TATHASTU
Institute of Civil Services

DAILY CURRENT AFFAIRS

23 OCTOBER, 2023

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STAR LABELLING OF SOLAR PANELS

SOURCE: PIB

WHY IN NEWS?

- "Star Labelling of Solar Panels to help citizens make informed decisions": Union Minister for Power and New & Renewable Energy R. K. Singh.
- Star enabling of solar panels will reduce carbon dioxide emissions by 30 million tonnes per annum by 2030
- Solar Panels to have Star Label indicating Quality and Energy Efficiency, Programme to be voluntary for first two years

A **solar panel** is a collection of photovoltaic (PV) cells that collect sunlight and convert it into electric current.

- ❖ Government to insist upon 100% Made in India Solar panels after a few years
- ❖ The growth of Solar Panels has been exponential, another 200 GW of solar panels to be added between 2023 and 2030, both from ground-mounted and solar rooftops.
- ❖ Programme is prepared by the **Bureau of Energy Efficiency (BEE)** for PV modules from January 1, 2024 till December 31, 2025. For this period, there shall be no labelling fee as well.

Proposed Star Rating	Effective efficiency η_{eff} (%)
Validity period: 1st January 2024 to 31st December, 2025	
1 Star	>=17% & <=18%
2 Star	>18% & <=20%
3 Star	>20% & <=21%
4 Star	>21% & <=22%
5 Star	>22%

Benefits of Program for a Typical 10 sqm roof area (1 KWp)

Star Rating	Effective efficiency η_{eff} (%)	Electricity generated per year (kwh)	% increase in electricity generated
1 Star	17%	3570	---
2 Star	19%	3990	12 %
3 Star	21%	4410	23 %
4 Star	22%	4620	29 %
5 Star	23%	4830	35 %

SOLAR ENERGY POTENTIAL IN INDIA:

- ➢ India has substantial solar energy potential, with around 3,000 hours of annual sunshine and 5,000 trillion kWh of incident energy received. Most areas receive 4-7 kWh per square meter daily, making it suitable for solar photovoltaic power.
- ➢ The **National Institute of Solar Energy** estimates **India's solar potential at approximately 750 GW, with the assumption that 3% of the country's wasteland is covered with solar PV (photovoltaic) modules**. Rajasthan and Gujarat have the highest solar energy potential.

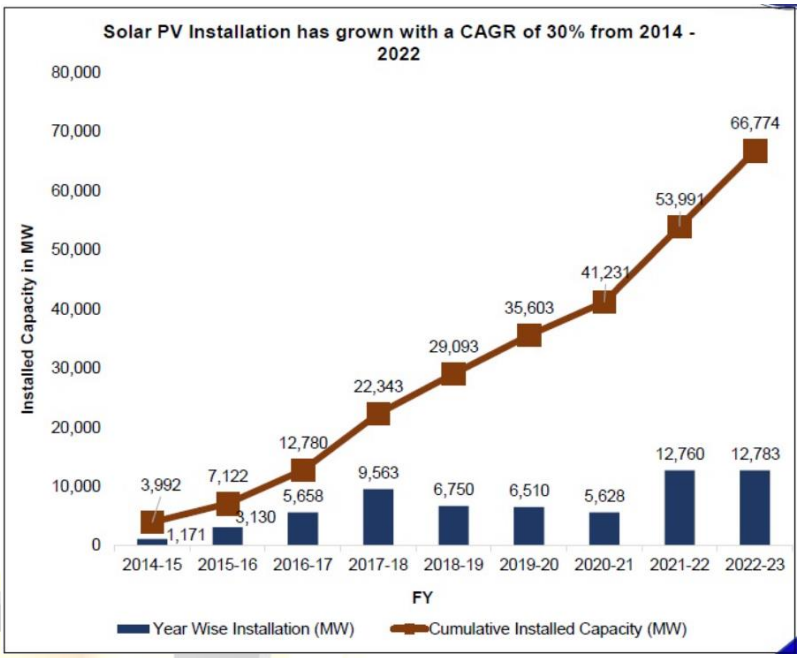
PRESENT STATUS OF SLOAR POWER IN INDIA:

- ➢ **Coal** currently accounts for about **55% of India's energy requirements.**
- ➢ India was the second largest market in Asia for new solar PV capacity and third globally.
- ➢ **India's total installed renewable energy** capacity touched **168.96 GW** mark by February 2023-end
- ➢ Out of the total 168.96 GW, **64.38 GW is solar power capacity**, 51.79 GW hydro, 42.02 GW wind and 10.77 GW bio power

- The **government's aim is to achieve 500 GW of installed electricity capacity from non-fossil sources by 2030.**

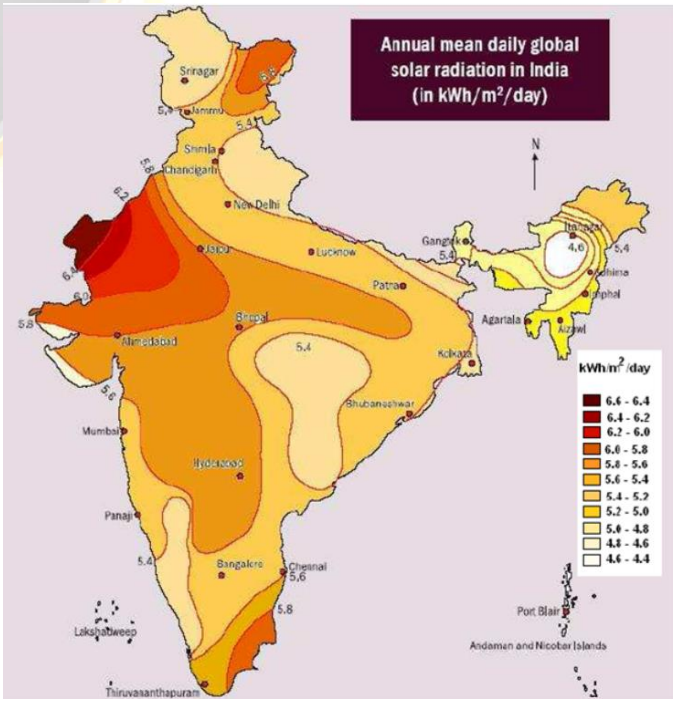
STATUS OF SOLAR PANELS IN INDIA:

- India's photovoltaic (PV) capacity, which was less than 10 MW in 2010, has seen substantial growth, reaching over 50 GW by 2022.
- India has set an ambitious target of deploying approximately 500 GW of renewable energy by 2030, with an expectation of around 280 GW coming from solar PV. This implies an annual addition of 30 GW of solar capacity until 2030.
- India's current solar module manufacturing capacity is limited to approximately 15 GW per year, with the remaining demand being met through imports.
- The majority of these imports, about 85%, are supplied by three countries: China, Vietnam, and Malaysia. The total value of solar imports since 2014 amounts to $12.93 billion or approximately Rs 90,000 crore.



GOVERNMENT INITIATIVES FOR PV MANUFACTURING:

- The Indian government has introduced a **Rs 19,500-crore Production-Linked Incentive (PLI) scheme** for the **"National Programme on High Efficiency Solar PV Modules"** to attract Rs 94,000 crore in investments for the sector.
- To address raw material shortages, especially silicon wafers, the government is providing **uniform fiscal support of 50% of the project cost for establishing semiconductor fabrication plants.**
- The **Ministry of Electronics & Information Technology's Modified Special Incentive Package Scheme (M-SIPS) offers a 20-25% subsidy** for investments in capital expenditure when setting up a manufacturing facility.
- The government has mandated that solar power producers must source a specific percentage of solar cells and modules from local manufacturers to benefit from the government's guarantee to purchase the energy produced.



CHALLENGES IN SOLAR ENERGY:

1. **Higher Production Costs:** Small-scale solar power projects still incur greater costs compared to other energy sources, despite the overall decline in solar energy prices. The government is promoting the development of large solar parks to address this issue.
2. **Fundamental Hurdles:** Establishing major solar parks faces challenges in acquiring large land parcels. High transmission and distribution losses, grid integration issues, and managing the intermittent nature of solar energy pose further complications.
3. **Environmental Concerns:** The construction of large solar parks has led to conflicts with local communities and concerns about biodiversity preservation. For instance, projects in Rajasthan and Gujarat have been delayed due to transmission lines encroaching on the habitat of the critically endangered Great Indian Bustard.
4. **Slow Growth:** Despite a substantial increase in installed solar capacity, the contribution of solar energy to the national electricity supply hasn't grown at an equivalent pace. Rooftop solar projects, in particular, have seen slow capacity expansion, achieving less than 20% of their target.
5. **Solar Equipment Imports:** India's current inability to produce polysilicon or solar wafers results in heavy reliance on imports. In the fiscal year 2021-22, India imported solar cells and modules worth approximately US$76.62 billion from China alone, constituting 78.6% of all imports into India.
6. **Waste Management:** By 2050, India is projected to generate 1.8 million tonnes of solar waste. However, India's e-waste regulations do not mandate solar cell manufacturers to recycle or properly dispose of waste from this industry.
7. **WTO Limitations:** India's Domestic Content Requirement (DCR) rule, which necessitates the use of domestically produced solar cells and modules adhering to MNRE's specifications and testing guidelines, has been contested at the World Trade Organization (WTO).

WAY FORWARD:

- **Solar Equipment Manufacturing:** India should establish a comprehensive solar equipment manufacturing ecosystem to compete globally.
- **Last Mile Connectivity:** Focus on last-mile connectivity in remote areas using small solar installations and community grids for widespread power access.
- **Invest in New Technology:** Invest wisely in emerging solar technologies through green bonds, clean energy funds, and institutional loans.
- **Promote R&D:** Encourage research and development, especially in renewable energy storage, while addressing bureaucratic challenges.
- **Solar PV Waste Management:** Formulate efficient policies for solar PV waste management and manufacturing standards for sustainability.
- **Technology Diplomacy:** Leverage technology diplomacy through the Ministry of External Affairs to advance India's interests in global technology governance.

iDEEKSHA Portal:

- Part of the **ASPIRE Technical Assistance Programme**, a UK-India bilateral initiative by the Foreign Commonwealth and Development Office.
- **Purpose:** A one-stop platform for Indian energy-intensive industries, offering information, knowledge, best practices, and facilitating collaboration among stakeholders like industries, associations, tech providers, and research institutions.

STAR LABELING PROGRAMME:

- **BEE** introduced the Star Labelling Program under the Energy Conservation Act, 2001.
- **Goal**: Enable consumers to make energy-efficient choices among appliances by indicating potential cost savings.
- Appliances are rated on a scale of 1 to 5, with 5 being the most energy-efficient.
- Currently **covers 34 appliances**, including recently added energy-efficient ones.

BUREAU OF ENERGY EFFICIENCY (BEE):

- Established by the Indian Government on March 1, 2002, as per the **Energy Conservation Act, 2001.**
- BEE's mission is to contribute to energy conservation by developing policies and strategies emphasizing self-regulation and market principles.
- It works to reduce the energy intensity of India's economy.
- BEE collaborates with designated consumers, agencies, and organizations, harnessing existing resources and infrastructure to fulfil its Energy Conservation Act functions.

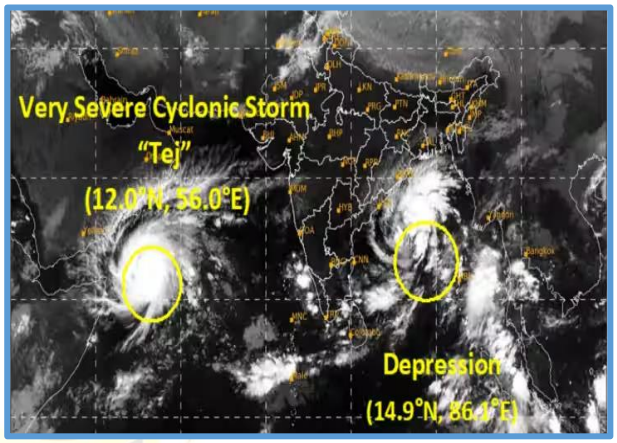
EXTREMELY SEVERE CYCLONE OVER THE ARABIAN SEA – 'CYCLONE TEJ'

SOURCE: THE HINDU

WHY IN NEWS?

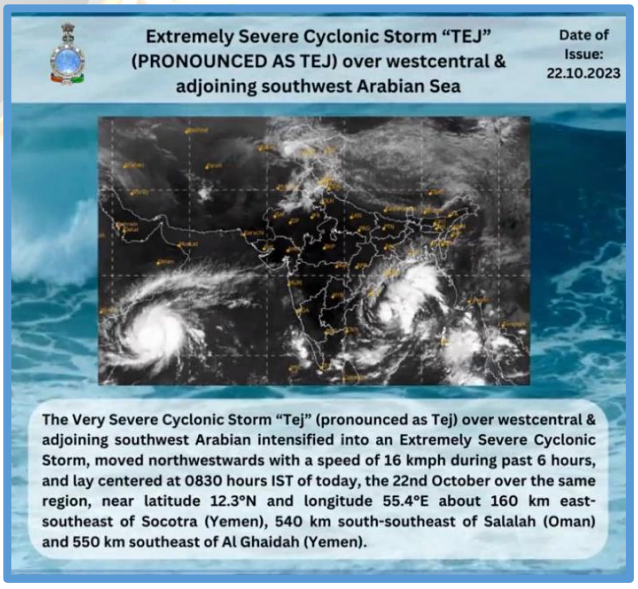
- The very severe cyclone, **Tej, that formed over the Arabian Sea** and has **intensified into an extremely severe cyclone.**

ABOUT TEJ CYCLONE



- Cyclone Tej, initially formed over the Arabian Sea, intensified into an extremely severe cyclone.
- The cyclone is moving **north-westwards** and is expected to make **landfall along the Yemen coast** near **Al Ghaidah.**
- It will approach the coast as a **very severe cyclonic storm with wind speeds** ranging from **125 to 135 kmph, gusting up to 150 kmph.**
- The **Indian Meteorological Department (IMD)** reports that the **Southwest Arabian Sea currently experiences very rough sea conditions**, which are expected to worsen and become high to phenomenal from till October 23rd.
- In the **western Arabian Sea**, very **rough sea conditions** are anticipated to **persist from October 22 to 25.**
- **Cyclone Tej was named by India** and features in the **list of storm names adopted by the WMO/ESCAP** panel in **April 2020.**
- It's important to note that the **cyclonic storm will not affect Gujarat**.

FREQUENT CONSEQUENCES OF THE TEJ CYCLONE.

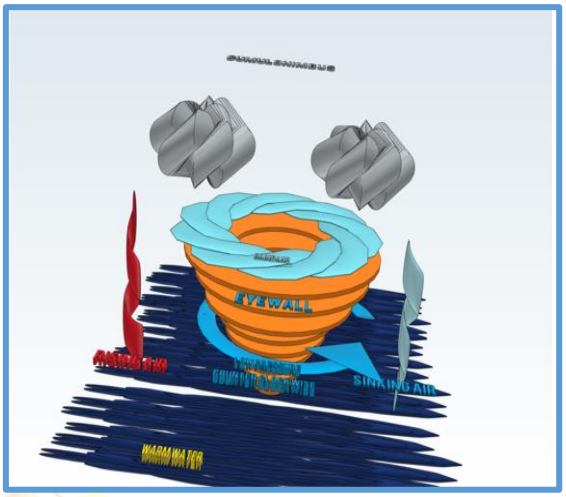


- **Kerala Braces for Rainfall:**
  - ✓ Kerala is anticipated to **experience isolated heavy rainfall due to weather systems** over the Arabian Sea and **the Bay of Bengal.**
  - ✓ A **yellow alert** has been issued for **eight districts, warning of isolated heavy rains.**
- **Northeast Monsoon Impact:**
  - ✓ The **typical northeast monsoon rainfall may be absent in Kerala for the next few days** due to the **prevailing weather system over the Bay of Bengal**, disrupting the flow of northeasterlies.
- **Depression in the Bay of Bengal:**
  - ✓ A **depression over the Bay of Bengal is expected to intensify into a deep depression within 24 hours** and possibly evolve into a cyclonic storm by Tuesday.
  - ✓ The **India Meteorological Department (IMD) is closely monitoring the situation**.
- **Path of the Bay of Bengal Depression:**
  - ✓ The **depression is likely to move towards the Andhra coast over the next 12 hours** and then recurve, moving north-eastwards toward Bangladesh and the West Bengal coast over the following three days.

- **Caution for Fishermen:**
  - ✓ Fishermen are advised to avoid **venturing into the southwest and west-central Arabian Sea until Wednesday,** as **gale wind speeds could reach up to 150-160 kmph**, with **gusts of up to 175 kmph in the west-central Arabian Sea on Monday.**

WHAT ARE CYCLONES?

- **Definition of Cyclonic Storm:**
  - ✓ A **"Cyclonic Storm" or a "Cyclone" is a powerful atmospheric vortex** with extremely strong winds that circulate **counterclockwise in the Northern Hemisphere** and **clockwise in the Southern Hemisphere.**
- **Origin of the Term "Cyclone":**
  - ✓ The term **"Cyclone" finds its roots in the Greek word 'Cyclos,'** which means the **coil of a snake.**
  - ✓ It was **coined by Henri Piddington**, who likened the appearance of **tropical storms in the Bay of Bengal and Arabian Sea to coiled sea serpents.**



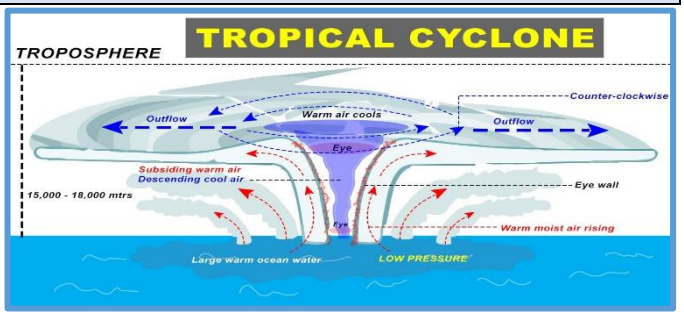
- **Different Names in Various Regions:**
  - ✓ Tropical cyclones are known by different names depending on their location:
    - ***'Hurricanes'*** over the **Atlantic Ocean**
    - '***Typhoons'*** over **the Pacific Ocean**
    - ***'Willy-Willies'*** over **Australian Seas**
    - Simply '**Cyclones'** over the **North Indian Ocean (NIO).**

TYPES OF CYCLONES

Cyclone Type	*Characteristics*	*Origin*
Tropical Cyclones	✓ Winds exceed **'Gale Force'** (minimum **of 63 km per hour).** ✓ Develop **over tropical or subtropical waters.**	✓ Develop between **the Tropics of Capricorn and Cancer.** ✓ **Large-scale weather systems.**
Temperate Cyclones (Extra tropical)	✓ Occur in **temperate zones** and **mid-latitude regions.**	✓ Can originate in **Polar Regions,** but more **commonly in temperate areas.**

TROPICAL CYCLONES

- **Origin:**
  - ✓ The **exact mechanism of tropical cyclone formation is not entirely understood** due to data limitations.
  - ✓ Certain **conditions** that lead to **the formation of tropical cyclones include:**
    - **Abundant warm** and **moist air supply.**



- A **large Coriolis force**.
- Large sea surface with **temperature higher than 27° C.**
- **Weak vertical winds**.
- The presence of an **upper-level anticyclone.**
- The **existence of anticyclonic circulation**.

✓ The cyclonic motion of tropical cyclones begins with **slowly moving easterly waves of low pressure** in the **trade wind belt of tropical regions**, like the Caribbean Sea and the China Sea.

➢ **Characteristics:**

✓ They have **circular and enclosed isobars**.

✓ The isobars are close to each other and consequently, the **isobaric gradient is steep**.

✓ Their diameter **diameter varies between between 150 and 300 km.**

✓ In initial stage their **speed varies between 15 and 30 kmph** which accelerates subsequently up to 200 km and even more per hour.

✓ **Heavy rainfall continues** even after the winds have become weak.

Classification of Tropical Cyclone:

Type of Disturbance	Associated Maximum Sustained Wind (knots)	Associated Maximum Sustained Wind (kmph)
Low Pressure Area (MSW)	Not exceeding 17 knots	<31 kmph
Depression (D)	17 to 27 knots	31-49 kmph
Deep Depression (DD)	28 to 33 knots	50-61 kmph
Cyclonic Storm (CS)	34 to 47 knots	62-88 kmph
Severe Cyclonic Storm (SCS)	48 to 63 knots	89-117 kmph
Very Severe Cyclonic Storm (VSCS)	64 to 90 knots	118-167 kmph
Extremely Severe Cyclonic Storm (ESCS)	91 to 119 knots	168-221 kmph
Super Cyclonic Storm (SCS)	120 knots and above	≥222 kmph

TROPICAL CYCLONES OF INDIA

➢ **Origin:**

✓ Tropical cyclones **originate over the Bay of Bengal, Arabian Sea, and the Indian Ocean**.

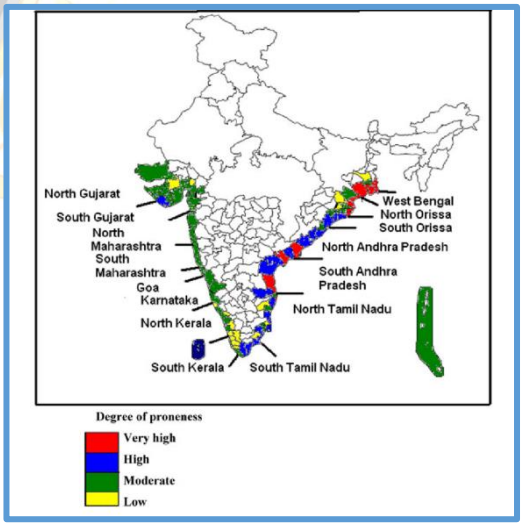
➢ **Impact Areas:**

✓ These cyclones mainly affect the **Indian coastal states of Tamil Nadu, Andhra Pradesh, West Bengal, Odisha, and Gujarat,** making these states more **vulnerable to cyclone disasters**.

➢ **Destructive Elements:**

✓ Tropical cyclones bring about three elements that cause **destruction during their occurrence**:

- **Strong Winds/Squall:** Damages buildings, communication systems, trees, and leads to loss of life and property.



- **Torrential Rains and Inland Flooding:** Causes widespread heavy rainfall, soil erosion, embankment weakening, and homelessness.
- **Storm Surge: Abnormal Sea level rise near the coast** causes inundation, loss of life, property destruction, beach and embankment erosion, and reduced soil fertility.

Why more cyclone occurs in The Bay of Bengal than in the Arabian Sea?

Factors for More Cyclones in Bay of Bengal	*Explanation*
Shallow Water and Heat Transfer	The **shallowness of the Bay of Bengal promotes efficient heat transfer**, creating conditions suitable for cyclone formation.
Geometric Factors	The **bay's shape amplifies wind speeds**, increasing the destructive potential of cyclones.
Land Surrounding the Bay	Being **enclosed by land on three sides provides** an **additional source** of moisture and instability.
Depth and Width of the Seas	The **Arabian Sea's greater depth and narrower** width make it less conducive to **cyclone formation.**
Rapid Warming in Shallow Water	**Shallow waters in the Bay of Bengal heat up quickly**, creating ideal storm conditions.
Larger Area for Cyclone Dissipation	The **Bay of Bengal's larger area allows storms** to dissipate more easily, contributing to high cyclone activity.

LIFE PERIOD OF A CYCLONE:

- The **average life period of cyclonic disturbances (CDs) over the NIO is about 2 days, 3 days, 3.5 days, 4 days, 5 days and 5.75 days** respectively for D, DD, CS, SCS, VSCS and SuCS.
- **VSCS have higher mean life period over both the ARB and the BOB in pre-monsoon**, post-monsoon and year as a whole.
- While the **VSCS stage has significantly higher duration over the ARB** than **over the BOB in pre-monsoon**.
- The year as a whole, it is significantly **higher over the BOB than over the ARB during post-monsoon season**.
- During the monsoon season, the duration **D, DD and CS stages are significantly higher over BOB than they are over the ARB.**

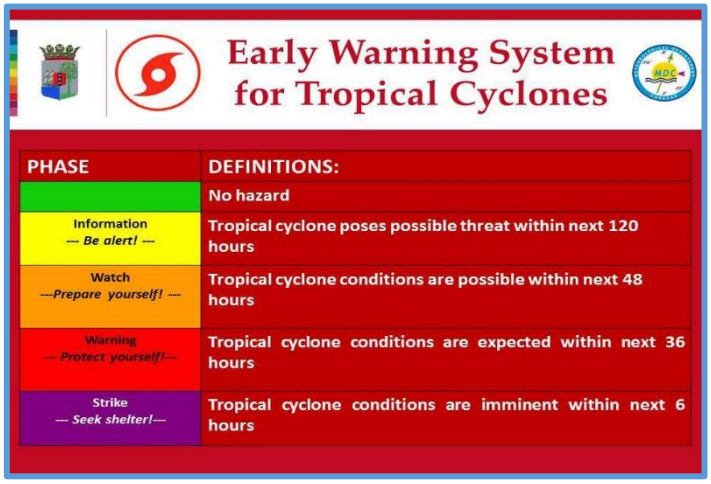
WAY FORWARD

- **Initiatives Towards Cyclones:**

Initiatives Towards Cyclones	*Details*
National Cyclone Risk Mitigation Project (NCRMP)	✓ Implemented with **World Bank assistance.** ✓ Aims to upgrade **cyclone forecasting, tracking, and warning systems in India.**
Integrated Coastal Zone Management Project (ICZMP)	✓ Focuses on **improving national capacity for comprehensive coastal management** in India.
Separation of Structural and Non-Structural Measures	✓ Implemented for **effective disaster management of cyclones**.

- **Enhanced Monitoring:**
  - ✓ Use on-site platforms like buoys and moorings for **higher-resolution and accurate cyclone monitoring.**
  - ✓ **Buoys serve as locators and warning points for ships**.
  - ✓ Moorings are **permanent structures for vessel securing.**
- **Empowerment of INCOIS:**
  - ✓ Provide **the Indian National Centre for Ocean Information Services (INCOIS)** with greater autonomy, financial resources, and human resources.
  - ✓ Improve **data collection and dissemination for cyclonic events.**

- **Incorporate Global Warming Signals:**
  - ✓ **Weather models should integrate global warming signals** to address the challenges posed by intense cyclones in the future.
- **Conclusion:**
  - ✓ **Climate projections indicate continued warming of the Arabian Sea** due to increasing carbon emissions, leading to more intense cyclones.
  - ✓ **Strengthening the disaster management framework** is essential, aligning with **the Sendai Framework for Disaster Risk Reduction 2015-2030.**



Prelims Specific

Nomenclature of Tropical Cyclones

- The practice of naming **tropical cyclones is relatively recent.**
- The naming process is a collaborative effort involving **multiple countries within a region** and is overseen by the **World Meteorological Organization (WMO).**
- In the **Indian Ocean region,** a naming convention for **cyclones was established in 2004.**
- **Eight countries** in the region, inc**luding Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, and Thailand,** collectively contributed a list of names.
- These names are assigned sequentially when a cyclonic storm forms.

Place	List 1	List 2	List 3	List 4	List 5	List 6	List 7	List 8	List 9	List 10	List 11	List 12	List 13
Bangladesh	Nisarga	Biparjoy	Arnab	Upakul	Barshon	Rajani	Nishith	Urmi	Meghala	Samiron	Pratikul	Sarobor	Mahanisha
India	Gati	Tej	Murasu	Aag	Vyom	Jhar	Probaho	Neer	Prabhanjan	Ghurni	Ambud	Jaladhi	Vega
Iran	Nivar	Hamoon	Akvan	Sepand	Booran	Anahita	Azar	Pooyan	Arsham	Hengame	Savas	Tahamtan	Toofan
Maldives	Burevi	Midhili	Kaani	Odi	Kenau	Endheri	Riyau	Guruva	Kurangi	Kuredhi	Horangu	Thundi	Faana
Myanmar	Tauktae	Michaung	Ngamann	Kyarthit	Sapakyee	Wetwun	Mwaihout	Kywe	Pinku	Yinkaung	Linyone	Kyeekan	Bautphat
Oman	Yaas	Remal	Sail	Naseem	Muzn	Sadeem	Dima	Manjour	Rukam	Watad	Al-jarz	Rabab	Raad
Pakistan	Gulab	Asna	Sahab	Afshan	Manahil	Shujana	Parwaz	Zannata	Sarsar	Badban	Sarrab	Gulnar	Waseq
Qatar	Shaheen	Dana	Lulu	Mouj	Suhail	Sadaf	Reem	Rayhan	Anbar	Oud	Bahar	Seef	Fanar
Saudi Arabia	Jawad	Fengal	Ghazeer	Asif	Sidrah	Hareed	Faid	Kaseer	Nakheel	Haboob	Bareq	Alreem	Wabil
Sri Lanka	Asani	Shakhti	Gigum	Gagana	Verambha	Garjana	Neeba	Ninnada	Viduli	Ogha	Salitha	Rivi	Rudu
Thailand	Sitrang	Montha	Thianyot	Bulan	Phutala	Aiyara	Saming	Kraison	Matcha	Mahingsa	Phraewa	Asuri	Thara
United Arab Emirates	Mandous	Senyar	Afoor	Nahhaam	Quffal	Daaman	Deem	Gargoor	Khubb	Degl	Athmad	Boom	Saffar
Yemen	Mocha	Ditwah	Diksam	Sira	Bakhur	Ghwyzi	Hawf	Balhaf	Brom	Shuqra	Fartak	Darsah	Samhah

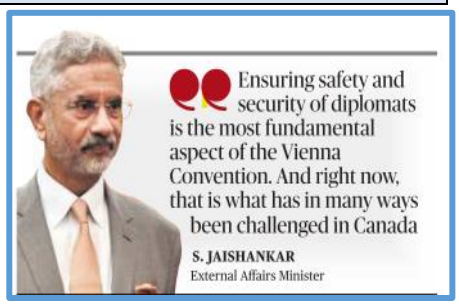
About IMD

- ✓ India Meteorological Department was **established in 1875.**
- ✓ It is department under **Ministry of Earth Science.**
- ✓ It is the **National Meteorological Service of the country** and the principal government agency in all **matters relating to meteorology and allied subjects**.
- ✓ There are 6 Regional Meteorological Centres, each under a Deputy Director General with headquarters at **Mumbai, Chennai, New Delhi, Calcutta, Nagpur and Guwahati.**
- ✓ To take **meteorological observations and to provide current and forecast meteorological** information for optimum operation of **weather-sensitive activities like agriculture, irrigation, shipping, aviation, offshore oil explorations, etc.**
- ✓ To warn against severe weather phenomena **like tropical cyclones, norwesters, duststorms, heavy rains and snow, cold and heat waves, etc., which cause destruction of life and property.**
- ✓ To provide meteorological statistics required for agriculture, water resource management, industries, oil exploration and other nation-building activities.

VIENNA CONVENTION ON DIPLOMATIC RELATIONS

SOURCE: THE INDIAN EXPRESS,

WHY IN NEWS



- Considering the **ongoing tension** between **India and Canada,** the Canadian government recently declared the **recall of 41 diplomats** stationed in India along with their family members.
- This decision, made on October 20, was explained by **Canada's Foreign Minister Melanie Joly** as a **precautionary measure** to prevent these **diplomats from potentially losing their diplomatic immunity** without warning, which could have **jeopardized their personal safety.**

ABOUT VIENNA CONVENTION ON DILPMATIC RELATIONS

- The **Vienna Convention on Diplomatic Relations** is an **international agreement** that was established in **Vienna, Austria,** on April 18, 1961, and became effective on April 24, 1964.
  - The treaty **codifies** the **well-established practice** of **diplomatic immunity,** ensuring that **diplomatic missions** receive **certain privileges** that allow **diplomats to carry out their duties** without the **risk of coercion** or **harassment** from the host country.
- The main objective of the treaty is to facilitate **diplomatic engagements** between sovereign states and **fostering amicable relationships among nations.**
- Currently, **193 countries,** including **India, a**re **signatories to this agreement**.

IMPORTANT PROVISIONS:

- **ARTICLE 9:** The host nation has the authority to declare a specific member of the diplomatic staff as **persona non grata** at any time and for any cause.
- **ARTICLE 22:** The **diplomatic mission's premises**, including the ambassadors' residences, are considered inviolable and **cannot be entered by the host country without the head of the mission's permission**. Additionally, the **host country must never conduct searches, confiscate documents or property, or allow intrusion or harm to the mission**.
- **ARTICLE 29:** Diplomats are **immune from any form of arrest or detention**, and the **host state must take all necessary measures** to ensure their safety and dignity.
- Diplomatic missions are **exempt from taxes (Article 34) and customs duties (Article 36).**
- **ARTICLE 37:** Family members of diplomats residing in the host country are granted most of the same protections as the diplomats themselves.

OBJECTIVES OF THE TREATY:

- **PRINCIPLE OF INVIOLABILITY:**
  - ✓ A diplomatic agent's personal status is **inviolable.**
  - ✓ They are **immune** from any **arrest or imprisonment** and must be accorded **respect by the host country.**
- **RESPONSIBILITY OF THE HOST NATION:**
  - ✓ The receiving State is responsible for **safeguarding the diplomat's physical well-being, freedom, and dignity,** and must take all necessary **measures to prevent any harm to them.**

LIMITATIONS OF VIENNA CONVENTION:

- **Diplomatic Offenses:**
  - ✓ Diplomats have been involved in various criminal activities, including but not limited to drunk driving, assault, child abuse, possession of dangerous weapons, bribery, human trafficking, money laundering, sexual assault, and even homicide.
  - ✓ Diplomatic immunity can, at times, shield them from prosecution, resulting in diplomatic tensions between countries.

- **Exploitation of Domestic Workers:**
  - ✓ Individuals, particularly women from low-income countries employed as domestic workers in diplomats' residences, have experienced abuse and exploitation.
  - ✓ Diplomatic immunity has occasionally been misused to avoid legal consequences for these crimes.
- **Sovereignty Concerns:**
  - ✓ Host countries may occasionally view the Vienna Convention as encroaching on their sovereignty, especially when diplomats engage in activities that are detrimental to the host nation's interests.
  - ✓ Striking a balance between respecting diplomatic privileges and ensuring national security can be a complex task.
- **Changing Nature of Diplomacy:**
  - ✓ Diplomatic missions have evolved with the advancement of technology and communication.
  - ✓ Addressing modern challenges such as cybercrimes and digital espionage within the framework of the Vienna Convention presents new and intricate issues.

WAY FORWARD:

- The **Vienna Convention** on **Diplomatic Relations** has received widespread ratification from numerous nations and is acknowledged as **customary international law.**
- This treaty has played a significant role in ensuring the o**rganized execution of international diplomacy**, **reducing diplomatic conflicts**, and fostering **peaceful relationships** among states.
- While the Vienna Conventions on Diplomatic Relations offer a comprehensive structure for diplomatic interactions, **diplomacy** also draws from the **practice of states, established international customs, and evolving global standards.**