

▶ **Janjatiya Gaurav Divas** is celebrated on **15th November (since 2021)** to recognize the efforts of the tribal freedom fighters.

- ⊖ **India's freedom struggle** was strengthened by **tribal movements** by Santhals, Tamars, Kols, Bhils, Khasis and Mizos etc.
- ⊖ The date is the **birth anniversary of Sri Birsa Munda** who is revered Bhagwan by tribal communities across the country.

▶ **About Birsa Munda (1875-1900)**

- ⊖ **Early life: Birsa Munda** also known as **Dharti Aaba**, was born in **Munda tribe at Ulihatu, Khunti district of Chotanagpur Plateau region (Jharkhand)**. **Social reforms: He stressed on the importance of prayer, staying away from alcohol, having faith in God and observing a code of conduct.**
 - ◆ **Based on these, he started the faith of Birsaism.**
- ⊖ **Ulgulan movement : Birsa started a movement called 'Ulgulan', or 'The Great Tumult'** against the exploitation and discrimination against tribals.
 - ◆ **Led to Chotanagpur Tenancy Act being passed in 1908** which restricted the passing on of land from the tribal people to non-tribals.
- ⊖ **Ethical Values:** Perseverance, courage, and resilience.

▶ On this occasion government launched **Viksit Bharat Sankalp Yatra** and **PM Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN)**.

PM Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN) launched

▶ **About PM JANMAN**

- ⊖ It aims to protect **the tribes on the verge of extinction and nurture them.**
- ⊖ **Earlier in Budget 2023, PM PVTG Mission** was announced to **improve the socio-economic conditions of Particularly Vulnerable Tribal Groups (PVTGs).**
- ⊖ **Projects worth 24000 crore** for overall developments of **PVTGs.**
- ⊖ **Mission based on providing basic amenities** like safe housing, clean drinking water, education, health, road and sustainable livelihood etc.
- ⊖ **Focus on complete coverage of various schemes** like Ayushman Bharat yojana, TB elimination, 100% vaccination, PM Surakshit Matritva Yojana, PM Poshan, etc.

▶ **About PVTGs**

- ⊖ **Most underprivileged and deprived tribal communities in India.**
- ⊖ Characterized by **“pre-agriculture level of technology, stagnant or declining population, extremely low literacy, and Economic backwardness”**.

- ⊖ Centre had started identification of PVTGs in 1975 on the findings of the 1961
- ⊖ Dhebar Commission. 75 PVTGs in 18 States & UTs living in 220 districts having a population of around 28 lakhs.
 - ◆ As per 2011 Census, Odisha has the largest population of PVTGs.
- Viksit Bharat Sankalp Yatra was also launched which will continue till 26th January, 2024 to ensure saturation of flagship government welfare schemes.

⊖ Other Initiatives Empowering Tribal Communities:

⊖ **Eklavya Model Residential Schools:** Provide free education to ST children from class VI to XII in residential set up.

⊖ **Pradhan Mantri Vanbandhu Vikas Yojana :** A venture capital fund has been set up to promote entrepreneurship/start-up projects by ST youth.

National Sickle Cell Anaemia Elimination Mission & PM Adi Adarsh Gram Yojana etc.

NASA-ISRO Synthetic Aperture Radar (NISAR) Satellite

ISRO has successfully conducted a **21-day-long thermal vacuum test** for the upcoming launch of the **NISAR satellite in 2024.**

⊖ A thermal vacuum test is tested in a facility that **mimics expected flight conditions**.

▶ About NISAR

⊖ It is a **Low Earth Orbit (LEO)** observatory being **jointly developed by NASA and ISRO.**

⊖ NISAR will **map the entire globe in 12 days** and provide **consistent data for monitoring changes in Earth's ecosystems, ice mass, etc.**

⊖ It **2,800 kilograms satellite** consists of both **L-band and S-band synthetic aperture radar instruments**, which makes it a **dual-frequency imaging radar satellite.**

◆ L-band radars are used for **clear air turbulence studies** and S-band radars are used for **weather observation.**

⊖ It has a **39-foot gold mesh antenna reflector** that focuses radar signals from the **upward-facing instrument.**

▶ Significance of NISAR

⊖ Large imaging area (**>240km**) allows full earth **imaging in 12 days.**

⊖ **High precision and resolution (<1cm)** due to **dual-band radars.**

⊖ Monitors **Indian coasts, Antarctica, and deltaic region**

⊖ **bathymetry changes. Observe ecosystem disturbances, ice sheet collapses, and natural hazards.**

Applications

⊖ **Ecosystem and Resource Tracking:** Measurement of forest cover and land usage, Oil and Gas exploration, water resources, etc.

⊖ **Disaster Management:** tracking the source of earthquakes, landslides, and oil spills and mapping the aftereffects of the disaster.

⊖ **Cryosphere tracking:** changes in the permafrost, ice sheets glaciers, etc.

Computer Emergency Response Team (CERT-In) releases Annual Report 2022

▶ CERT-In is the **national nodal agency** for responding to

computer security incidents.

⊖ It was **established in 2004** and functions **under aegis of**

Ministry of Electronics and Information Technology.

⊖ Under the **Information Technology**

(Amendment) Act 2008, it is mandated to provide **Incident Prevention, Response, and**

Security Quality Management Services.

⊖ It **operates 24x7.**

▶ Key Highlights

⊖ **CERT-In handled around 13.9 Lakh cyber security incidents** in 2022.

⊖ There is an **increase in phishing attacks, malware attacks,** and **vulnerable services.**

⊖ Approx, **20,000 Website Defacements (WD)**

tracked and most attacks on **' .in ' domain websites.**

◆ **WD is a type of cyberattack that alters or compromises the contents of a website.**

⊖ Cyber Swachhta Kendra notifies about botnet/malware to **~94% of subscribers.**

◆ A botnet, blending 'robot' and 'network', uses **interconnected compromised computers** for cyber activities."

Importance of Cyber Security: includes protection of **critical infrastructures**, Government **initiatives like Digital India**, and protection of **businesses and individuals from potential cyber threats.**

Challenges in handling Cyber threats:

lack of critical **cyber security infrastructure**, shortage of **cybersecurity professionals.**

Evolving **threat landscape in Cyber security** e.g., **involvement of non-state actors, organized crime.**

Increase in **proliferation of connected devices**, new technology **Internet of Things (IoT) etc.**

IPEF (launched in 2022) is a U.S.-led framework to solidify relationships with partner countries and engage in crucial economic and trade matters that concern the region. It is **not a free trade agreement**.

14 partner countries of IPEF: Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and the US.

The IPEF partners represent **40% of global GDP** and **28% of global goods and services trade**.

IPEF has 4 pillars. India has joined all pillars except the trade one (refer image).

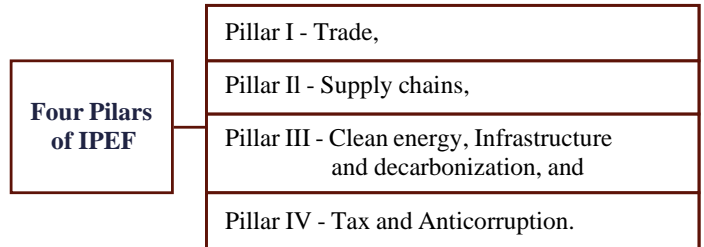
About the agreement:

It aims to **fortify and strengthen global supply chains**; and foster adaptability, stability and

- ⊖ The agreement comes into **force after implementation by any of the five member countries.**
- ⊖ **IPEF Supply Chain Council** will monitor and implement the agreement.
- **Key Benefits of the pact for India:**
 - ⊖ To mitigate economic risks and provide **alternatives for critical sectors**, enabling members to **diversify and decrease dependency on Chinese supply chains.**
 - ⊖ Mobilization of investments for economic growth. **Deeper integration of India into global value chains.**
 - ⊖ Creation of a seamless **regional trade ecosystem to facilitate the flow of Indian products.**

Government initiatives to tackle Cyber Threats

- ⊖ **Indian Cyber Crime Coordination Centre (I4C)** was established to provide a **framework and eco-system for enforcement agencies** to deal with cyber crimes
- National Cyber Crime Reporting Portal** launched to **enable the public to report incidents** of cyber crimes
- A toll-free number- 1930** has been **operationalized** to assist with **online cyber complaints**.



Greenhouse Gas Bulletin analyses data from the WMO Global Atmosphere Watch (GAW) Programme.

- ⊖ GAW provides information on **atmospheric composition to the public**; it consists of a worldwide measuring network of observation stations and scientific infrastructure.

Greenhouse Gas Bulletin compares current global carbon dioxide (CO₂), Methane (CH₄), and Nitrous oxide (N₂O) levels with last years and pre-industrial level (before year 1750)

- ⊖ It also provides insights on **Radiative forcing** changes by long-lived GHGs (LLGHGs) like CO₂, CH₄, and CFCs.

Key Highlights

- ⊖ **Global average CO₂ concentrations reached 417.9 ppm in 2022**, representing a **150% increase from pre-industrial levels**. Methane (CH₄) and Nitrous Oxide (N₂O) concentrations increased by **264% and 124%** respectively from pre-industrial levels in 2022.
- ⊖ From **1990 to 2022**, radiative forcing by LLGHGs increased by **49%**, with CO₂ accounting for about **78% of this increase**.

Challenges in addressing GHGs, the drivers of climate change:

- ⊖ **Feedback Mechanism**: Climate change has **multiple feedback loops** including **increased carbon emissions** from soils and **reduced carbon uptake** by oceans and forests.
- ⊖ **Tipping points**: Climate may reach **Tipping points** i.e., thresholds triggering self-accelerating, potentially irreversible changes.
- ⊖ **Natural variability**: CO₂, CH₄, and N₂O levels vary due to natural processes like **El Niño**.

About Radiative forcing by long-lived GHGs

- ⊖ Radiative forcing represents the amount of energy per unit area that is added or removed from the climate system. It is the measure of how much these gases affect the Earth's energy balance. These gases trap some of the heat that would otherwise escape to space, causing the planet to warm up.

About WMO:

About: specialized agency of the United Nations (UN).

H/Qs: Geneva, Switzerland.

- ⊖ **Genesis:** Established in 1950.

- ⊖ **Members:** 187 Member States (including India) and 6 Member Territories.

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