DAILY CURRENT AFFAIRS 18-05-2024

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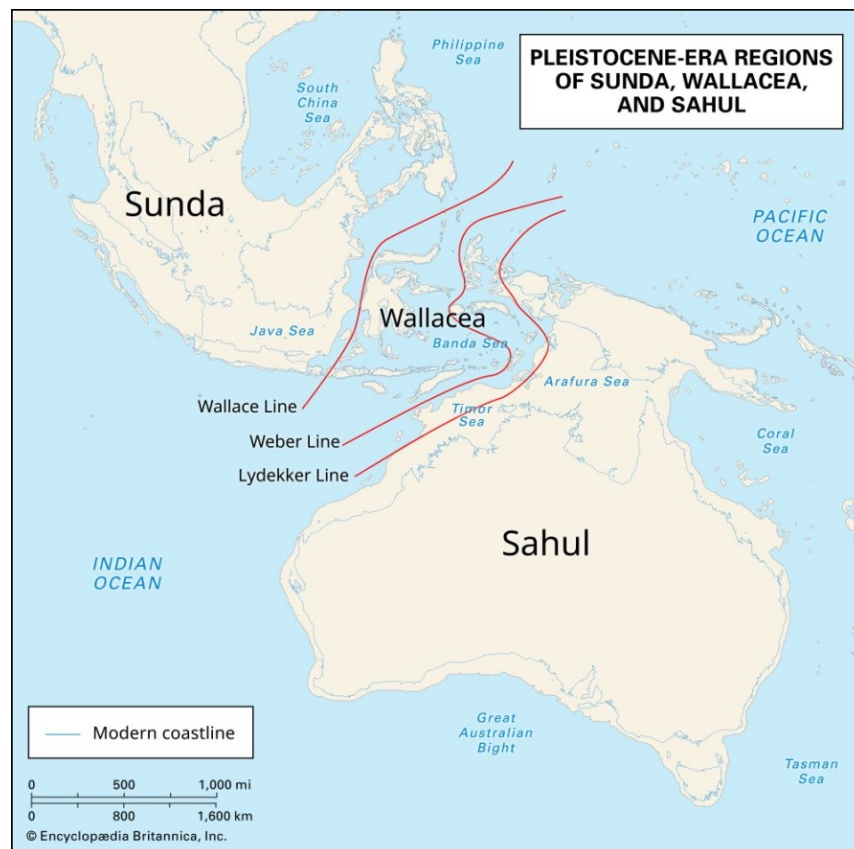
GS-3

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Sahul

Syllabus; GS-1; Ancient History

Context

> *In an epic find, archeologists have found evidence of a **lost landscape known as Sahul** in the ancient days that helped humans travel across continents, that is, from Asia to Australia almost 7,000 decades ago, according to 'The Sun' report.*
> *Researchers were amazed to find the ancient piece of land which may stand testimony to the fact that many international historic sites have not been discovered yet.*

What is Sahul?

> *Sahul can be termed as a **supercontinent,** stood exposed on the Earth's surface when humans were in the middle of what can be termed as the last ice age.*
> *Since the ice age led to glaciation of water levels on the planet, it ended up exposing parts of land like Sahul which connected to currently known **Australia to Papua New Guinea in the north and Tasmania in the south**, according to The Sun's report.*

More about the findings

Unique fauna

> *Sahul was home to a variety of unique fauna that evolved independently from the rest of the world. Most mammals on Sahul were marsupials, with the only placental mammals being bats and rodents.*

Human colonization

> *Humans are estimated to have first colonized Sahul between 45,000 and 60,000 years ago, and then spread throughout Oceania.*

Biogeographical boundary

> *The Sunda landmass of southeast Asia was separated from Sahul by 55 miles of water, known as Wallace's Line, which caused Asian and Australian fauna to evolve separately.*

Pama-Nyungan languages

> *Languages from the Pama-Nyungan family cover seven-eighths of the Sahul continent.*

Carbonate banks and terrace system

> *The carbonate banks and terrace system of the Sahul Shelf is a unique seafloor feature that supports high species diversity and is regionally significant.*

How polling station works

Syllabus: GS-2; Elections

Context

> *During the ongoing Lok Sabha elections, 96.8 crore electors are enrolled to vote at 10.5 lakh polling stations spread out nationwide, from the heart of bustling metropolises to the most remote corners of the country.*

Setting up polling stations: norms and principles

> *Under **Section 25 of the Representation of the People Act, 1951 (RPA)**, the **district election officer (DEO)** is assigned the responsibility to set up and publish the list of polling stations in their district.*
> *There are some principles on the basis of which polling stations are set up.*
> *These include ensuring that **voters do not have to travel more than two km** to cast their vote, a station has a minimum area of 20 sq m, a station serves at most 1,500 electors, and a village with over 300 voters is provided with a polling station.*

➢ *These principles, however, are not set in stone. Polling stations can even cater to less than 300 voters in case access is a problem, say in rugged terrain.*

➢ *Locations for polling stations are chosen carefully, preferably in government or semi-government institutions.*

➢ *Private buildings are avoided unless absolutely necessary — they can be requisitioned with the written consent of the owner, or forcefully under Section 160 of the RPA.*

➢ *The list of polling stations undergoes verification and updation during annual electoral roll revisions.*

➢ *The draft list is prepared with input from local political parties and citizens, after finalisation with the* **Election Commission of India's (ECI's)** *approval, it is distributed to parties and candidates, with extra copies available for sale.*

Provisions for Persons with Disabilities (PwD)

➢ *There are some 88.4 lakh Persons with Disabilities (PwD) registered to vote in the ongoing Lok Sabha elections.*

➢ *The ECI has strict norms to ensure that they too can exercise their franchise without a hitch.*

➢ *All polling stations must have a ramp with a maximum 1:12 gradient, and provide wheelchairs and designated parking spaces close to the station to PwD voters.*

People inside a polling station, voting day restrictions

➢ *Only specific individuals are permitted access inside a polling station.*

➢ *These include* **registered electors**, **polling officers, candidates**, *one polling agent per candidate at a time, authorised media personnel, public servants on election duty, ECI-appointed observers, micro observers, videographers, photographers, and webcasting staff for critical/sensitive polling stations, a child in arms accompanying an elector, a person assisting a blind or infirm voter, and any others admitted by the Presiding Officer for voter identification or assistance purposes, whenever required.*

➢ *A polling party comprises a* **Presiding Officer and three Polling Officers.**

➢ *The first Polling Officer verifies the elector's identity, the second applies indelible ink on their left index finger, maintains the voters' register, and issues voter slips.*

➢ *The third Polling Officer takes back the voter slip issued by the second polling officer, manages the EVM's control unit, and ensures that an elector has been properly inked before being allowed to vote.*

➢ **Sector Officers or Zonal Magistrates** *are appointed for around 10-12 polling stations to facilitate the link between polling staff and the Returning Officer.*

➢ **Booth Level Officers (BLO)** *at the Voter Assistance Booths assist voters in finding their polling booth and serial numbers in the alphabetically arranged electoral roll.*

Critical polling stations

> ➢ *Critical polling stations are those where the ECI takes some extra measures to ensure the security and integrity of the voting process.*
> ➢ *In such stations, the ECI conducts pre-poll confidence building initiatives, gets regular feedback from candidates and intelligence agencies, legally binds identified trouble-mongers, and uses preventive detention under appropriate sections of law. On the day of the poll,* **Central Armed Police Forces (CAPF) and Micro Observers are deployed.**

Digital competition Bill

Syllabus: GS-3: Industrial Policies.

Context:

> ➢ *India is considering a new digital competition law inspired by European regulations.*
> ➢ *The law aims to prevent tech giants like* **Google, Facebook, and Amazon** *from giving preference to their own services or using data from one company to benefit another within their group.*

More about new law:

> ➢ *The proposed law, called the* **Digital Competition Bill, 2024**, *includes measures to establish presumptive norms to prevent anti-competitive practices before they occur.*
> ➢ *Heavy penalties,* **potentially in the billions of dollars**, *are proposed for violations of the law.*
> ➢ *If implemented, the law could require significant changes to the* **platforms of big tech companies.**
> ➢ *The proposal shares similarities with the* **EU's Digital Markets Act (DMA),** *which became fully effective recently.*
> ➢ *The DMA obliges large tech firms such as* **Alphabet, Amazon, and Apple to open their services** *and not prioritize their own offerings over rivals', aiming to address a history of anti-competitive behavior by these companies.*

Key proposals of the draft digital competition Bill

Predictive Regulation:

> ➢ *Recognizes the* **complexity of digital markets** *with interconnected offerings.*
> ➢ *Advocates for a* **forward-looking, preventive approach** *(ex ante framework) over a reactive one (ex post framework).*

➢ *Aims to identify* **potential antitrust issues** *in advance and establish pre-determined boundaries to prevent market abuse.*

➢ *Addresses criticism of the current ex post antitrust framework under the* **Competition Act, 2002**, *which is seen as causing delays in penalizing market abuse, allowing market dynamics to change and disadvantage smaller competitors.*

Significant Entities Designation:

➢ *Proposal for the Competition Commission of India (CCI) to designate certain companies as* **"Systematically Significant Digital Enterprises (SSDE)"** *for core digital services like search engines and social media sites.*

➢ *Determination based on* **quantitative and qualitative parameters** *such as turnover, user base, and market influence.*

Quantitative Parameters for SSDE Designation:

➢ **Turnover criteria:**
   o *In India: Not less than Rs 4,000 crore in the last 3 financial years.*
   o *Globally: Not less than $30 billion.*
   o *Gross merchandise value (GMV) in India: Not less than Rs 16,000 crore.*
   o *Global market capitalization: Not less than $75 billion.*

➢ **Core digital service must have:**
   o *At least 1 crore end users or 10,000 business users.*

➢ **Additional Designation Criteria:**
   o *Entities not meeting quantitative parameters can still be designated as SSDEs if CCI deems their presence significant in any core digital service.*

➢ **Prohibitions and Penalties:**
   o *SSDEs are prohibited from practices like self-preferencing, anti-steering, and restricting third-party applications.*
   o *Violations can result in fines of up to 10% of global turnover.*

Associate Digital Enterprises (ADEs):

➢ *Proposal to designate* **associate digital enterprises** *(ADEs) to address the benefit derived from data collected by one company within a major technology group for the benefit of other group companies.*

Designation Criteria:

➢ *An entity of a group may be considered an associate entity* **based on its involvement with the core digital service** *offered by the main company.*

Illustrative Example:

➢ *In the case of Google, if data from Google Search benefits services like Google Maps or YouTube,* **those services could be deemed ADEs**.

➢ *For instance, Google Maps could be considered an ADE* **if it utilizes direction data from Google Search,** *and YouTube could also qualify depending on data sharing and its impact on user recommendations.*

Obligations:

➢ *ADEs would have* **similar obligations as SSDEs**, *contingent upon their level of involvement with the core digital service offered by the main company.*

Criticism to the bill:

Resistance from Industry Stakeholders:

➢ *Companies,* **industry bodies funded by tech firms**, *and boutique consultancies are opposing the Bill in its current form.*

Concerns of Big Tech Companies:

➢ **Shift from innovation to compliance***: An ex ante framework could impose a significant compliance burden on big tech firms, diverting focus from innovation and research.*

➢ **Preference for strengthening current competition law***: Tech giants advocate for strengthening existing laws rather than adopting an ex ante framework.*

➢ **Impact on user experience***: Stricter requirements may lead to negative impacts on user experience, such as longer search times on Google.*

➢ **Example of Apple***: The law could compel Apple to allow iPhone users to download apps from third-party app stores, which the company opposes vehemently.*

Security Concerns:

➢ **Opposition to sideloading***: Both Google and Apple oppose sideloading of apps, citing potential security risks from apps downloaded outside their official stores.*

Broad Definition of Significant Platforms:

➢ **Concerns about definition***: The draft law's broad definition of significant platforms, determined by the Competition Commission of India (CCI), is criticized for potential arbitrary decision-making.*

➢ **Impact on startups***: Arbitrary decisions could adversely affect startups relying on these platforms for reaching a larger audience.*

Potential Impact on Data Sharing:

➢ **Changes to platforms***: Implementing changes, such as reducing data sharing, could negatively affect smaller businesses dependent on these platforms for audience reach.*

The need to foster digital competition:

History of Anti-Competitive Practices:

➢ *Government officials argue that big tech companies have a track record of* **engaging in anti-competitive behavior***.*

➢ *Example:* **Google was fined Rs 1.337 crore** *by the CCI for anti-competitive conduct in the Android ecosystem.*

Concerns about Innovation and Market Barriers:

➢ *Officials express concern that most innovation in the past decade has been* **dominated by a few US-based tech companies***.*

➢ **High market barriers** *hinder new entrants, making it difficult for rivals to challenge the dominance of established players.*

Impact on Competition:

➢ *Once a company gains a significant market share,* **its product becomes the default choice for accessing a particular service,** *making it hard for competitors to challenge its dominance.*

➢ *Even* **companies like Spotify have raised concerns** *about policies of tech giants like Apple and Google.*

Presence of Niche Online Products:

➢ *Niche products exist,* **catering to specific user preferences** *(e.g., Signal for privacy-focused messaging, DuckDuckGo for search).*

➢ *However, these products remain niche rather than mainstream choices.*

Impact of Big Companies on Advertising:

➢ *Growth of big tech companies like* **Google and Facebook** *has led to cheaper advertising rates compared to traditional media.*

➢ *Resulted in a* **surveillance-heavy digital advertising industry***, making inferences about users across platforms.*

Semal trees

Syllabus: GS-3; Environment and Ecology

Context

➢ *For Udaipur's Holi, Rajasthan's semal trees are going up in flames*

About

Botanical name:	*Bombax ceiba*
Type:	*Deciduous tree*
Leaf type:	*Large, glossy leaves that are lanceolate in shape, meaning that they are narrow and pointed at the ends*
Flower:	*Showy, red flowers about 2 inches in diameter and have a pleasant, sweet fragrance*
Varieties available:	*4*
Also known as:	*Silk cotton tree*
Height:	*Height up to 30 m*

Sun exposure:	*A location that receives total sun exposure, meaning that it gets at least six hours of direct sunlight per day*
Ideal temperature:	*Range 28 – 42°c*
Soil type:	*Well-draining, sandy loam soil*
Soil pH:	*pH between 6.0 and 6.5*
Basic requirements:	*Moist soil with regular fertilisation and total sun exposure*
Ideal location for placement:	*The best location for a Semal tree is one that provides the tree with plenty of sunlight, well-draining soil, and enough space to grow*
Ideal season to grow:	*A distinct dry season*
Maintenance:	*Low maintenance*

Benefits and uses

➢ **Medicinal properties:** *The bark, leaves, and seeds of the semal tree are utilised in traditional medicine to cure various ailments, including fever, diarrhoea and skin conditions.*
   The tree is also used as a natural remedy for wounds and cuts.
➢ **Timber:** *The wood of the semal tree is solid and durable and is often used for construction, furniture-making, and other woodworking applications.*
➢ **Landscaping:** *The semal tree is often used as a street tree or in park and garden settings due to its attractive appearance and fast growth rate.*
➢ **Soil stabilisation:** *The roots of the semal tree are profound and widespread, making it effective at stabilising soil and preventing erosion.*
➢ **Fibre***: The semal tree is a great source of fibre. The cotton-like substance is usually used for stuffing pillows.*
➢ **Cultural and spiritual significance***: In some cultures, the semal tree is considered sacred and associated with spiritual or religious beliefs.*

Igla-S

Syllabus: GS-3; Defence and Security, Science and Technology

Context

➤ *Army set to receive Igla-S air defence systems partly assembled in India*

More to know

The Defense Department cannot account for all of its Stinger surface-to-air missiles and launchers, according to an unpublished congressional report. The missing heat-seeking shoulder-launched anti-aircraft missiles could provide many problems for military and civilian aircraft around the world.

LAUNCHER

MISSILE

Length: 5 feet
Weight: 35 pounds
Range: Maximum 5 miles
Maximum speed: 1,650 mph (supersonic)
Guidance: Infrared seeker
Maximum altitude: 2.2 miles

➤ **Igla-1** *is a simplified early production version. It is known in the West as SA-16 Gimlet. It had a maximum range of 5000 m and could reach targets at a maximum altitude of 2500 m.*

➤ **Igla-1E** *is an export version. It has been exported to a number of countries.*

➤ **Igla (SA-18 Grouse)** *is a standard production version. It was adopted in 1983. Currently it is in service with more than 30 countries, including Russia.*

➤ **Igla-D**, *version developed specially for the Soviet airborne troops. Its launch tube can be disassembled and carried in two separate sections in order to reduce dimensions.*

➤ **Igla-M** *is a naval version for the naval boats. Its Western designation is SA-N-10 Grouse.*

➤ **Igla-V** *is an air-to-air version, used on helicopters.*

➤ **Igla-N** *is a version with much larger and more powerful warhead.*

➤ **Igla-S,** *sometimes referred as Igla-Super. It is an improved variant in the Igla, which entered service with Russian Army in 2004. It is known in the West as SA-24 Grinch.*