

EXERCISE SEA DRAGON-24

Indian Navy's P8I aircraft landed at Guam, a US island territory in the Western Pacific, to participate in Exercise Sea Dragon – 24.



About Exercise Sea Dragon-24:

- It is an elite **multinational maritime** exercise that encourages professional exchanges and teamwork among participating navies.
 - **Participating countries:** India, Japan, South Korea, Australia, and the US.
 - The exercise seeks to improve skills in a variety of maritime combat domains through several aerial and ground-based tasks, including:
 - **Anti-submarine warfare (ASW):** Locating and neutralising enemy submarines hiding beneath the seas.
 - **Surface warfare:** Coordinated attacks on hostile surface vessels using superior weaponry and tactics.
 - **Air defence:** Putting up an impenetrable air barrier to keep friendly forces safe from aerial threats.
 - **Search and rescue (SAR):** Tracking down and saving maritime personnel in need.
 - **Communication and coordination:** Synchronising activities across several platforms and exchanging information in a seamless manner.
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HENLEY PASSPORT INDEX 2024

The average number of visa-free destinations has nearly doubled since 2006, according to the 2024 Henley Passport Index.



About Henley Passport Index:

- It is the original, authoritative **ranking of all the world's** passports according to the number of destinations their holders can access without a prior visa.



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- It started in 2006 as the Henley & Partners Visa Restrictions Index (HVRI).
- The index is based on exclusive data from the International Air Transport Association (IATA), the largest, most accurate travel information database, and enhanced by Henley & Partners' research team. (Henley & Partners is a London-based advisory firm).
- The index includes 199 different passports and 227 different travel destinations.
- The number of countries that a specific passport can access becomes its visa-free 'score'.

Highlights of Henley Passport Index 2024:

- France, Germany, Italy, Japan, Singapore, and Spain hold the top spot as the world's most powerful passports, allowing visa-free entry to 194 global destinations.
- The top 10 is largely dominated by European countries.
- The average number of destinations travellers can access visa-free has nearly doubled, from 58 in 2006 to 111 in 2024.
- India's passport ranked 80th in the list, with citizens allowed to travel to 62 countries without a visa.
- Afghanistan occupies the bottom spot on the list, with access to just 28 countries without a visa.
- Syria, with visa-free access to only 29 destinations, holds the second-lowest position, followed by Iraq with 31 and Pakistan with 34.
- The United Arab Emirates was the fastest climber over the past decade, jumping to 11th place and offering access to 183 destinations without a visa.

[WHAT IS THE CARBON BORDER ADJUSTMENT MECHANISM \(CBAM\)?](#)

India recently flagged concerns relating to sensitive and confidential trade data of its exporters getting compromised while complying with the European Union's Carbon Border Adjustment Mechanism (CBAM).



About Carbon Border Adjustment Mechanism (CBAM):

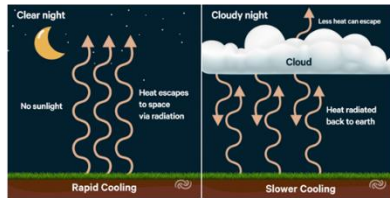
- **What is it?** It is a proposed **European Union (EU) tariff on carbon-intensive products.**
- **Purpose:** To put a fair price on the carbon emitted during the production of carbon-intensive goods that are entering the EU and to encourage cleaner industrial production in non-EU countries.
- It was adopted on May 17, 2023, and the CBAM **transitional period started October 1, 2023.**
- It is designed to **counter the risk of carbon leakage** and operates by **imposing a charge on the embedded carbon content of certain imports** that is equal to the carbon price of domestic production.

How does it Work?

- If implemented as planned, **EU importers will have to buy carbon certificates** corresponding to the carbon price that would have been paid in the EU if the goods had been produced locally.
- The **price of the certificates** would be **calculated according to the auction prices in the EU carbon credit market.**
- The **number of certificates required** would be **defined yearly by the quantity of goods and the embedded emissions** in those goods imported into the EU.
- Companies in **countries with a domestic carbon pricing regime equivalent to the EU's** will be able to **export to the EU without buying CBAM certificates.**
- The CBAM will **initially affect goods** imported from non-EU countries **that are particularly carbon-intensive**, namely specified goods within the cement, electricity, fertilisers, aluminium, iron, steel, and hydrogen sectors, as well as some upstream and downstream products (mainly iron, steel, and aluminium).

WHY DID NORTH INDIA FOG SO HEAVILY LAST WEEK?

What is Fog?



About

- Fog is a common weather phenomenon.
- It is a collection of small droplets of water produced when evaporated water has cooled down and

condensed.

- In simple terms, it is nothing but a thick cloud, but very close to the earth's surface.
 - For a thick fog to form, temperatures should be lower and abundant moisture should be available near the surface.
- **Formation**
 - Fog materialises whenever there is a temperature disparity between the ground and the air.
 - This happens frequently during Indian winters: the fog is created when the temperature drops at night and in the early morning, condenses on aerosols present in the atmosphere.
 - High humidity, combined with an ample presence of water vapour or moisture, encourages foggy conditions.
 - The process by which it cools plays a pivotal role in the formation of fog.
- **Mechanism**
 - One primary mechanism contributing to fog formation is called **Infrared Cooling**.
 - It typically occurs when the weather is transitioning from summer to winter.
 - In the summer, the ground absorbs radiation from the Sun, becomes warmer, and moistens the air passing over it.
 - When cooler weather kicks in, this mass of warm, moist air comes in contact with processes that cool it.

- The ‘collision’ prompts the water vapor in the air to condense rapidly, giving rise to fog.
- **Other types**
 - Another type of fog, known as **radiation fog**, is prevalent and occurs when an unseasonably warm day with high humidity is followed by rapidly dropping temperatures.
 - The specific type of fog, its duration, and its effects are contingent on various environmental conditions.
 - For example, there exists a unique type of fog that encourages snow to melt faster.

Why is North India Prone to Fogging?

- The entire Indo-Gangetic plains are prone to the formation of fog during the winter season, as all the conditions — **low temperatures, low wind speed, moisture availability** and plenty of aerosols — are present in this region.
- Winds called the **Western Disturbances**, originating in the Mediterranean, bring in moisture to Northern India.
 - Sometimes, the Arabian Sea also elevates the moisture content in the northern region.
- Moreover, the Himalayas in the north act as a barrier, preventing the eastward movement of the fog over the plains, leading to its concentration over the Indo-Gangetic region.
- In Delhi’s case, air pollutants such as particulate matter add to the load, creating smog (smoke fog).

MAHARASHTRA SPEAKER GIVES VERDICT ON SHIV SENA SPLIT

Why in news?

- Maharashtra Speaker Rahul Narwekar ruled that the Eknath Shinde faction was the legitimate and real Shiv Sena, having the support of the majority of the party’s MLAs.

- He was pronouncing his verdict on 34 petitions, filed by the two rival Shiv Sena factions against each other.
- **Split of Shiv Sena**
 - The seeds of the conflict were planted when the Uddhav Thackeray-led (united) Shiv Sena joined the Maha Vikas Aghadi government.
 - In June 2022, a group of Shiv Sena MLAs led by Eknath Shinde rebelled against Uddhav Thackeray.
 - Eknath Shinde and a group of 34 Sena MLAs rebelled against Uddhav.
 - Within hours, Uddhav's side passed a resolution removing Shinde as leader of the party in the Maharashtra House and appointed a new chief whip.
 - At the same time, the Shinde group also passed a resolution affirming Shinde's leadership and appointing a different person as the chief whip.
- **Shinde became the CM**
 - After being unable to placate Sena rebels, Uddhav resigned as Chief Minister on June 29 and his government fell.
 - Shinde took oath as Maharashtra CM a day later, allied with the BJP.
- **Disqualification pleas before the speaker**
 - The very first set of pleas were filed by the Uddhav faction two days after the Sena split.
 - These pleas sought the disqualification of Shinde and other MLAs who allegedly ignored whips issued by the chief whip appointed by the Uddhav faction.

Analysing the verdict

- With this verdict, the Shinde Sena gets further legitimacy as a political party, after the Election Commission also recognised it.
- While no MLA was eventually disqualified, Uddhav's side is likely to take up the matter in court.

WHAT IS A SPIRAL GALAXY?

The Hubble Space Telescope recently captured an image of the spiral galaxy, MCG-01-24-014, revealing the enigmatic beauty of what is known as 'forbidden' light.



About Spiral Galaxy:

- Spiral galaxies are **twisted collections of stars and gas** that often have beautiful shapes and are **made up of hot, young stars**.
- **Most of the galaxies** that scientists have discovered so far are **spiral galaxies**, as opposed to the other two main categories of galaxy shapes—elliptical and irregular.
- **Approximately 60% of all galaxies** are thought to be spiral galaxies.
- The **Milky Way**, the galaxy that includes Earth and our solar system, **is an example** of a spiral galaxy.

Structure:

- Most spiral galaxies contain a **central bulge surrounded by a flat, rotating disk of stars**.
- **The bulge** in the centre is **made up of older, dimmer stars** and is thought to **contain a supermassive black hole**.
- Approximately **two-thirds of spiral galaxies** also contain a **bar structure through their centre**, as does the Milky Way.
- The **disk of stars** orbiting the bulge **separates into arms that circle the galaxy**.
- These **spiral arms contain** a wealth of **gas and dust and younger stars** that shine brightly before their quick demise.
- Spiral galaxies are **thought to evolve into elliptical galaxies as the spirals get older**.

SELECTION OF TABLEAUX FOR THE REPUBLIC DAY PARADE

- The Delhi Republic Day parade is the largest and most important of India's Republic Day celebrations.
- Every year on **January 26th**, the parade takes place on the Kartavya Path (formally Rajpath) in New Delhi. The first parade took place in 1950 and it has taken place every year since.
- The parade marches along the Kartavya Path from the Rashtrapati Bhawan to India Gate and then to the Red Fort.
- Among other things, **tableaux representing the cultures of various states are displayed.**

Republic Day Parade: How are Tableaux Selected?

- According to a **Ministry of Defence (MoD)** circular, a select number of “State govts/UTs/Central ministries or departments” send their tableaux each year to the Republic Day parade.
- **There is a rigorous application process** which begins with interested parties submitting a concept note, along with design blueprints to the MoD.
- **The tableaux proposals received are evaluated** by a committee of experts appointed by the MoD, comprising prominent persons in the field of art, culture, painting, sculpture, music, architecture, choreography, etc.

What is the Basis of Selection of Republic Day Parade Tableaux?

- Each year, **the MoD comes up with an overarching theme**, under which participants can showcase elements relevant to their respective state/UT/department in their tableaux.
- This year’s theme is “**Viksit Bharat**” (Developed India) and “**Bharat: Loktantra ki Matrika**” (India: the Mother of Democracy).
- Importantly, the tableaux of two different states/ UTs must not be too similar and eco-friendly material must be used for their construction.

A Memorandum of Understanding (MoU) Signed Between MoD and States:

- Under a MoU signed between the MoD and the governments concerned, **all the states and UTs will get equal opportunity to display their tableaux** in the next 3 Republic Day celebrations at Kartavya Path.
- **The 3-year rolling plan (2024-2026)** was finalised so that every state and UT gets a chance - on a rotational basis - to showcase its tableau during the Republic Day parade.
- **An expert committee**, comprising reputed artists recommended by Indira Gandhi National Centre for the Arts and Indian Council for Cultural Relations was constituted for selecting the tableaux

Politics over Rejection of Tableaux:

- **A State can pitch multiple proposals to the committee**, but only one is chosen for the final parade.
- The Defence Ministry argues that only a limited number of tableaux can be selected **due to time constraints and to ensure the participation of the best ones**.
- However, the exclusion of proposals from Opposition-ruled States has led to accusations of **'discrimination'** by several State governments.
- This year, tableau proposals by Punjab, Delhi and West Bengal - all non-BJP ruled States - failed to make the final cut.
- While the Centre is yet to release the final list of tableaux for the parade, **it has rejected the criticism as "baseless"** and claimed that the rejected proposals **didn't align with this year's broader theme**.