS UNDERING INNOVATION In February, 2025 CODAY**

# Mass Drug Administration (MDA) Campaign for elimination of Lymphatic Filariasis (LF) launched

The MDA campaign is a core component of India's LF elimination strategy. About lump batic Fileringia (15)

About Lymphatic Filariasis(LF)

- > It is a neglected tropical disease and is also known as "Hathi Paon" or Elephantiasis.
- Causal agent: Parasites (classified as nematodes (roundworms) of the family Filariodidea)
   Life Cycle of Filarial Parasite: Infection is typically acquired in childhood, causing hidden damage to the lymphatic system.
- > Transmission: by infected mosquitoes.

Impact: physical and long-term disabilities,lymphoedema (swelling of the limbs) and hydrocele (scrotal swelling)

What is Mass Drug Administration?

- > Implementing Agency: led by National Center for Vector Borne Diseases Control (NCVBDC).
- Ministry: Ministry of Health & Family Welfare.
- Objective: Eliminate LF from 111 endemic districts across 13 states by eliminating microscopic filarial parasites present in the bloodstream of infected individuals.
- > Medication Regimen includes:-
  - Double Drug Regimen (DA): Diethylcarbamazine Citrate (DEC) and Albendazole
  - Triple Drug Regimen (IDA): Ivermectin, Diethylcarbamazine
     Citrate (DEC) & Albendazole
- Strategy: Five-pronged strategy for eliminating LF by 2027 ahead of the SDG goal of 2030
  - Mission Mode Mass Drug Administration (MDA),
  - Morbidity Management and Disability Prevention (MMDP),
  - Vector Control (Surveillance and Management),
  - High-Level Advocacy, and
  - Innovative Approaches.

About National Center for Vector Borne Diseases Control

- It is an umbrella programme for the prevention and control of vector-borne diseases such as Malaria, Japanese Encephalitis, Dengue, Chikungunya, Kala-azar and Lymphatic Filariasis.
- Vector-borne diseases are infections spread to humans and animals through bites from bloodfeeding insects like mosquitoes, ticks, and fleas.

# India Achieves Record ₹1.27 Lakh Cr in Domestic Defence Production: Defence Minister

Announcing the 'Aero India' conclave in Bengaluru, the Defence Minister highlighted that defence exports grew by 30 times over the past decade.

Aero India is Asia's largest airshow and the theme for the current conclave is 'BRIDGE (Building Resilience through International Defence and Global Engagement)'.

### Significance of Defence Indigenisation for India

- Augment Sovereign Military Strengths: Domestic production enables India to avoid global sanctions, like the USA's CAATSA, while securing critical missiles and equipment.
- Modern Warfare Readiness: Example, ADITI scheme has been launched to develop around 30 critical deep-tech and strategic technologies currently lacking in the country.
- India as a Net Security Provider: Example: BrahMos missile exported to the Philippines which enhanced India's strategic presence in the Indian Ocean Region
- Economic Growth: Creates jobs, drives innovation, and attracts investments.

# Initiatives for Defence Indigenization

- Policy and Schemes: Defence Production and Export Promotion Policy, 'Make in India', notification of 'Positive Indigenization List', Innovations for Defence Excellence (iDEX), etc.
- Global Cooperation: Enhanced FDI limits (74% -Automatic Route; 100% - Government Route) for those likely to result in access to modern technology., etc.
- **India's Booming Defence Production Sector Domestic Defence Production Rising Defence Budget** ₹1.27 Lakh Crore In FY 2023-24 **₹6.21** Lakh Crore Budget in 2024-25 174% increase from ₹46,429 crore in 2014-15 Grew from 2.53 lakh crore in 2013-14 Goal: 3 lakh crore by 2029 **Defence Exports Top Export Destinations** G ₹21,083 Crore In 2023-24 Jumped from ₹1,941 crore in 2014-15 USA France Armenia Target: 50,000 crore by 2029 **Milestone Achievement** 'Made in Bihar' boots included in the Russian Army's equipment, highlighting India's growing reputation for high-quality defence production.
- > Others: Corporatization of Ordnance Factory Board, Defence Industrial Corridors, SRIJAN Portal, etc.



# Sri Lankan Navy arrests 14 Indian fishermen from Tamil Nadu

Recently, India's External Affairs Minister raised concerns over the recurring arrests of Indian fishermen with the Sri Lankan President.

#### **Background of the Maritime Dispute**

- It relates to fishing rights in the Palk Bay region and stems from violations of the International Maritime Boundary Line (IMBL) and illegal fishing activities in the region.
  - The Palk Bay, is a narrow sea strip separating Tamil Nadu and northern Sri Lanka rich in marine resources.

#### Maritime Boundary Agreements of 1974 and 1976

#### 1974 Agreement:

- Island of Katchatheevu lies on the Sri Lankan side of the India-Sri Lanka International Maritime Boundary Line
  - However, Indian fishermen were given access to Katchatheevu for drying of nets and the annual St. Anthony Church festival.

#### 1976 Agreement:

● It further delineated boundaries in the Gulf of Mannar and the Bay of Bengal.

#### **Factors Contributing to the Dispute**

- Traditional Fishing Practices: Tamil Nadu fishermen frequently cross the IMBL due to historical fishing patterns.
- Depletion of Fish Stocks: caused due to practices such as bottom trawling. (It is a fishing practice that herds and captures the target species, like ground fish or crabs, by towing a net along the ocean floor).

#### **Recent Measures to Resolve the Dispute**

- > Joint Working Group (JWG): explores joint patrolling and resource management strategies.
- > Humanitarian Approach: Adoption of livelihood-based approach to address fishermen-related issues.
- Technological Interventions: to prevent unintentional crossings of the IMBL and promote sustainable fishing practices. (e.g. with use of GPS)

# India Reportedly Introduces New Harmonised System(HS) Codes ForGI Tagged Rice

An amendment to the Customs Tariff Act(1975) was introduced to provide an HS (Harmonised System) code for GI-recognised rice varieties.

The amendment will make it possible for the exports of GI-tagged rice without any problem or special notification from the Ministry of Finance.

About World Customs Organization (WCO)

Genesis: WCO, established in 1952 as the Customs Co-

Role: is an independent intergovernmental body whose

mission is to enhance the effectiveness and efficiency

Focus: It is exclusively focused on customs matters. Its

work includes the development of global standards, the

simplification and harmonization of customs procedures,

trade supply chain security, the facilitation of international

Members: WCO represents 186 Customs administrations

Headquarters: Brussels, Belgium

operation Council (CCC)

of Customs administrations.

#### About HS

Definition: HS is a global product classification system developed by the World Customs Organization (WCO).

#### Classification Structure:

- Countries are allowed to add longer codes to the first six digits for further classification.
- Governance and Updates

  - → HS Committee, made up of member countries, oversees the HS classification system and also updates HS every 5 - 6 years.
- Widespread adoption
  - Classifies approximately 98% of international trade
  - Encompasses over **5,000 commodity groups**
  - Implemented by more than 200 countries

#### Benefits of HS

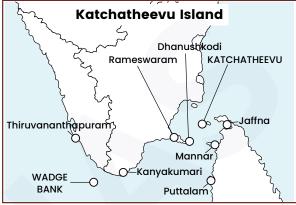
- Common coding method helps countries organize and track products in global trade.
- Extensively used by governments, international organizations and private organisations for internal taxes, trade policies, etc.

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trade, etc.

(including India)

● Reduces international trade costs and spportseconomic research



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# India Launches EFTA Desk To Strengthen Trade And Investment Ties with EFTA Nations

**EFTA Desk** will serve as the main contact for **EFTA businesses**, providing market insights, addressing concerns, and supporting expansion.

EFTA desk is a key part of the India-EFTA Free Trade Agreement (TEPA), a Trade Agreement between India and EFTA, signed in 2024.

#### **Key Highlights of TEPA**

- First-ever Binding FTA: binding commitment of \$100 bn investment and 1 million direct jobs in the next 15 years has been given.
- Tariff Reduction: EFTA eliminates 92.2% of tariff lines, benefiting 99.6% of India's exports.
- Market Access: Full access for non-agri products and concessions on Processed Agricultural Products (PAP).
- Enhanced Services Access: Services offers from EFTA include-
  - Mode 1: Digital delivery of services.
  - Mode 3: Commercial presence.
  - Mode 4: Easier temporary stay for key personnel.
- Intellectual Property Rights (IPR): Aligns with TRIPS for strong protection.
- Professional Recognition: Covers fields like nursing, chartered accountancy, and architecture.
- Rules of Origin & Trade Remedies: Clear regulations to ensure smooth trade and safeguard interests.

#### **Challenges Associated with TEPA**

- > Strict IPR rules could impact India's generic drug industry.
- Trade imbalances, especially due to high gold imports from Switzerland, need careful management.
- The 16-year negotiation process reflects the complexity of aligning interests.

#### About EFTA

- Formed in 1960, European Free Trade Association (EFTA) is the intergovernmental organisation of Iceland, Liechtenstein, Norway and Switzerland.
- It was set up for the promotion of free trade and economic integration of its members.
- Switzerland is India's largest EFTA trade partner, followed by Norway.

## Also in News

### South Asian Free Trade Area (SAFTA)

Solvent Extractors' Association of India urged Cente to regulate the surge of refined soybean and palm oil imports from Nepal citing 'Rule of Origin' norm's violation.

#### About SAFTA

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- Genesis: SAFTA, the free trade pact of SAARC, replaced the 1993 SAARC Preferential Trading Arrangement in 2006.
- Members: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- Special treatment to LDCs: SAFTA recognizes the need for special and differential treatment for LDCs in its preamble.

However, South Asia's **intraregional trade remains low, hovering around 5%** due to poor transport infrastructure, political disputes, etc.

# 'Expanding Quality Higher Education through States and State Public Universities' Report released by NITI Aayog

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The report is the first-of-its kind policy document in the higher education sector focused specifically on **States and State Public Universities (SPUs)** 

Key aspects of State Public Universities (SPUs)

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- SPUs and its affiliated institutions account for >80% of total student enrolment.
- Establishment: by State Acts and are funded by State Governments and are predominant responsibility of State Governments

Parameters	Challenges Highlighted	Recommendations
duality	Poor research infrastructure and low R&D spending, outdated curriculum and issues of faculty shortages.	<ul> <li>Research: Develop a National Research Policy</li> <li>Pedagogy: Regularly update curricula &amp; assess teaching effectiveness</li> </ul>
Funding	Limited funding to cater to capital expenditure & operating expenses, lack of fee autonomy. E.g. Education spending by states have fallen as percentage of GSDP between 2005-06 & 2019-20.	<ul> <li>Increase education investment to 6% of GDP, boost R&amp;D spending to 2% of GDP,</li> <li>Diversify revenue via self-financed programs, alumni engagement, CSR, and PPP models.</li> </ul>
Employability	Outdated <b>curriculum</b> and weak academia- <b>industry</b> collaboration	<ul> <li>Promote internships, industry collaborations, skill training, and entrepreneurship.</li> </ul>
Governance	High accreditation costs, lack of administrative autonomy, opaque faculty hiring. E.g. Only 38 SPUs appeared in the top 100 institutions (university category) in NIRF 2024.	Enhance accreditation affordability, Grant SPUs autonomy, improve regulatory frameworks.
Internationa- lisation	Selection criteria need revision, underfunded research limits global outreach.	<ul> <li>Identify and prioritize SPUs with existing infrastructure suitable for international students.</li> <li>Conduct a review of existing model curricula to identify areas needing adjustments to align with international standards.</li> </ul>

# 🌠 📗 Sŗjanam

India's first indigenous Automated Biomedical Waste Treatment Rig, **Sŗjanam**, was launched at AIIMS Delhi.

Developed by CSIR-NIIST (National Institute for Interdisciplinary Science and Technology), Thiruvananthapuram, it disinfects biomedical waste without costly incinerators.

#### About Bio-Medical Waste

- Definition: Biomedical waste includes waste generated from diagnosis, treatment, immunization, research, or biological production/testing in healthcare settings.
- India's Biomedical Waste Challenge: India produces 743 tonnes of biomedical waste daily, requiring safe and efficient disposal (CPCB, 2023).
- Regulation: Bio-Medical Waste Management Rules, 2016 mandate proper segregation, treatment, and disposal

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### Graphene

Researchers found a new quantum state in twisted bilayer-trilayer graphene, where electrons form a lattice but allow resistance-free edge currents.

This could aid quantum computing as it offer stability against 3 noise

#### **About Graphene**

- Graphene is an allotrope of carbon
- It is a one-atom-thick carbon sheet arranged in a hexagonal lattice.
- It is the thinnest, lightest, and strongest material, 200 times stronger than steel and 1,000 times lighter than paper. It is 98% transparent, chemically stable, and highly conductive.

#### **Accelerating Smart Power & Renewable** Energy in India (ASPIRE) programme

India and the UK have initiated the second phase of the bilateral ASPIRE program as part of the Fourth India-UK Energy Dialogue.

#### About ASPIRE Program

- It is a bilateral initiative aimed at promoting clean energy 2 transition and sustainable development in India.
- Focus of Second phase of ASPIRE:-
  - Round-the-Clock Power Supply: Providing technical support to ensure uninterrupted electricity.
  - Renewable Energy Expansion: Strengthening India's clean energy initiatives.
  - Industrial Efficiency & Decarbonization: Promoting energy efficiency and reducing carbon emissions.
- The program is implemented in partnership with India's **Ministry** of Power (MoP) and Ministry of New and Renewable Energy (MNRE).



### **Bombay Blood Group**

Doctors recently conducted a cross-blood transplant in a patient with a rare Bombay blood group.

#### About Bombay Blood Group (HH blood group)

- > It is a rare blood group
- Discovery: 1st discovered in Mumbai in 1952 by Y.M. Bhende.
- Characteristics: presence of serum antibodies anti-A. anti-B. and anti-H, which can cause agglutination in all blood groups within the ABO system.
- Clinical Feature: People with Bombay blood group cannot receive blood transfusions from any ABO group, including type O, which has the H antigen.
- Note: They can only receive blood from another Bombay blood group donor.

# Place in News

### Zambia (Capital: Lusaka)

A bilateral meeting was conducted between India's Defence Minister and Zambia's Minister of Defence during Aero India 2025. **Physical Features:** 

- It is a landlocked country.
- Land Boundaries: Tanzania (northeast), Malawi (east), Mozambique (southeast), Zimbabwe (south), Botswana and Namibia (southwest), Angola (west), and the Democratic Republic of the Congo (north).

#### Geographical features

- Climate: Tropical climate, generally with a rainy season from October to April. 3
- Major Rivers: Zambezi River (famous for Victoria Falls), Kafue River, Luangwa River.
- Highest peak: MafingaCentrallocated in the Mafinga Hills along the Zambia-Malawi border.



AHMEDABAD

BHOPAL CHANDIGARH BENGALURU

DELHI GUWAHATI

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# Market Intervention Scheme (MIS)

The government has revised certain guidelines related to the Market Intervention Scheme (MIS)

### Market Intervention Scheme (MIS)

- It has been made a component of the integrated scheme of PM-AASHA (PradhanMantriAnnadataAaySanraksanAbhiyan).
  - PM-AASHA aims to ensure remunerative prices to farmers with components such as Price Support Scheme (PSS), Price Deficiency Payment Scheme (PDPS), Private Procurement & Stockist Scheme (PPPS)
- Purpose: prevents farms from distress selling of commodities of > various perishable agricultural/horticultural commodities
- Implementation Mechanism: on the request of the State/UT > Government.
- Condition: There should be a reduction of at least 10% in the 3 market prices in the States/UTs as compared to the rates of the previous normal season
- Procurement/coverage: limit of production quantity of crops has been increased from the existing 20% to 25%.

Lumpy Skin Disease (LSD)

Biolumpivaxin, an LSD vaccine recently developed by Bharat Biotech and ICAR got license from Central Drug Standards Control Organization.

About Lumpy Skin Disease

- Viral disease that affects primarily cows and lesser buffalos.
- Pathogen: by lumpy skin disease virus of the capripox virus genus > in the Poxviridae family.
- Symptoms: Causes fever, and nodules on the skin and can also > lead to death.
- Transmission: By blood-feeding insects, such as certain species > of flies, mosquitoes, or ticks.

States receive central funding to combat LSD through training, awareness, and vaccination programs.

'Cyclone 2025'

India and Egypt to commence joint military exercise 'Cyclone 2025'. About Cyclone 2025

- > Participants: India & Egypt
- > Location: Rajasthan
- 2 Objective: Enhance defence cooperation, improve interoperability, and share special forces skills in desert warfare.

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