



Daily Current Affairs



To The Point by Dhananjay Gautam

Table Of Content 20 Nov 2024

1. India's Rising Tuna Export Hub
2. Will India Emerge as a Winner or Loser in Trump's Trade War?
3. One Day, One Genome: Unlocking India's Microbial Potential
4. Cao Bang Crocodile Newt: A New Discovery in Vietnam
5. ICRIER Policy Brief: Rationalizing India's Public Distribution System (PDS)
6. GSAT-N2 (GSAT-20): India's Next-Gen Communication Satellite



Subscribe to our

You Tube Freedom UPSC with **Dhananjay Gautam**

1

Andaman and Nicobar Islands: India's Rising Tuna Export Hub

Context: The Union Government has prioritized transforming the Andaman and Nicobar Islands into a central hub for **tuna exports**, riding on the momentum of a **31.83% increase** in India's tuna exports during 2023-24. A strategic meeting with investors further underscores this initiative.

**About Tuna Fish:**

- **Habitat:** Tuna are **pelagic fish**, thriving in the upper layers of **tropical, subtropical, and temperate oceans**.
- **Key Species:** Commercially important species include **Albacore, Skipjack, Yellowfin, and Bluefin tuna** (three types).
- **Unique Traits:**
 - Unlike most fish, **tuna are warm-blooded**, maintaining body temperatures up to **12°C higher** than surrounding water.
 - Known for their **extensive migrations**, tuna traverse vast distances across the oceans.
 - They are among the **fastest fish**, capable of speeds up to **75 km/h**.

India's Tuna Export Potential:

- **Global Market:** The tuna industry is valued at **\$41.94 billion**, with the **Indian Ocean** contributing **21% of the world's tuna supply**, making it the **second-largest tuna-producing region globally**.
- **Andaman and Nicobar Islands as a Resource Hub:**
 - The region's **Exclusive Economic Zone (EEZ)** is abundant in various tuna species.
 - The **Union Fisheries Department** estimates the annual tuna yield potential at **64,500 tonnes**, with specific species breakdown:
 - **Yellowfin Tuna:** 24,000 tonnes – in high global demand.
 - **Skipjack Tuna:** 22,000 tonnes – used in canned products.
 - **Bigeye Tuna:** 500 tonnes – sought for sashimi.
 - **Neritic Tuna:** 18,000 tonnes – common in coastal waters.
- **Export Growth:** In 2023-24, India exported **51,626 tonnes** of tuna, worth **\$87.96 million**.
- **India's Position:** Ranked among the **top 15 tuna-producing nations**, India significantly contributes to the **Indian Ocean's tuna supply**.
- **Largest Market:** **Japan** leads global tuna consumption, especially for **Bluefin tuna** used in sushi and sashimi.

Global Tuna Production Leaders:

- **Top Producers:**
 - **Indonesia** (largest producer).
 - Other key players: **Japan, the Philippines, and Taiwan**.

Andaman and Nicobar Islands: A Strategic Location

- **Geography:** Situated in the **Indian Ocean**, south of the **Bay of Bengal**, and close to **Indonesia**.
- **Island Groups:**
 - **Andaman Islands** lie north of the **10° N parallel**.
 - **Nicobar Islands** are located to the south.
- **Capital:** **Port Blair** serves as the administrative hub.
- **Composition:**
 - Total: **836 islands, islets, and rocky outcrops**, with only **38 permanently inhabited**.
 - **Nicobar Islands:** Comprise **22 main islands**, of which **10 are inhabited**.
- **Strategic Channel:** The **Ten Degree Channel** separates the Andaman and Nicobar Islands, spanning **150 km** in width.

2

Will India Emerge as a Winner or Loser in Trump's Trade War?

Context: The possibility of a new **trade war** under US President-elect Donald Trump has raised concerns worldwide. With significant implications for the global economy, **India's position** in this changing trade landscape demands attention.

A Glimpse into Trade Wars of the Past:

Historical Context: Reviving Tariff Conflicts

Tariff wars—where countries impose heavy taxes on imports—have repeatedly disrupted global trade. Key historical examples include:

- **Fordney-McCumber Act (1922):** Raised US tariffs to safeguard domestic industries.
- **Smoot-Hawley Tariff Act (1930):** Escalated tariffs, triggering retaliatory measures and worsening the Great Depression.

Trump's Tariff Plans:

President-elect Trump has proposed:

- **10%-20% tariff hikes** on all imports.
- **60% tariff increase on Chinese goods**, marking the most aggressive tariff strategy since the Cold War.

Global Repercussions of Higher Tariffs:

Impact on the US Economy:

- **Increased Import Costs:** Tariffs typically raise prices for consumers. A Brookings study (2020) revealed that the **US-China trade war** hurt the American economy without resolving trade imbalances.
- **Retaliatory Tariffs:** Countries affected by US tariffs are likely to respond, neutralizing benefits for the US and driving up consumer prices on both sides.

India's Exposure to Trade Tensions:

India could be vulnerable to:

- **Tariff hikes on key exports** like automobiles, textiles, and pharmaceuticals.
- Scrutiny of its **\$35.3 billion trade surplus** with the US, potentially prompting higher duties on Indian goods.

India's Strengths and Weaknesses in the Trade War:

Vulnerable Sectors:

1. **Agriculture and Manufacturing:** Both face existing tariff challenges.
2. **Pharmaceuticals:** As the **world's largest generic drug exporter**, India may encounter resistance in the US market.
3. **Steel and Aluminum Exports:** These sectors are at risk due to previous US tariffs under Trump's presidency.

Strengths: India's Diversified Trade Partnerships:

India has broadened its trade network:

- **China:** India's largest trading partner, with bilateral trade reaching **\$118.4 billion** in 2023-24.
- **Russia:** Trade with Russia has grown fivefold over five years, targeting **\$100 billion** by 2030.

Understanding Trade Wars:

What Are Trade Wars?

A **trade war** occurs when countries impose escalating **trade barriers** to protect domestic industries, often as a response to unfair practices. These barriers can include:

- **Tariffs:** Taxes on imports to make foreign goods more expensive.
- **Import Quotas:** Restrictions on the volume of imports.
- **Domestic Subsidies:** Financial aid to local businesses, making exports competitive.





- **Currency Devaluation:** Lowering a currency's value to encourage exports.
- **Embargos:** Bans on trade with specific nations for political reasons.

Impact of Trade Wars: Short-Term vs. Long-Term

Short-Term Effects:

- Protection of **domestic industries** and job creation in select sectors.
- **Reduced competition** for local businesses.

Long-Term Effects:

- **Economic Slowdown:** Trade barriers disrupt global supply chains and comparative advantages.
- **Higher Prices:** Consumers face increased costs and fewer choices.
- **Reduced Innovation:** Protectionism discourages competition, slowing progress.

Conclusion:

India's fate in Trump's trade war depends on how it navigates its vulnerabilities while leveraging its diversified trade relationships. While the immediate risks to certain sectors are evident, India's strategic partnerships with **China, Russia, and other nations** could help mitigate the impact of US trade tensions. Balancing resilience and adaptability will be key to emerging as a **trade war winner**.



3 One Day, One Genome: Unlocking India's Microbial Potential

Context: The **One Day, One Genome** initiative, launched on the **1st Foundation Day of BRIC** at the **National Institute of Immunology (NII)**, aims to spotlight India's rich microbial diversity and its critical contributions to **environment, agriculture, and human health**.

About the Initiative:

Introduced By:

- Department of Biotechnology (DBT)
- Biotechnology Research and Innovation Council (BRIC)

Objective:

To release fully annotated **bacterial genomes**, isolated from India, and make them **freely accessible to the public**.

Key Features:

- Each genome will come with **detailed graphical summaries, infographics, and genome assembly/annotation details**.
- The initiative will promote the **scientific and industrial utility** of microbial resources.
- It will make **microbial genomics data** accessible to researchers, innovators, and the public, stimulating **community-wide discussions and innovations**.

Significance of One Day, One Genome:

1. **Harnessing Microbial Potential:** Genome sequencing will reveal **hidden capacities of microorganisms**, such as their ability to produce **enzymes, bioactive compounds**, or resist antimicrobials.
2. **Advancing Science and Industry:** The initiative bridges the gap between **scientific research and practical applications**, benefiting the **environment, agriculture, and human health sectors**.
3. **Sustainability and Innovation:** Encourages the **protection and sustainable use** of microbial diversity for the well-being of society and ecosystems.

Microorganisms: The Invisible Pillars of Life

Role in the Environment:

- Crucial for **biogeochemical cycles, soil formation, and mineral purification**.
- Aid in **decomposing organic waste** and removing toxic pollutants.
- Contribute to **methane production** and maintain planetary **homeostasis**.

Role in Agriculture:

- Facilitate **nutrient cycling, nitrogen fixation, and soil fertility**.
- Support **pest control** and help plants adapt to **stressful conditions**.
- Symbiotically enhance plant uptake of **water and nutrients**.

Role in Human Health:

- **Microbial cells outnumber human cells** in the body, playing a vital role in **digestion, immunity, and even mental health**.
- **Pathogenic microbes** cause diseases, but **non-pathogenic microbes** bolster defense mechanisms against infections.

Why It Matters:

The **One Day, One Genome** initiative emphasizes the immense **potential of microbes** to transform our understanding of the world and tackle pressing challenges in **environmental management, sustainable agriculture, and human well-being**. By **democratizing genome data**, it fosters innovation that benefits the entire ecosystem.



4

Cao Bang Crocodile Newt: A New Discovery in Vietnam

Context: The **Cao Bang crocodile newt** (*Tylototriton koliaensis*) is a newly identified species of crocodile newt found in the highlands of Vietnam. This discovery sheds light on the unique biodiversity of the region.

**About the Cao Bang Crocodile Newt:**

- **Scientific Name:** *Tylototriton koliaensis*.
- **Habitat:** Found in **mountain forests** of Vietnam, at elevations of **3,300 feet or higher**.
- **Climate:** Thrives in areas with a **cold, dry season** and a **warm, rainy season**.

Unique Features:

1. **Size and Appearance:**
 - Medium-sized, measuring approximately **5 inches in length**.
 - **Rough, knobby skin**, resembling that of a crocodile.
2. **Distinctive Colors:**
 - Entirely **black body** with **bright orange markings** on fingertips and toes.
 - **Dark gray belly** with an **orange stripe** running along the tail.
3. **Structure:**
 - **Large head** and **long, slender limbs**.
4. **Behavior:**
 - Breeds during the **rainy summer season** in **slow-flowing streams** or **temporary pools**.
 - Hides under **rocks and cavities** during the **winter months**.

What is a Crocodile Newt?

Crocodile newts belong to the **genus *Tylototriton***, a group of salamanders native to **Asia**.

Key Characteristics:

- Known for their **rough, textured skin**, resembling a crocodile's hide.
- Generally **dark brown or black** with **bright orange or red markings** on their head, back, and tail.

Habitat:

- Found near **slow-moving streams, ponds, or marshes**, where they lay eggs and find food.

Examples of Crocodile Newts:

1. *Tylototriton verrucosus* (Himalayan crocodile newt).
2. *Tylototriton shanjing* (Emperor newt).
3. *Tylototriton kweichowensis* (Kweichow crocodile newt).

The **Cao Bang crocodile newt** adds to the growing list of unique amphibians in Southeast Asia, emphasizing the importance of preserving the **mountain forests of Vietnam** for future ecological discoveries.

5 ICRIER Policy Brief: Rationalizing India's Public Distribution System (PDS)

Context: A recent policy brief by ICRIER sheds light on persistent challenges in India's Public Distribution System (PDS) and suggests measures to reform the system for enhanced food and nutritional security.

Key Findings:**Leakages in the PDS:**

- 28% of allocated grains fail to reach intended beneficiaries, resulting in an estimated financial loss of ₹69,108 crores annually.

Impact of Reforms:

- Measures such as Aadhaar-linked ration cards and Point of Sale (PoS) machines in 95% of Fair Price Shops (FPS) have improved distribution efficiency. However, leakages persist.

Regional Disparities:

- States like Bihar and West Bengal have successfully reduced leakages.
- High leakages remain in Northeastern states like Arunachal Pradesh and Nagaland, as well as Gujarat, largely due to a lack of PDS digitalization.

Recommendations:**1. Effective Targeting of Beneficiaries**

- Reduce PDS coverage from the current 57% of the population to the bottom 15%, providing free food grains to the poorest.
- Supply grains at 50% of the MSP for other beneficiaries.

2. Transition to Direct Benefit Transfer (DBT)

- DBT reduces leakages, lowers administrative costs, and offers recipients greater flexibility in dietary choices.

3. Transform FPS into Nutrition Hubs

- Introduce a Food Coupon System in select FPSs to improve distribution and tackle grain siphoning.

Understanding the Public Distribution System (PDS):**Significance of PDS:**

- World's largest food distribution program, providing food security to millions.

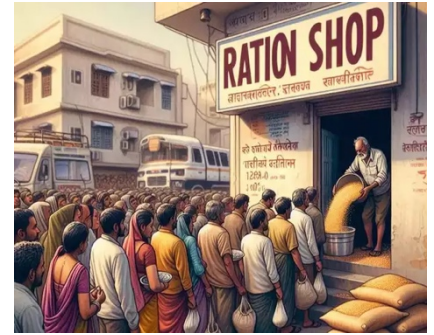
Operational Framework:

- **Centre (via FCI):** Procures, stores, and allocates food grains in bulk.
- **States:** Allocate grains within the state, issue ration cards, identify beneficiaries, and oversee FPS operations.

Evolution of PDS:

1. **Revamped PDS (1992):** Focused on poor households in select areas.
2. **Targeted PDS (TPDS) (1997):** Introduced income-based classification.
3. **Antyodaya Anna Yojana (AAY) (2000):** Special provisions for the poorest households.
4. **National Food Security Act (2013):** Legal entitlements to subsidized food grains.
5. **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) (2020):** Free food grain distribution during COVID-19.

ICRIER's recommendations emphasize the need for efficient targeting, minimizing waste, and transforming PDS into a holistic nutrition platform, ensuring food security while reducing financial losses.



6 GSAT-N2 (GSAT-20): India's Next-Gen Communication Satellite

Context: India's **GSAT-N2** (commonly known as **GSAT-20**), an **advanced communication satellite**, was recently launched aboard **SpaceX's Falcon-9 rocket**, showcasing a ground-breaking collaboration and heralding advancements in **data and internet connectivity**.

About GSAT-N2 (GSAT-20):

Key Highlights:

- Developed by **New Space India Limited (NSIL)**, the commercial arm of **ISRO**, under the **Department of Space**.
- Launched into a **geosynchronous transfer orbit (GTO)** using **SpaceX's Falcon-9 rocket**.
- Designed to deliver high-speed **data and internet services to remote regions**, including in-flight connectivity, and to bolster India's **Smart Cities Mission**.



Satellite Features:

- High-Throughput Communication Satellite:**
 - Operates exclusively in the **Ka-band**.
 - Offers unparalleled data throughput of **48 Gbps**, making it India's highest-throughput satellite.
- Advanced Spot Beams:**
 - Features **32 user beams**:
 - **8 narrow spot beams** targeting the Northeast region.
 - **24 wide spot beams** covering the rest of India.
 - Supported by **hub stations** located across mainland India.
- Compact and Efficient Design:**
 - Supports a **large user base** using **small user terminals** for ease of access.
 - Total mass: **4,700 kg**.
 - Mission life: **14 years**.

Why Falcon-9 Was Chosen:

- ISRO's **Mark-3 launch vehicle** can place payloads of up to **4,000 kg** into GTO.
- GSAT-N2's heavier weight (**4,700 kg**) necessitated collaboration with **SpaceX**, marking ISRO's **first commercial partnership** with the company.

Significance of GSAT-N2:

- Enhanced Connectivity:**
 - Provides high-speed **internet and data services** to even the most remote parts of India.
 - Supports **in-flight internet connectivity** for airlines operating in the region.
- Boost to Smart Cities Mission:**
 - Ensures seamless communication infrastructure essential for India's **urban development initiatives**.
- Strategic Importance:**
 - Exclusive operation in the **Ka-band** strengthens India's position in the **satellite communication domain**.
 - Improves communication capabilities, vital for national growth and defence.

The launch of **GSAT-N2** represents a remarkable achievement for India, blending **innovative technology** with **global collaboration** to address the nation's growing communication needs. This satellite sets the stage for future advancements in **satellite communication and connectivity solutions**.