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A still life composition of historical artifacts. In the foreground, a large, worn leather-bound book stands vertically on the left. To its right, a rolled-up scroll with a reddish-brown leather cover lies horizontally. In the lower foreground, a metal ring and a key are scattered on an antique map. The background is a textured, brownish-gold surface with a faint, repeating pattern. The overall lighting is warm and dramatic, highlighting the textures of the leather and metal.

# HISTORY- ARTS AND CULTURE



**RAJASTHAN**

**TAMIRAPARANI RIVER CIVILIZATION**

**CHHATRAPATI SHIVAJI**

**EV RAMASAMY NAICKER**

**DR B.R. AMBEDKAR**

**ICONIC HERITAGE TEXTILE CRAFTS**

**SITTANAVASAL PAINTINGS**



## Rajasthan International Folk Festival

### The 13th edition of the Rajasthan International Folk Festival was organized from October 6 to 10 this year.

#### FAIRS AND FESTIVALS OF RAJASTHAN

- Camel Festival, Bikaner
  - The camel festival is organised by the Department of Tourism in January every year in Bikaner.
- Nagaur Fair, Nagaur
  - The fair is held every year in January-February in Nagaur, is a trading fair for cattle and camels.
- Mewar Festival, Udaipur
  - This 18-day festival is celebrated to welcome the advent of spring and coincides with the festival of Gangaur.
- Gangaur Festival, Jaipur
  - Gangaur is celebrated in the month of chaitra (March-April)
- Kaila Devi Fair, Karauli
  - The fair is held in March or April in Kaila village in Karauli district
- Mahavir Ji Fair, Karauli
  - This fair is held at Mahavir Ji between March and April to commemorate Shri Mahavir Swami
- Summer Festival, Mount Abu
  - The three-day festival is held at Mount Abu in June every year and is a feast of folk and classical music
- Teej Festival, Jaipur
  - Held during the monsoons in July Teej is also dedicated to Lord Shiva and Parvati
- Gogaji Fair
  - Gogaji Fair is held in the memory of a popular hero of the area Goga/Jahar Peer
- Kaliteej, Bundi
  - Teej festival, the celebration of the monsoons (July-August)
- Ramdevra Fair, Jaisalmer
  - The Ramdevra Fair is held in Ramdevra village in Jaisalmer in August or September
- Marwar Festival, Jodhpur
  - Held in October in Jodhpur, this annual two-day event attempts to showcase the art and culture of the Jodhpur region.
- Dusshera, Kota
  - Kota Dussehra is quite unique for it is more than just the beginning of a festive period.
- Pushkar Fair, Ajmer
  - Pushkar fair is held in November in Pushkar, Ajmer
- Chandrabhaga Fair, Jhalawar
  - This three-day fair is held at Jhalrapatan near Jhalawar either in November or December
- Kolyat Fair, Bikaner
  - The place is the sacred site where Kapil Muni is supposed to have meditated.



## FOLK DANCE AND MUSIC OF RAJASTHAN

- Ghoomar Dance
  - Ghoomar is a traditional folk dance of Rajasthan and also a State Dance
- Gair
  - Gair dance is one of the popular, famous and folk dance which is performed by the Bhil community
- Chari Dance
  - Chari folk dance of Rajasthan belongs to Gujjar community of Kishangarh and only womens perform in this dance.
- Kachhi Ghodi
  - This dance is performed by mens on dummy horses.
- Fire Dance
  - This is a very difficult dance to perform and is carried out by the Banjara community.
- Terah Taali
  - This folk dance is performed by the Kamada tribes who are traditional snake charmers.
- Kathputli
  - It is the old tradition of stories from mythology and legends are told through puppets
- Pabuji Ki Phach
  - This Performing Art is associated to the life and the gallantry activities of Pabuji.
- Maand
  - It is quiet similar to the Thumri or the Ghazal.

## PAINTINGS OF RAJASTHAN

- Miniature Paintings
  - The art of Miniature painting was introduced to the land of India by the Mughals
- Gemstone Paintings
  - In This painting style shades of color are provided by the semi-precious stones instead of artificial or vegetable colors
- Phad Paintings
  - Paintings on cloth portraying the epic lives of the local hero-gods are popularly known as Phad paintings.
- Kajali Paintings
  - No brushes are used in Kajali painting. The only tools used are hand and cloth
- Kishangarh Paintings(Bani Thani)
  - Bani Thani is an Indian painting in the Kishangarh school of paintings.



FIGURE: Miniature Paintings

## GI TAGS OF RAJASTHAN-

### ● HANDICRAFT

1. Bagru Hand Block Printing (Handicraft)
2. Blue Pottery of Jaipur (Logo) (Handicraft)
3. Kathputlis of Rajasthan (Logo) (Handicraft)
4. Kota Doria (Logo) (Handicraft)
5. Molela Clay Work of Rajasthan (Logo) (Handicraft)
6. Phulkari (Handicraft)
7. Pokaran Pottery (Handicraft)
8. Sangneri Hand Block Printing (Handicraft)
9. Thawa Art Work (Handicraft)

### ● FOOD STUFF

1. Bikaneri Bhujia (Food Stuff)

### ● NATURAL GOODS

1. Makrana Marble (Natural Goods)



## TAMIRAPARANI RIVER CIVILIZATION

### Tamil Nadu Excavation Carbon Dating Finds A 3,200-Year-Old Civilisation

- Rice with soil/husk found in the offering pot inside of an urn at Sivakalai area in southern Tamil Nadu was sent for AMS (Accelerator Mass Spectrometry) Carbon dating to the Beta Analytical Laboratory at Miami in Florida of USA.
- The rice samples have yielded the date of 1,155 BCE and hence, the Tamiraparani River Civilization (Tirunelveli region in southern TN) has been dated to be 3,200 years old.
- The current findings have further advanced the date and underscored that a matured civilization existed along the river Tamiraparani, which was called river Porunai.
- Adhichanallur and Sivakalai have served as habitations, while Korkai was the port.

## Chhatrapati Shivaji

The octagonal shape of the Indian Navy's symbol, with twin golden borders, draws its inspiration from the seal of the great Indian emperor Chhatrapati Shivaji.

### Shivaji (1627-1680)

- Shivaji was born at Shivner in 1627.
  - His father was Shahji Bhonsle and mother Jija Bai.
  - Shivaji's military conquests made him a legendary figure in the Maratha region.
  - Treaty of Purander
  - Aurangzeb sent Raja Jai Singh of Amber to fight against Shivaji.
  - He made elaborate preparations and succeeded in besieging the Purander fort where Shivaji lodged his family and treasure.
  - Shivaji opened negotiations with Jai Singh and the Treaty of Purander was signed in 1665.
  - According to the treaty, Shivaji had to surrender 23 forts to the Mughals out of 35 forts held by him.
  - The remaining 12 forts were to be left to Shivaji on condition of service and loyalty to Mughal empire.
  - On the other hand, the Mughals recognized the right of Shivaji to hold certain parts of the Bijapur kingdom.
  - As Shivaji asked to exempt him from personal service to the Mughals, his minor son Shambaji was granted a mansab of 5000.
- In 1674 Shivaji crowned himself at Raigarh and assumed the title Chatrapathi. Then he led an expedition into the Carnatic region and captured Ginjee and Vellore. After his return from this expedition, Shivaji died in 1680.

### Shivaji's Administration

He was assisted by a council of ministers called Ashtapradhan. However, each minister was directly responsible to Shivaji.

1. Peshwa – Finance and general administration. Later he became the prime minister.
2. Sar-i-Naubat or Senapati – Military commander, a honorary post.
3. Amatya – Accountant General
4. Waqenavis – Intelligence, posts and household affairs.
5. Sachiv – Correspondence.
6. Sumanta – Master of ceremonies.
7. Nyayadish – Justice.
8. Panditarao – Charities and religious administration.

### Chauth and sardeshmukhi

Chauth and sardeshmukhi were the taxes collected not in the Maratha kingdom but in the neighbouring territories of the Mughal empire or Deccan sultanates.

Chauth was one fourth of the land revenue paid to the Marathas in order to avoid the Maratha raids. Sardeshmukhi was an additional levy of ten percent on those lands which the Marathas claimed hereditary rights.

### Terms to note:

- Kathi - measuring rod
- Karkuns - revenue officials
- Havaldars - cavalry supervisor
- Bargirs and silahdars - divisions in the Maratha cavalry

## **EV Ramasamy Naicker** **As a tribute to social reformer and founder of the Dravidian movement 'Periyar' EV Ramasamy, 'Day of Social Justice' in Tamil Nadu was celebrated.**

### **E.V. Ramaswami Naicker**

- E.V. Ramaswami Naicker was a prominent social reformer of India in the twentieth century.
- He was born of Balijsa Naidu parents on 28 September, 1879 at Erode in Coimbatore District in Tamil Nadu.
- He participated in a protest meeting in 1916 organised against the government's action against Home Rule organ, New India
- Naicker took increasing interest in the activities of the Madras Presidency Association formed in 1917, served as one of its Vice-Presidents, participated in all its deliberations and helped to conduct its second annual conference at Erode in October 1919.
- He joined the Congress in 1920
- He participated wholeheartedly in the non-cooperation movement, in the temperance campaign and in the campaign launched to replace foreign cloth by the progressive use of Khaddar.
- In 1920 itself he was elected the President of the Madras Presidency Congress (MPCC).
- Vaikom Satyagraha gave him a chance to fight social evils within the Indian Social system

### **THE SELF-RESPECT MOVEMENT: 1925**

- E.V. Ramaswami Naicker gave a concrete shape to his ideas on social reform by founding the Suyamariyati iyakkam otherwise known as the Self-Respect Movement.
- It was a reform movement dedicated to the goal of giving non-Brahmins a sense of pride based on their Dravidianist past.
- The movement denied the superiority of the Brahmins and their implicit faith in the present system.

### **Even before the Self-Respect Movement was founded in 1925, EVR started expressing his views on the evil in the society.**

- The Tamil language weekly Kudi Arasu (People's Government) founded in May 1924 became the organ of the Self-Respect Movement.
- It was specially directed at certain non-Brahmin groups that had not been reached by the Justice Party's Dravidian.
- Shortly after 1930, Ramaswami Naicker began a Tamil daily called Viduthalai (Freedom) and in 1935 he started a Tamil monthly called Pakkuthariuu (commonsense).
- But in the late 20's Kudi Arasu was the movement's propaganda weapon.





## Dr B.R. Ambedkar

### Recently, the Central government announced a special tourist circuit named

- He was born on 14 April 1891 in Madhya Pradesh in Hindu Mahar Caste.
- He became chairman of the Drafting Committee of the Constituent Assembly in 1947.
- He devoted his entire life to remove the social evil untouchability.
- In 1923, he set up the 'Bahishkrit Hitkarini Sabha (Outcastes Welfare Association)' for spreading education and culture amongst the downtrodden.
- In 1930 he launched a Temple Entry Movement at Kalaram temple in Nasik.
- Dr. Ambedkar attended all the three Round Table Conferences (1930-32) in London.
- In 1936, Ambedkar founded the Independent Labour Party.
- On October 14, 1956 he embraced Buddhism.
- He also completed his last writing 'Buddha and His Dharma'.

### Poona Pact, 1932

- The background to the Poona Pact was the Communal Award of August 1932, which, among other things, reserved 71 seats in the central legislature for the depressed classes
- Gandhi, who was opposed to the Communal Award, saw it as a British attempt to split Hindus, and began a fast unto death in the Yerwada Central Jail of Poona to have it repealed.
- In a settlement negotiated with Gandhi, Ambedkar agreed for depressed class candidates to be elected by a joint electorate.
- However, on his insistence, slightly over twice as many seats (147) were reserved for the depressed classes in the legislature than what had been allotted under the Communal Award.
- In addition, the Poona Pact assured a fair representation of the depressed classes in the public services while earmarking a portion of the educational grant for their uplift.



# ICONIC HERITAGE TEXTILE CRAFTS

UNESCO has released a list of 50 exclusive and iconic heritage textile crafts of the country.

**Some Important Textiles Crafts Listed**-Toda embroidery and Sungudi - Tamil Nad-Himroo weaves - Hyderabad-Bandha tie and dye weaving - Sambalpur in Odisha-Kunbi weaves - Goa- Mashru weaves and Patola - Gujarat-Himroo - Maharashtra-Garad-Korial - West Bengal-Ilkal and Lambadi or Banjara embroidery - Karnataka-Sikalnayakanpet Kalamkari - Tamil Nadu-Khes - Haryana-Chamba rumals - Himachal Pradesh-Thigma or wool tie and dye - Ladakh-Awadh Jamdani - Varanasi

## TEXTILE CRAFTS OF INDIA



## SITTANAVASAL PAINTINGS

Recently, the Archaeological Survey of India has undertaken conservation measures and also introduced digital checks to track public access in Sittanavasal.

- Sittanavasal is considered by historians to be one of the oldest inhabited areas in the district, and a major centre of Jain influence.
- This is the only place in Tamil Nadu where we can see Pandya paintings
- Sittanavasal's site and art was first mentioned by local historian S. Radhakrishnan Iyer in his 1916 book General History of Pudukottai State.
- The artwork on the ceiling of the sanctum and the ardha mandapam of Arivar Kovil is an early example of post-Ajanta cave paintings of the fourth to sixth centuries, done using the fresco-secco technique
- The ceiling paintings show 'bhavyas' (exalted souls who work to achieve moksha or spiritual liberation) enjoying themselves in a pool
- Faint outlines linger of dancing girls on the 'ardha mandapam' pillars.
- Sittanavasal remains an important place to study the history of the religion.
- Inscriptions in Brahmi and 'vattaezhuthu', from the third century AD have been discovered here.
- Early Tamil inscriptions from the ninth century AD of the Jain monk Ilan-Gautaman, are inside the complex.







**CHANGE IN MONSOON PATTERNS**

**CYCLONE SITRANG**

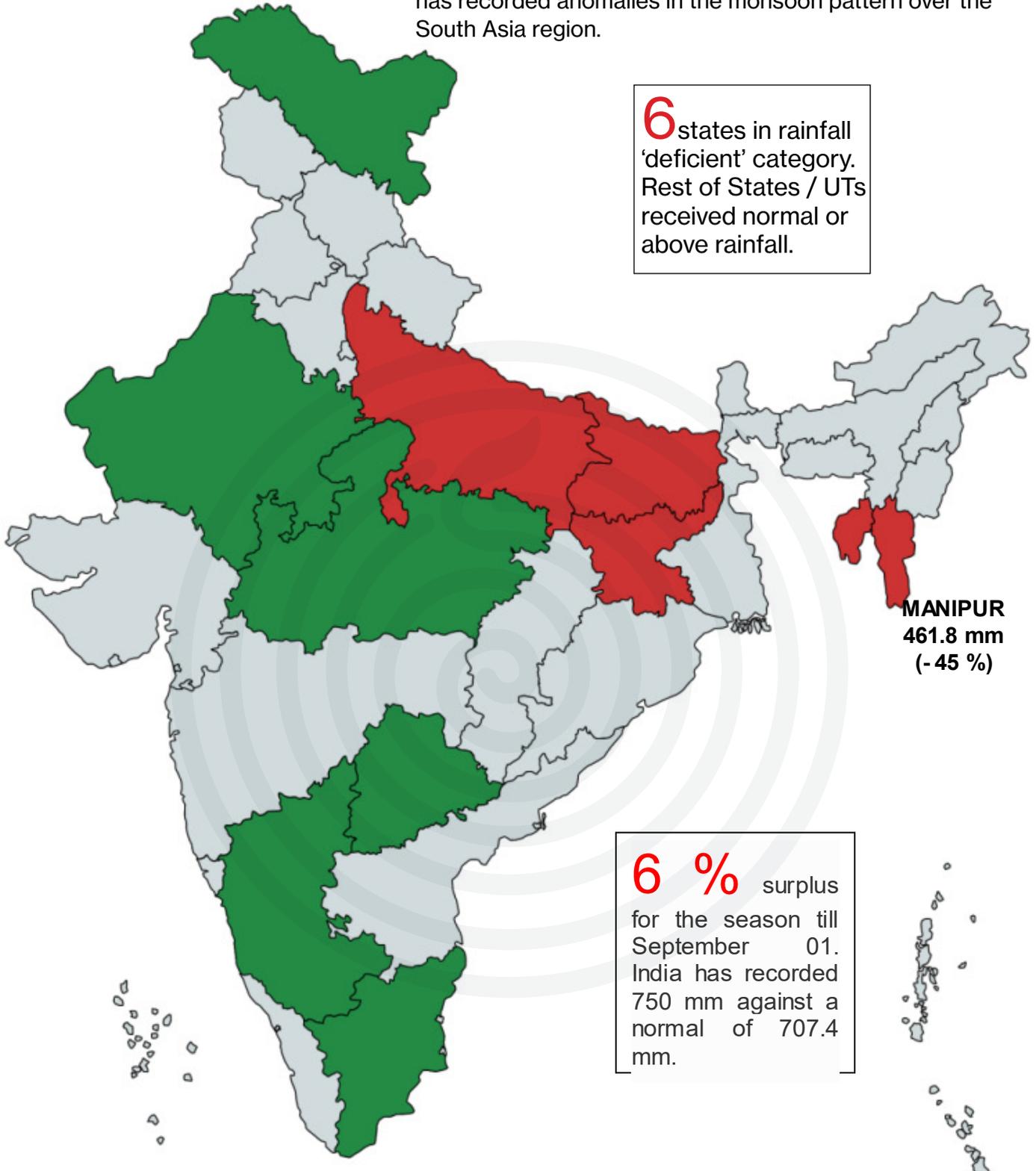
**HYDROCARBON RESOURCES**

**CRISIS IN HORN OF AFRICA**



## CHANGE IN MONSOON PATTERNS

CONTEXT: The Indian Meteorological Department (IMD) has recorded anomalies in the monsoon pattern over the South Asia region.



Created with mapchart.net

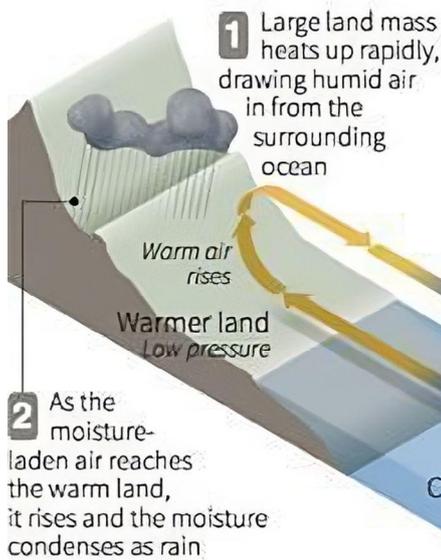
*The climate change-induced global warming keeps the ocean waters warm abnormally long, beyond the traditional monsoon season. A warmer ocean system has a greater capacity to hold that help the formation of monsoon winds. It results in unexpectedly heavier downpour than would be expected otherwise thus, increasing instances of extreme rainfall*

# Asian monsoons

Monsoon is used to describe seasonal reversals of wind direction, caused by temperature differences between the land and sea. The most well-known of these, where the term is most often applied, is the Asian Monsoon.

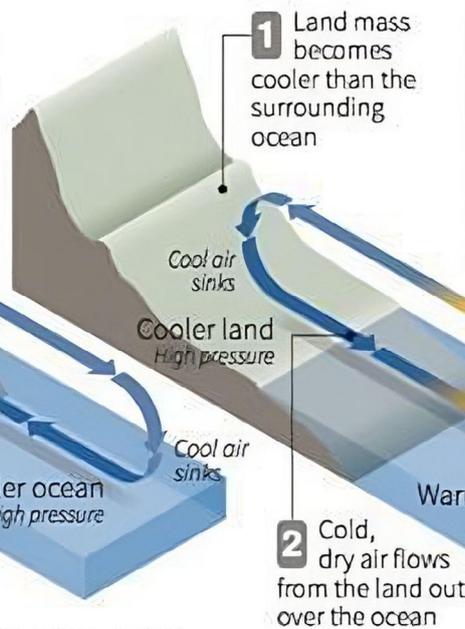
## SPRING/SUMMER

- ▶ Southwest monsoon
- ▶ When\*: May through September



## WINTER

- ▶ Northeast or retreating monsoon
- ▶ When\*: October through January



## MONSOONAL REGION

Asian monsoons are made up of the Indian and East Asian subsystems



← Cool air  
→ Warm air

Note:  
Drawings are not to scale.

\* Typical season

Sources: National Oceanic and Atmospheric Administration (NOAA); National Geographic; Quaternary Science Review

“Sudden reversal of direction of jet streams over the north Indian plains cause a sudden onset of the south-west monsoons over the Kerala coast by 1st June and moves swiftly to reach Mumbai and Kolkata between 10th and 13th June, engulfing the entire subcontinent by mid-July.”

## MONSOON BURSTS (WEATHER INSTABILITY)

**DYNAMIC THEORY OF INDIAN MONSOONS:** The seasonal shifting of global pressure and temperature belts with ITCZ migrating towards poles between Tropics of Cancer and Capricorn from its mean position in equator is responsible for Monsoons in India.

### END OF SUMMERS – ARRIVAL OF MONSOON WINDS

- Development of an intense pressure trough over the Tibetan plateau attracting moisture-laden trade winds.
- Deflection of southeast trade winds by Coriolis force upon crossing the equator to approach the Indian peninsular plateau as southwest trade winds.
- Orographic rainfall in the highlands of the Indian Peninsula.

Division of the monsoon winds to two branches, namely the Arabian Sea branch and the Bay of Bengal branch.

### WINTER SEASON – RETRIEVAL OF MONSOON WINDS

- North-East trade winds prevailing over India blow from land to sea.
- North-East trade winds blowing over the Bay of Bengal gather moisture to cause rainfall in the Coromandel coast.



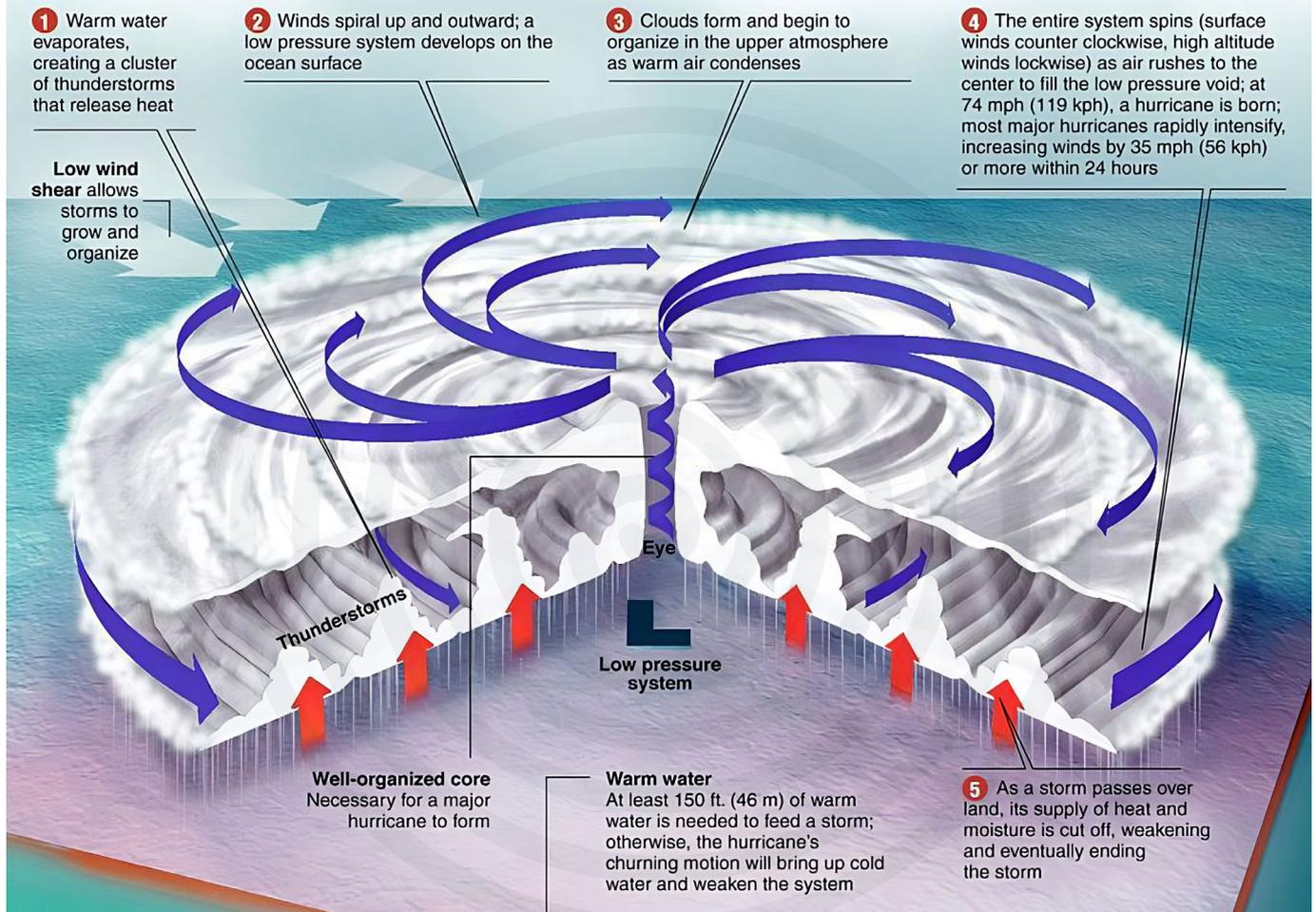
## CYCLONE SITRANG

**CONTEXT:** Recently, cyclonic storm Sitrang made landfall in Bangladesh. The Westerly winds is suspected to have played a role in the quickening of the cyclone system, which ultimately led to less destruction in West Bengal, India.

“Tropical Low-Pressure counter-clockwise and clockwise wind vortex system in northern and southern hemispheres respectively predominantly over warm equatorial ocean waters within 50 latitudes away from the equator during summers and nearly non-existent during winters in either hemisphere.”

### Warm waters fuel major hurricanes

Hurricanes act as massive release valves for warm, humid air. Deep water of at least 80 F (27 C) is needed to fuel the storms. If conditions are favorable, storms could rapidly intensify into major hurricanes.

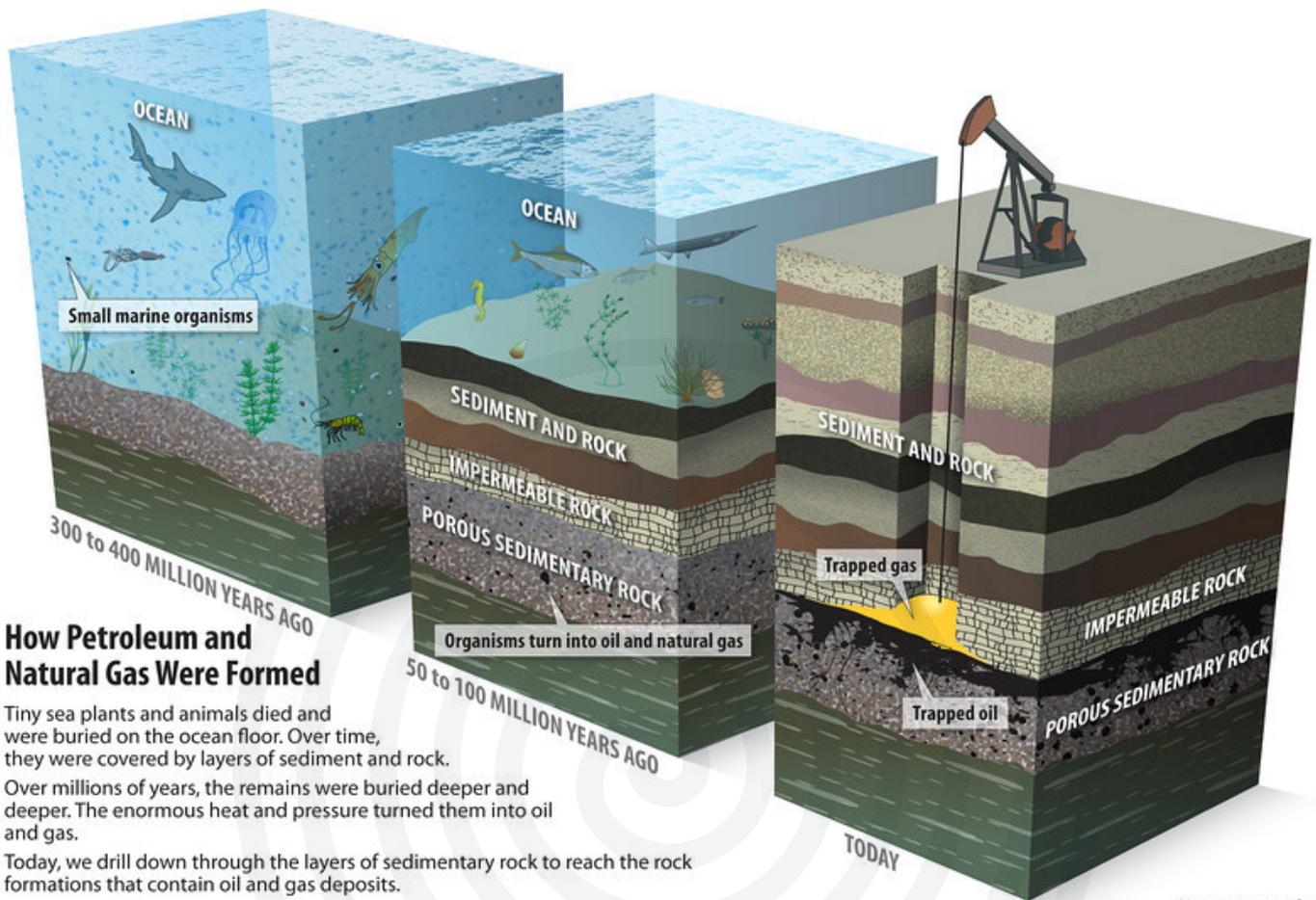


### FACTORS FAVOURABLE FOR TROPICAL CYCLOGENESIS

- **PRE-EXISTENCE OF AN UNSTABLE WEATHER SYSTEM:** Large-scale unstable weather system like Madden–Julian Oscillation (MJO) developed by a westerly moist air mass developed over warm equatorial Indian oceans around Seychelles guided by subtropical westerlies.
- **HIGH HUMIDITY IN TROPICAL REGIONS:** Warm Ocean water column at least 50 m deep with SSTs of at least 26.50 C with FAVOURABLE ADIABATIC LAPSE RATE.
- **LOW WIND SHEARS:** High wind shears disrupt development of a circulatory storm. WEAK CORIOLIS
- **CORIOLIS FORCES:** Sufficient Coriolis force should be available to develop a frontogenesis, deflecting winds to blow towards the low-pressure centre. The Coriolis force is absent at Equator and increase progressively towards the poles.

# HYDROCARBON RESOURCES

CONTEXT: India is significantly exploring the potential hydrocarbon resources suitable for exploration to secure national energy security



## How Petroleum and Natural Gas Were Formed

Tiny sea plants and animals died and were buried on the ocean floor. Over time, they were covered by layers of sediment and rock.

Over millions of years, the remains were buried deeper and deeper. The enormous heat and pressure turned them into oil and gas.

Today, we drill down through the layers of sedimentary rock to reach the rock formations that contain oil and gas deposits.

Note: not to scale

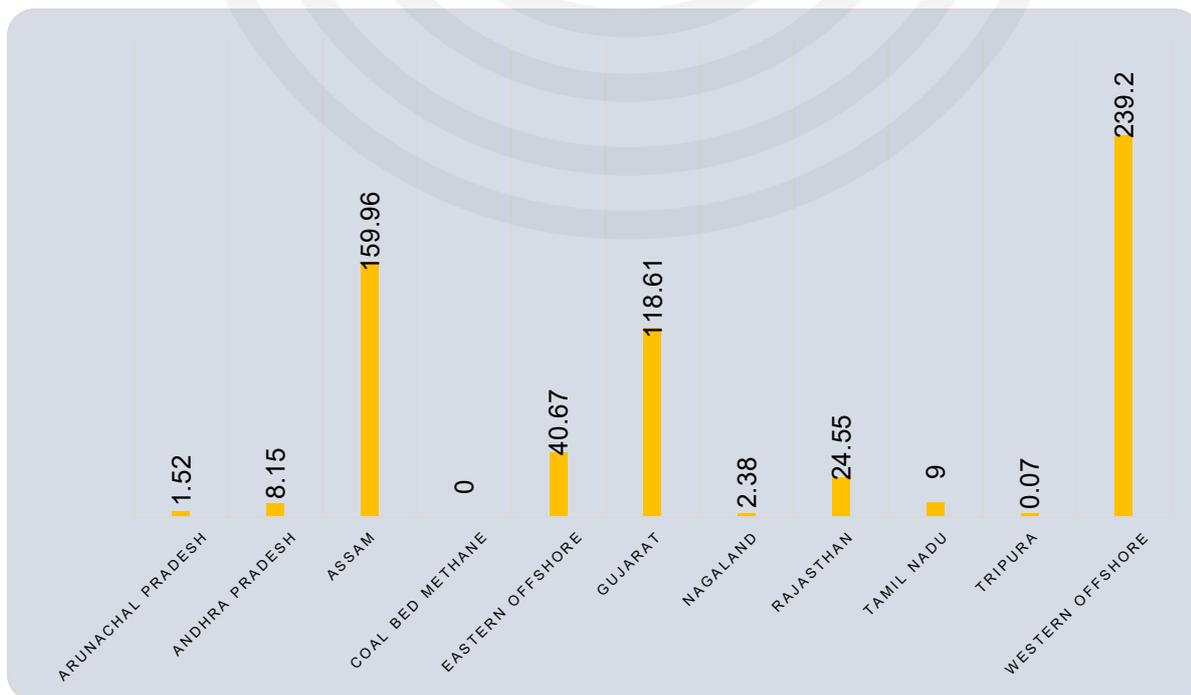


FIGURE: Bar chart representation of crude oil reserves in Million Tonnes (Mt.)

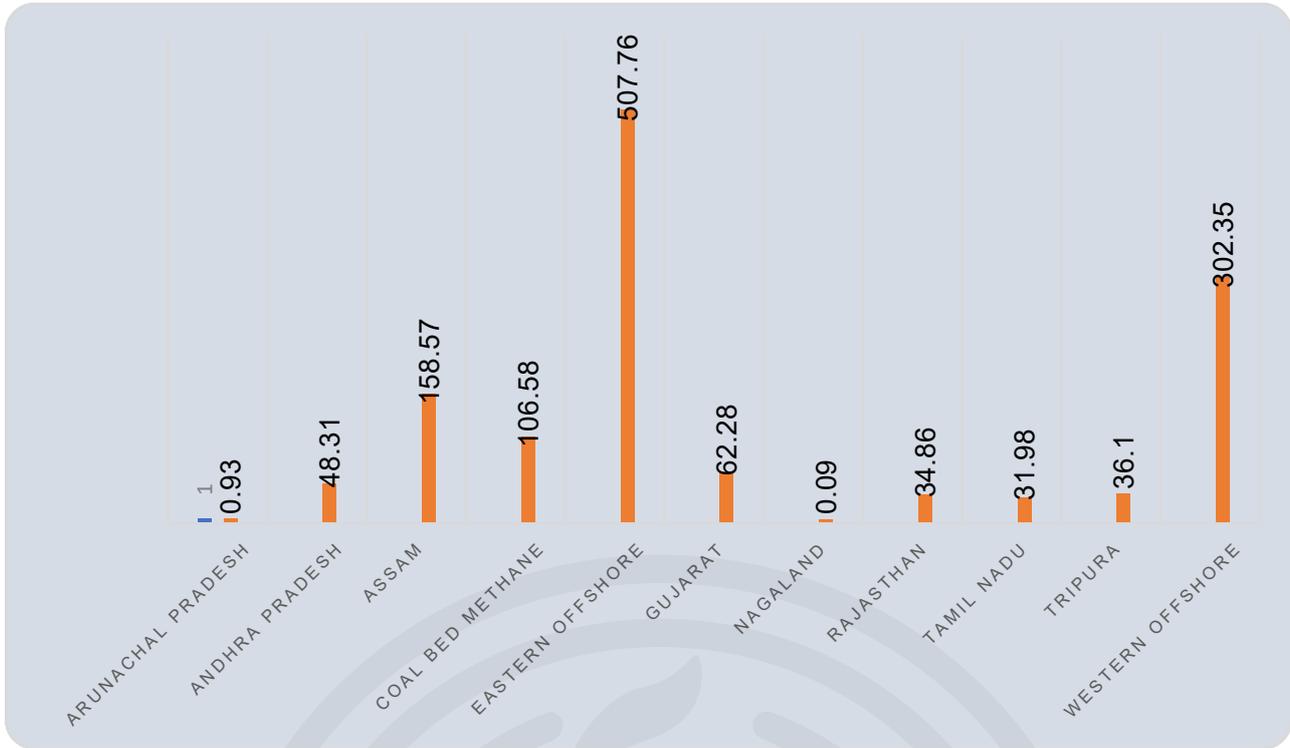


FIGURE: Bar chart representation of Natural Gas in Billion Cubic Metres (BCM)

## STRATEGIC PETROLEUM RESERVES

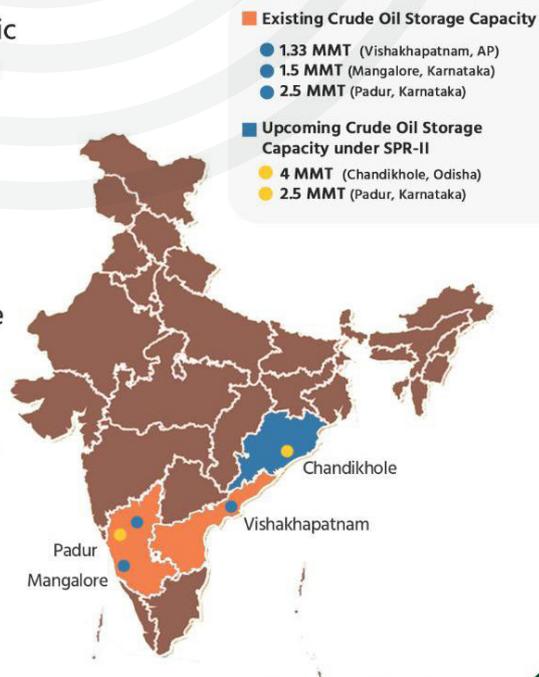
Boosting India's energy security

GoI has set up **5.33 MMT** of strategic crude oil storages in **SPR Phase-I** at the following 3 locations:

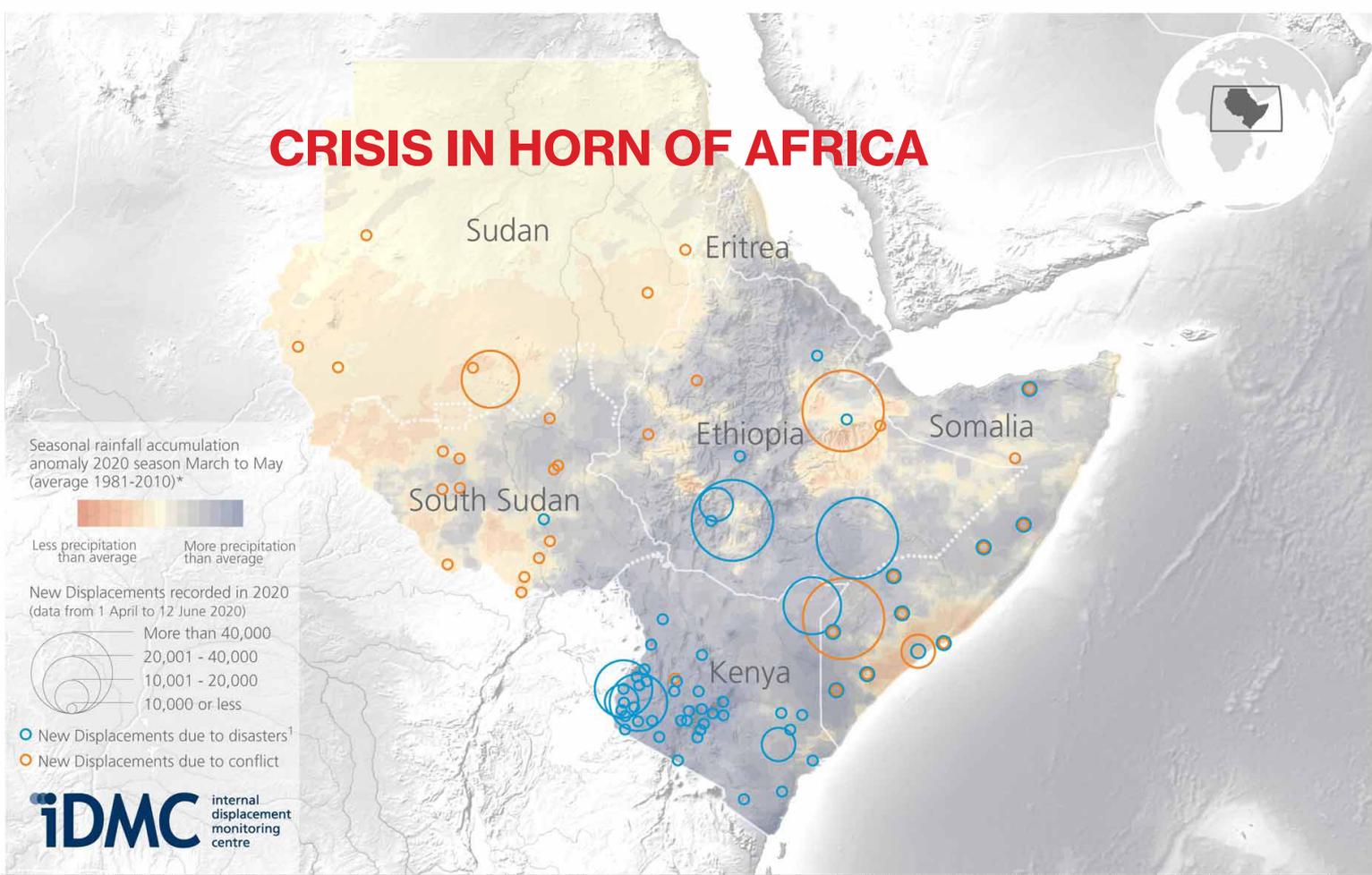
- 1) **Vishakhapatnam- 1.33 MMT**
- 2) **Mangalore: 1.5 MMT**
- 3) **Padur: 2.5 MMT**

Another **6.5 MMT** of strategic crude reserves is being planned in **SPR Phase-II** at :

- 1) **Chandikhole, Odisha - 4MMT**
- 2) **Padur , Karnataka - 2.5 MMT**



# CRISIS IN HORN OF AFRICA



Data consolidated by IDMC from: ACLED, Corbeau News Centrafrique, Eye Radio, HAC, IOM DTM, Local Authorities, Local residents, National Authorities, NDMA, NDRMC, OCHA, OHCHR, RCO, Red Cross/Red Crescent Movement. Production date: 24/06/2020. <sup>1</sup>Data on disasters cover floods events only \* Source: CHIRPS version 2.0 (Seasonal rainfall accumulation anomaly by pentad 2020 season). The boundaries and the names shown and the designations used on this map do not imply official endorsement or acceptance by IDMC.

## TIME LINE

### ETHIOPIA-ERITREA CONFLICT

- 6 MAY 1998** – Eritrea mobilised mechanised forces to capture Badme.
- 13 MAY 1998** – Ethiopia declared war on Eritrea.
- 22 FEBRUARY 1999** – Ethiopia launched a massive military offensive to recapture Badme refusing to accept the US/Rwanda peace plan.
- 27 FEBRUARY 1999** – Eritrea accepted OAU peace plan after Ethiopian force were 10 kilometres deep into Eritrea territory after five days of heavy fighting.
- 03 MAY 2000** – Proximity talks broke down with Ethiopia accusing Eritrea of imposing "unacceptable conditions".
- 17 MAY 2000** – Adoption of UNSC Resolution # 1298, imposing an arms embargo on both countries.
- 25 MAY 2000** – Unilateral declaration to end the war by Ethiopia, following withdrawal of Eritrean forces.
- 18 JUNE 2000** – Agreement for binding arbitration of their disputes under the Algiers Agreement.
- 31 JULY 2000** – Adoption of UNSC Resolution # 1312, establishing a 25-kilometer-wide Temporary Security Zone (TSZ) within Eritrea.
- 12 DECEMBER 2000** – Ethiopia-Eritrea Peace Agreement, declaring the formal end of War.

## TIME LINE

### ETHIOPIA-TIGRAY CONFLICT

- FEB 1975** – Founding of Tigray People's Liberation Front (TPLF)
- JUN 1991** – Formation of TPLF led ruling alliance Ethiopian People Revolutionary Democratic Front (EPRDF) overthrowing military Government.
- AUG 1995** – Establishment of Federal Democratic Republic of Ethiopia with TPLF leader Meles Zenawi as the first Prime Minister.
- APR 2018** – Election of Abiy Ahmed as the Prime Minister, following a popular rebellion.
- 2019** – Dissolution of Ethiopian People Revolutionary Democratic Front (EPRDF).
- NOV 2020** – Attacks launched by Tigray People's Liberation Front (TPLF), alleging election rigging.
- APR 2021** – Ethiopia launches counter attacks against Tigray People's Liberation Front (TPLF) and declares the interim-Government unconstitutional.
- NOV 2021** – Ethiopia declares a 6-month Emergency in Tigray following prolonged fighting in the region.
- OCT 2022** – Ethiopia declares a 6-month Emergency in Tigray following prolonged fighting in the region.

# POLITY AND GOVERNANCE





**PARLIAMENTARY COMMITTEES**

**MEDIATION BILL, 2021**

**PUNJAB ASSEMBLY PASSES BILL TO  
DISSOLVE STATE VIGILANCE COMMIS-  
SION**

**COLLEGIUM SYSTEM**

**SC STATUS FOR DALIT CHRISTIANS**

**NO MORE PROSECUTIONS UNDER SEC-  
TION 66A**

**PREVENTIVE DETENTION**

**SPLIT VERDICT ON KARNATAKA HIJAB  
BAN**

**PRIME MINISTER'S DEVELOPMENT INI-  
TIATIVE FOR NORTH-EAST REGION (PM-  
DEVINE)**

**'BETI BACHAO BETI PADHAO' SCHEME  
NATIONAL CREDIT FRAMEWORK**

**SWACHH SURVEKSHAN GRAMIN, 2022  
AWARD**

**GLOBAL HUNGER INDEX**

**LOK ADALATS**



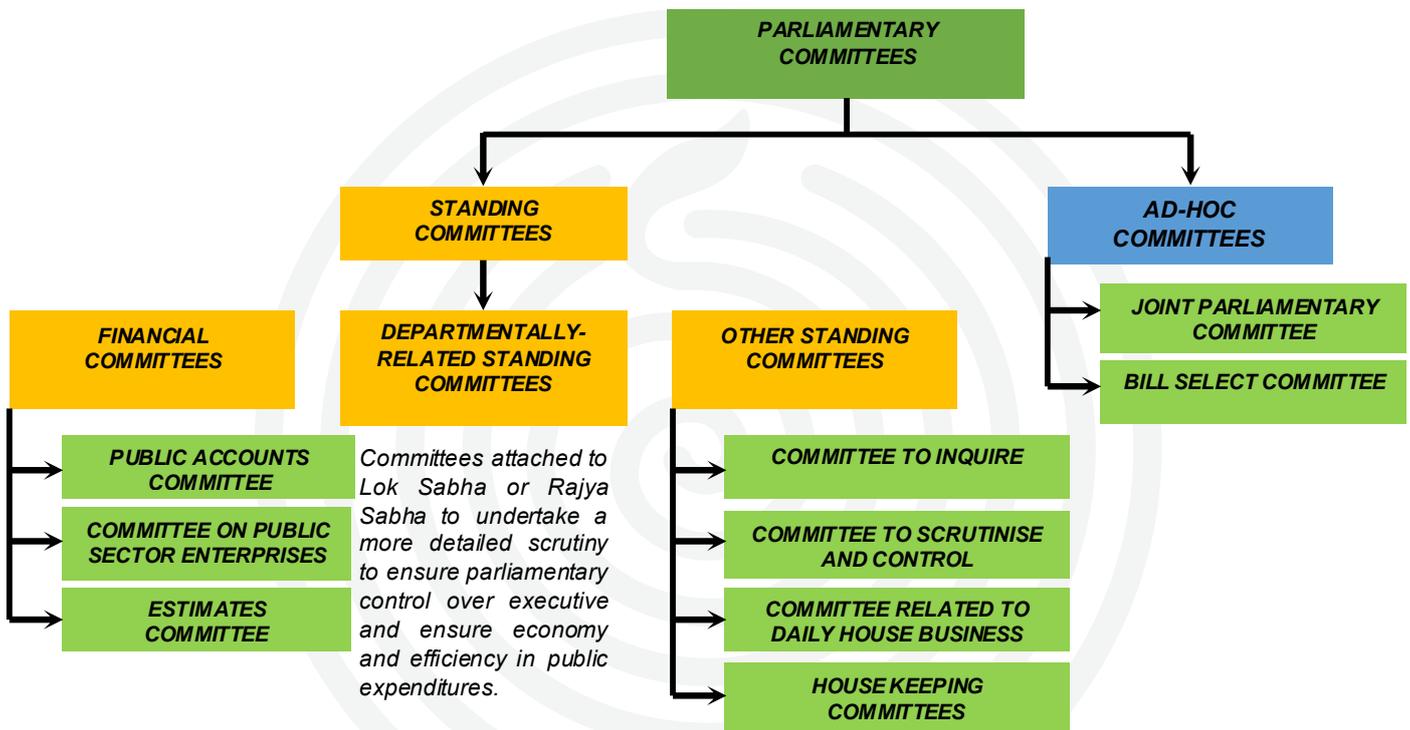
# PARLIAMENTARY COMMITTEES

**PARLIAMENTARY COMMITTEE** - House Presiding Officer  
 - either nominate or elect the members from amongst them via proportional representation by single transferable voting.  
 - directly exercise control over the Parliamentary Committees.  
 - receive the report submitted by the Parliamentary Committees.

The Lok Sabha / Rajya Sabha Secretariat provide secretarial services to the Parliamentary Committees.

## SIGNIFICANCE

- Delegation can ensure a detailed analysis of voluminous and diverse duties of legislatures with limited time.
- Act as an instrument of legislative vigil over the executive



## JOINT PARLIAMENTARY COMMITTEE (JPC)

**TYPE:** Ad-hoc Committee constituted to examine

- a particular bill presented before the Parliament
- investigate cases of financial irregularities in any government activity
- COMPOSITION:** Twice as many Lok Sabha members as the Rajya Sabha.
- CONSTITUTION:** In order to set up a JPC,
  - a motion is passed in one House and supported by the other House.
  - The Parliament decides the strength of committee.
  - The committee gets disbanded following the submission of its report to Parliament.

### •POWERS AND FUNCTIONS:

- oAuthorised to collect evidence in oral or written form or demand documents in connection with the matter.
- oProceedings and findings of the committee are confidential, except in matters of public interest.
- oThe government can take the decision to withhold a document if it is considered prejudicial to the safety or interest of the State.
- oThe Speaker has the final word in case of a dispute over calling for evidence.
- oThe committee can invite interested parties for inquiry and summon people to appear before it.



### PUBLIC ACCOUNTS COMMITTEE (PAC)

- CONSTITUTING ACT: Government of India (GoI) Act, 1919.
- FOUNDED: 1921.
- TYPE: Wholly elected body.
- ELECTORAL PRINCIPLE: Proportional representation by means of the single transferable voting through a secret ballot.
- COMPOSITION: 15 Lok Sabha and 7 Rajya Sabha members.
- TENURE OF OFFICE: 1 year.
- MANDATE: Examine the propriety in appropriation and utilisation of grants distributed to various Ministries.

### ESTIMATES COMMITTEE

- CONSTITUTING ACT: Government of India (GoI) Act, 1919.
- FOUNDED: 1921.
- TYPE: Wholly elected body.
- ELECTORAL PRINCIPLE: Proportional representation by means of the single transferable voting through a secret ballot.
- COMPOSITION: 15 Lok Sabha and 7 Rajya Sabha members.
- TENURE OF OFFICE: 1 year.
- MANDATE:
  - Publish report on administrative reforms consistent with the policy underlying the estimates and suggest alternative policies to secure efficiency and economy in administration.
  - Examine whether the money is well laid out within the limits of the policy implied in the estimates.
  - Suggest the form in which the estimates are to be presented to Parliament.

### DEPARTMENT RELATED STANDING COMMITTEES (DRSCs)

Comprise of 31 members (21 Lok Sabha and 10 Rajya Sabha).

The Speaker of Lok Sabha and Chairman of the Rajya Sabha nominate members from amongst the members of the House for a fixed tenure of 1 year.

- A Minister is not eligible to be nominated as a member of any of the DRSCs.
- Evaluate the performance of the Department.
- Make non-binding recommendations for discussions and voting in Lok Sabha regarding the Demand for Grants of the concerned Ministries / Departments. Departmentally Related Standing Committees cannot recommend Cut motions.
- Examine legislative bills referred by the Speaker / Chairman belonging to the concerned Ministries / Departments.
- Consider annual reports of Ministries / Departments.  
Consider perspective policy documents presented to the Houses.

The recommendations of the Committees are advisory in nature and not binding upon the ministries. There are no powers vested with the Committees to disallow departmental expenditures. The Parliament of India is vested with powers to take a final decision based on findings of the Committee. The Committees merely conduct a post-mortem examination of finance, appropriation and other accounts without addressing broader policy issues.



# MEDIATION BILL, 2021

CONTEXT: *The Rajya Sabha referred the Mediation Bill, 2021 to the Parliamentary Standing Committee on Law.*

## KEY FEATURES

- **PRE-LITIGATION MEDIATION:** Parties must attempt to settle civil or commercial disputes by mediation before approaching any court or tribunal. The litigation proceedings in the court or tribunal can be suspended at any stage referring the parties to mediation on request for the same.
- **DISPUTES NOT FIT FOR MEDIATION:** List disputes, that can be amended by the Centre, that are not fit for mediation.
  - Claims against minors or persons of unsound mind
  - Criminal prosecution
  - Affecting the rights of third parties
- **APPLICABILITY:** The Bill will apply to mediations conducted in India on:
  - Civil disputes involving only domestic parties,
  - Commercial disputes involving at least one foreign party
  - Existence of a Mediation Agreement, stating mediation as per the Bill.
  - Disputant is Central or State Government involving Commercial disputes and Other notified disputes.
- **MEDIATION PROCESS:** Proceedings must be completed within 180 days, that can be extended by 180 days by the parties. A party may withdraw from mediation after two sessions. Court annexed mediation must be conducted as per the rules framed by the Supreme Court or High Courts.
- **MEDIATORS:** Mediators may be appointed by:
  - Parties by agreement
  - Mediation service provider\*, an institution administering mediation.
- **MEDIATION COUNCIL OF INDIA:** The central government will establish the Mediation Council of India.

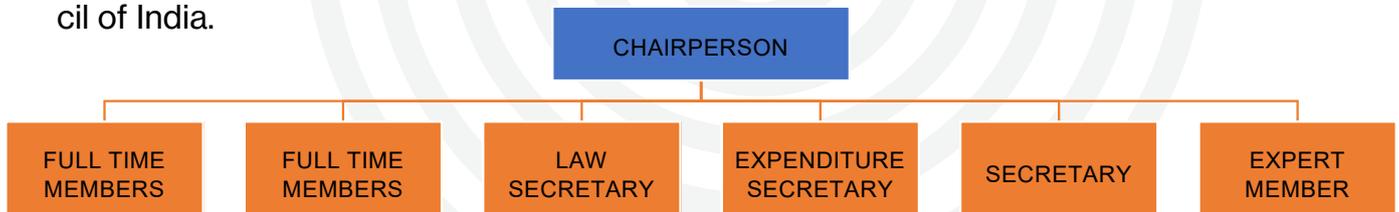


FIGURE: The Council will consist of a CHAIRPERSON, 2 Full-Time Members (with experience in mediation or ADR), 3 ex-officio members (including the Law Secretary, and the Expenditure Secretary), and a part-time member from an industry body.

- **FUNCTIONS**
  - Registration of mediators
  - Recognising Mediation Service Providers (MSPs)
  - Recognising Mediation Institutes - train, educate, and certify mediators.
- **MEDIATED SETTLEMENT AGREEMENT:** Agreements resulting from mediation (other than community mediation) will be final, binding, and enforceable in the same manner as court judgments.
- **GROUND FOR CHALLENGING THE AGREEMENT:**
  - Fraud
  - Corruption
  - Impersonation
  - Disputes not fit for mediation.
- **COMMUNITY MEDIATION:** A panel of THREE mediators (may include persons of standing in the community, and representatives of resident welfare associations) can attempt to resolve disputes likely to affect the peace and harmony amongst residents of a locality.

# PUNJAB ASSEMBLY PASSES BILL TO DISSOLVE STATE VIGILANCE COMMISSION

**CONTEXT:** The Punjab Assembly passed a bill to dissolve the State Vigilance Commission.

## STATE VIGILANCE COMMISSION:

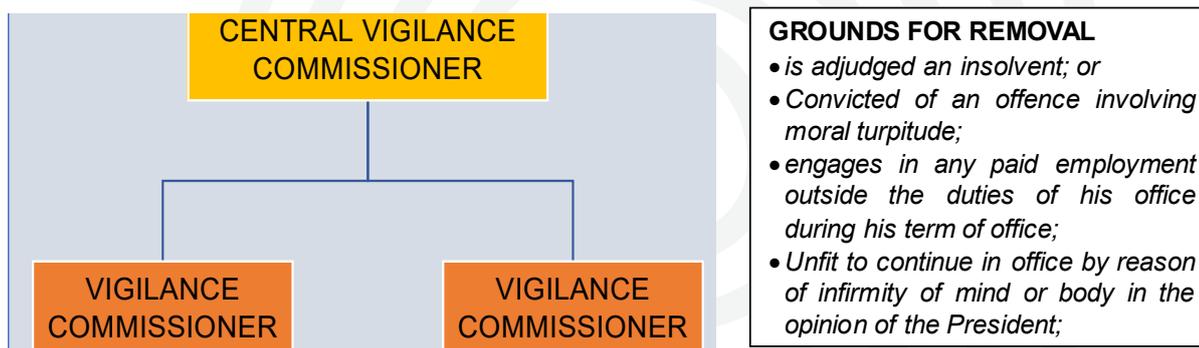
The Punjab State Vigilance Commission Act, 2020 set up the State Vigilance Commission as a state anti-graft body to curb corruption among the state's public servants.

## CENTRAL VIGILANCE COMMISSION (CVC)

The Central Vigilance Commission (CVC) was constituted in 1964 on recommendations of the K. Santhanam Committee on Prevention of Corruption to advise and guide Central Government agencies on vigilance matters.

### SALIENT FEATURES

- **FOUNDED:** 1964
- **TYPE:** Statutory Body (since 1988)
- **CONSTITUTING STATUTE:** Central Vigilance Commission Act, 2003
- **MANDATE:** Apex independent vigilance institution, monitoring all vigilance activity under the Central Government and advising various authorities in Central Government organisations in planning, executing, reviewing and reforming their vigilance matters.
- **ORGANISATIONAL STRUCTURE**
- **APPOINTMENT:** The President of India appoints the Central Vigilance Commissioner and the Vigilance Commissioners on recommendation of a committee chaired by the Prime Minister, besides the Union Home Minister and the Leader of the Opposition in the Lok Sabha.
- **REMOVAL:** The President on the ground of misbehavior but only after the Supreme Court has held an inquiry into his case.



**FIGURE:** Schematic representation of the organisational structure of the Central Vigilance Commission.

**CVC SECRETARIAT:** Comprise of a Secretary of the rank of Additional Secretary to the GoI, 1 officer of the rank of Joint Secretary to the GoI, 10 officers of the rank of Director/Deputy Secretary, 4 Under Secretaries and office staff.

**CHIEF TECHNICAL EXAMINERS' WING (CTE):** Comprise of 2 engineers of the rank of Chief Engineer (designated as Chief Technical Examiner) with supporting engineering staff.

### POWERS AND FUNCTIONS:

The Central Vigilance Commission can recommend appropriate actions on receiving written complaints on alleged action of corruption or misuse of office.

- Exercise operational and reviewing superintendence over investigation progress on cases of alleged corruption under the Prevention of Corruption Act, 1988; or offence alleged to have been committed under CRPC for certain categories of public servants conducted by of the Delhi Special Police Establishment (DSPE) and to give directions to the DSPE for purpose of discharging this responsibility. Tender independent and impartial advice to the disciplinary and other authorities in disciplinary cases, involving vigilance angle at different stages i.e. investigation, inquiry, appeal, review etc.
- Exercise a general check and supervision over vigilance and anti-corruption work in Ministries or Departments of the Govt. of India and other organisations to which the executive power of the Union extends.
- Chair the Committee for selection of Director (CBI), Director (Enforcement Directorate) and officers of the level of SP and above in DSPE.
- Undertake or cause an inquiry into complaints received under the Public Interest Disclosure and Protection of Informer and recommend appropriate action.



## COLLEGIUM SYSTEM

**CONTEXT:** *The President appoints the judges of the Supreme Court and High Court in India under Article 124(2) and 217 of the Indian Constitution. The Constitution mandates the President to hold “consultations” with such of the Judges of the Supreme Court and of the High Courts in the States as he may deem necessary for the purpose.*

STEP 1: The Chief Justice of India consult with 4 senior-most SC Judges recommend eligible individuals to be appointed as SC judges to the Union Ministry of Law.

STEP 1: The Chief Justice of India consult with 3 senior-most SC Judges and respective Chief Justice of State High Court recommend eligible individuals to be appointed as SHC judges to the Union Ministry of Law.

STEP 2: The Union Ministry of Law scrutinise the names recommended and submit its advice before the Union Council of Ministers.

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STEP 3: The Union Council of Ministers can approve or disapprove the recommendation of the Collegium. The names disapproved are sent back to the Collegium.

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STEP 4: The President of India appoints individuals recommended by the Collegium and approved by the Union Council of Ministers.

STEP 4: The President of India appoints individuals recommended by the Collegium and approved by the Union Council of Ministers.

STEP 5: The Collegium can either withdraw recommendation disapproved by the Union Council of Ministers or resend the recommendation sent back by the President. The Union Council of Ministers is bound to accept the recommendation resend by the Collegium.

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### QUALIFICATION - SC JUDGES

- Serving State High Court Judge for a period not less than 5 years.
- Advocate practicing in a Court not inferior to that of State High Court for a period not less than 10 years.
- Distinguished jurist# in the opinion of the President of India.

### QUALIFICATION - SHC JUDGES

- Serving as a Judge, not subordinate to a District Court (or District Courts in succession) for a period of 10 years.
- Advocate of a State High Court (or High Courts in succession) for a period of 10 years.

## NATIONAL JUDICIAL APPOINTMENTS COMMISSION

### FUNCTIONS OF THE NJAC

- Recommend merit-based appointment of individuals as CJI, Judges of the SC, CJSHC and other Judges of SHCs.
- Recommend transfer of CJ and other Judges of State High Courts.

### CONCLUSION:

Judicial Independence refers to the capacity of judiciary to perform judicial duties independently. Judicial Independence shields the court of improper influence from the other branches of government, or from private or partisan interests. Judicial Independence is vital and important to the idea of separation of powers.



## SC STATUS FOR DALIT CHRISTIANS

**CONTEXT:** The Supreme Court has sought the position of the Centre on a petition challenging the inclusion of Dalit Christian under SC under the Constitution (Scheduled Castes) Order of 1950.

### STORY SO FAR:

- 1950: Constitution (Scheduled Castes) Order, 1950 - Recognised only Hindus as SCs.
- 1956: Constitution (Scheduled Castes) (Amendment) Order, 1956 - Included Dalits who had converted to Sikhism as SCs based on the recommendations of Kaka Kalelkar Commission, 1955.
- 1990: Constitution (Scheduled Castes) (Amendment) Order, 1990 - Included Dalits who had converted to Buddhism as SCs based on the recommendations of High-Powered Panel (HPP) on Minorities, SC/ST in 1983.

### CASE FOR EXCLUSION:

In 2019, the Centre rejected the possibility of including Dalit Christians as members of SCs. The Imperial Order - 1936 specifically excluded “Indian Christians” from the List of the Depressed Classes citing the practice of “untouchability as a feature exclusive to the Hindu religion and its branches. The Registrar General of India had cautioned the government that SC status is meant for communities suffering from social disabilities arising out of the practice of untouchability.

### CASE FOR INCLUSION:

Several Independent Commission reports documented the existence of caste and caste inequalities among Indian Christians and Indian Muslims. Even in Sikhism and Buddhism, casteism is not present and yet they have been included as SCs. Empirical evidence did not exist for including Sikh or Buddhist converts either and yet they were included as SCs.

### ARTICLE 341- SCHEDULED CASTES

- The President of India consults with respective State Governments, National Commission for Scheduled Castes (NCSC) and well as Registrar General of India (RGI) to issue a notification, extending the status of Scheduled caste.
- The Parliament legislates for inclusion or exclusion of castes from the list of Scheduled castes in the notification.
- The ground for declaring a group as Scheduled caste is social, educational and economic backwardness arising out of traditional practice of untouchability.

### TIMELINE:

- ARTICLE 338 of the Constitution originally provided for the appointment of Commissioner for SCs and STs to investigate and report on working all matters relating to the constitutional safeguards for the SCs and STs to the President of India.
- 1978 - The Government of India passed a resolution to set up a non-statutory multi-member Commission for SCs and STs.
- 1987 - The Government of India modified the functions of the Commission and renamed it as the National Commission for SCs and STs via resolution.
- 1995 - The Parliament of India passed the Constitutional (Sixty-five) Amendment Act, 1995 to establish a multi-member National Commission for SCs and STs.
- 2003 - The Parliament of India passed the Constitutional (Eighty Ninth) Amendment Act, 2003 bifurcating the National Commission for SCs and STs into two separate bodies, namely, National Commission for Scheduled Castes (under Article 338) and National Commission for Scheduled Tribes (under Article 338-A).



### **NATIONAL COMMISSION FOR SCHEDULED CASTE:**

- ESTABLISHED: 2003
- TYPE: Constitutional Body
- ARTICLE: Article 338
- APOINTMENT: The President of India appoints and lay down conditions of service and tenure of office of Chairperson, Vice Chairperson and three other Members of the National Commission for Scheduled Castes.
- DUTIES:
  - Investigate, monitor and evaluate constitutional, statutory and executive safeguard mechanisms.
  - Inquire into specific complaints on the deprivation of rights and safeguards.
  - Submit annual or periodic reports on the working of constitutional and statutory safeguards to the President of India.
- FUNCTIONS:
  - Participate in formulation of policies and in the process of planning for effective implementation of constitutional and statutory safeguards and for development an advancement of communities under the Union and any State.
  - Make recommendations to Union or any State for effective implementation of constitutional and statutory safeguards and for development an advancement of communities.
  - Discharge other functions referred to it by the President regarding protection, welfare and development and advancement

### **REGISTRAR GENERAL OF INDIA:**

- ESTABLISHED: 1949
- SUPERVISORY ENTITY: Union Ministry of Home Affairs.
- MANDATE:
  - Develop a systematic collection of statistics on population.
  - Registration of births and deaths in the country.
  - Arranges, conducts and analyses the results of the demographic surveys.

### **PANEL TO STUDY THE STATUS OF DALITS POST-CONVERSION**

The Government has set up a 3-member commission headed by K.G BALAKRISHNAN, Former Chief Justice of India (CJI) to study the possibility of according Scheduled Caste (SC) status to Dalits who have converted to religions other than Buddhism and Sikhism. The First Backward Classes Commission (Kalekar Commission) observed that discrimination on the basis of caste exists even after members of such a caste have converted to another religion.

## **NO MORE PROSECUTIONS UNDER SECTION 66A**

**CONTEXT:** The Supreme Court ordered States and law enforcement agencies to stop prosecuting free speech on social media under Section 66A of the Information Technology Act, 2000, declared unconstitutional by the Supreme Court in the Shreya Singal vs. Union of India (2008).

“prescribes RI for upto 3 years and with fine for circulation of false and grossly offensive or menacing messages through a computer or any other communication device like a mobile phone or a tablet.”  
Section 66A of the IT Act, 2000

### **CONCLUSIONS:**

Section 66 A of the IT Act, 2000 act as a deterrence for cyber-crimes like, intentionally sending SPAM messages, phishing emails, threatening messages, etc. Section 66A is also applied along with Section 67 or 67B which is related to cyber & child pornography respectively. The Union Home Ministry constituted a Committee under chairmanship of former Law Secretary TK Viswanathan to study and examine existing domestic cyber laws and international cyber legislations identified the utility of Section 66 A to deal with hate speeches and fake news through any means of communication.



# PREVENTIVE DETENTION

**CONTEXT:** *The Supreme Court of India has ruled “preventive detention” as a serious invasion of personal liberty.*

## BACKGROUND:

SC (Ashok Kumar Vs Delhi Administration, 1982): Preventive detention is devised to afford protection to society and not to punish a man for having done something but to intercept before he does it and to prevent him from doing it.

SC (Ram Manohar Lohia Case): Only the most severe of the acts should justify preventive detention.

*“Detainment of an individual without trial and conviction by a court ie., imprisonment taken on grounds of suspicion that some wrong actions may be done by the person concerned to prevent possible commitment of crime.”*

## GROUNDINGS FOR PREVENTIVE DETENTION

- Endangering the security of state
- Endangering public order
- Endangering maintenance of supplies
- Endangering essential services
- Endangering defence

## -PREVENTIVE DETENTION

### PREVENTIVE DETENTION LAWS

- Preventive Detention Act, 1950. Expired in 1969.
- Maintenance of Internal Security Act, 1971. Repealed in 1978.
- Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974.
- National Security Act, 1980.
- Prevention of Black-marketing & Maintenance of Supplies of Essential Commodities Act, 1980
- Terrorist and Disruptive Activities (Prevention) Act, 1985. Repealed in 1995.
- Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.
- Prevention of Terrorism Act, 2002. Repealed in 2004.

## EXPLAINED:

### ARTICLE 22 PROTECTION AGAINST ARREST AND DETENTION IN CERTAIN CASES

Guarantees certain FRs for individuals arrested or detained under criminal or quasi-criminal offences. Such Fundamental Rights are not available for individuals arrested or detained by a Court order or charged of civil offences, including failure to pay income taxes and aliens detained for deportation.

- 1.Rights available under Protection against Arrest and Detention:
  - a.Right to be informed of the grounds of arrest. Article 22 (1)
  - b.Right to consultations for legal defence. Article 22 (1)
  - c.Right to be produced before a Magistrate within 24 hours. Article 22 (2)
  - d.Right to be released after 24 hours unless the Magistrate authorises further detention. Article 22 (2)
- 2.Article 22 (3) of the Indian constitution, a saving clause limits the extension of Fundamental Rights guaranteed under Article 22 (1) and Article 22 (2) to individuals detained under a law providing for preventive detention. A detainee under preventive detention enjoys no rights guaranteed under Article 19 or Article 21 of the Indian Constitution.
- 3.Powers of the Parliament can enact laws on preventive detention
  - a.Prescribe procedures to be followed by Advisory Board for preventive detention.
  - b.Qualify classes of offenses and convicts eligible for more than 3 months of Preventive Detention without obtaining the opinion of an Advisory Board.
  - c.Maximum period of Preventive Detention for any classes of cases.

## CONCLUSION:

The order of preventive detention, though based on the subjective satisfaction of the detaining authority, is nonetheless a serious matter, affecting the life and liberty of the citizen under Articles 14, 19, 21 and 22 of the Constitution. Preventive detention need not be resorted when sufficient remedies are available under the general laws of the land for any omission or commission under such laws.



## SPLIT VERDICT ON KARNATAKA HIJAB BAN

**CONTEXT:** *The Supreme Court of India delivered a split verdict on whether Muslim students should shed their hijabs at their school gates.*

### KEY HIGHLIGHTS

A split verdict means that the matter will now be placed before the Chief Justice of India for further directions. The ban on the hijab in Karnataka classrooms will remain in place.

#### CONTENTION FOR BAN

Apparent symbols of religious belief cannot be worn to educational institutions, maintained partly or wholly out from State funds. The concept of 'secularism' manifest parity among students in terms of uniformity. Students refusing to attend classes would not amount to the denial of education by the State.

#### CONTENTION AGAINST BAN

Wearing or not wearing a hijab to school is ultimately a matter of choice guaranteed under Article 19 (1)(a). Asking the girls to take off their hijab is an invasion of their privacy under Article 21, an attack on their dignity. It is a denial of their freedom to practice, worship, rituals, ceremonies.



**●●** The right to express herself by wearing a hijab, stops at the school gate... Freedom of expression guaranteed under Article 19(1)(a) does not extend to the wearing of headscarf

JUSTICE HEMANT GUPTA



**●●** Wearing a hijab should be simply a matter of choice. It may be the only way her conservative family will permit her to go to school, and in those cases, her hijab is her ticket to education

JUSTICE SUDHANSHU DHULIA

### FREEDOM OF CONSCIENCE AND FREE PROFESSION, PRACTICE AND PROPAGATION OF RELIGION

- **FREEDOM OF CONSCIENCE:** Allows an individual to mould religious beliefs in any desired manner.
- **FREEDOM TO PROFESS:** Allows an individual to profess religious beliefs and faith.
- **FREEDOM TO PRACTICE:** Allows an individual to practice worship, rituals, ceremonies.
- **FREEDOM TO PROPAGATE:** Allows an individual to propagate religious tenets and beliefs.

### RELATED JUDGEMENT:

- The Supreme Court of India in *Bijoe Emmanuel & Ors vs State Of Kerala & Ors* (1986) allowed the claim of some students following the Jehovah's Witnesses faith to remain silent during the singing of the national anthem in their school in Kerala on account of their religious belief.
- The Rajasthan High Court on PIL criminalised the practice of Santhara declaring it as a criminal offence punishable under section 306 (abetment of suicide) and Section 309 (attempt to commit suicide) of the Indian Penal Code (IPC). The High Court observed the limited scope of religious liberties and freedom to essential religious practices of a particular religion under Freedom of conscience, profession, practice and propagation of religion.
- The Supreme Court in *Javed v. State of Haryana* (2003) upheld that "a practice did not acquire sanction of the religion, because it was permitted".

### CONCLUSION:

The Indian Constitution adopted ideals of 'positive secularism' treating all religions with equal respect and dignity, opposed to 'negative secularism' clearly separating State from religion



## PRIME MINISTER'S DEVELOPMENT INITIATIVE FOR NORTH-EAST REGION (PM-DEVINE)

CONTEXT: The Union Cabinet approved the Prime Minister's Development Initiative for the North East Region (PM-DevINE), announced in the Union Budget 2022-23 to address development gaps in the North Eastern Region (NER).

### PM-DEVINE

- TYPE: Central Sector Scheme.
- NODAL MINISTRY: Union Ministry of Development of North Eastern Region (DoNER)
- SIGNIFICANCE: Fill the critical development gaps as per the NER District Sustainable Development Goals (SDG) Index 2021-22 prepared by NITI Aayog, UNDP and MDoNER
- SIGNIFICANCE: Ensure end-to-end development solution instead of isolated projects.
- SCHEME TENURE: FY 2022-23 - FY 2025-26
- FINANCIAL OUTLAY: Rs 6,600 Cr.
- OBJECTIVES:
  - Fund infrastructure projects in NE region, in the spirit of PM GatiShakti.
  - Support social development projects based on felt needs of the NER, including basic infrastructure in all primary healthcare centres and government schools
  - Enable livelihood activities for the youth and women, with a focus on job creation.
  - Fill the development gaps in various sectors, including support to industrialisation.

## 'BETI BACHAO BETI PADHAO' SCHEME

CONTEXT: The Centre announced the inclusion of the skilling of girls in non-traditional livelihood (NTL) options in the 'Beti Bachao Beti Padhao' scheme. Non-Traditional livelihood includes sectors and jobs where the participation of women is and has historically been conventionally low or absent.

### NEW AIMS IN THE SCHEME:

- Ensure a ONE PERCENT increment in GER at the secondary level, particularly in STEM\* subjects.
- Provide skill training in non-traditional vocations, making them torchbearers of a women-led Aatmanirbhar Bharat.
- Raise awareness about safe menstrual hygiene.
- Promulgating elimination of child marriages.

\* Science, Technology, Engineering, Mathematics

### BETI BACHAO BETI PADHAO' SCHEME

- TYPE: Central Sector Scheme
- LAUNCHED: 2015
- NODAL MINISTRY: Union Ministry of Women and Child Development.
- SIGNIFICANCE: The child sex ratio in India was 919 females of girls aged 0 - 6 years old as per population census of 2011.
- OBJECTIVES: Address the issue of the declining child sex ratio image (CSR).
- STRATEGY: Create awareness among public regarding the benefits of a balanced Child Sex Ratio

BHARAT SKILLS FORUM is a digital knowledge-sharing platform for the ITI trainees, trainers and industry launched by the Directorate General of Training, Union Ministry for Skill Development and Entrepreneurship to facilitate skilling by sharing content in various forms like notes, pdfs, and videos.



## NATIONAL CREDIT FRAMEWORK

**CONTEXT:** Dharmendra Pradhan, the Union Minister of Education decided to extend the facility for school children to earn and deposit 'credits' from classroom learning as well as from extracurricular activities in Academic Bank of Credit as per the Draft National Credit Framework drafted by a 11-member committee headed by Nirmaljeet Singh Kalsi, Chair-person of National Council of Vocational Education and Training.

*"recognition that a learner has completed a prior course of learning, corresponding to a qualification at a given level"*

*CREDIT (Draft National Credit Framework)*

### NATIONAL CREDIT FRAMEWORK

- Comprehensive framework for skilling, re-skilling, up-skilling, accreditation and evaluation, including students in academic and vocational institutions and the workforce integrating the National Higher Education Qualification Framework (NHEQF), National Skills Qualification Framework (NSQF) and National School Education Qualification Framework (NSEQF).
- Divide the education system into multiple levels. For school education, there are four levels. Students clearing class XII will be at credit level 4. For higher education, the levels are from 4.5 to 8 – which is basically from first year UG to PhD.
- The credits shall remain valid for a maximum duration of 7 years as per the University Grants Commission (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations notified in July, 2021.
- Seamlessly integrate the credits earned through school education, higher education and vocational and skill education addressing the need for equivalence certification for academic programmes meeting the NCrF requirements and facilitate transfer of students between schools and boards. A student shall have to earn at least 40 credits for completing a year of school education after putting in 1200 hours of "notional learning hours".

*"Time spent not just in classroom teaching, but also in a range of co-curricular and extracurricular activities - sports, yoga, performing arts, music, social work, NCC, vocational education, as well as on the job training, internships or apprenticeships."*

*NOTIONAL LEARNING HOURS (Draft National Credit Framework)*

#### STUDENTS

- Flexibility in the duration of study.
- Pave path for creditisation of all learning hours, including academic, vocational and experimental learning.
- Remove the hard distinction between the various streams like arts, science and commerce.

#### INSTITUTIONS

- Promote stronger collaboration between institutions
- Increasing the focus on research and innovation
- Promote digital learning, blended learning and open
- Distance Learning.
- Unification of Higher Education Institutions to promote multi-disciplinary education.

#### INDUSTRY

- Re-skilling and Up-skilling of existing employees / engineers.
- Making students more employable by enabling a holistic curriculum design.
- Creating a multi/cross-sectorial skilled pool of employable youth.
- Provision of micro-credentials will allow integration of quick educational upgradation / up-skilling.

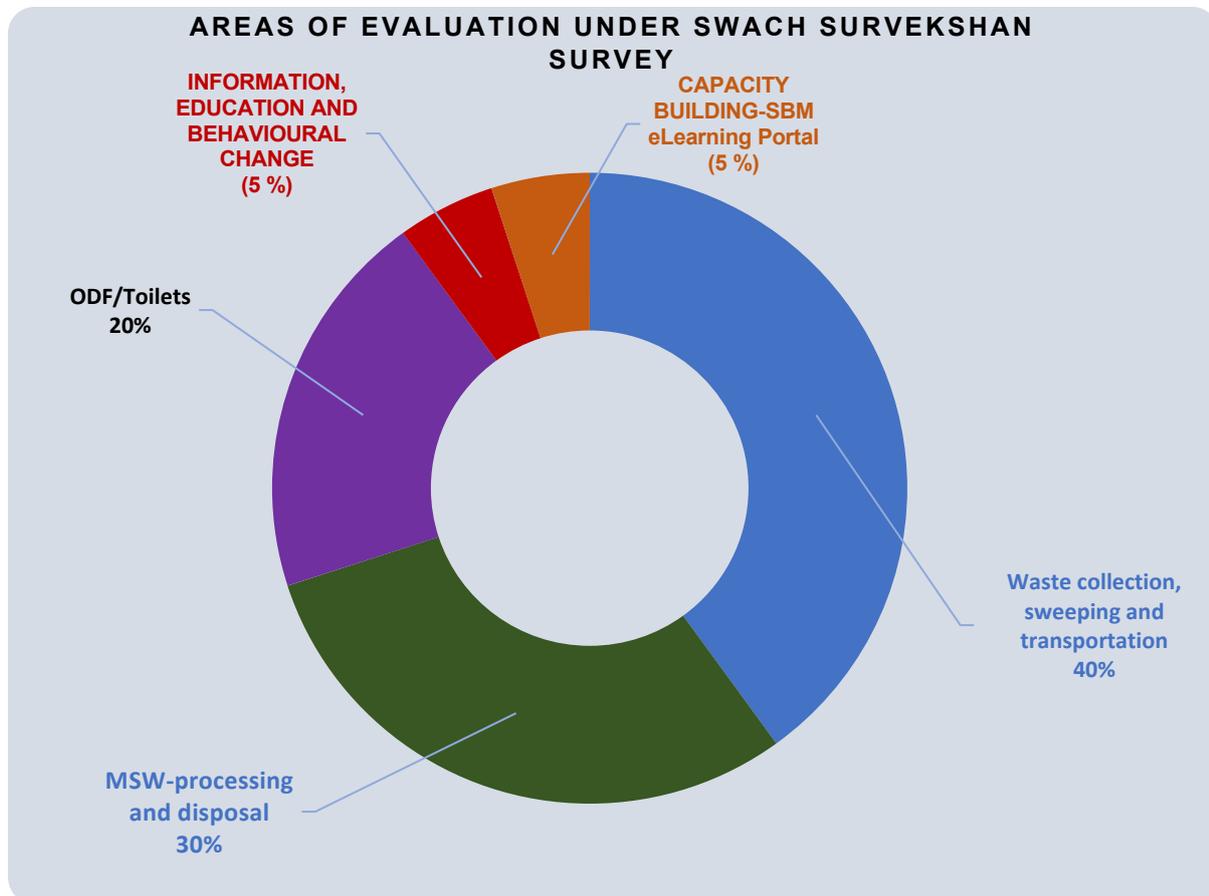
#### CONCLUSION:

A Choice Based Credit System (CBCS) under the National Credit Framework would facilitate students to explore their choices in a multi-dimensional aspect in this age of knowledge. The introduction of the Choice Based Credit System in Central Universities aligns education with industry needs instead of encouraging independence and critical thinking. Critics fear such measures would foster privatisation of education.

## SWACHH SURVEKSHAN GRAMIN, 2022 AWARD

CONTEXT: *Telangana topped Swachh Survekshan Gramin (SSG) 2022 under the Large States category followed by Haryana and Tamil Nadu. Andaman and Nicobar secured the first position followed by Dadra and Nagar Haveli, Daman and Diu and Sikkim among the smaller States and Union Territories.*

SWACHH SURVEKSHAN SURVEY: Ranks States and districts on the basis of their performance attained on key quantitative and qualitative Swachh Bharat Mission Gramin (SBM-G).



Governing units at various levels of hierarchy **COOPERATE AND ACT COLLECTIVELY** to formulate priorities and implement policies to secure objectives in “larger public interest”

-COOPERATIVE FEDERALISM

Governing units at various levels of hierarchy **COMPETE WITH EACH OTHER** to secure objectives in “larger public interest” with optimum utilisation of scarce resources

-COMPETITIVE FEDERALISM

### SWACHH BHARAT MISSION (GRAMEEN) PHASE-II:

- EMPHASIS: Sustainability of achievements under phase I and enhance facilities for Solid/Liquid & Plastic Waste Management (SLWM) in rural India.
- IMPLEMENTATION: 2020-21 - 2024-25
- NODAL MINISTRY: Union Ministry of Jal Shakti
- FUNDING PATTERN: The fund sharing pattern between Centre and States will be
  - 90:10 for the NE and the Himalayan States and UT of J&K
  - 60:40 for other States; and
  - 100% for other Union Territories.



# GLOBAL HUNGER INDEX

**CONTEXT:** India ranks 107 out of 121 countries (under the “serious category”) on the Global Hunger Index released by Concern Worldwide and Welthungerhilfe.

## GLOBAL HUNGER INDEX SCORE

The GHI score is calculated on a 100-point scale reflecting the severity of hunger. Zero is the best score (no hunger) and 100 is the worst. Each set of GHI scores uses data from a 5-year period. The 2022 GHI scores are calculated using data from 2017 through 2021.

## GLOBAL HUNGER INDEX SCORE

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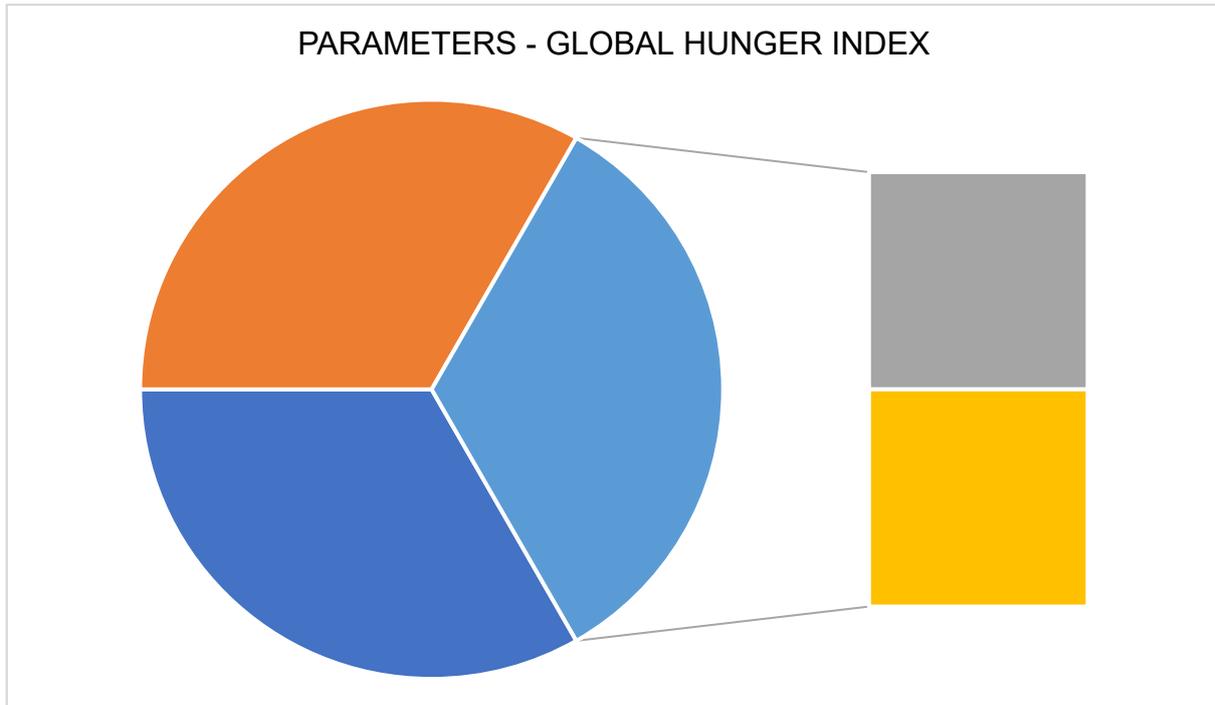


FIGURE: Pie chart representation of the weights of parameters of Global Hunger Index

## HOW THE GHI IS CALCULATED

Each country’s GHI score is calculated based on a formula that combines 4 indicators that together capture the multidimensional nature of hunger:



**UNDERNOURISHMENT:** Share of the population with insufficient caloric intake.



**CHILD STUNTING:** Share of children under age five who have low height for their age, reflecting chronic undernutrition.



**CHILD WASTING:** Share of children under age five who have low weight for their height, reflecting acute undernutrition.



**CHILD MORTALITY:** Share of children who die before their fifth birthday, partly reflecting the fatal mix of inadequate nutrition and unhealthy environments.

## PERFORMANCE OF INDIA

**REGION:** India ranks below Sri Lanka (64), Nepal (81), Bangladesh (84), and Pakistan (99) with a score of 29.1 that falls in the ‘serious’ category. Afghanistan (109) is the only country in South Asia that performs worse than India on the index.

## PERFORMANCE ON INDIA IN GLOBAL HUNGER INDEX

■ 2000 ■ 2005 ■ 2010 ■ 2014 ■ 2019 ■ 2021

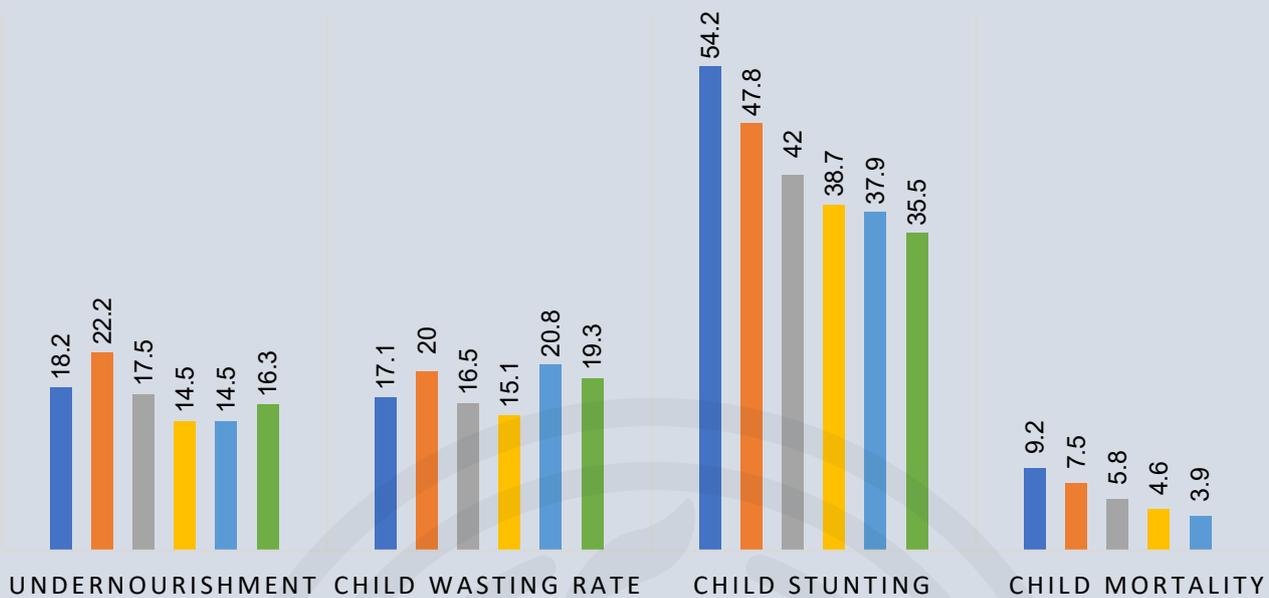


FIGURE: Bar chart representation of performance on India in the Global Hunger Index.

### CENTRE'S STAND - WRONG AND UNETHICAL, REEKING OBVIOUS BIAS

The index is an “erroneous measure of hunger” suffering from “serious methodological issues”. Three out of the four indicators used for calculation of the index are related to child health and cannot be representative of the entire population. The fourth estimate of Proportion of Undernourished (PoU) population is based on an ‘opinion poll’ based on ‘8 questions’ with a sample size of ‘3000 respondents’

## LOK ADALATS

CONTEXT: Over 450 prisoners have walked free in Chhattisgarh after Lok Adalats were set up in jails across the State.

### NATIONAL LEGAL SERVICES AUTHORITY

- TYPE: Statutory Body.
- STATUTE: Legal Services Authority Act, 1987
- MANDATE: Provide free and competent legal services to the Weaker Sections of the society on the basis of Equal Opportunity.
- ROLE: Organise the Lok Adalats consisting of either serving or retired judicial officers or individuals from civil society.

### LOK ADALATS - SALIENT FEATURES

- Non-adversarial litigation resolution system presided over by retired judges, social activists, or other members of the legal profession held by the Taluk Legal Services, District Court Legal Services Committee, High Court Legal Services and Supreme Court Legal Services Committee.
- Decides the matter so referred on the basis of the compromise or settlement between the parties in an independent and impartial manner in their attempt to reach amicable settlement of their dispute.
- Deal with all Civil Cases, Matrimonial Disputes, Land Disputes, Partition / Property Disputes, Labour Disputes etc., and compoundable criminal Cases.
- Award made by the Lok Adalats is deemed to be a decree of a civil court and is final and binding on all parties and no appeal against such an award lies before any court of law
- There is no court fee payable when a matter is filed in Lok Adalats.  
Refund of court fees originally paid in the court on the complaints / petition back to the parties upon subsequent settlement of any matter pending in the court of law referred to Lok Adalats

# INTERNATIONAL RELATIONS





**SANCTIONS AGAINST INDIAN  
PETROCHEMICAL COMPANY**

**UN 1267 SANCTIONS COMMITTEE**

**NORD STREAM PIPELINES**

**INDIA ABSTAINS ON UNSC RESOLUTION**

**GLOBAL SOUTH**

**INDIA TO TAKE G20 PRESIDENCY**

**CRUDE OIL PRODUCTION CUTS**



# SANCTIONS AGAINST INDIAN PETROCHEMICAL COMPANY

CONTEXT: The U.S. Treasury Department announced sanctions against a Mumbai based petrochemical company accused of selling Iranian petroleum products.

## COUNTERING AMERICAN ADVERSARIES THROUGH SANCTIONS ACT

### SALIENT FEATURES

- Prohibition on loans to the sanctioned person.
- Prohibition of Export-Import bank assistance for exports to sanctioned persons.
- Prohibition on procurement by United States Government to procure goods or services from the sanctioned person.
- Denial of visas to persons closely associated with the sanctioned person.

### CORE OBJECTIVE

- Counter Iran, Russia and North Korea through punitive measures.

**ENACTED:** 2017.

### TARGET PARTIES:

- Countries that engage in significant transactions with Russia's defence and intelligence sectors.

### INDUSTRY

- BANKING
- SHIPPING
- INSURANCE
- ENERGY/PETROLEUM
- NUCLEAR
- INTERNATIONAL TRADE
- MISSILE/ARMS
- IRG CORPS

### SANCTIONED COUNTRIES

- IRAN
- CUBA
- VENEZUELA
- SYRIA
- NORTH KOREA
- SUDAN

The Countering America's Adversaries Through Sanctions Act (CAATSA), 2018, a US legislation that aims to counter the aggression by Iran, Russia and North Korea through punitive measures can affect India with deep trade and strategic links with Iran and Russia. The widening of rift between US and traditional allies of India could adversely affect the Indian geo-political interests. India should leverage its influence in the bipartisan India-US relationship to seek waivers.

## UN 1267 SANCTIONS COMMITTEE

CONTEXT: China blocked proposals by India and the United States to designate Pakistan-based terrorists on the UN Security Council's 1267 list of terror entities.

### PROCEDURE OF LISTING:

- Any UN Member State can submit a proposal to list an individual, group, or entity as a **GLOBAL TERRORIST**.
- The proposal must include acts or activities indicating the proposed individual/group/entity participation "in the financing, planning, facilitating, preparing, or perpetrating of acts or activities" linked to "ISIL, Al-Qaida or any cell, affiliate, splinter group or derivative".
- All decisions on listing and delisting are adopted by consensus among Sanctions Committee.
- Any member of the Sanctions Committee may also put a "technical hold" on the proposal and ask for more information from the proposing member state.

### KEY

### HIGHLIGHTS:

India and the US jointly proposed for designating LeT members - Talha Saeed and Shahid Mehmood as global terrorists. Both are designated as terrorists in India's "UAPA" terror list and in the US Treasury's list.



UNSC 1267 COMMITTEE: It comprises all permanent and non-permanent members of the United Nations Security Council (UNSC). The 1267 list of terrorists is a global list, with a UNSC stamp.

India moves an independent proposal against 26/11 Mumbai terror attacks master mind <b>Masood Azhar</b> to designate him as a GLOBAL TERROIST	CHINA BLOCKS PROPOSAL
India moves a joint proposal against <b>Masood Azhar</b> to designate him as a GLOBAL TERROIST with US, UK and France after Pathankot attacks	CHINA BLOCKS PROPOSAL
India moves a second joint proposal against <b>Masood Azhar</b> to designate him as a GLOBAL TERROIST with US, UK and France	CHINA BLOCKS PROPOSAL
India moves a joint proposal against <b>Masood Azhar</b> to designate him as a GLOBAL TERROIST with US, UK and France after Pulwama attacks	CHINA ACCEPTS THE PROPOSAL
JUNE 2022: India moves a joint proposal with US against <b>Abdul Rahman Makki</b> to designate him as a GLOBAL TERROIST	CHINA PUTS A 'TECHNICAL HOLD' ON THE PROPOSAL
AUGUST 2022: India moves a joint proposal with US against <b>Abdul Rauf Asghar</b> to designate him as a GLOBAL TERROIST	CHINA PUTS A 'TECHNICAL HOLD' ON THE PROPOSAL
OCTOBER 2022: India moves a joint proposal with US against <b>Shahid Mahmood</b> to designate him as a GLOBAL TERROIST	CHINA PUTS A 'TECHNICAL HOLD' ON THE PROPOSAL

**SALIENT RECOMMENDATIONS - UNSC RESOLUTION # 1267 (1999)**

- Taliban must not allow territory under its control to be used for terrorist training.
- Taliban must turn over Osama bin Laden to the appropriate authorities.
- All countries must deny flight permission to all Taliban operated aircraft.
- All countries must freeze all financial resources that could benefit the Taliban.
- All countries must report back within 30 days on what measures they had taken



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# NORD STREAM PIPELINES

CONTEXT: Four leaks were reported at different points in the Nord Stream pipelines, linking Russia and Europe.

## NORD STREAM NETWORK

NORD STREAM is a network of offshore natural gas pipelines in Europe which run under the Baltic Sea from Russia to Germany. It comprises two separate projects, Nord Stream 1 and 2.

- NORD STREAM 1 (NS1), operated by Nord Stream AG is a 1,200-km long sub-sea gas pipeline commissioned in 2011 that runs from Vyborg, in north-western Russia near Finland, capable of supplying carry 55 billion cubic meters of gas per year
- NORD STREAM 2 (NS2), operated by Nord Stream AG is a 1,200-km long sub-sea gas pipeline yet to be commissioned that runs from Ust-Luga in north-western Russia near Estonia, capable of supplying carry 55 billion cubic meters of gas per year.

Baltic Sea, a marginal sea of the Atlantic Ocean is enclosed by Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, Sweden and the North and Central European Plain. The sea stretches from 530 N to 660 N latitude and from 100 E to 300 E longitude. The Baltic Sea is connected by artificial waterways to the White Sea via the White Sea-Baltic Canal and to the German Bight of the North Sea via the Kiel Canal.



## CONCLUSION:

Europe reliant on Russian gas to meet its energy needs is likely to be affected by the crisis. Russia has cut its gas supplies to EU states by 88%, causing wholesale prices of gas in Europe to more than double over the past one year. High price of gas is affecting household budgets across Europe and driving up costs for manufacturing firms, possibly triggering slowdowns in European economies and accelerate the route towards recession. EU member states have agreed to cut gas usage by 15%. EU members States are planning to reduce import dependence upon Russia by importing gas from other countries and operationalising coal powered Thermal Power Plants and extending the life of existing power stations.

*Talk to yourself once in a day, otherwise you may miss meeting an intelligent person in this world*

- SWAMI VIVEKANANDA





# INDIA ABSTAINS ON UNSC RESOLUTION

**CONTEXT:** India abstained on a draft resolution at the United Nations Security Council (UNSC) condemning referenda organized by Russia across four regions of Ukraine.

**KEY HIGHLIGHTS:** The UNSC resolution, sponsored by the United States and Albania, failed to pass the 15-member Council. Russia used a veto to block it.

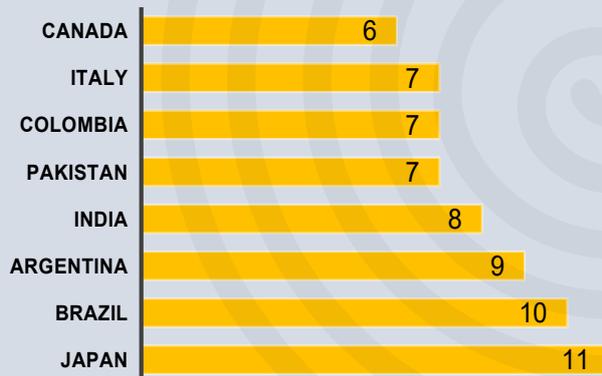


### ABSTAINED

- China
- Brazil
- Gabon

Vijaya Lakshmi Pandit was an Indian diplomat, who served as the 8th President of the United Nations General Assembly from 1953 to 1954, the first woman appointed to either post.

### REQUENTLY ELECTED UNSC MEMBERS



### United Nations Security Council

Composition through 2022



Source: UN | <sup>1</sup> until December 31, 2022 | <sup>2</sup> until December 31, 2023

- **TYPE:** Principal organ of the UNO constituted under Chapter V of the UN Charter.
- **POWERS OF THE UN SECURITY COUNCIL**
- Conduct peacekeeping operations in trouble prone areas and pacific dispute settlements
  - Investigate any potential dispute, or any situation leading to international frictions or violence.
  - Recommend appropriate procedures or methods to normalise the situation endangering international peace and security in the opinion of the United Nations Security Council.
- Action with respect to threats to the peace, breaches of the peace, and acts of aggression
  - Impose and monitor sanctions on State parties, for acts of violations of adopted resolutions.
  - Authorise military and non-military means to restore international peace and security.
- VETO POWERS OF THE PERMANENT MEMBERS:**
  - **ARTICLE 25, UN CHARTER:** Empowers the UN Security Council to make binding resolutions / recommendations on its member States on all substantive matters through 9 affirmative votes without any veto votes.
  - **ARTICLE 27, UN CHARTER:** Require the Security Council require the affirmative votes of 9 members without any vetoes to adoption of a proposal on all substantive matters. Abstention is not regarded as a veto despite the wording of the Charter.

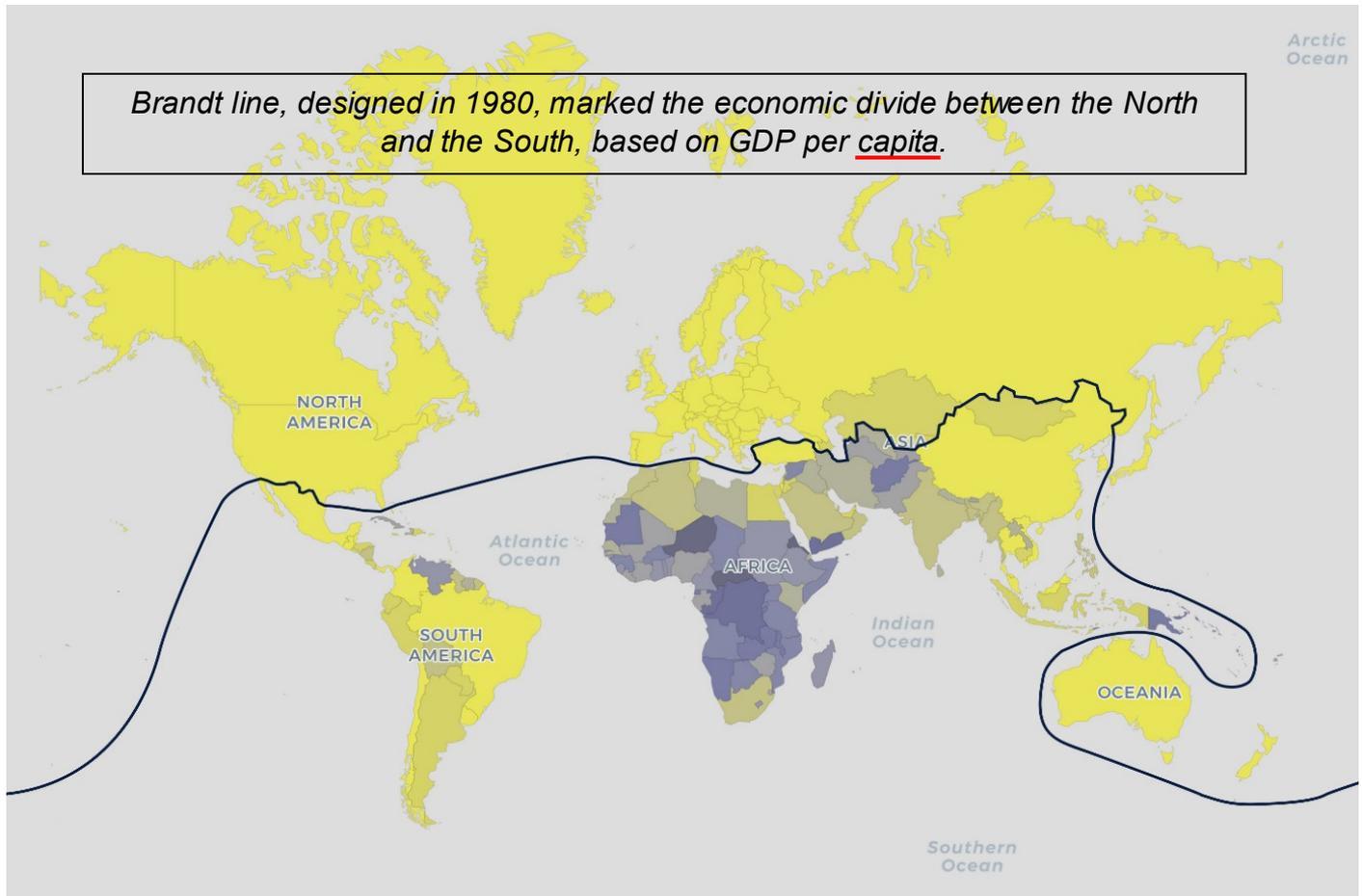


## GLOBAL SOUTH

CONTEXT: S Jaishankar, External Affairs Minister reaffirmed the commitment of India towards Global South on the annual commemorative day of the United Nations.

“regions of Latin America, Asia, Africa, and Oceania, (regions outside Europe and North America), mostly (though not all) low-income and often politically or culturally marginalized.”

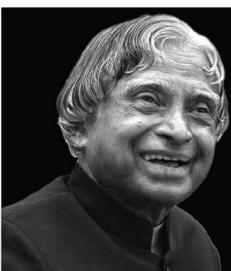
-GLOBAL SOUTH OR SOUTH-SOUTH COOPERATION



### FORUMS – SOUTH-SOUTH COOPERATION

#### UN OFFICE FOR SOUTH-SOUTH COOPERATION (UNOSSC)

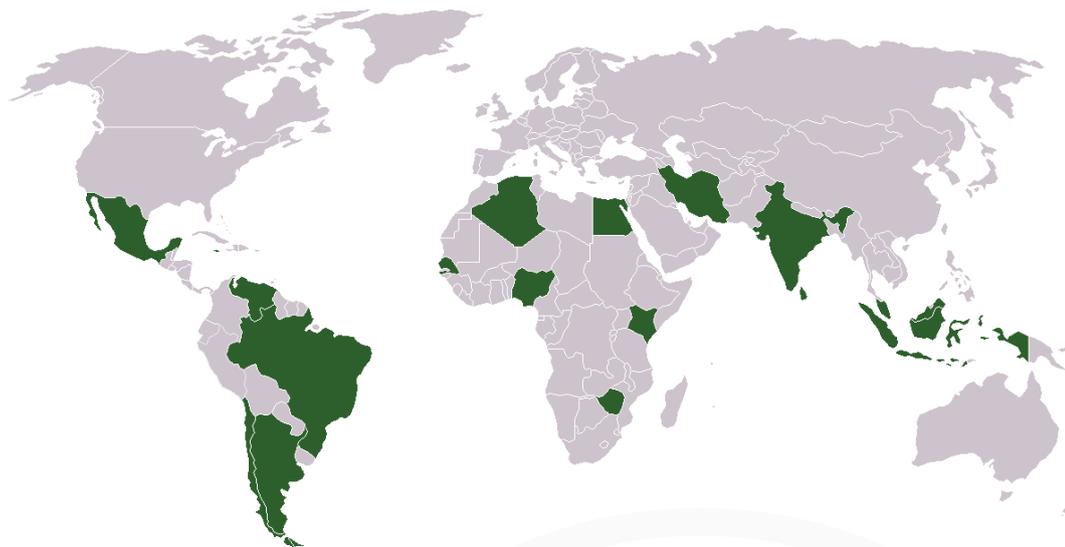
The United Nations General Assembly (UNGA) constituted United Nations Office for South-South Cooperation (UNOSSC) to promote cooperation among developing countries within the UNDP and within the UN system. India founded India-UN Development Partnership Fund with United Nations Office for South-South Cooperation (UNOSSC) in 2017 to be managed by the United Nations Office for South-South Cooperation (UNOSSC) to carry out country-level projects, especially in Least Developed Countries (LDCs) and Small Island Developed States to catalyse towards achieving 17 SDGs of the 2030 Agenda prioritising projects to reduce poverty and hunger, improving health, education and equality, and expanding access to clean water and energy and livelihoods.



*You have to dream before your dreams can come true..*

- A. P. J. ABDUL KALAM

## GROUP-15



INDONESIA  
 MALAYSIA  
 SRI LANKA  
 INDIA  
 IRAN  
 ZIMBABWE  
 KENYA  
 EGYPT  
 ALGERIA  
 SENEGAL  
 NIGERIA  
 ARGENTINA  
 BRAZIL  
 VENEZUELA  
 CHILE  
 MEXICO

The IX Belgrade Non-Aligned Movement (NAM) Summit, 1989 founded the Group-15 as a consultative forum among developing countries to promote South-South cooperation and pursue a more positive and productive North-South dialogue. The present strength of G-15 is 18. Chile, Iran and Kenya later joined the Group – 15 and Peru and Yugoslavia left. India, Indonesia, Malaysia, Sri Lanka and Iran\* are members of Group – 15 in Asia.

## GROUP-77

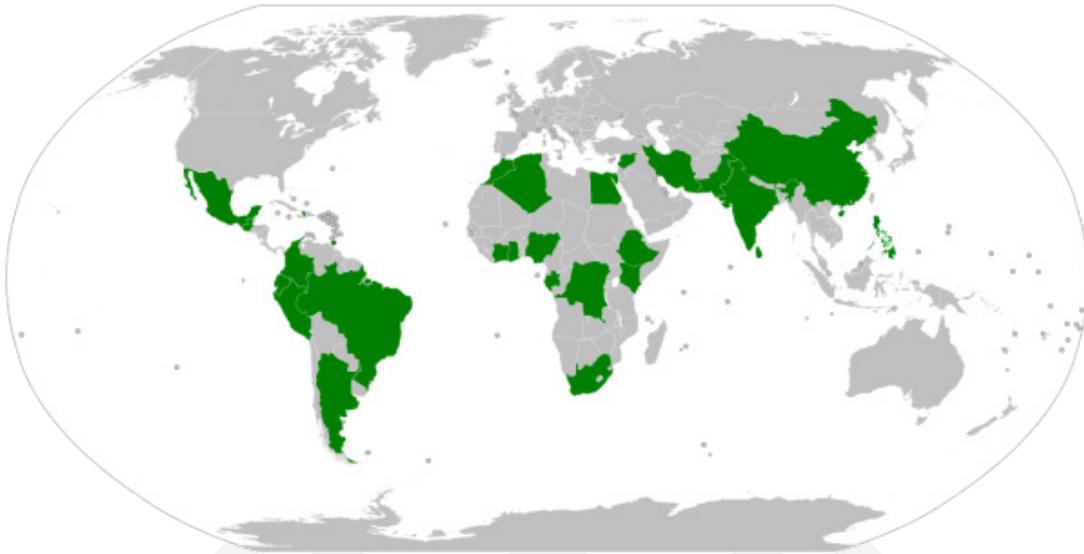


The “Joint Declaration of the Seventy-Seven Countries - 1964” at the United Nations Conference on Trade and Development founded Group – 77 in 1964 to promote their collective economic interests in global forums like the United Nations Organization through their joint negotiating capacity. The Charter of Algiers – 1967 constituted permanent institutional structures for Group – 77. The Group - 77 presently has 134 members holding chapters in Rome (FAO), Vienna (UNIDO), Paris (UNESCO), Nairobi (UNEP) and the Group of 24 in Washington, D.C. (International Monetary Fund and World Bank).



## GROUP-24

REGION I (AFRICA): Algeria, Côte d'Ivoire, Egypt, Ethiopia, Gabon, Ghana, Nigeria, South Africa and the Democratic Republic of Congo.



REGION II (LATIN AMERICA AND THE CARIBBEAN): Argentina, Brazil, Colombia, Guatemala, Mexico, Peru, Trinidad and Tobago and Venezuela.

REGION III (ASIA): India, Iran, Lebanon, Pakistan, Philippines, Sri Lanka and Syria.

The Group of 24 (Group – 24) officially known as the “Intergovernmental Group of Twenty-Four on International Monetary Affairs and Development” was founded in 1971 to coordinate the negotiating position of developing bloc on international monetary and development finance issues on behalf of Group – 77. All Group – 77 member countries are eligible for representation on Group – 24. Mexico is the only G-24 member that is not a Group – 77 member, when it left the Group – 77 without resigning its Group – 24 membership.

### LIKE-MINDED DEVELOPING COUNTRIES (LMDC)

CONTEXT: Recently, 18 Like-Minded Developing Countries (LMDC) issued a Joint Statement reiterating about the inequity in fund allocations for global warming mitigation efforts.

“a group of developing countries representing more than 50 % of the world’s population who organise themselves as a block negotiator in international organizations such as the United Nations and the World Trade Organization.”

-LIKE-MINDED DEVELOPING COUNTRIES

Bangladesh  
Algeria  
Bhutan  
Belarus  
Cuba  
China  
India  
Egypt  
Iran  
Indonesia

Malaysia  
Nepal  
Myanmar  
Sri Lanka  
Pakistan  
Philippines  
Syria  
Sudan  
Vietnam  
Zimbabwe



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# INDIA TO TAKE G20 PRESIDENCY

CONTEXT: India would be taking over the Group of Twenty (G20) presidency.



*“an intergovernmental forum comprising 19 countries and the European Union (EU) to work on addressing major issues related to the global economy, such as international financial stability, climate change mitigation, and sustainable development.”*

## G 20

- **ESTABLISHED:** London Summit, 2009
- **TYPE:** Non-Treaty based Informal Inter-Governmental Organisation (IGO)
- **SECRETARIAT:** No permanent secretariat
- **MEMBER COUNTRIES:** Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and the European Union.
- **SIGNIFICANCE:** Grouping of world’s largest economies, including both industrialized and developing nations.

FOCUS AREAS: G 20		
● SUSTAINABILITY OF SOVEREIGN DEBT		
● GLOBAL FINANCIAL STABILITY		
● GLOBAL ECONOMIC GROWTH		
● INTERNATIONAL TRADE		
● FINANCIAL MARKET REGULATION		
● MIGRATION		
● DIGITISATION		
● EMPLOYMENT		
● HEALTHCARE		
● ECONOMIC EMPOWERMENT OF WOMEN		

## SIGNIFICANCE:

90 % of Gross World Product (GWP)  
 75 – 80 % of Global trade  
 Two-thirds of the Global population  
 Half the world’s land area

## ROME DECLARATION

Sixteen mutually agreed principles, which aims to guide joint action for preventing future health crises and to build a safer, equitable and sustainable world. Following are the principles under the Rome Declaration:

- Supporting and enhancing the existing multilateral health architecture for detection, response, prevention and preparedness.
- Working towards monitoring & implementation of multi-sectoral, evidence-based One Health approach in a bid to address risks emerging due to interface between human, animal & environment.
- Fostering all-of-society and health-in-all policies.
- Promotion of multilateral trading system.
- Enabling equitable, affordable and global access to high-quality, safe & effective health systems.
- Supporting low and middle-income countries in a bid to build expertise, and develop local & regional manufacturing capacities.



- Focus on data sharing, capacity building, voluntary technology and licensing agreements.
- Enhancing support to existing preparedness and prevention structures.
- Investing in worldwide health & care workforce.
- Investing in adequate resources, training, and staffing of diagnostic public & animal health laboratories.
- Investments for developing and improving inter-operable early warning surveillance, information, and trigger systems
- Investments in domestic, international & multilateral cooperation for the purpose of research, development & innovation
- Increasing effectiveness of preparedness & response measures by extending support and promoting meaningful & inclusive dialogue.
- Ensuring effectiveness of financing mechanisms.
- Coordination on pharmaceutical and non-pharmaceutical measures and emergency response with respect to sustainable and equitable recovery.
- Addressing the need of streamlined, enhanced, sustainable and predictable mechanisms for financing pandemic preparedness, prevention, detection and response in long term

## CRUDE OIL PRODUCTION CUTS

CONTEXT: OPEC+ agreed to its deepest cuts to production - 2 million-barrel-per-day (BPD) since the 2020 COVID pandemic, despite a tight market and opposition to cuts from the United States and others.

### REASONS FOR THE CUT IN PRODUCTION:

**RECESSION FEARS:** Prevent further fall in crude oil prices from US \$120 for a barrel of crude three months ago to about US \$90 a barrel with fears of a looming economic recession.

**POOR INVESTMENT SENTIMENT:** The policy rate hikes announced by the US Federal Reserves is expected to make capital relatively less affordable and further dampen the demand.

**STRENGTHENING OF DOLLARS:** Substantially reduce the receipts for petroleum-producing countries.

### IMPACT:

- Higher import bills for import dependent countries including India.
- Cascading inflationary trends to goods and services of essential nature.
- Weaken the consumption-driven growth in India.

### ORGANIZATION OF THE PETROLEUM EXPORTING COUNTRIES:

- TYPE: Permanent, Inter-Governmental Organisation (IGO)
- FOUNDED: Baghdad Conference in 1960
- MEMBERS: Iran\*, Iraq\*, Kuwait\*, Saudi Arabia\*, Venezuela\*, Algeria, Angola, Equatorial Guinea, Gabon, Libya, Nigeria, the Republic of the Congo, and the United Arab Emirates.
- HEADQUARTERS: Vienna, Austria
- MANDATE: Manage the supply of oil, set the price of oil in the world market, and avoid fluctuations that might affect the economies of both producing and purchasing countries.



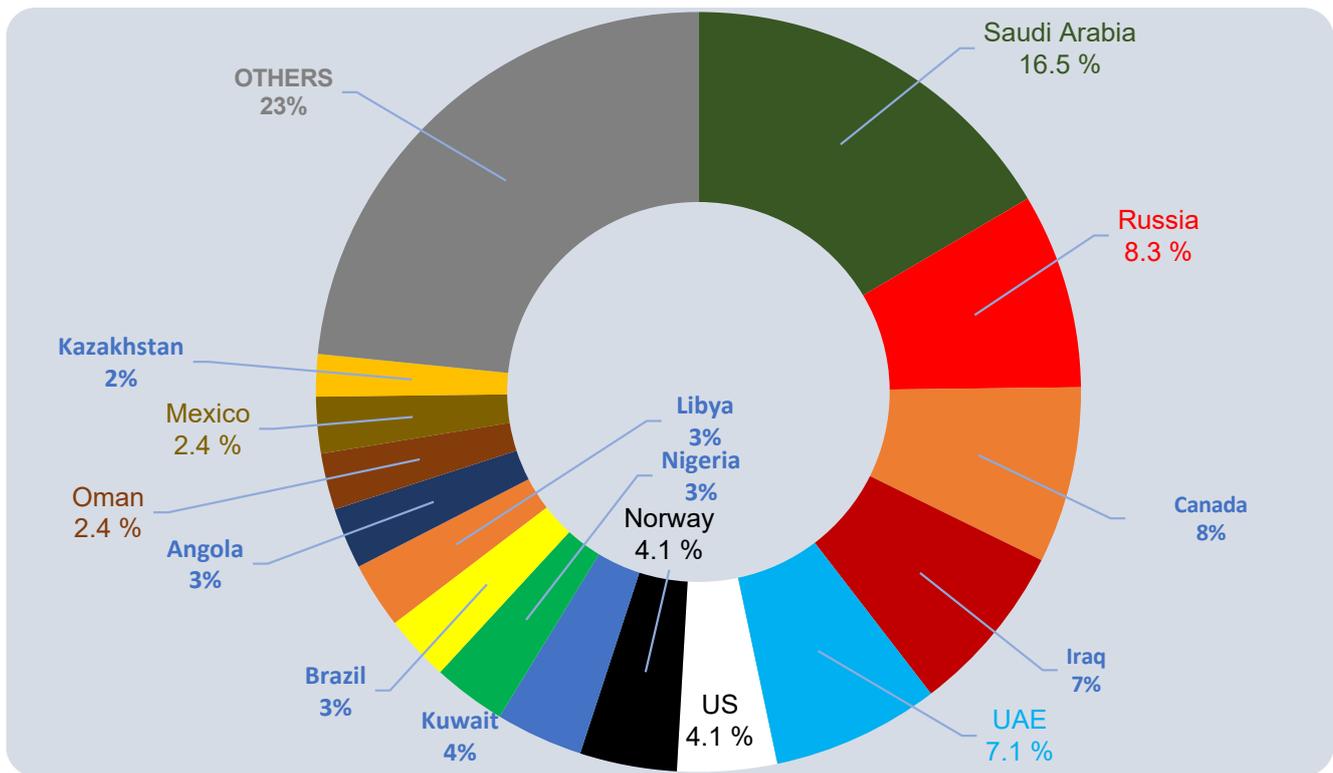


FIGURE: Pie chart representation of share of top 15 oil exporters by revenue (2021).

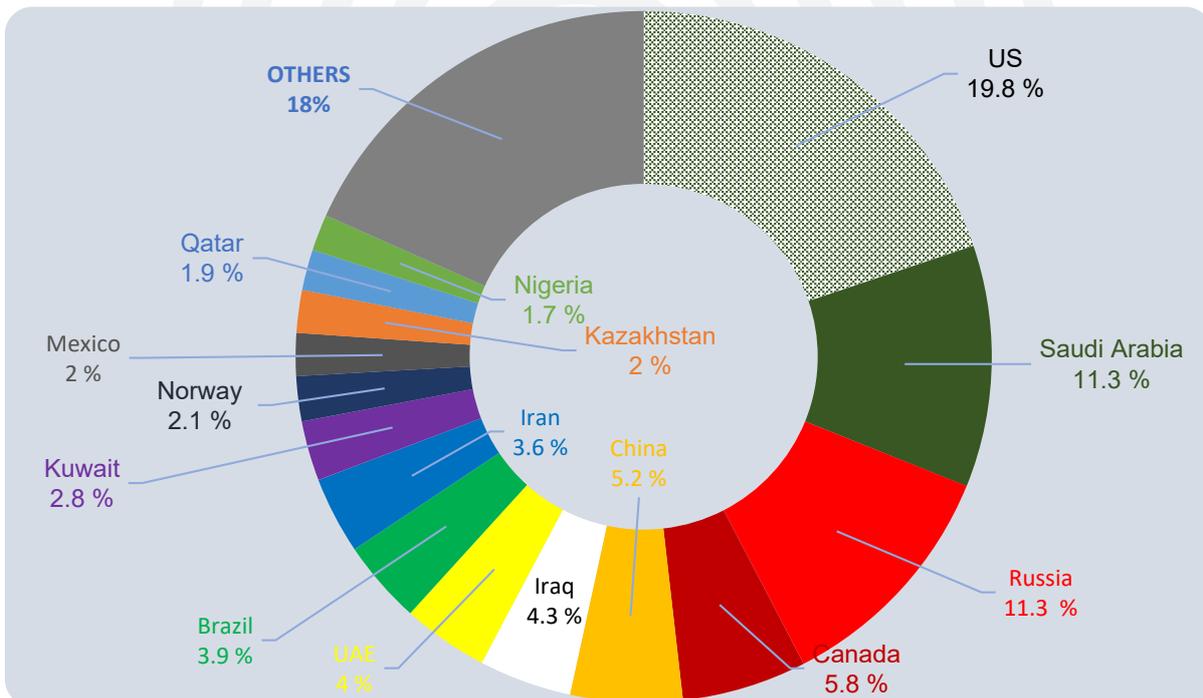


FIGURE: Pie chart representation of share of top 15 oil producers (2021).

**CONCLUSION:**

India is the world's third-largest consumer of crude with 5.35 million barrels per day (mbpd), behind the US (21.2mbpd) and China (15.1mbpd). India imports nearly 85% of its total crude oil consumption annually. India's domestic crude production stagnated around below 700,000 barrels per day, Iraq remains the largest supplier of oil for India. India is currently constructing 3 strategic petroleum reserves in huge underground rock caverns at Visakhapatnam (1.33 MMT) on the East Coast, and at Mangalore (1.5MMT) and Padur (2.5 MMT) on the West Coast.



# INTERNAL SECURITY



**AFSPA EXTENDED IN NAGALAND, ARUNACHAL**

**PRADESH**

**NEW CHIEF OF DEFENCE STAFF (CDS)**

**PAKISTAN OUT OF FATF 'GREY LIST' ON TERROR**

**FUNDING**

**WEAPON SYSTEMS BRANCH**

**LCH PRACHAND**

**SUBMARINE LAUNCHED BALLISTIC MISSILE (SLBM)**

**TEST**



## AFSPA EXTENDED IN NAGALAND, ARUNACHAL PRADESH

CONTEXT: The Union Ministry of Home Affairs (MHA) has extended the Armed Forces (Special Powers) Act in parts of Arunachal Pradesh and Nagaland for another 6 months.

### ARMED FORCES SPECIAL POWERS ACT (AFSPA), 1958:

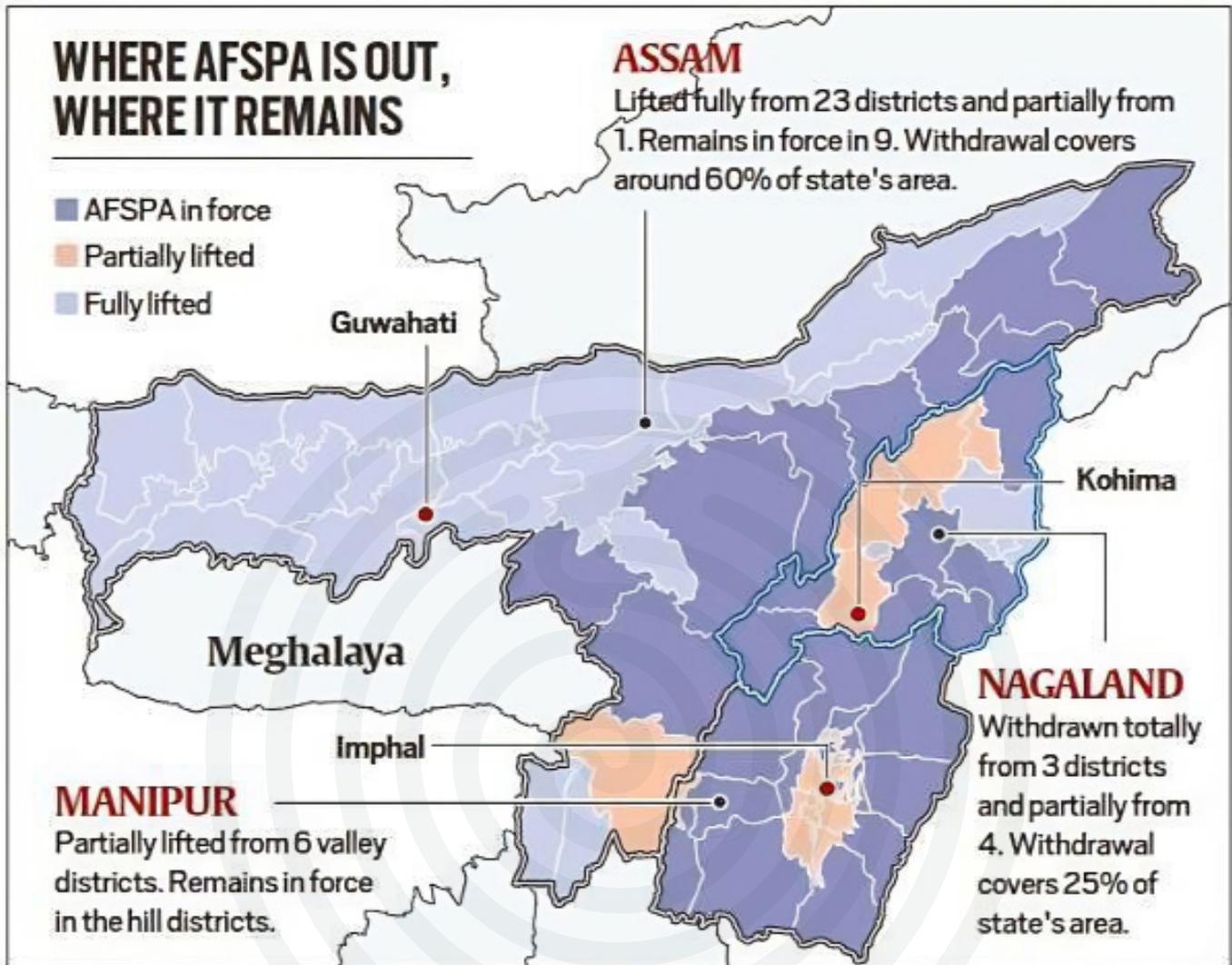


FIGURE: Map representing places

The Parliament enacted the Armed Forces (Special Powers) Act, 1958 in Assam, later extended to the whole of Disturbed Areas in Northeast India and later introduced to Jammu and Kashmir (J & K) in 1990.

- **CONCURRENT POWERS FOR DECLARATION OF 'DISTURBED AREA':** Section 3 of Armed Forces (Special Powers) (Amendment) Act, 1972 grant CONCURRENT POWERS for both the CENTRE<sup>1</sup> and the STATE GOVERNMENTS<sup>2</sup> / UNION TERRITORY (UT) to issue notification in 'The Gazette of India' to declare a declare the WHOLE OR PART OF THE STATE / UT where there is frequent occurrence of Low Intensity Conflict (LIC) among racial, religious, linguistic castes or communities over minor differences or disputes as 'DISTURBED AREA'.
  - ➡ The Union Home Ministry issues periodic "Disturbed Area" notification to extend AFSPA only for Nagaland and Arunachal Pradesh.
  - ➡ The State Government issue notification for Manipur and Assam.
- **DISCRETIONARY POWERS FOR DECLARATION OF 'DISTURBED AREA':** The Governor of the State or the Centre can OVERRULE the suggestion of the State Government regarding the geographical limits of enforcement of Armed Forces Special Powers (Amendment) Act, 1990 to issue an official notification under the Section (3) of the AFSPA, 1990 for assistance of Army / CAPF to aid civilian administration to restore and maintain peace and order.)



## POWERS OF THE ARMED FORCES / SECURITY PERSONNELS

- Prohibit a gathering of FIVE or MORE PERSONS in an area,
- Allowed to use force or even open fire after giving due warning if they feel a person is in contravention of the law.
- Arrest a person without a warrant on grounds of reasonable suspicion.
- Enter or search premises without a warrant; and ban the possession of firearms.
- Any person arrested or taken into custody may be handed over to the officer in charge of the nearest police station along with a report detailing the circumstances that led to the arrest.
- Empowers the armed forces to maintain public order in “disturbed areas”. It gives the armed forces the authority to use force or even open fire after warning a person found to be in contravention of the law.
- The AFSPA also lets the armed forces arrest a person and enter or search premises without a warrant and ban the possession of firearms if “reasonable suspicion exists”.
- Provides immunity for security personnel from prosecutions for acts done under official capacity, including shootings to kill; arrest, search and seizure without warrants to deal a committed crime or to prevent potential cognizable offence even on “reasonable suspicion”.

## RECOMMENDATIONS OF THE JUSTICE B P JEEVAN REDDY COMMITTEE

- Repeal draconian provisions of AFSPA and insert appropriate provisions in the Unlawful Activities (Prevention) Act, 1967;
- Clearly specify the powers of the armed forces and paramilitary forces of the Unlawful Activities Act;
- Set up Grievance cells in districts, where the armed forces are deployed.

## NEW CHIEF OF DEFENCE STAFF (CDS)

CONTEXT: *The Government appointed former Eastern Army Commander Lt. General Anil Chauhan as the next Chief of Defence Staff (CDS), who would also function as Secretary to the Government of India, Department of Military Affairs.*

- ABOUT CHIEF OF DEFENCE STAFF (CDS)
  - Four-star General
  - Single-point military adviser to the Government of India.
  - Acts as the permanent Chairman of the Chiefs of Staff Committee which will also have three service chiefs as members.
  - Foster greater operational synergy between the three service branches of the Indian military and keep inter-service frictions to a minimum.
- SERVICE CONDITIONS
  - Not eligible to hold any Government office after demitting the office of CDS.
  - No private employment without prior approval for a period of five years after demitting the office of CDS.
- ROLES AND FUNCTIONS
  - Provide “single-point military advice” to the government, inject synergy in planning, procurements and logistics in the armed forces.
  - Ensure integration of land-air-sea operations through the eventual setting up of theatre commands.
  - Military advisor to the PM-led Nuclear Command Authority, as also have direct command of tri-Service organizations to handle the new warfare domains of space and cyberspace.
  - Principal Military Adviser to the Defence-Minister and also as the Permanent Chairman, Chiefs of Staff Committee (COSC).
  - Member of Defence Acquisition Council and Defence Planning Committee.



## PAKISTAN OUT OF FATF 'GREY LIST' ON TERROR FUNDING

CONTEXT: Pakistan was removed off the 'Grey List' of the Financial Action Task Force (FATF) after four years.

### ABOUT FINANCIAL ACTION TASK FORCE (FATF)

The Organisation of Economic Cooperation and Development (OECD) founded Financial Action Task Force on Money Laundering (FATF) as an IGO in 1989 on the initiative of the G7 to formulate policies to address conventional threats to protect integrity of the global financial system

**TYPE:** Inter-Governmental Organisation (IGO)

**FOUNDED:** 1989

**SECRETARIAT:** OECD Headquarters, Paris

**COMPOSITION:** 37 member jurisdictions and 2 regional organisations.

**MANDATE:** "Policy-making body" which works to generate the necessary political will to bring about national legislative and regulatory reforms in various areas regarding Money Laundering and terrorist financing.

### ROLES AND FUNCTIONS

- Set global standards in anti-Money Laundering (ML) activities.
- Combat terrorist financing, in addition to money laundering since October 2001.
- Counter the financing of proliferation of weapons of mass destruction since April 2012
- Examine and analyse trends and techniques to effectively respond to conventional, new and emerging threats.
- Promote effective implementation of legal, regulatory and operational measures to promote global financial integrity.
- Assess and monitor compliance with the FATF standards.

### BLACKLIST AND GREY LIST

- **BLACK LIST:** Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities. The FATF revises the blacklist regularly, adding or deleting entries.
- **GREY LIST:** Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.

### SANCTIONS UNDER GREY LIST

- Economic sanctions from IMF, World Bank, ADB.
- Problem in getting loans from IMF, World Bank, ADB and other countries.
- Reduction in international trade.
- International boycott.

## WEAPON SYSTEMS BRANCH

CONTEXT: *The Indian Air Force has established a new Weapon Systems Branch for its officers, which is aimed at the unification of all weapon system operators in specialist ground-based systems and airborne platforms under a single stream.*

"new cadre manning four specialized streams – surface-to-surface missiles, surface-to-air missiles, remotely piloted aircraft, and weapon system operators in twin and multi-crew aircraft."

-WEAPON SYSTEMS BRANCH

### SIGNIFICANCE:

- o Constitution of a new operational branch inducting specialized cadre officers for handling the latest weapon systems in the IAF for the first time since Independence.
- o Result in a saving of more than - 3,400 crore due to reduced expenditure on flying training.
- o Unify all weapon systems operators of the IAF under a single entity for operational employment of all ground-based and specialist airborne weapons.

## LCH PRACHAND

CONTEXT: The Indian Air Force (IAF) inducted the first fleet of indigenously-built Light Combat Helicopters (LCH), developed primarily for mountain warfare.

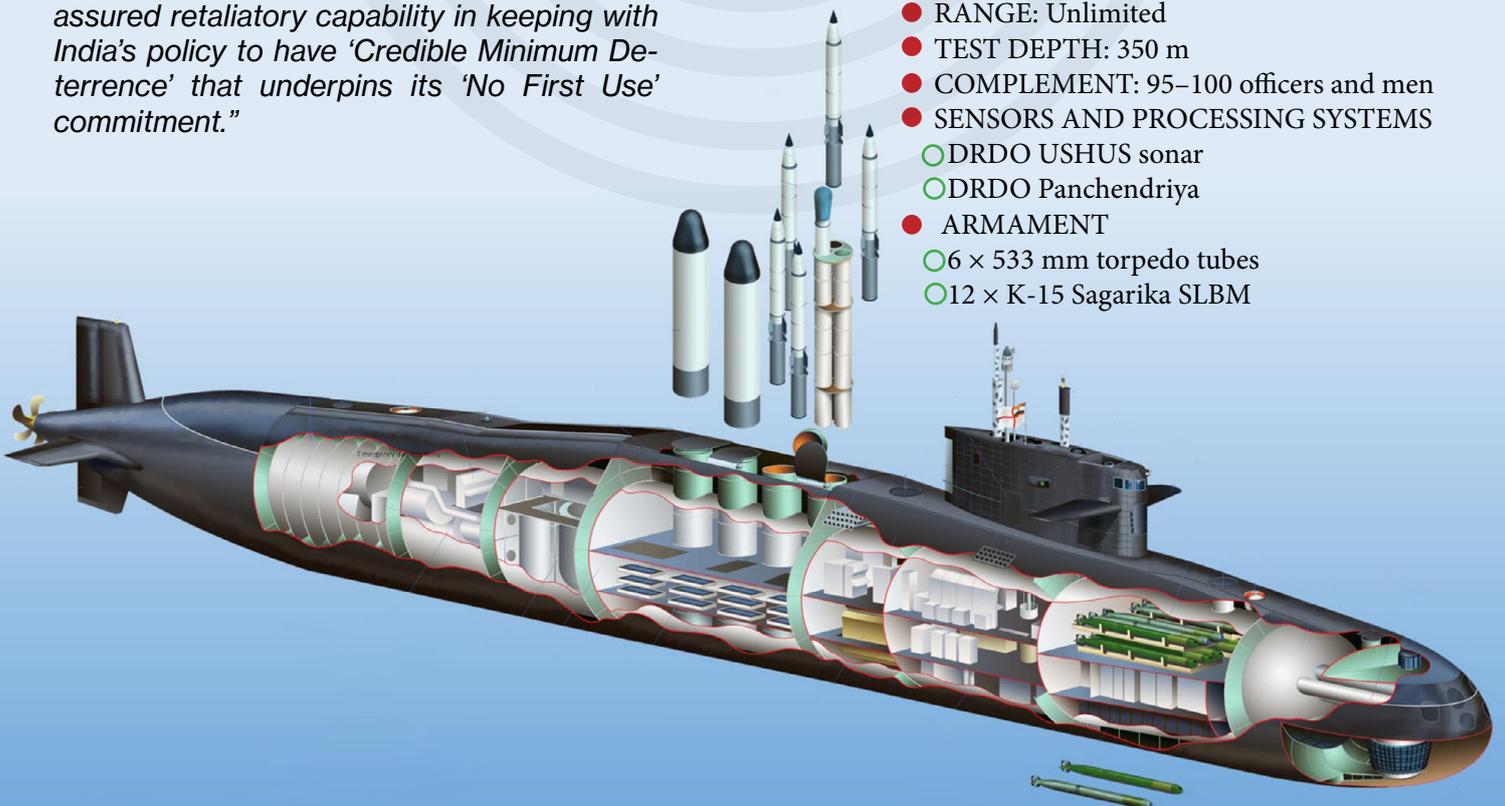
- ANTI-INFANTRY AND ANTI-ARMOUR MISSIONS
- URBAN WARFARE
- MOVING AERIAL TARGETS WARFARE
- COUNTER-INSURGENCY OPERATIONS (COIN)
- COUNTER SURFACE FORCE OPERATIONS (CSFO)
- SPECIAL HELIBORNE OPERATIONS (SHBO)
- ESCORT SERVICES
- COMBAT SEARCH AND RESCUE (CSAR) OPERATIONS
- ARMED AERIAL SCOUTING.
- HIGH-ALTITUDE WARFARE (HAW)



## SUBMARINE LAUNCHED BALLISTIC MISSILE (SLBM) TEST

India has successfully launched Submarine Launched Ballistic Missile (SLBM) from Nuclear-powered INS ARIHANT. Complementing the second-strike capability of India and thus boosting its nuclear deterrence, the launch will help in a robust, survivable and assured retaliatory capability in keeping with India's policy to have 'Credible Minimum Deterrence' that underpins its 'No First Use' commitment."

- CLASS: ARIHANT-CLASS
- DISPLACEMENT: 6,000 tonnes
- LENGTH: 111 m
- BEAM: 15 m
- DRAFT: 11 m (36 ft)
- PROPULSION: 1 x CLWR-B1 (83 MW)
- SPEED: 24 knots
- RANGE: Unlimited
- TEST DEPTH: 350 m
- COMPLEMENT: 95–100 officers and men
- SENSORS AND PROCESSING SYSTEMS
  - DRDO USHUS sonar
  - DRDO Panchendriya
- ARMAMENT
  - 6 × 533 mm torpedo tubes
  - 12 × K-15 Sagarika SLBM



# ECONOMICS





**SCALE BASED REGULATION**

**HYDROCARBON EXPLORATION & LICENSING  
POLICY**

**NON-DELIVERABLE FORWARD (NDF) MARKET**

**CARD TOKENIZATION**

**DRAFT COAL LOGISTICS POLICY, 2022**

**REVERSE AUCTIONS (RA)**

**FOREX EXCHANGE RESERVES**

**INFRASTRUCTURE STATUS TO DATA**

**CENTRES**

**GREEN BONDS**

**RBI MONITORING DHANALAXMI BANK**

**E-RUPEE**

**INDIA'S TWIN CHALLENGES**

**KISAN SAMMELAN 2022**

**EMERGENCY CREDIT LINE GUARANTEE  
SCHEME**

**IMPOSSIBLE TRINITY**

**DOOM LOOP**

**AGRI-CREDIT SOCIETIES TO BE SET UP IN  
ALL PANCHAYATS**

**MUNICIPAL FINANCING IN INDIA**

**INTERNATIONAL YEAR OF MILLETS - 2023**

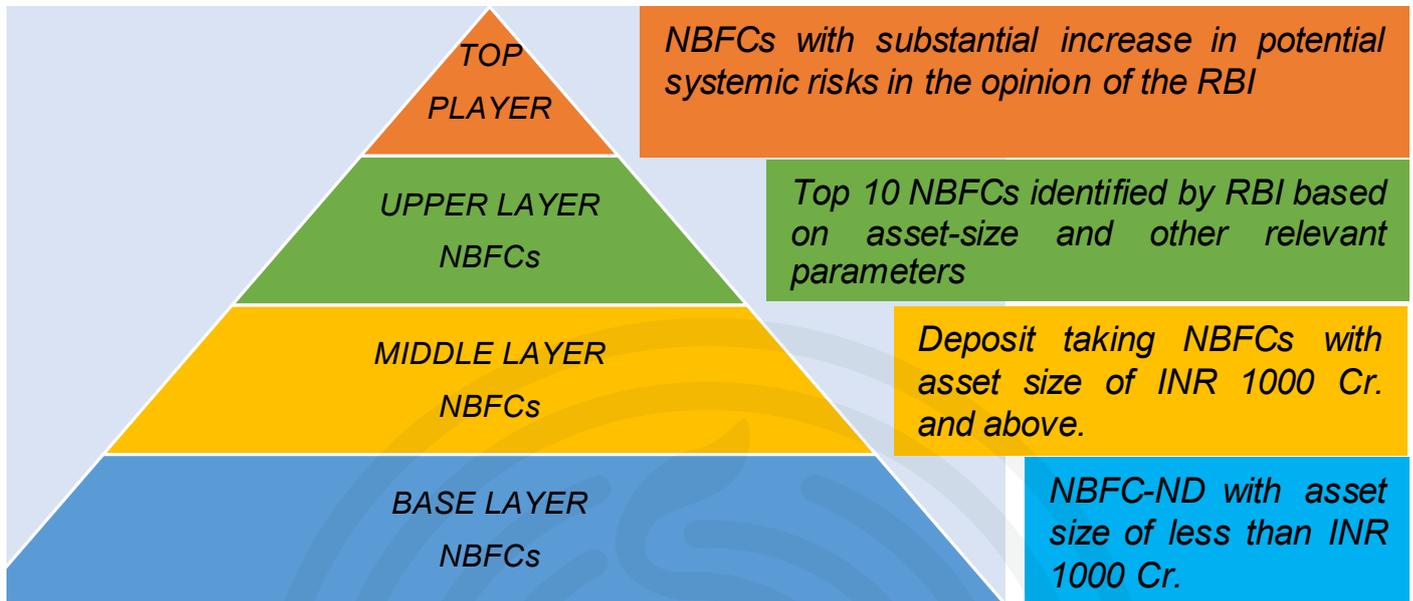


# SCALE BASED REGULATION

CONTEXT: RBI has categorized 16 large NBFCs into four layers based on their size, activity and perceived riskiness.

## SCALE BASED REGULATORY FRAMEWORK

NBFCs will be classified into 4 categories – BASE, MIDDLE, UPPER and TOP layers based on their **SIZE, ACTIVITY, and PERCEIVED RISKS.**



**FIGURE:** Schematic representation of classification of NBFC based on scale-based regulatory framework.

### SIGNIFICANCE:

- Strengthen the regulation on NBFCs, especially after the systemic risks posed by the fallout of the Infrastructure Leasing & Financial Services and Dewan Housing Finance Corporation Ltd. crises.
- Exponential growth of Deposit taking NBFCs and enhanced vulnerability from systemic cyclical risks.

### KEY HIGHLIGHTS:

#### LAYER BASED CLASSIFICATION:

- Reclassification into 4 layers - Base Layer, Middle Layer, Upper Layer, and Top Layer in terms of asset size, perceived riskiness involved and various activities undertaken by NBFCs.

#### GROUNDS FOR CLASSIFICATION

- INFRASTRUCTURE INVESTMENT
- CORE INVESTMENT
- MICROFINANCE INSTITUTION
- SYSTEMIC IMPORTANCE
- DEPOSIT TAKING

### INTERNAL CAPITAL ADEQUACY ASSESSMENT PROCESS:

Prescribe NBFCs' to assess their capital in proportion to risk to the business in parity with Scheduled Commercial Banks under Master Circular – Basel III Capital Regulations.

- Similar to Commercial Banks
- Adequate Capital to support all risks in the business of NBFC
- Develop and use better Internal Risk Management Techniques

### CORE FINANCIAL SERVICE SOLUTION

A core financial service solution similar to Core Banking Solution adopted by Banks is required to be adopted by NBFC Middle Layer and Upper Layer with 10 or more Fixed Point Service Delivery Unit.

- Implementation of the Solution has to be quarterly reported to RBI
- For Seamless customer interface in digital offerings and transactions.

# HYDROCARBON EXPLORATION & LICENSING POLICY AUCTIONS

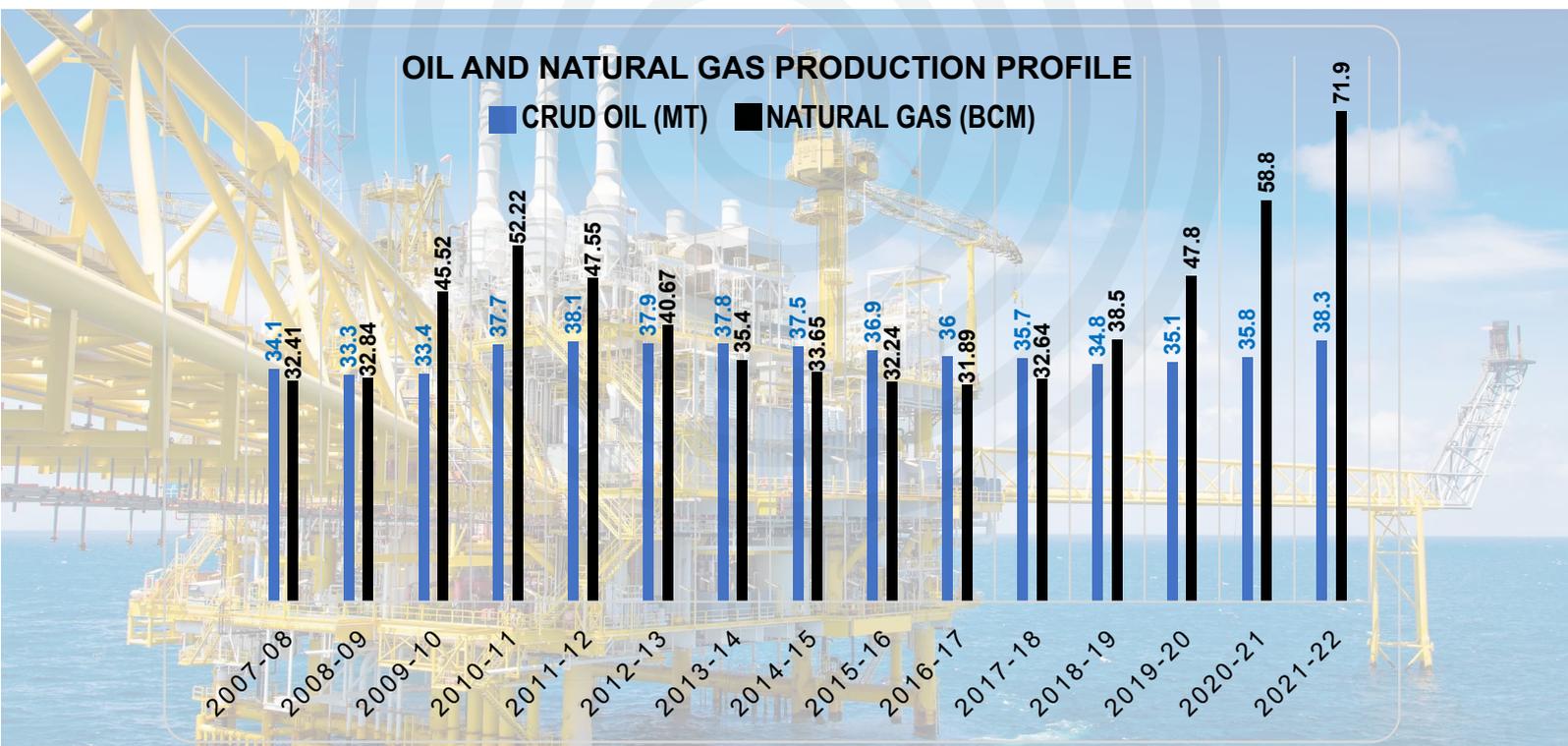
**CONTEXT:** The Union Ministry of Petroleum and Natural Gas (P&NG) and Union Ministry of Coal has offered to auction several oil and gas and coal-bed methane blocks respectively under the Hydrocarbon Exploration and Licensing Policy (HELP), approved in March 2016.

## BACKGROUND:

The Hydrocarbon Exploration and Licensing Policy (HELP) replaced the erstwhile New Exploration Licensing Policy (NELP) based on the recommendations of the C RANGARAJAN COMMITTEE.

## HOW HELP DIFFERS FROM NELP?

- **PRODUCTION-LINKED CONTRACT:** Follows a revenue sharing regime, where the Multi-National oil and gas Exploration & Production (MNC E&P) companies and the Government would share the proceeds from the sale of oil and gas at different stages of production at different pre-determined rates mentioned in the Production-Linked Contract (PLC).
- **UNIFIED LICENCE REGIME:** Allow the oil & gas E&Ps to explore and produce conventional as well as unconventional Hydrocarbon resources simultaneously all hydrocarbons such as oil, gas, and coal bed methane without the need for separate licenses.
- **OPEN ACREAGE LICENSING POLICY:** Allows the oil & gas explorer and producers to carve out areas of their interest to explore oil and gas accessing the National Data Repository. Companies can put in an Expression of Interest (EoI) for any area throughout the year, but such interests accumulated thrice in a year for the purpose of auctioning.
- **MARKETING & PRICING FREEDOM:** Grants marketing and pricing freedom for the oil & gas explorer and producers that can ensure better liquidity. A graded system of royalty rates, the rates will decrease from less risky shallow water to riskier deep water to ultra-deep-water areas.
- **NO OIL CESS:** Removed the oil cess imposed upon the oil and gas explorers and producers.



**FIGURE:** Bar chart representation of production of crude oil (Metric Tons) and natural gas (Billion Cubic Metres)

## CONCLUSION:

The NELP with its inherent complexity and Government discretion failed to attract large MNC E&P players like Exxon Mobil, Chevron Corp., British Petroleum, and Shell etc. A streamlined regime under the HELP in line with GoI's policy of – Minimum government, Maximum governance and Ease of Doing Business with minimal discretions can stimulate growth in the oil and gas sector in India. Further, as NDR gets adequately updated, required technical information will be available at low cost, helping in promotion of healthy E&P activity.



## NON-DELIVERABLE FORWARD (NDF) MARKET

CONTEXT: The Securities and Exchange Board of India (SEBI) has called for promoting Non-Deliverable Forward (NDF) Markets in India.

“a two-party currency derivatives future contract to exchange cash flows/ currencies and settling the contract paying the difference between the pre-agreed rate and the prevailing spot rates at the time of maturity of the contract.”

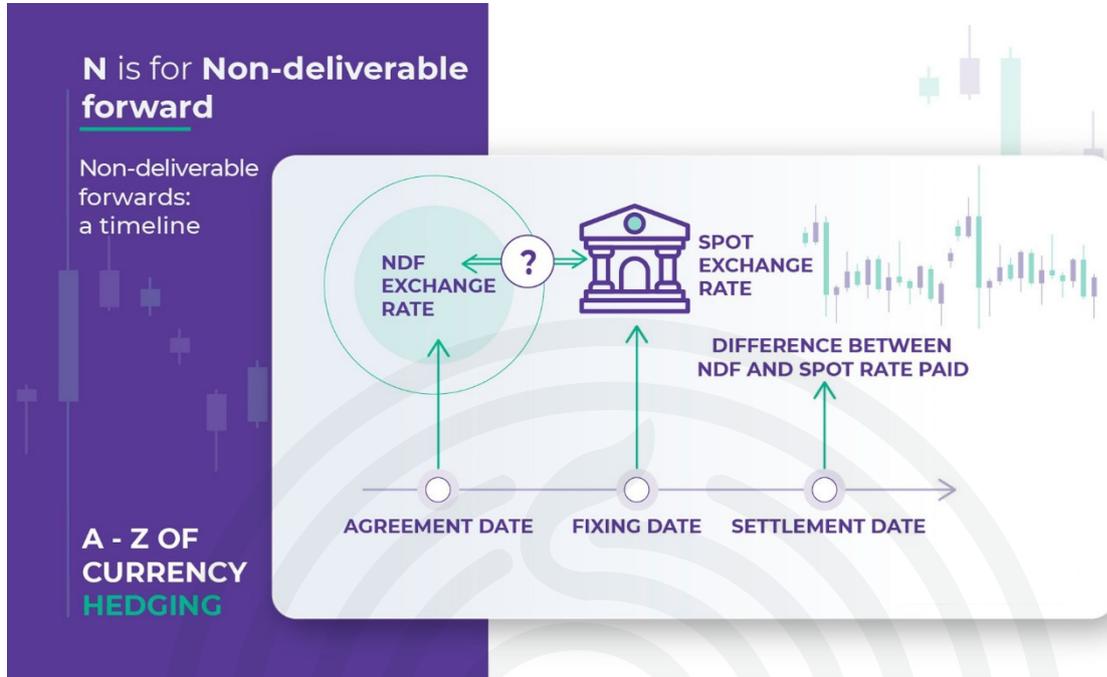


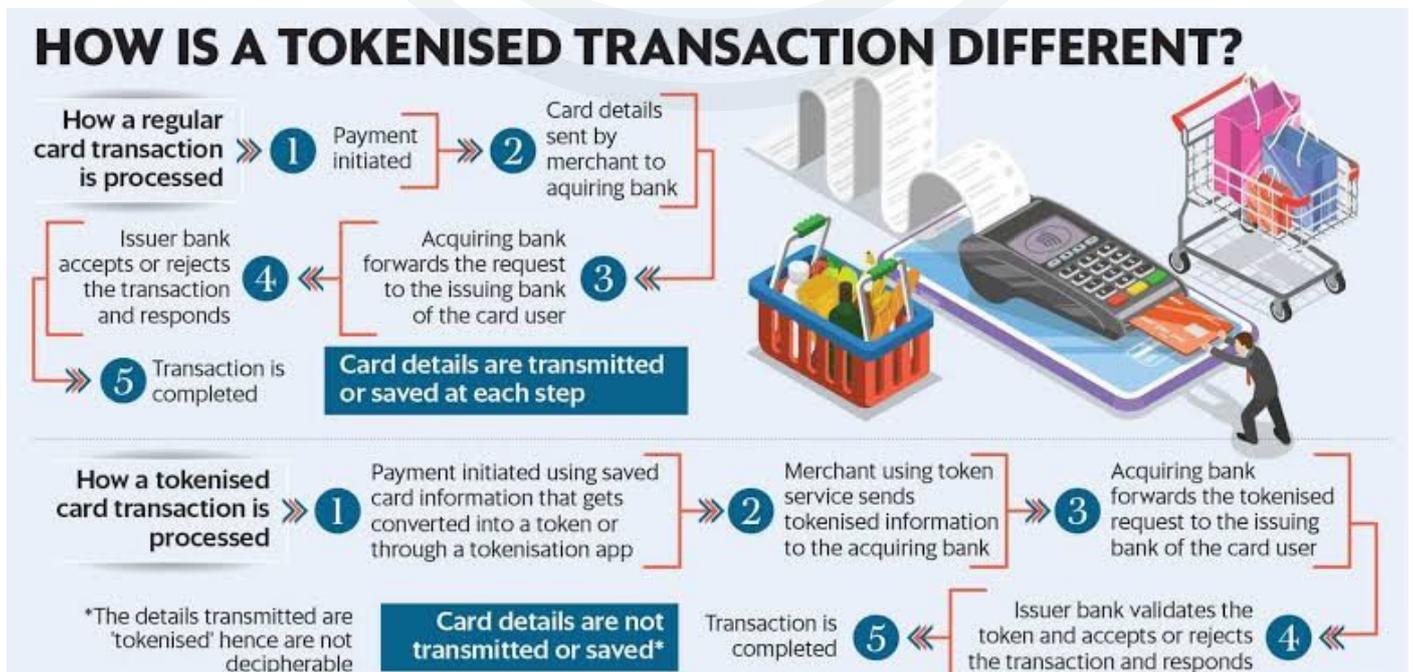
FIGURE: Schematic representation of Non-Deliverable Forward Markets.

## CATRD TOKENIZATION

CONTEXT: The Reserve Bank of India signalled that it would not further extend the deadline for implementation for tokenisation of card-based payments. The Central bank rules require all merchants to delete customer debit and credit card details before October 1 and replace card payments with unique tokens.

“Replacement of actual card details with an alternate code called the “token”, which shall be unique for a combination of card, token requestor and device.”

-TOKENISATION



# DRAFT COAL LOGISTICS POLICY, 2022

CONTEXT: The Union Coal Ministry has intensified its plan to make evacuation and transportation of coal more efficient by taking up 68 First Mile Connectivity (FMC) projects.

## STATS AND FIGURES

India has the 4th largest coal reserves in the world, 2nd largest coal producer and 2nd largest coal consumer. The Union Ministry of Coal has set a target to produce 1.3 billion tonnes (BT) in FY 2025 and 1.5 BT by FY 2030 to replace imported coal with domestically mined coal.

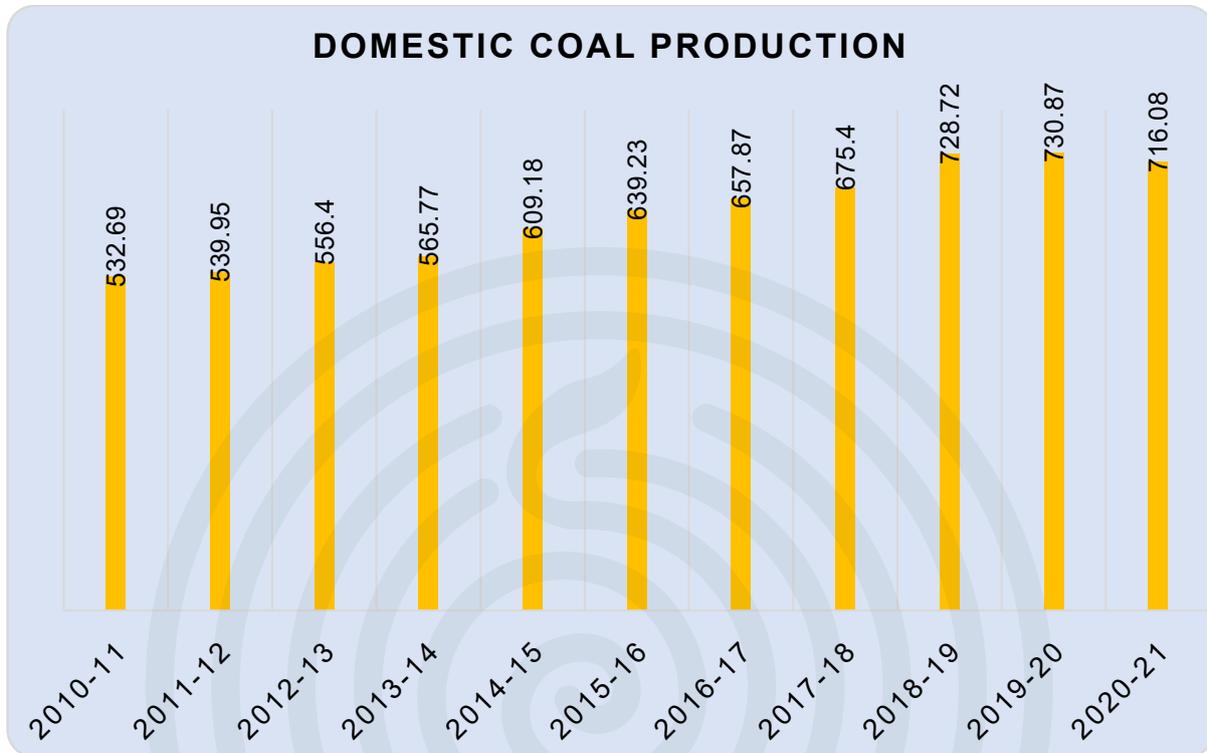


FIGURE: Bar chart representation of the domestic coal production.

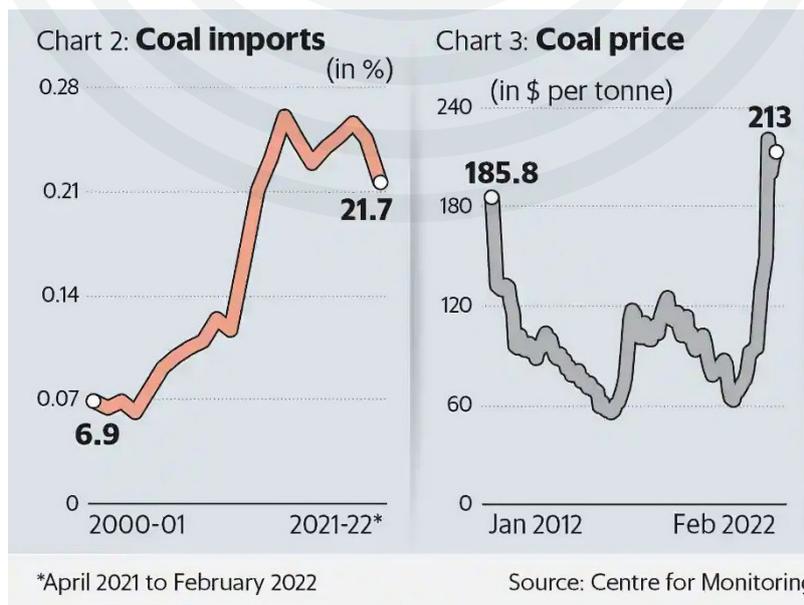


FIGURE: Line chart representation of (A) Coal imports (B) Coal price



### ISSUES AND RECOMMENDATIONS:

ISSUE: Higher WTR (Wagon Turn Around), resulting in higher freight costs via demurrage from oversized coal that does not pass-through bottom discharge underground dumps; additionally, on tippers.

- RECOMENDATION: Proper coal sizing avoiding loading boulders and over-sized coal on rakes.
- ISSUE: Manual unloading of 3,800-3,900 tonnes of freight from one rake (equivalent to 58-60 wagons) takes about 5 hours. The wagons must be re-joined into a rake and freed from the wagon tipping area in a limited time scale with zero damage to them after being emptied one at a time. Furthermore, keeping the wagons longer than the time limit or causing damage due to inefficient operations results in a significant financial penalty for the corporation in the form of railway demurrages.
- RECOMENDATION: Automating loading and unloading process detention of trains can be reduced by adopting loading through overhead silos and by utilising Retractable Ohe, which eliminates the use of diesel locos on the electrified territory. An automatic truck loading and unloading system refers to the automatic insertion and removal of minerals into/from a truck with minimal operator intervention.
- ISSUE: Generally, the 100 mm coal is prioritised to the Power Sector, and the 250 mm coal is sent to non-Power Sector (NPS). Currently, due to shortages, Power is also getting the 250 mm coal hence there are concerns.
- RECOMENDATION: Prioritised allocation of 100 mm coal for the power sector.

CONCLUSION: The growing energy demand in India necessitate a robust coal logistics policy. India faced a coal crisis that was aggravated by the steep rise in power demand due to a heatwave that had gripped the country in March-April, 2022 and even worsen crisis occurred in October 2021, resulting in power cuts across several parts of India. The draft national coal logistic plan pointed out that at present, oversized coal is leading to higher wagon turnaround, which is not just adding to freight costs but also exacerbating the coal supply crisis.

## REVERSE AUCTIONS (RA)

CONTEXT: *The Union Ministry for New and Renewable Energy may discontinue the reverse auction process for wind and solar projects.*

“a type of auction in which sellers bid for the prices at which they are willing to sell their goods and services. It is the opposite of a regular auction, where a seller puts up an item and buyers place bids until the close of the auction, at which time the item goes to the highest bidder.”

### REVERSE AUCTION



BUYERS – Posting a product request



BUYERS – Compares the



SELLERS – Solar and wind power producers bid against each other pushing down the power prices



BUYERS – Buys the power at the lowest price



SELLERS – Lowest price bidder sells the power to BUYERS

# FOREX EXCHANGE RESERVES

CONTEXT: India's forex reserves have tumbled to around \$530 bn from a peak of \$642 billion in September last year

## STATISTICS AND FIGURES:

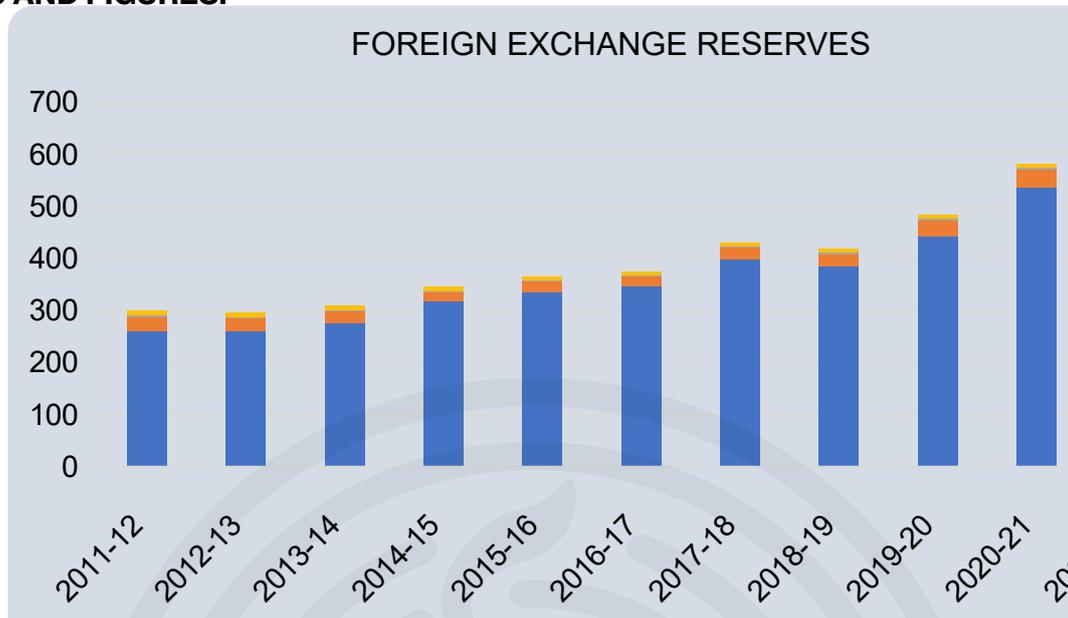


FIGURE: Bar chart representation of Forex Reserves of India. (Source: RBI)  
REASONS FOR THE DECLINE OF FOREX RESERVES:

- Fall in the value of Foreign Currency Assets held by the Central Bank.
- RBI interventions in Forex market to stabilise Indian Rupee
- Trade deficit in goods and lower remittances.

## IMPACTS:

- External vulnerability with drastic decline the Import Cover.
- Extended forecast of widening CAD as a proportion of GDP for the current fiscal year, ending March 2023.
- Emergence of an adverse Balance of Payments (BoPs), depleting reserves with volatile capital flows.

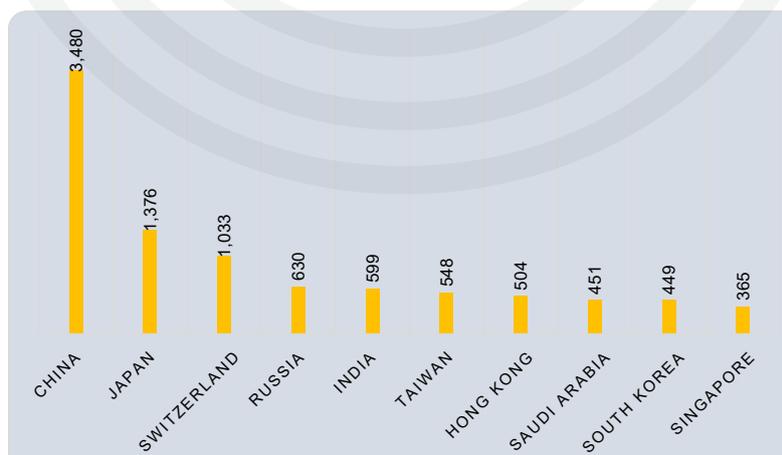


FIGURE: Bar chart representation of foreign exchange reserves of countries.

## HOW RBI RESPONDS?

The RBI had announced measures to liberalise foreign exchange inflows, including giving foreign investors access to a larger portion of government debt and banks wider room to raise more deposits from non-residents. The RBI focussed upon on strengthening structural macro buffers - Floating sovereign bonds, like the Resurgent India bonds (RIBs) and India Millennium Deposit bonds (IMDs) in the past, to help boost forex reserves.

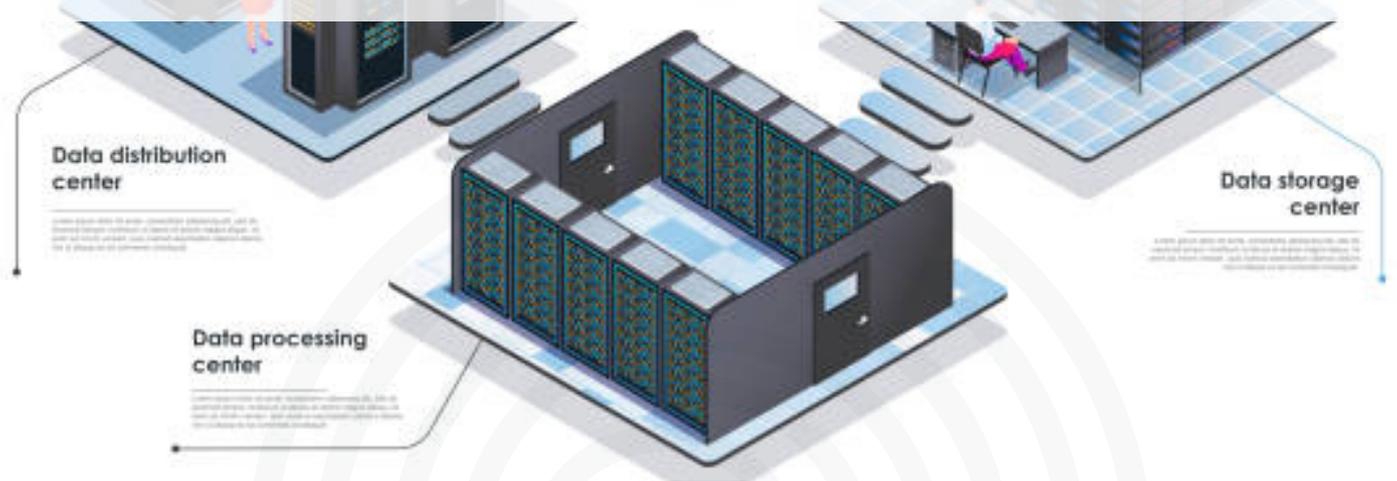
# INFRASTRUCTURE STATUS TO DATA CENTRES

CONTEXT: Data centre with a minimum capacity of 5 MW of IT load will be eligible for infrastructure status. Presently, India has nearly 500 MW installed capacity for data centres.

“a building, a dedicated space within a building, or a group of buildings used to house computer systems and associated components, such as telecommunications and storage systems.”

DATA CENTRE

- Granting an 'INFRASTRUCTURE STATUS' enables get easier access to institutional credit at lower rates and for a longer time.
- DRAFT DATA CENTRE POLICY (2020) aims to make India a global hub for the data centre.
- DATA LOCALIZATION RULES make it mandatory to set up a data centre in India.



# GREEN BONDS

CONTEXT: India is likely to face challenges attracting overseas investors for its first sovereign Rupee-denominated Green Bonds.

*Asset-linked and backed by the Sovereign balance sheet, carrying Sovereign credit ratings*

*Specifically earmarked to raise money for climate and environmental projects.*

**SOVEREIGN RUPEE-DENOMINATED GREEN BONDS**

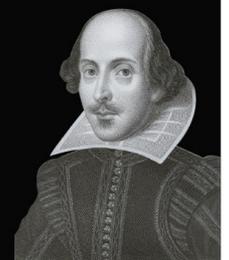
*Issued in Indian Rupees*

*Fixed-income Debt financial instrument*

Green bonds may come with tax incentives to enhance their attractiveness to investors.

*"Be not afraid of greatness. Some are born great, some achieve greatness, and others have greatness thrust upon them."*

- WILLIAM SHAKESPEARE



# RBI MONITORING DHANALAXMI BANK

CONTEXT: The Reserve Bank of India (RBI) has put Dhanalaxmi Bank under Prompt Corrective Action (PCA) Framework due to decreasing Capital-To-Risk-Weighted Asset Ratio (CRAR) of the Bank.

## ABOUT PCA FRAMEWORK

### OBJECTIVE:

- Establish the Supervised Entity to implement remedial measures in a time bound manner, for restoring its financial health.
- Aims to check the Non-Performing Assets (NPAs) problems in banking sector of India.
- Helps in alerting regulator, investors and depositors in case bank heading for trouble.

ROLE - SUPERVISED ENTITY: Tool for effective market discipline.

ROLE - RBI: RBI monitor banks with weak financial metrics.

## CORRECTIVE ACTIONS UNDER THE PCA FRAMEWORK

### RISK THRESHOLD 1

- RESTRICTION ON DIVIDENDS
- MORE CAPITAL FOR FOREIGN BANKS
- DISCRETIONARY ACTION BY REGULATORS

### RISK THRESHOLD 2

- RESTRICTION ON DIVIDENDS
- RESTRICTION ON BRANCH EXPANSION
- HIGHER PROVISIONS
- DISCRETIONARY ACTION BY REGULATORS

### RISK THRESHOLD 3

- RESTRICTION ON DIVIDENDS
- RESTRICTION ON BRANCH EXPANSION
- RESTRICTION ON MANAGEMENT COMPENSATIONS
- RESTRICTION ON DIRECTOR FEE
- DISCRETIONARY ACTION BY REGULATORS

### KPIs – ORIGINAL

- CAPITAL
- ASSET QUALITY
- PROFITABILITY

### KPIs – REVISED

- CAPITAL
- ASSET QUALITY
- LEVERAGE

### FIs COVERED UNDER THE PCA FRAMEWORK

- Commercial banks
- NB Financial Companies\*

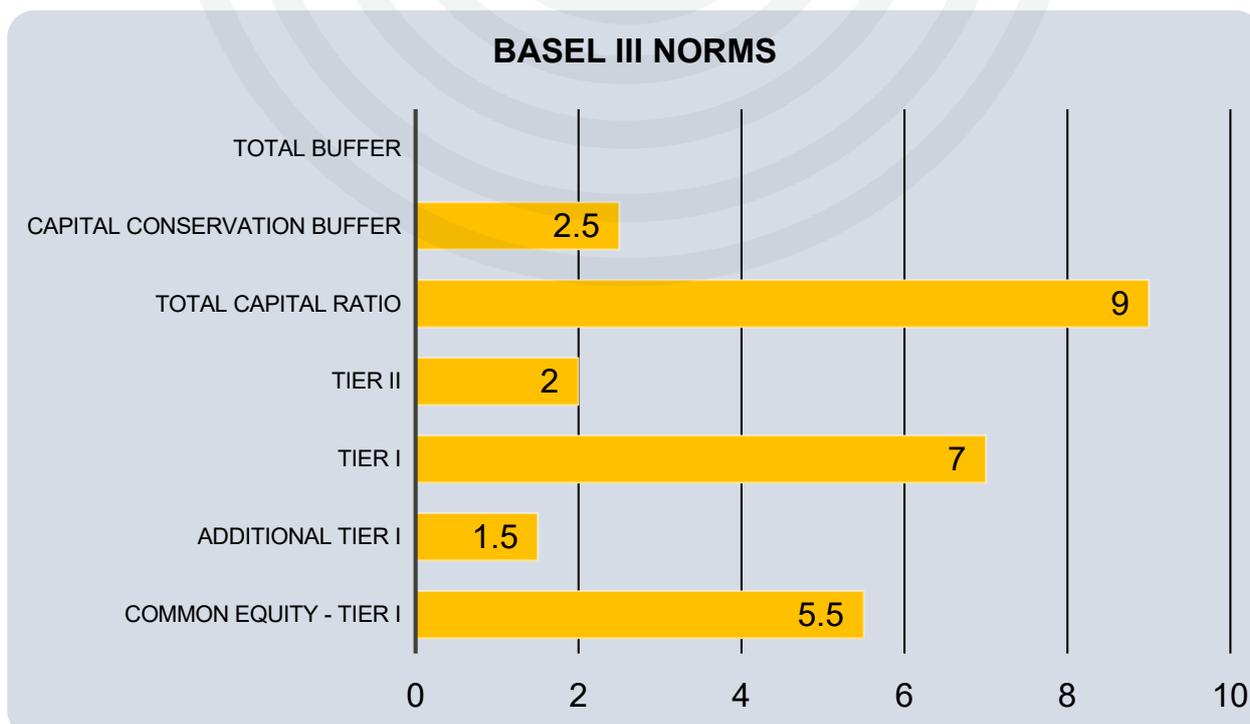


FIGURE: Bar chart representation of minimum requirement as a per centage of risk-weighted assets



## E-RUPEE

**CONTEXT:** The Reserve Bank of India (RBI) will soon commence limited pilot launches of e-Rupee, or central bank digital currency (CBDC), for specific use cases.

“Sovereign currency that appears as a liability on a Central Bank’s balance sheet and structured as ‘token-based’ or ‘account-based’, but in digital form, exchangeable at par with the existing currency and will be accepted as a medium of payment, legal tender and a safe store of value.”

-e-RUPEE

### CENTRAL BANK DIGITAL CURRENCY (CBDC)

- ‘Fit-for-purpose’ money useful for making targeted payments for social schemes.
- The Central Bank can pay Intended Beneficiaries Pre-Programmed CBDCs, acceptable for specific purposes only.
- Secure fast cross-border remittance payments promoting bilateral and multilateral collaboration among the major economies of the world, including India.
- Attributes, such as universal access of Payment instruments can promote offline payment functionality.
- Promote instant lending to Micro, Small, and Medium Enterprises (MSMEs) in India.

### SIGNIFICANCE

- Enable Real-Time Payments (RTPs) without any inter-bank settlement, reducing cost of currency management.
- Reduce High Currency-to-GDP ratio of India replacing large cash usage with CBDCs, significantly saving the cost of printing, transporting and storing paper currency.
- Remove the need for Inter-Bank Settlements with Central Bank directly transferring liability from one person to another.

### CHALLENGES

- Potential cyber-security threats.
- Regulation, tracking investment and purchase, taxing individuals, etc. of digital currencies.
- Threaten privacy of users
- Lack of digital literacy of population.

### SALIENT FEATURES:

- **TOKEN-BASED CBDC:** Preferred for making retail payments, entities holding the tokens after verifying its ownership would be presumed to own CBDCs, similar to banknotes.
- **ACCOUNT-BASED SYSTEM:** Preferred for making wholesale payments, entities maintain the record of balances and transactions of all holders of the CBDC and indicate the ownership of the monetary balances, similar to Bitcoins. An account-based CBDC, an intermediary verifies the identity of an account holder.

### CONCLUSION:

As of July 2022, 105 countries were exploring CBDC. Ten countries have launched CBDC, the first of which was the Bahamian Sand Dollar in 2020 and the latest was Jamaica’s JAM-DEX. RBI has been opposing private cryptocurrencies, stating that they are a threat to India’s macroeconomic and financial stability. It could bring a cultural shift towards virtual currency by reducing currency handling costs, universal access, easier Cross-Border Payments, and greater financial Inclusion. There are privacy Concerns, the digital divide, low financial literacy, Faster obsolescence of technology, etc.

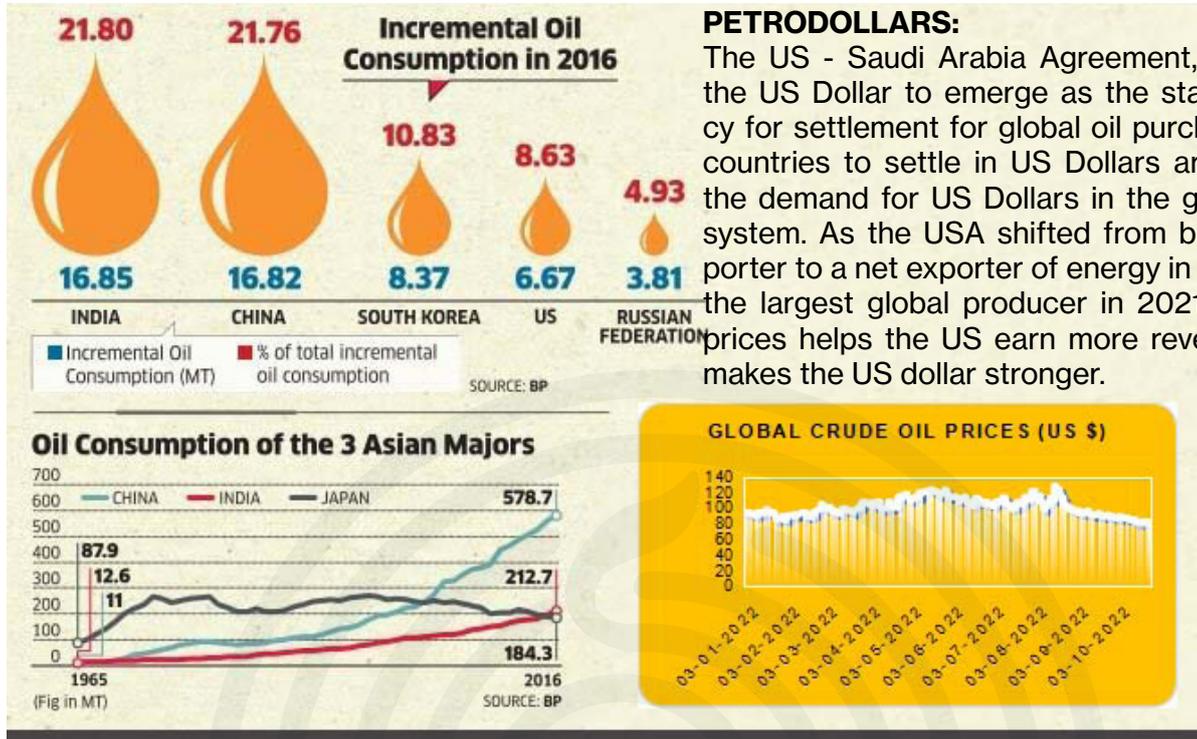
*Time will not pause or tarry on his way,  
Today that seems so long, so strange, so bitter,  
Will soon be forgotten yesterday.*

- SAROJINI NAIDU



# INDIA'S TWIN CHALLENGES

**CONTEXT:** Almost all major currencies, except 4 currencies issued by Russia, Brazil, Mexico and Peru have appreciated against the US dollar since October 2021. The Indian rupee depreciated by more than 10%. The spike in global commodity prices with Russia-Ukraine crisis and Monetary tightening policies pursued by US Fed Reserves have impacted import-dependent countries like India.



**IMPLICATIONS FOR INDIA GLOBAL CRUDE OIL PRICE RISE**

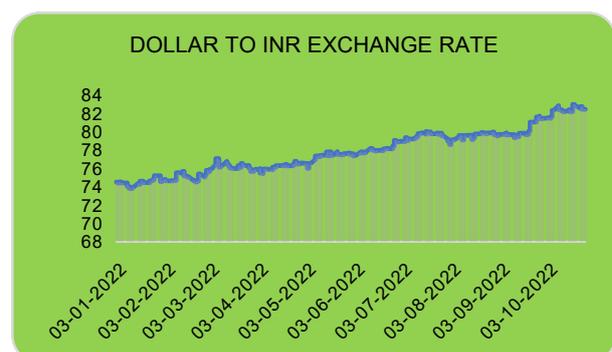
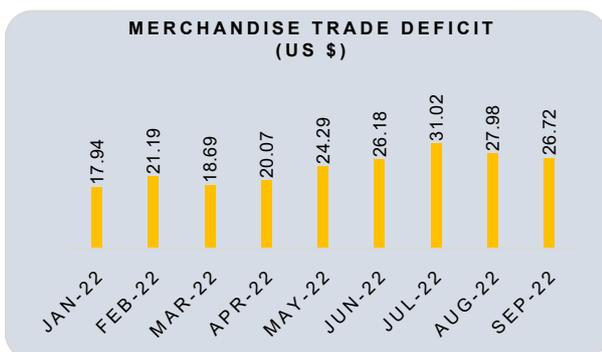
- HIGH IMPORT BILLS
- RISE IN INFLATION
- HIGHER INPUT COSTS
- TAX BUOYANCY
- INCREASE IN BOND YIELDS

**IMPLICATIONS FOR INDIA WEAKENING OF INDIAN RUPPEE**

- HIGH IMPORT BILLS
- RISE IN INFLATION
- HIGHER INPUT COSTS
- TAX BUOYANCY
- CURRENCY EXCHANGE RISKS

**FACTORS AFFECTING INDIAN CURRENCY DEPRECIATION:**

- **STRUCTURE OF EXTERNAL TRADE OF INDIA:** India is witnessing a demand for US Dollars with import value to India expanding at a faster rate than export value from India. The Current Account Deficit of India presently stands at about US \$120bn.
- **CAPITAL OUTFLOW:** India is witnessing a capital outflow, especially since the monetary tightening policy pursued by the US Federal Reserves. Foreign portfolio investors have exited Indian markets with approximately Rs 42,000 Crore in June, 2022 with rising inflation and monetary policy tightening undertaken by the US Federal Reserves.



**FIGURE:** (a) Bar chart representation of monthly merchandise trade deficit of India (US \$). (b) **FIGURE:** Line chart representation of exchange rate of Indian Rupees.



## KISAN SAMMELAN 2022

CONTEXT: The Union Ministry of Chemicals and Fertilizers launched 600 PM Kisan Samruddhi Kendras (PMKSKs) at KISAN SAMMELAN 2022 held at New Delhi.

### INITIATIVES - KISAN SAMMELAN 2022

- PM Kisan Samruddhi Kendras: More than 3.3 lakh retail fertiliser shops will be converted into Kisan Samruddhi Kendras in a phased manner to provide farm extension services.
  - Retail sale points of agri-inputs - fertilisers, seeds, implements etc.
  - Testing centre for soil, seeds, and fertilisers
  - Generate awareness regarding sustainable farming practices among farmers
  - Disseminate information regarding various government schemes
  - Ensure regular capacity building of retailers at block/district level outlets.
- Pradhan Mantri Bhartiya Jan Urvarak Pariyojana: Also, known as One Nation One Fertiliser Scheme, it is used for ensuring affordable quality fertiliser of Bharat brand to the farmers. The scheme ensures fertilisers of uniform quality branding the urea sold in the country under 'Bharat' brand name in the entire country.
- INDIA EDGE: It is an e-magazine on fertilizers.
- Agri Start-up Conclave: The Department of Agriculture and Farmer Welfare (DA & FW), Union Ministry of Agriculture & Farmers' Welfare is hosting Agri Start-up Conclave 2022 under the under RKVY - RAFTAAR Scheme to celebrate the indispensable role of Agri - start-ups in the Indian economy.
  - Foster an exchange of ideas between various key stakeholders including central & state government officials, start-ups from the wider ecosystem, incubators, FPOs, academicians, as well as all the KPS & RABIS.
  - Exhibiting start-ups will have an opportunity to interact with the visiting farmers, FPOs, government officials, corporates, and investors to explore possible opportunities for collaboration.

### CONCLUSION

Such measures with adoption of new technology in agriculture, encouraging 'Smart Technology' or providing better marketplace for farmers' produce under the 'Total Approach' for farming sector would help propel India emerge as a major farming power among the comity of nations.

## EMERGENCY CREDIT LINE GUARANTEE SCHEME

CONTEXT: The Department of Financial Services, Union Ministry of Finance has modified the Emergency Credit Line Guarantee Scheme (ECLGS) for the aviation sector to help the sector tide over cash-flow problems.

### EMERGENCY CREDIT LINE GUARANTEE SCHEME (ECLGS):

The Centre launched Emergency Credit Line Guarantee Scheme (ECLGS) in May 2020 to revive the aviation sector as part of the Centre's Aatmanirbhar package in response to the Covid-19 crisis. The Member Lending Institutions (MLIs) – Banks, financial institutions and Non-Banking Financial Companies (NBFCs) provide affordable collateral-free credit guaranteed entirely by the National Credit Guarantee Trustee Company (NCGTC) to support small businesses struggling, including aviation sector. However, first-time borrowers and Non-Performing Asset (NPA) accounts cannot raise funds under this facility.

### MODIFIED ECLGS

The Centre increased the credit limit from Rs.400 crore to Rs1,500 crores to the eligible aviation companies under the Modified ECLGS. The airline would be eligible for 100% of its fund-based or non-fund-based loan outstanding or Rs1,500 crores. The Modified ECLGS would help aviation firms stay afloat with high fuel cost, need for funds to sustain heavy costs and pay pending dues.

## IMPOSSIBLE TRINITY

CONTEXT: The trilemma has come under focus recently with the U.S. Federal Reserve raising interest rates to fight rising prices.

*“the idea that an economy cannot pursue independent monetary policy, maintain a fixed exchange rate, and allow the free flow of capital across its borders at the same time.”*

-IMPOSSIBLE TRINITY / TRILEMMA

Robert Mundell, Canadian economist and Marcus Fleming, British economist floated the idea of trilemma in the early 1960s, stating that “no economy can pursue three policy options simultaneously in the long run.”

### Explaining trilemma

The impossible goal of STRENGTHENING DOMESTIC CURRENCIES and GENERATE CONSUMER DEMAND pursuing a TIGHT DOMESTIC MONETARY POLICY.

In short, if a country’s policymakers want their currency to appreciate, they cannot achieve this goal and without adopting a tight domestic monetary policy stance which will consequently weaken domestic demand. With Full Capital Account Convertibility adopted by most countries, capital is largely free to move across borders with ease. The policymakers cannot pursue an independent monetary policy and simultaneously maintain the foreign exchange value of their currency at the desired peg.

### INDIAN TRILEMMA:

The Reserve Bank of India may also face the trilemma with U.S. Federal Reserve raising interest rates, increasing pressure on the rupee that resulted in depreciation of Indian Rupee by almost 10% against the U.S. dollar this year. The RBI would find it impossible to STRENGTHEN INDIAN RUPEE and GENERATE CONSUMER DEMAND pursuing a TIGHT MONETARY POLICY.

## DOOM LOOP

Many economists have warned that Europe may be headed for a DOOM LOOP - the circle of vulnerability where a shock to one part of its economic system as in country’s banking system severely hurt by volatility in the economy or amplified by its effect on another.

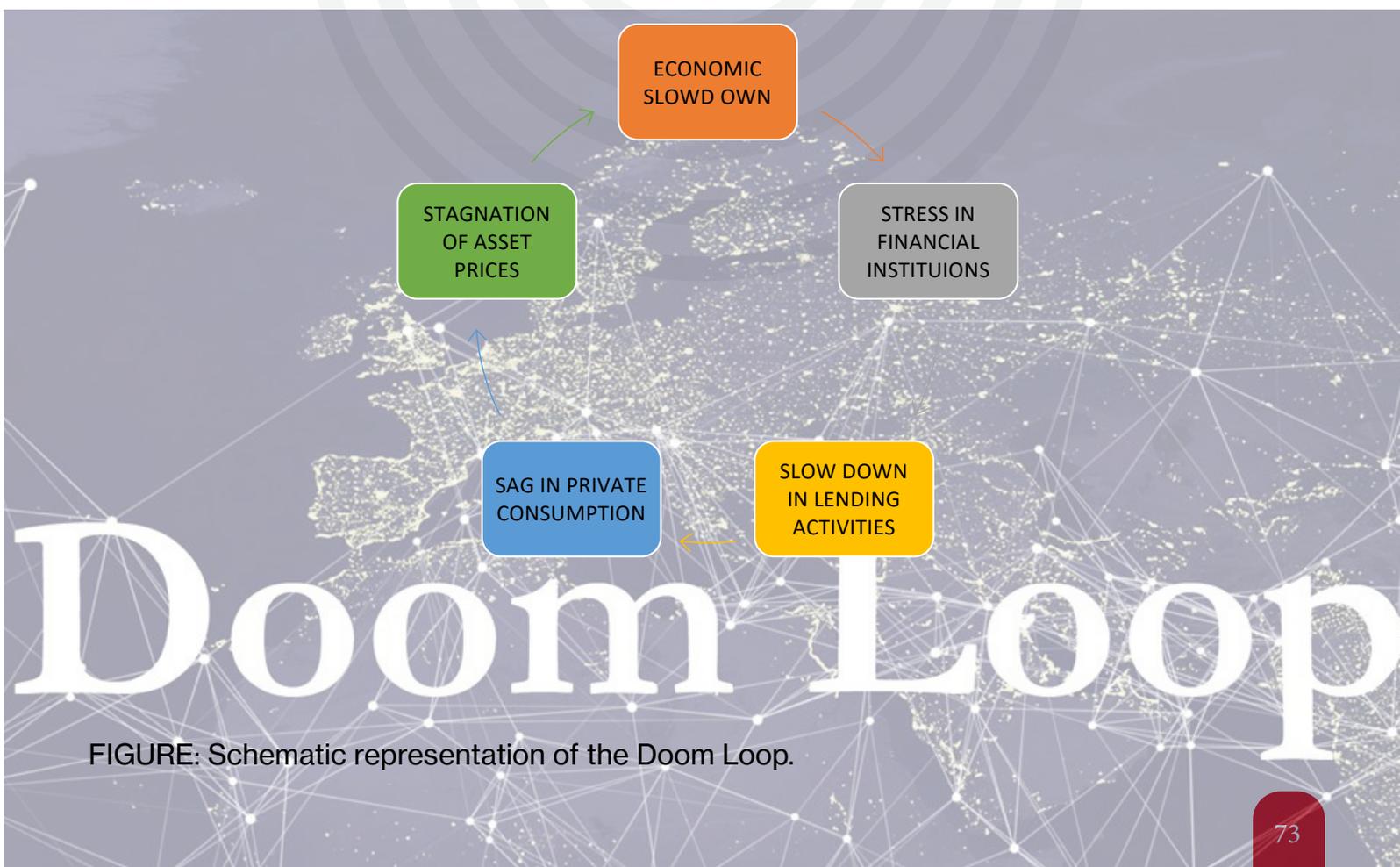


FIGURE: Schematic representation of the Doom Loop.



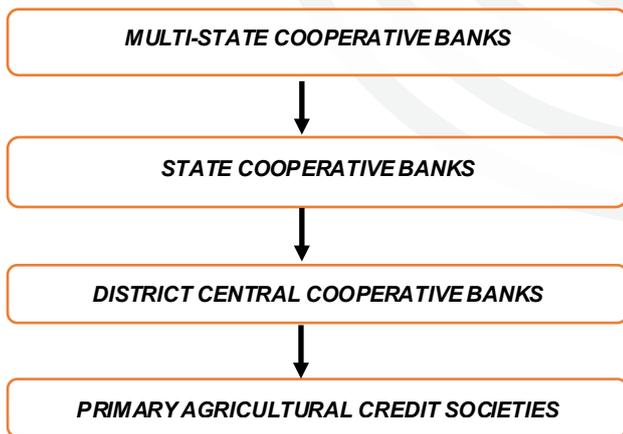
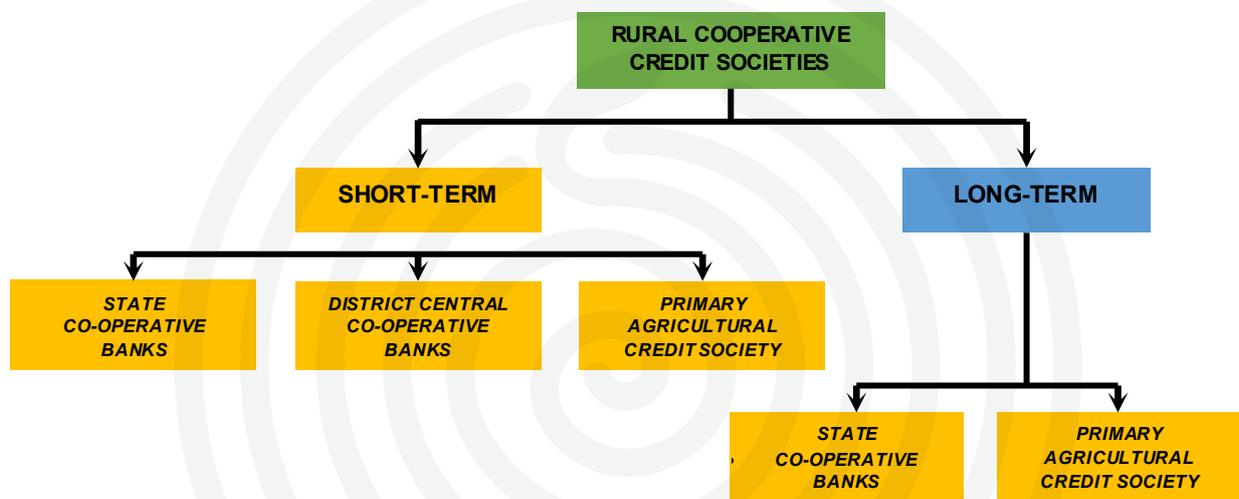
# AGRI-CREDIT SOCIETIES TO BE SET UP IN ALL PANCHAYATS

**CONTEXT:** The Union Ministry of Co-operation is planning to set up multi-purpose Primary Agricultural Credit Society (PACS) in Panchayats over the next 5 years in order to promote various cooperative activities at the grassroots level.

## PRIMARY AGRICULTURAL CREDIT SOCIETY (PACS)

PACS are the lowest unit in a III-tier structure. The NABARD has already automated and brought the the top-tiers of Rural Cooperative Credit Societies – State Cooperative Banks (StCB) and District Central Cooperative Banks (DCCB) on Common Banking Software (CBS).

**PACS:** Village-level institutions that works directly with rural residents to encourage agriculturists to save, accepts deposits from them, makes loans to deserving borrowers, and collects repayments. PACS will carry out activities like the sale of gas and petrol and the storage and marketing of dairy and farm products with an aim to alleviate poverty and empower women. There are only 65,000 active PACS in the country at present.



The Kerala Police Housing Cooperative Society (KPHCS) in association with Vedhik eschools has decided to organize a free online tuition programme for the children of KPHCS members. The course would focus on students from class 8th to 12th under the CBSE curriculum. The children of KPHCS members would get the tuitions at a special rate of Rs.300 per subject/month.

FIGURE: Schematic representation of the hierarchy of the Co-operative Banking in India

## PRIMARY AGRICULTURAL CREDIT SOCIETIES (PACS)

- **TYPE:** Lowest tier at village-level that works directly with rural residents.
- **SIGNIFICANCE:** Encourages agriculturists to save, accepts deposits from them, makes loans to deserving borrowers, and collects repayments.
- **BENEFITS:**
  - o Promote transparency and link all credit societies to a common accounting system.
  - o Act as a Last Mile Delivery agent of Direct Benefit Transfer (DBT), Interest Subvention Scheme (ISS), Crop Insurance Scheme (PMFBY), and inputs like fertilizers and seeds.



## FEATURES OF COOPERATIVE BANKS:

o**INCLUSIVE OWNERSHIP MODEL:** Co-operative bank members are both customer and owner of the bank.

o**DEMOCRATIC NATURE:** Co-operative members with equal voting rights democratically elect a Board of Directors.

o**PROFIT DISTRIBUTION:** Part of the profit, benefits or surplus is usually allocated to constitute reserves and a part of this profit can also be distributed to the co-operative members, playing an important role in financial inclusion of unbanked rural masses.

### CONCLUSION:

PACS account for 41% (3.01 crore farmers) of the Kisan Credit Card (KCC) loans given by all entities in the country. Each PACS will get around -4 lakh to upgrade its capacity and even old accounting records will be digitised and linked to cloud-based software.

## MUNICIPAL FINANCING IN INDIA

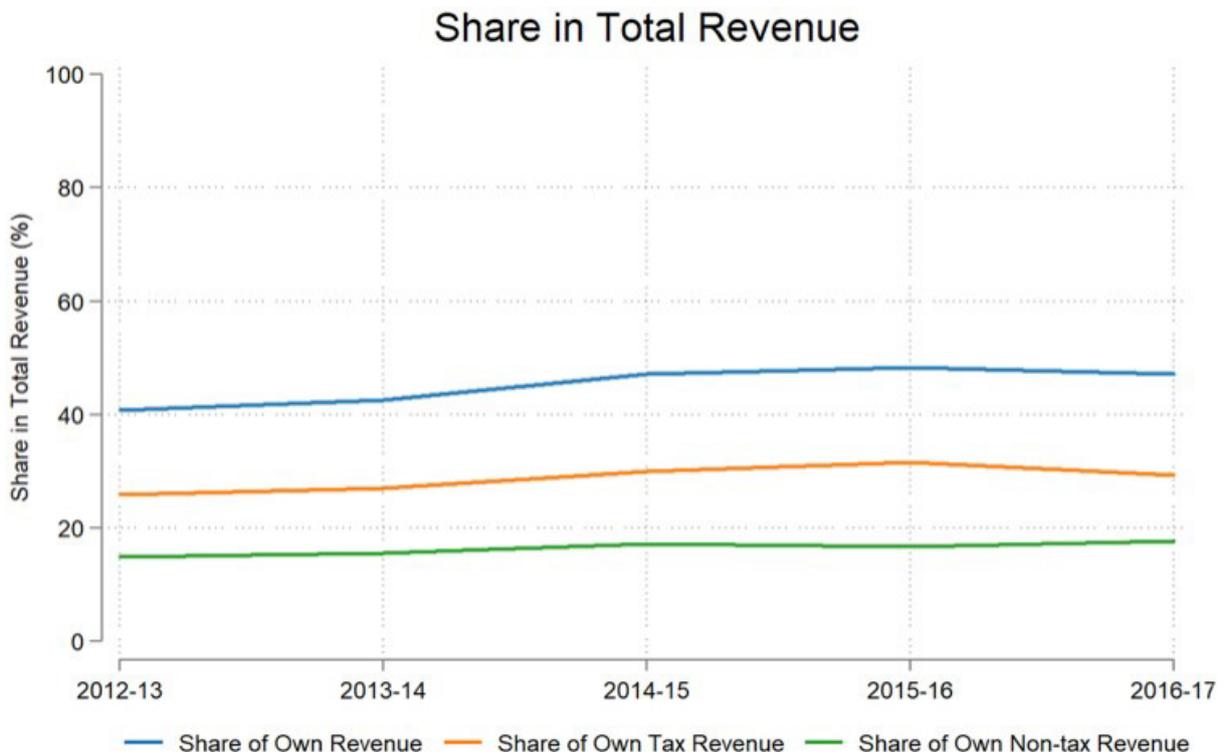
**CONTEXT:** *The Indian Institute for Human Settlements (IIHS) analysed data from 80 ULBs across 24 States between 2012-13 and 2016-17 to understand ULB finance and spending.*

### BACKGROUND

The Constitution (seventy fourth) Amendment Act, 1992 mandated the setting up and devolution of powers to urban local bodies (ULBs) as the lowest unit of governance in cities and towns.

#### SOURCE OF REVENUES

TAXES
FEES
FINES AND CHARGES
INTERGOVERNMENTAL TRANSFERS



**FIGURE:** Bar chart representation of share of revenue of Urban Local Bodies (ULBs) as a per centage of total revenues.

### CONCLUSION:

The health of municipal finances is a critical element of municipal governance which will determine whether India realizes its economic and developmental promise. Revenue losses after the implementation of the Goods and Services Tax (GST) and the pandemic have exacerbated the situation.



# INTERNATIONAL YEAR OF MILLETS - 2023

CONTEXT: The Dept. of Agriculture and Farmers Welfare and the National Agricultural Cooperative Marketing Federation of India (NAFED) Limited signed an MoU to promote Millets towards celebration of the International Year of Millets 2023.

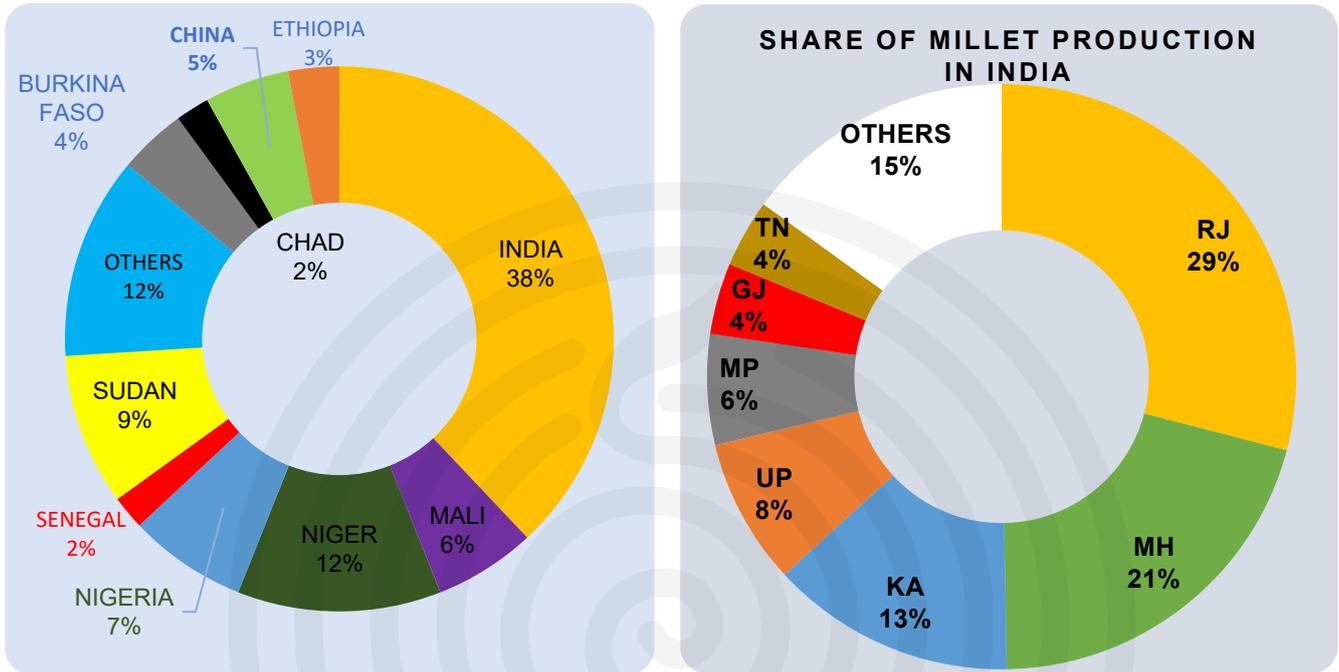


FIGURE: (A) Pie chart representation of countries representing share of global millet production (2020-21) (B) Pie chart representation of States representing share of domestic millet production (2020-21)

## ABOUT MILLETS

Millet, often referred to as nutri-cereals or dryland-cereals is a common term used to refer small-seeded grasses. Millets are drought prone crops, especially suitable for sub-tropical semi-arid climates and red soil, especially suitable for dry farming and dry land farming. The Centre approved 2018 as National Year of Millets.

- SORGHUM
- RAGI
- PEA MILLET
- SMALL MILLET
- PROSO MILLET
- FOXTAIL MILLET
- BARNYARD MILLET
- KODO MILLET

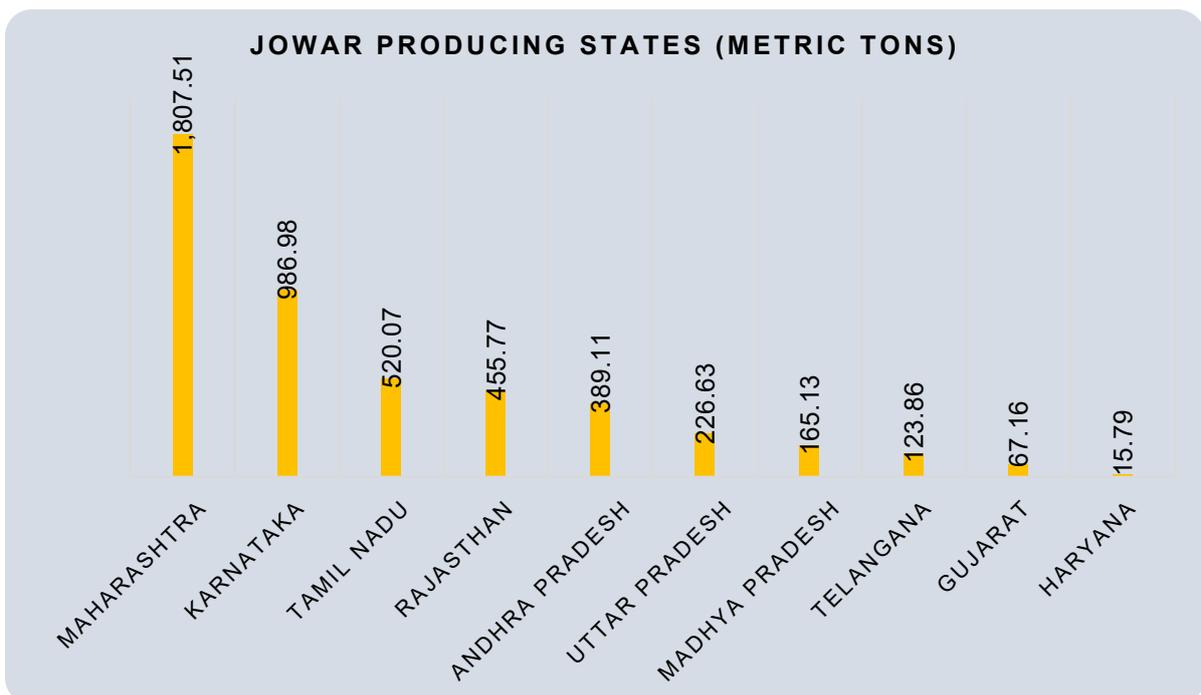


FIGURE: (L) Bar chart representing the production of Jowar in India.

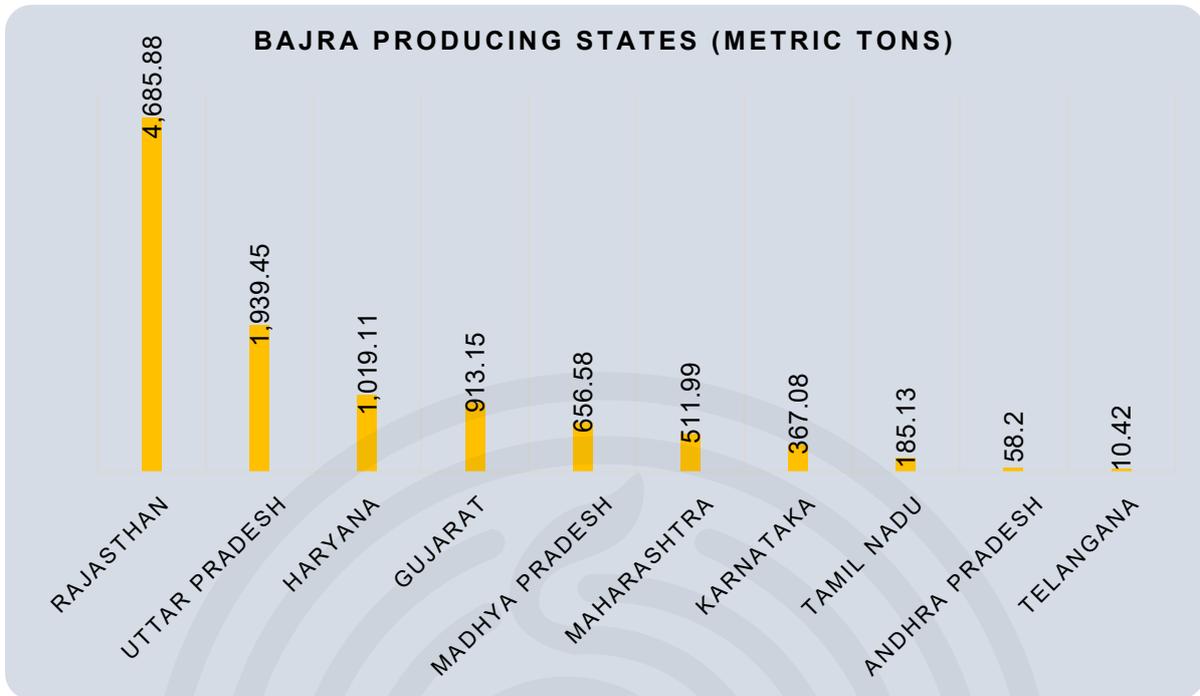


FIGURE: FIGURE: (L) Bar chart representing the production of Bajra in India

### SALIENT BENEFITS OF MILLETS

Millets are nutritionally superior. Millets are rich in proteins with a balanced amino acid profile, crude fibre and minerals such as iron, zinc, and phosphorous. Promoting consumption of millets can address nutritional deficiency, especial among children and women. Broadening the dietary practices including millets can address pellagra (niacin deficiency), Anaemia (iron deficiency), Vitamin B complex deficiency in a cost-effective and culturally acceptable manner. It can also help tackle health challenges such as obesity, diabetes and lifestyle problems as they are gluten free and also have low glycemic index and are high in dietary fibre and antioxidants.

Millets are drought-prone crops-important staple cereal crop for millions of small holder dryland farmers. Millets are photo-insensitive and resilient to climate change. They are hardy, resilient crops that have low carbon and water footprint. They can withstand high temperatures and grow on poor soils with little or no external inputs. They have multiple untapped uses such as food, feed, fodder, biofuels and brewing.

A SUCCESSFUL CAREER GROWS ON A  
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# ECOLOGY





**Ranipur Wildlife Sanctuary (RWS)**

**Winter Action Plan**

**Swachh Survekshan 2022**

**Global Methane, Climate and Clean Air Forum**

**2022**

**Global Methane Initiative (GMI)**

**India's first fully-solar village**

**Fast-melting Arctic ice**

**Leopards**

**Living Planet Report 2022**

**Pilot Whales**

**New species of deep-sea fish discovered**

**Solar Facility**

**Climate Transparency Report 2022**

**Asia's largest Compressed Biogas plant Mission**

**to save the critically endangered vultures**



## Ranipur Wildlife Sanctuary (RWS)

Context: Uttar Pradesh plans its 4th tiger reserve in Bundelkhand

About

- Approved by: The Uttar Pradesh (UP) cabinet.
- RWS does not own any tigers. However, because the area is frequently visited by tigers from the adjacent Panna, animal pugmarks are common there.
- The distance between the two protected regions is only 150 km.
- According to the Status of tigers, co-predators, and prey in India study by the National Tiger Conservation Authority, RWS is a crucial corridor for tiger mobility (NTCA).
- After Dudhwa, Pilibhit, and Amangarh, the Ranipur Tiger Reserve will be the fourth in Uttar Pradesh (buffer of Corbett Tiger Reserve).
- It will be the first in the state's share of the Bundelkhand region, which it has with Madhya Pradesh's neighbour.
- For the preservation and protection of tigers in the area, a Ranipur Tiger Conservation Foundation will also be established.
- Ranipur Tiger Reserve notification has long been anticipated. The proposal to declare the RWS a Tiger Reserve was given to the state government by the UP Forest Department back in 2018.

## Winter Action Plan

Context: *Air pollution: Delhi CM Kejriwal brings out a 15-point 'winter action plan'*

About

- Launched at: Delhi
- Among other things, the winter action plan will concentrate on managing stubble, dust pollution from vehicles, and open burning of trash, industrial pollution, pollution hotspots, smog towers, public involvement, firecrackers, and cooperative action with neighboring states.
- It entails utilizing anti-smog weapons, keeping an eye on dust control procedures at building sites, and enforcing existing regulations like the ban on firecrackers.

The 15-point winter action plan includes:

- Spraying the PUSA bio-decomposer on 5,000 acres of farmland in Delhi to prevent stubble burning
- An anti-dust campaign will be launched from October 6. Construction sites of 5000 sq metres and above need to register on a web portal for real-time dust control monitoring. A total of 586 teams have been formed to monitor construction sites.
- Anti-smog guns are compulsory at construction sites of over 5,000 sq metres. 80 road sweeping machines will operate to control pollution from road dust; 521 machines for water sprinkling to control dust pollution and 150 mobile anti-smog guns will be used.
- Checking of pollution under control certificates will be intensified to deal with vehicular emissions. A total of 203 roads with heavy traffic have been identified and alternative routes are being recommended to decongest them. The ban on plying petrol vehicles older than 15 years and diesel vehicles older than 10 years will be enforced. A total of 380 teams have been formed to enforce this.
- A total of 611 teams have been formed to prevent the open burning of waste.
- Teams have been formed to ensure that industrial units are running on PNG.
- A total of 210 teams have been formed to enforce the ban on the manufacture, sale and use of firecrackers.
- A real-time source apportionment study is being done with IIT Kanpur. A supersite has been set up on Rouse Avenue Road. Data on the sources of air pollution and forecasts will start coming from October 20.
- People can volunteer to become 'paryavaran mitras' or volunteers who would spread awareness. Over 3,500 volunteers have registered so far.
- An e-waste park to process e-waste is being developed on 20 acres at Holambi Kalan.
- Trees are being planted to increase green cover
- A 24x7 'green war room' with nine scientific experts will start functioning from October 3.
- A Green Delhi App was developed for people to report instances of pollution. This has been successful and 90% of complaints registered on the app have been resolved so far.
- The revised Graded Response Action Plan will be enforced strictly.
- There are 13 air pollution hotspots in Delhi. They will be strictly monitored.

## Swachh Survekshan 2022

Context: *President of India Announces Results of Swachh Survekshan 2022*

About

- The President formally released the Swachh Survekshan 2022 dashboard and gave away the top 12 awards.
- In an impressive display of sustainability and good governance, Indore, the city of lakes and palaces, walked away with the Cleanest City title for the sixth consecutive year, in the 'more than 1 lakh population' category, while Surat was adjudged the second cleanest city, for the second time in a row. Navi Mumbai bagged the third spot.
- In the population category of 'less than 1 lakh', Panchgani and Karad from Maharashtra bagged the first and third positions respectively, while Patan from Chhattisgarh bagged the second position.
- Tirupati received the best city award in Safai Mitra Suraksha while Haridwar in Uttarakhand received the award for the best Ganga town in more than one lakh population cities. Shivamogga in Karnataka received the fast mover city award.
- Indore further cemented its position by emerging as India's first 7-star Garbage Free city, while Surat, Bhopal, Mysuru, Navi Mumbai, Vishakhapatnam, and Tirupati earned 5-star Garbage Free certifications.
- The State awards saw a few surprises. Madhya Pradesh emerged as the 'Cleanest State' in the category of "more than 100 Urban Local Bodies", relegating Chhattisgarh, and the Cleanest State of the previous 3 years, to second place.
- Maharashtra emerged as third cleanest State.
- Similarly, Tripura emerged as the Cleanest State award in the "less than 100 ULBs category", dislodging Jharkhand, which had won in the last 2 consecutive years.
- Jharkhand and Uttarakhand received the second and third spots respectively.\

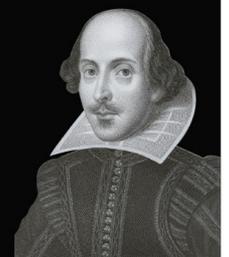
## Global Methane, Climate and Clean Air Forum 2022

About

- It is a joint event sponsored by the Global Methane Initiative (GMI) and the UNEP-convened Climate and Clean Air Coalition (CCAC).
- It is a premier global event that brings together policymakers, industry leaders, technical experts, and researchers from around the world.
- Forum discuss opportunities to protect the climate and improve air quality with a special focus on methane.
- The 2022 Forum provides a unique opportunity for participants to access:
- High-level plenary sessions on global efforts to reduce methane and other short-lived climate pollutants, including the benefits of fast action, national policy and planning, and financing for implementation
- Updates on new international efforts underway, such as the Global Methane Pledge, the International Methane Emissions Observatory, the Global Methane Hub, and the Global Methane Energy Pathway
- Technical sessions to go deeper on specific topics: biogas (agricultural sources, municipal solid waste, municipal wastewater systems), agriculture and food systems, coal mines, oil and gas systems, heavy duty vehicles and engines (HDVE), household energy (HHE), hydrofluorocarbons (HFCs), national planning to reduce methane and other short-lived climate pollutants (SLCPs), and science and cross-cutting themes
- Opportunities for in-person networking with methane experts in the public and private sectors from around the world
- Reception event to promote networking
- Site visits to see methane mitigation projects in action (agriculture, wastewater, landfill, oil & gas)

*"Be not afraid of greatness. Some are born great, some achieve greatness, and others have greatness thrust upon them."*

- WILLIAM SHAKESPEARE





## Global Methane Initiative (GMI)

- It is an international public-private partnership focused on reducing barriers to the recovery and use of methane as a valuable energy source.
- GMI provides technical support to deploy methane-to-energy projects around the world that enable Partner Countries to launch methane recovery and use projects.
- GMI focuses on three key sectors: Oil and Gas, Biogas, and Coal Mines.
- Launched in 2004, the GMI is an international public-private initiative that advances cost-effective, near-term methane abatement and recovery and use of methane as a valuable energy source.
- GMI focus in three sectors: biogas (including agriculture, municipal solid waste, and wastewater), coal mines, and oil and gas systems.

Focusing collective efforts on methane emission sources is a cost-effective approach to reduce greenhouse gas (GHG) emissions and increase energy security, enhance economic growth, improve air quality and improve worker safety.

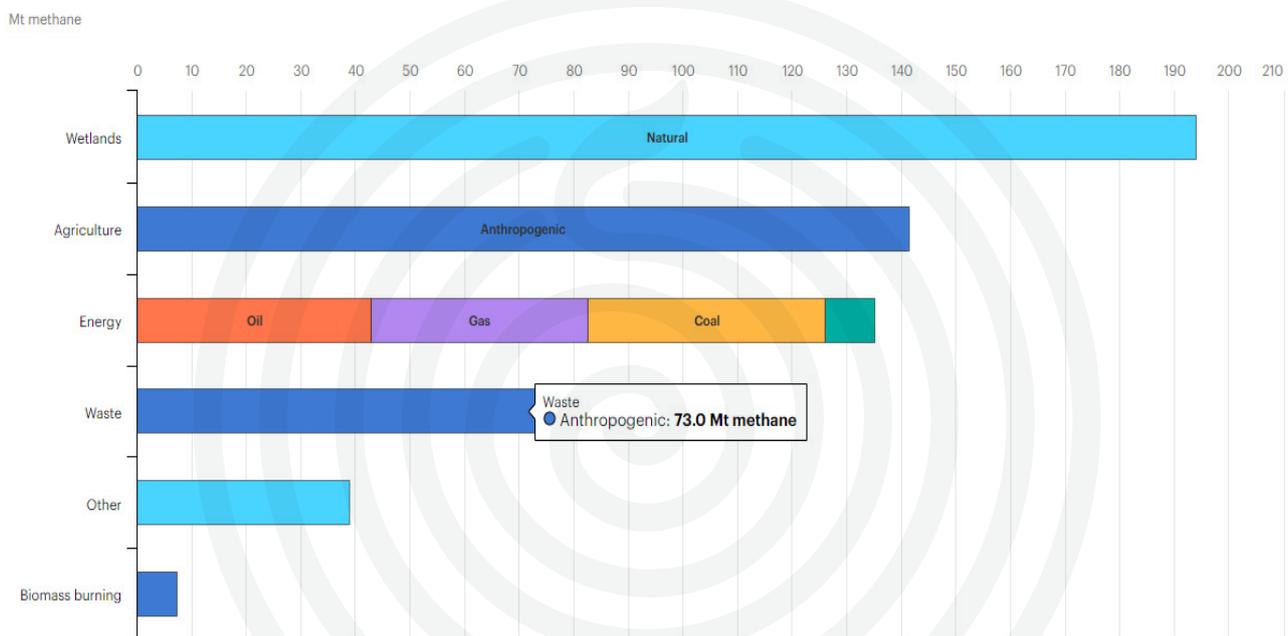


Figure: Source of Methane Emission (Credit: International Energy Agency)

## INDIA'S FIRST FULLY-SOLAR VILLAGE

Context: Prime Minister Narendra Modi declared Modhera in Gujarat as India's first 24x7 solar-powered village

About

- The project will make Modhera the first hamlet in India to become a net generator of renewable energy, according to the Gujarati government.
- Gujarat's Modhera village is well-known for its centuries-old Sun temple that was constructed during the Chalukya dynasty.
- The Gurajat Mehsana district is 25 kilometres away from the Modhera village, and Gandhinagar, the state capital, is around 100 km away.
- The town includes a ground-mounted solar power plant, and over 1,300 homes have 1kW rooftop solar power systems installed to provide electricity.
- Each of these solar arrays is connected to a mechanism for storing energy in batteries (BESS).
- Modhera will become the first Indian community to generate net renewable energy as a result of the project, according to the Gujarati government, illustrating how renewable energy can empower people at the local level.
- With this change, residents of the community might save 60% to 100% on their electricity costs.



## Fast-melting Arctic ice

Context: *Fast-melting Arctic ice is turning the ocean acidic, threatening life*

About

- After finding that acidity levels were rising three to four times more quickly than in other ocean regions, a team of researchers raised the alarm about the changing chemistry of the western Arctic Ocean.
- The team also discovered a significant link between the rate of ocean acidification and the accelerated rate of glacier melting.
- According to scientific predictions, this area's Arctic sea ice won't survive the region's increasingly warm summers by the year 2050.
- The outcome will be an increase in acidity in the ocean's chemistry, which will pose a serious threat to the diverse variety of marine life, plants, and other living things that depend on a healthy ocean.
- For instance, crabs inhabit a crusty shell made of the calcium carbonate found in ocean water.
- Fish and marine birds depend on plankton and plants for sustenance, just as polar bears do, and many people consume a lot of seafood.
- They suggest that sea-ice melt, which alters surface water in three main ways, is the principal mechanism underlying this abrupt pH decrease.
- First, the water beneath the sea ice, which had a deficiency of carbon dioxide, is now exposed to and can readily absorb atmospheric carbon dioxide.
- Because the ocean and meltwater are light and can't easily mix, the carbon dioxide is concentrated near the surface.
- The seawater's capacity to convert carbon dioxide into bicarbonate is weakened by the meltwater, which also causes a sharp drop in the pH of the ocean.

## Leopards

Context: Year-long study confirms presence of 8 leopards in Delhi's Asola Sanctuary

About

- According to the Gazetteer of Delhi, the sanctuary did not record any leopard sightings for many years after 1940.
- 2019 saw new reports of leopard pug markings and scats in the sanctuary, according to the Delhi Forest Department.
- 42 infrared stealth camera traps were utilised in the June 2021–June 2022 study by the Bombay Natural History Society and the Delhi Forest and Wildlife Department.
- It has given an estimate of the leopard population's size, density, and geographic dispersion.

About leopards (Need to design)

- Similar in appearance to the Jaguar with a rosette patterned coat, the leopard was described by Jim Corbett as "the most beautiful of all animals" for its "grace of movement and beauty of colouring".
- The most adaptable of all big cats, they occupy diverse habitats at all altitudes across Africa and Asia. Like black jaguars, melanistic leopards are called black panthers.
- In some African cultures, leopards are considered to be better hunters than lions.

Conservation Status

- International Union for Conservation of Nature (IUCN): Vulnerable
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I
- It lists species that are the most endangered among CITES-listed animals and plants.

- Wildlife Protection Act 1972: Schedule 1

Region wise distribution

- Central India and Eastern Ghats.
- Western Ghats
- Shivalik and Gangetic Plains
- Northeast hills

**WE AIM TO INSPIRE**

Context: 69% drop in wildlife population globally in 50 years: Living Planet Report

## About

- Report released by: World Wide Fund for Nature (WWF).
- It is a comprehensive study of trends in global biodiversity and the health of the planet.
- This flagship WWF publication reveals an average decline of 69% in species populations since 1970.
- The Living Planet Index (LPI), which includes nearly 32,000 populations of 5,230 species worldwide, revealed that the number of vertebrate animals is declining at an especially startling rate in tropical areas of the world.

## Major findings in the report

- Over the past 50 years, the number of mammals, birds, amphibians, reptiles, and fish has decreased by 69% on a global scale.
- The region of Latin America and the Caribbean experienced the greatest drop (94%)
- Between 1970 and 2018, the populations of wildlife in Africa and the Asia-Pacific region both decreased by 66%.
- According to the organisation, freshwater species populations worldwide decreased by 83%, demonstrating that the earth is currently going through a “biodiversity and climate crisis.”
- About half of the dangers to the fish species whose migration was being watched were caused by habitat loss and obstructions to their pathways.

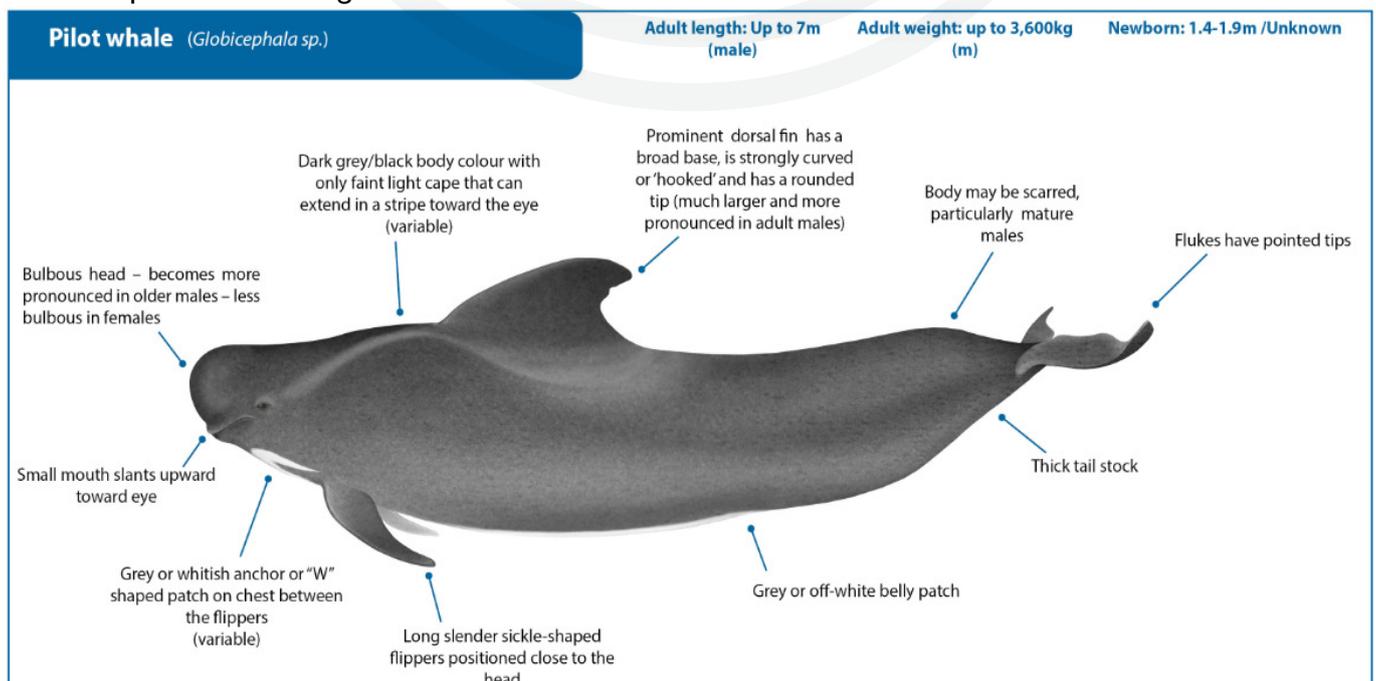
Agriculture, logging, hunting, pollution, invasive species, and climate change are six of the biggest threats to biodiversity, according to WWF.

## Pilot Whales

Context: 500 pilot whales die in mass strandings on remote New Zealand islands

## About

- Because it was originally thought that each observed group was led or piloted by a pilot, pilot whales got their name.
- Pilot whales can approach coastal locations despite having an oceanic range and are commonly spotted on whale watching cruises all around the world.
- Since they are typically accessible and impressive in size and behaviour, they are enjoyable to observe.
- There are two types of pilot whales: long-finned pilot whales (*Globicephala melas*), which live in colder seas, and short-finned pilot whales (*Globicephala macrorhynchus*), which are mostly found in tropical and warm-temperate regions.
- Both species are designated as Least Concern on the IUCN Red List of Threatened



## New species of deep-sea fish discovered

Context: New species of deep-sea fish discovered in Atacama Trench

About

- Name of new species: *Paraliparis selti*
- Location: Atacama Trench
- The small blue fish does not resemble other hadal snailfish when observed at a depth of between 6,000 and 7,600 metres.
- It mimics other species of snailfish that are found dwelling in much shallower waters because of its huge eyes and stunning colour.
- The newly discovered species is a part of the *Paraliparis* genus.
- Rarely found deeper than 2,000 m, this genus' species are notably prevalent in the Southern Ocean in the Antarctic.
- Importantly, this is the first instance of this genus being discovered in the hadal zone.

## Solar Facility

Context: ISA Decides on Solar Facility to Expedite Funding

About

- Created by: International Solar Alliance
- Objective: Two financial aspects of the solar facility chosen will aid in luring investments worldwide, but more notably in Africa, for the solar energy industry.
- The solar insurance fund and the solar payment fund are the two parts.
- Additionally, the Solar Facility will offer a payment system and insurance to cover the initial loss guarantee.
- The ISA will shortly begin using the facility to crowdsource investments.
- These investments will come from various international donors, and the proposed African renewable energy projects will have access to these funds to purchase payment guarantees or pay for a portion of their insurance premiums.

## Climate Transparency Report 2022

Context: Heat-related losses highest in India among G20 countries: Report

About

- Report Released by: Partnership of climate analysis Organisations in G20 countries
- The Climate Transparency Report provides a concise overview of the key facts and figures on the state of climate performance of the G20 in a comparative stock take.
- The analysis covers adaptation, mitigation and finance, with 20 detailed country profiles of all G20 members and a summary of key findings.
- In 2022, the report especially highlights the link between the climate emergency and energy crisis.
- Developed by experts from 16 partner Organisations from the majority of the G20 countries, the report informs policy makers and stimulates national debates.
- Climate Transparency Report serves as a useful reference for decision makers and actors, and also for those central for climate for whom climate is not central.

### Major Findings in the Report – World Wide

- It was the seventh year in a row that the average worldwide temperature exceeded 1°C over pre-industrial levels, with 2021's average temperature being roughly 1.1°C higher than pre-industrial levels.
- Following CO<sub>2</sub>, methane emissions are significant GHG emissions. On a time period of 100 years, it has a global warming potential that is at least 27 times greater than CO<sub>2</sub>. Methane is responsible for around 30% of the warming that has occurred since 1750.
- The adoption of net zero targets by countries during the past two years has been a welcome trend. Only Mexico remained at the G20 by September 2022 without announcing a net zero objective.



- Record heat in India coincided with a heatwave that had a negative impact on employees, labour migrants, low-income households, and the homeless. It also reduced wheat crop yields, which would have been helpful in addressing the supply shortages brought on by the conflict in Ukraine.
  - Most G20 members can anticipate water shortages and protracted droughts at 1.5°C, as well as more frequent and intense heatwaves and less favourable agricultural circumstances.
  - Planning and policies for adaptation are becoming more and more integrated into the overall climate politics of G20 countries. The only country without a national adaptation strategy is Saudi Arabia. Brazil, France, Japan, and the UK regularly review the results of their adaptation efforts.
- Status of India in the Report
- India's emissions per person (including LULUCF) are almost 30% lower than the G20 average. Between 2014 and 2019, the total emissions per person grew by 12%.
  - India is rated as having a medium level of life expectancy, education, and per capita income according to the Human Development Index (HDI).
  - By 2050, India's population is expected to grow by 18%, and the country would have an urbanization rate of 52.8%. By 2023, it is anticipated to surpass China as the most populated nation on Earth.
  - In India, outdoor air pollution causes around 1.7 million deaths annually from heart disease, lung cancer, stroke, and chronic respiratory illnesses. In the G20, this death rate is the highest.
  - India's early summer heatwaves have increased significantly. Under 1.5°C of warming around 142 million more people than the 1986–2006 average are projected to be annually exposed to heatwaves at 1.5°C of warming, and 2.3 times greater at 2.5°C.
  - India's average summer temperatures from 2017 to 2021 were 0.4°C warmer than the 0.3°C rise in the world's average mean temperature between 1986 and 2005.
  - Indian agriculture is rain-fed in two-thirds of the country, making it extremely vulnerable to variations in precipitation. The national maize and wheat yields are expected to fall by 3% and 5%, respectively, under a 1.5°C warming scenario.
  - Extreme weather events brought on by climate change have a huge negative economic impact on all industries, with agriculture being the most vulnerable because it accounts for 16% of India's GDP and nearly half of all jobs.
  - Extreme weather events such cyclones, flash floods, floods, and landslides damaged crops on more than 36 million hectares between 2016 and 2021, costing farmers USD 3.75 billion.

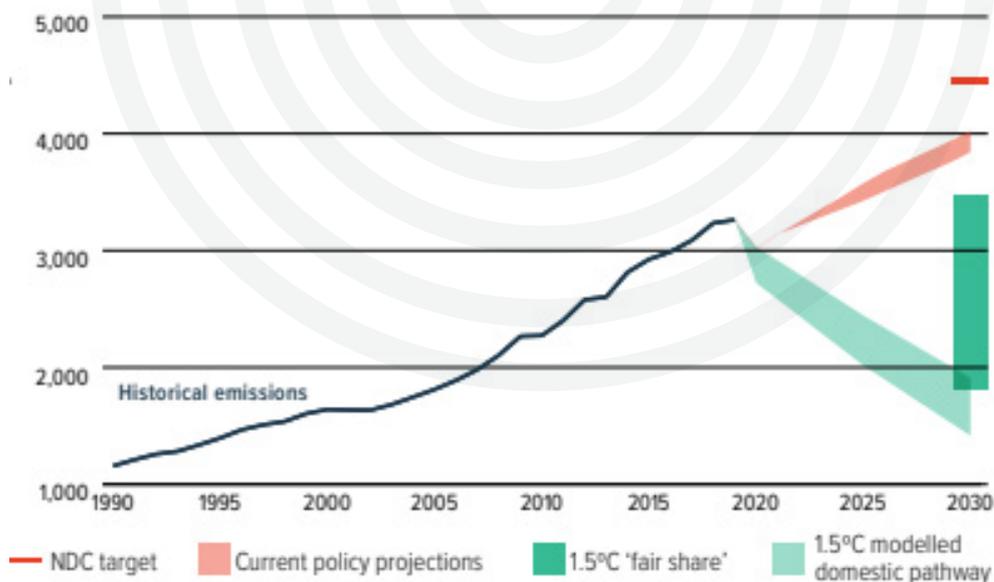


Figure: India's emission pathway

*Talk to yourself once in a day, otherwise you may miss meeting an intelligent person in this world*

- SWAMI VIVEKANANDA



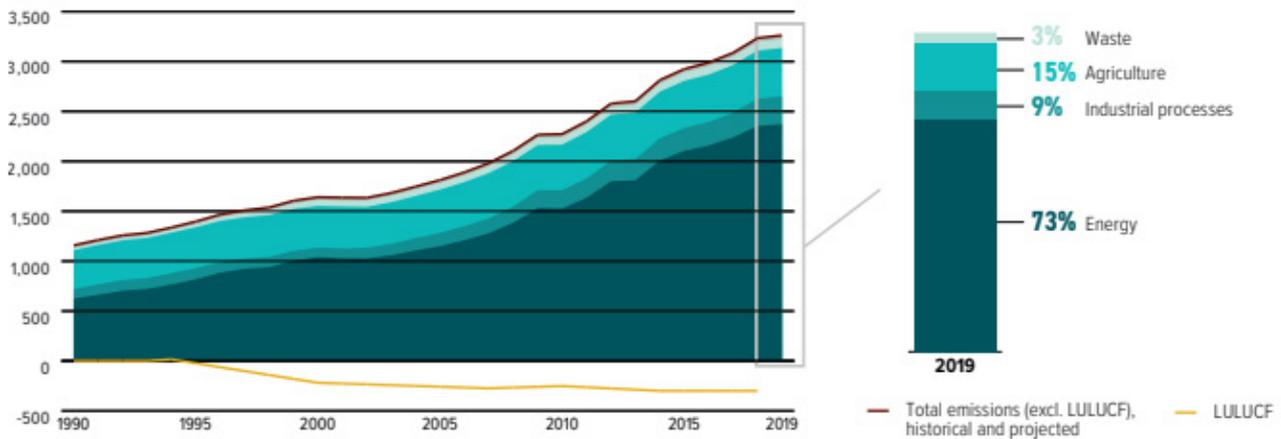


Figure: Status of the greenhouse gas emission in India

## Asia's largest Compressed Biogas plant

Context: Asia's largest Compressed Bio Gas plant inaugurated in Punjab

About

Location: Lehragaga, Sangrur, Punjab

- Mode of Investment: FDI investment of Rs. 220 crores by Verbio AG, one of the top bioenergy companies in Germany.
- Capacity: Factory currently produces about 6 Tons per Day (TPD) of CBG, but soon it will use 8 digesters with a combined capacity of 10,000 cubic metres to process 300 tons of paddy straw each day.

Significance of the plant

- The Sustainable Alternative towards Affordable Transportation (SATAT) program's objectives will be closer to reality with the construction of the CBG facility.
- The programme aims to empower and free the rural economy by supporting farmers and enhancing India's energy independence.
- Additionally, it hopes to lessen air pollution and help India become a global leader in the use of clean energy.
- There should be a daily production of 600-650 Tons of FOM (Fermented Organic Manure), which can be used for organic farming.
- Additionally, it would provide a much-needed alternative to burning stubble.
- The facility will reduce the burning of stubble on 40,000–45,000 acres of fields, resulting in a reduction of 150,000 tons of CO<sub>2</sub> emissions annually in addition to guaranteeing that residents breathe healthier air.





## Mission to save the critically endangered vultures

Context: Tamil Nadu's mission to save the critically endangered vultures

### About

- A State-level Committee was established by the Tamil Nadu government to create the necessary institutional framework for the successful protection of vultures.
- The Oriental white-backed vulture, the long-billed vulture, the red-headed vulture, and the Egyptian vulture are the four vulture species that can be found in Tamil Nadu.
- The group, which has a two-year term, will take action to map vulture populations throughout the State in order to establish safe zones and monitor the conservation and recovery of existing vulture sites.
- It will help stop the usage of harmful veterinary medications, which is the leading cause of vulture deaths.

### About Vulture

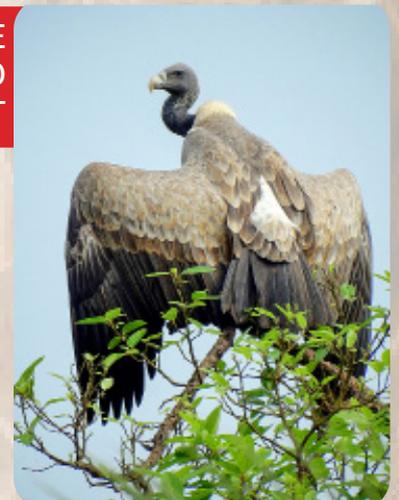
- They are the most effective scavengers in nature and are huge to medium-sized raptors.
- They primarily eat the carrion of both domesticated animals and wild animals. Vultures do not hunt like other birds of prey; instead, they feed on carrion or dead animals.
- They eat a lot of corpses that may otherwise have had a negative impact on both people and the ecosystem.
- There are 23 species of vultures in the world, which are divided into the old world vulture (OWV) and new world vulture groups (NWV).
- Between 1990 and 2007, the formerly 40 million strong population – mostly white-rumped, Indian, and slender-billed – fell precipitously.
- Experts estimate that between 1993 and 2007, 99.9% of white-rumped vultures, 99.9% of the Indian and slender-billed variants, and 81% to 90% of other species saw population declines.

## Vulture species in India



**WHITE RUMPED VULTURE**  
IUCN: CRITICALLY ENLARGED  
RESIDENT

**LONG BILLED VULTURE**  
IUCN: CRITICALLY ENLARGED  
RESIDENT



**SLENDER BILLED VULTURE**  
IUCN: CRITICALLY ENLARGED  
RESIDENT



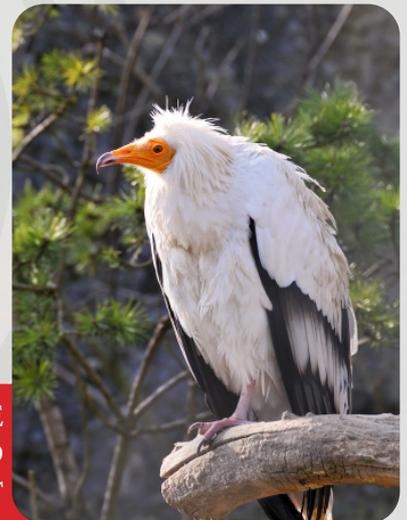
**RED HEADED VULTURE**  
IUCN: CRITICALLY ENLARGED  
RESIDENT



**CINEREOUS VULTURE**  
IUCN: ENLARGED  
MIGRATORY



**HIMALAYAN VULTURE**  
IUCN: NEAR THREATENED  
RESIDENT, REGIONAL MIGRATORY



**EGYPTIAN VULTURE**  
IUCN: NEAR THREATENED  
RESIDENT



**BEARED VULTURE**  
IUCN: NEAR THREATENED  
RESIDENT



**EURASIAN GIFFRON**  
IUCN: LEAST CONCERN  
MIGRATORY



# The coldest year of the rest of their lives' report

Context: UNICEF Warns Of the Impact of Heatwaves on Children

About

- Released by: United Nations International Children’s Emergency Fund (UNICEF).  
Major findings in the report
- Heatwaves are growing longer, stronger, more widespread, and more frequent as the climate catastrophe intensifies.
- Around 624 million children are already exposed to one of the other two high heat measures, such as severe high temperatures, and around 559 million children are already exposed to high heatwave frequency.
- Whether the world achieves a “low greenhouse gas emission scenario” with an estimated 1.7 degrees of warming in 2050 or a “very high greenhouse gas emission scenario” with an estimated 2.4 degrees of warming in 2050, it is predicted that nearly every child on the planet - over 2 billion children - will experience more frequent heatwaves.
- In order to mitigate the worst effects of the other high heat measures, it also presents the case for a more significant reduction in emissions.
- Young people will struggle to control their body temperature due to the heat waves. As a result, people become more susceptible to disorders including asthma, chronic respiratory conditions, and cardiovascular diseases.
- Depending on how hot the world gets, millions more youngsters will be exposed to intense heatwaves and extremely high temperatures.
- By 2050, over half of all children in Africa and Asia would experience prolonged exposure to extremely high temperatures. Children in northern countries will experience the most dramatic increases in high heatwave intensity.
- Extreme atmospheric temperatures might produce drought, which will make it difficult to get access to clean water and wholesome food.
- According to the paper, prolonged heat waves would impede children’s growth and push families to relocate.

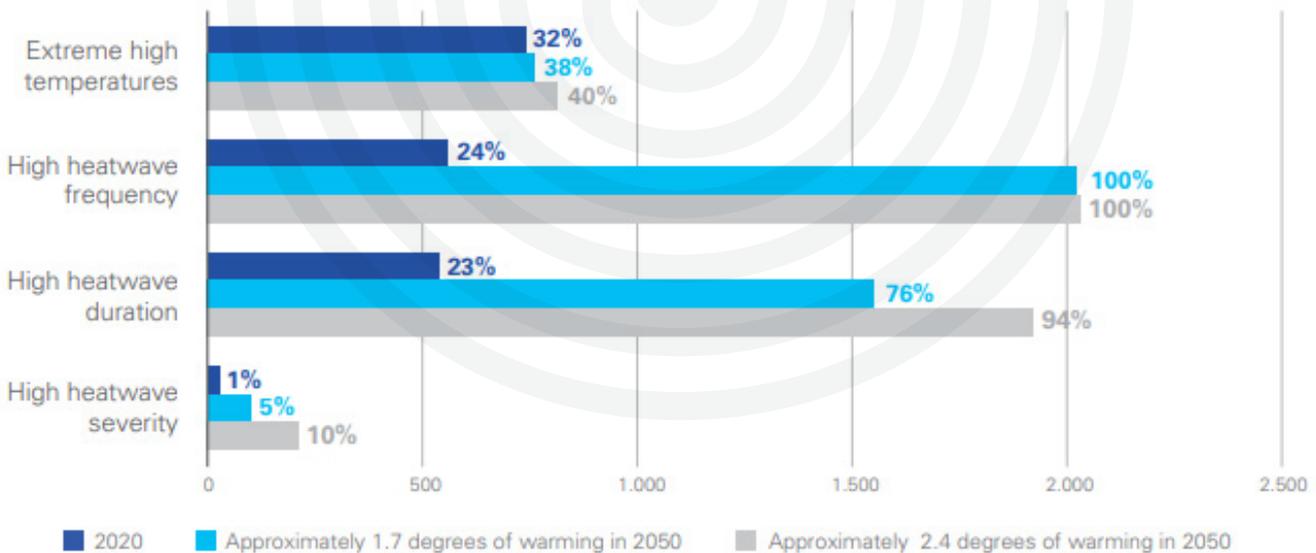
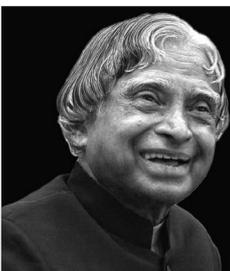


Figure: Estimated numbers and proportions of children exposed to high heat measures in 2020, under low emission scenarios with an estimated warming of 1.7 degrees, and under extremely high emission scenarios with an estimated warming of 2.4 degrees by 2050



*You have to dream before your dreams can come true..*

- A. P. J. ABDUL KALAM

# 2022 United Nations Climate Change Conference



Context: World leaders will meet in Sharm el-Sheikh, Egypt, on Nov. 6 for two weeks of climate negotiations

## About

- The conference's ultimate objective is up for debate this year.
- Wealthy nations want to concentrate on methods for assisting underdeveloped nations switch from fossil fuels to renewable energy.
- Developing nations seek a financial commitment to help them deal with the natural disasters caused by climate change.
- Poor countries are particularly interested in the creation of a new fund to cover expenses like moving vulnerable settlements or just making up for missed economic growth due to increased floods, storms, and heat waves.
- A new fund has been resisted by industrialised nations, particularly the United States, in part due to their concern of being held legally responsible for the soaring damages brought on by climate change.
- Since 2016, this is the continent of Africa's first climate summit.

## Emissions Gap Report 2022

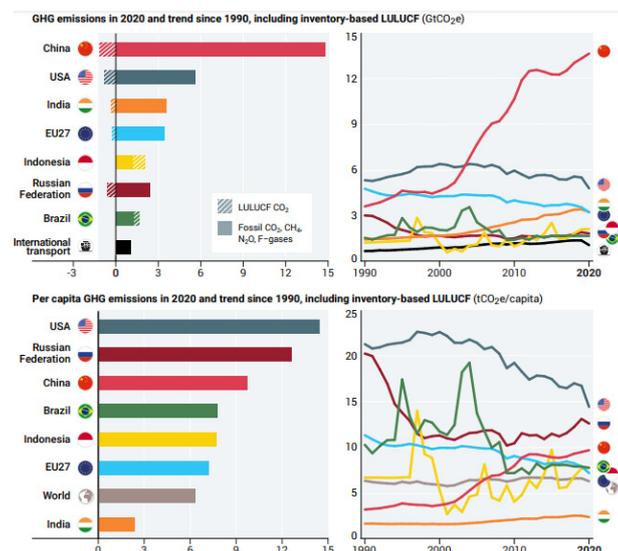
Context: According to the UN's Emissions Gap Report, our odds of continuing to work toward the Paris Agreement's objectives are incredibly slim.

## About

- Released by: United Nations Environment Programme (UNEP).
- The yearly study evaluates the discrepancy between the reductions in greenhouse gas emissions pledged by various nations and the predicted reductions necessary to keep the average global temperature rise below 2°C, ideally 1.5°C, by the end of this century.
- The UNEP Copenhagen Climate Centre is in charge of the flagship report.
- It directs the UNFCCC process and puts the Paris Agreement into effect by acting as a "scientifically authoritative source of timely and policy-relevant information to key decision-makers."

## Main findings of the report

- In 2020, 55% of all GHG emissions came from the top seven emitters (China, the EU27, India, Indonesia, Brazil, the Russian Federation, and the United States of America), including international transportation.
- G20 members are responsible for 75% of the world's GHG emissions as a whole.
- About a third of all GHG emissions are now attributed to the food sector.
- Agriculture, especially the production of inputs like fertilisers, contributes the most, followed by changes in land use and supply chain activities.
- The latter comprises industrial operations, packaging, waste management, waste creation, retail, transportation, and consumption.
- Among other things, emissions from livestock mostly consist of methane (from belching), nitrous oxide, and carbon dioxide (from urea, manure, and urine).
- They help with the greenhouse effect because they prevent heat from escaping from the earth's surface, which results in global warming.



# SCIENCE AND TECHNOLOGY





- 5G in India
- OneWeb-NSIL partnership
- World Space Week 2022
- Optimus Humanoid Robot
- Digital Services Act (DSA)
- Operation Garuda
- NASA's Dragonfly
- PowerEX-2022
- World's first CNG terminal
- Next-Gen Launch Vehicle (NGLV)
- India's First Aluminum Freight Rake



## 5G in India

Context: *Government nudges phone makers for faster 5G updating*

### About

- The next generation of cellular technology, known as 5G, promises to provide better speeds, connections, and cloud access.
- 5G is hailed as the engine driving India's digital economy.
- Your phone's connection will be faster once telecom companies begin introducing 5G services in India; it may be up to 100 times faster than what you're now receiving on 4G.
- Imagine downloading a full HD movie in just three seconds. However, this 5G performance is entirely speculative and far from what you would experience in the real world.

### Phase of Development

- To review and approve the strategy for deploying 5G, the government established a high-level meeting in 2017 with representatives from business, academia, the government, and regulators.
- The forum, which was presided over by Prof. A. J. Paulraj of Stanford University, had as its main goal maintaining India's roadmap in line with international norms in order to avoid the lack of uniformity in telecom networks seen in services up to 4G.
- In 2018, the forum turned in its report. For the development of regionally specific solutions, it recommended concentrating on areas like regulatory and spectrum policy, application, and use-case labs.
- The government began giving operators spectrum to undertake tests as research and development for 5G applications progressed.
- The telecom department and the industry regulator TRAI began discussing spectrum price in 2019. One of the last milestones before the services are launched was the completion of the 5G spectrum auction in August of this year.

### How that works?

Working frequencies: Low, mid, and high band frequencies are used to transmit three different radio signals to 5G handsets.

#### Low Band Spectrum

- Significant potential in terms of internet coverage and data interchange speed
- Top speed is just 100 Mbps (Megabits per second).
- Telecoms can use and install it for commercial mobile users who might not have specific requirements for very high speed internet.
- Low band spectrum might not be the best option for the industry's specialized needs.

#### Mid Band Spectrum

- In contrast, the mid-band spectrum has lower speeds than the low band and has restrictions on the signal's coverage and penetration.
- Telecoms and businesses, which are leading the charge for 5G, have suggested that industries and specialized factory units may use this band.
- It can be used for the construction of captive networks that may be tailored to the requirements of that particular industry.

#### High-Band Spectrum

- Although the high-band spectrum has the weakest signal penetration and coverage of the three bands, it offers the fastest speed.
- While the fastest internet data speed for 4G has typically been recorded at 1 Gbps, testing of the high-band spectrum of 5G has shown that internet speeds can go as high as 20 Gbps (giga bits per second).

#### Mode of Deployment

- Three categories can be used to roughly group the elements of mobile networks.
  - It carries a Radio Access Network (RAN) that links consumer devices to the cloud, including smartphones, tablets, routers, and other devices.
  - The Core Network, which offers connectivity to the internet as well as administration between various components of the access network, comes next.
  - A third layer known as the Transport Network connects the core and the network.
- The two basic deployment models for 5G networks are standalone and non-standalone.



### What is a non- standalone 5G network?

- As the name implies, NSA 5G depends on existing 4G infrastructure in order to function. In the NSA, only the radio access network (RAN) has been upgraded to 5G, and the core network is still using 4G.
- The non-standalone networks' initial costs and rollout timelines are much lower because they are built on already-existing infrastructure.
- Since non-standalone networks are typically seen as a stepping stone, operators who have deployed non-standalone 5G networks are advised to switch to standalone networks based on worldwide precedence.

### What is a standalone 5G network?

- In the Standalone configuration, both the RAN and core have been upgraded for 5G.
- Operators may meet a number of network requirements that are not feasible with the NSA version of 5G because to the virtualized, software-based network components that make up a 5G core.
- In standalone mode, the 5G network operates with specialized hardware and coexists with the current 4G network.

### Do we need to take new sim cards?

- For both Airtel and Jio 5G network services, a new SIM card won't be necessary.
- Jio recently stated that subscribers will not require a new SIM card for Jio 5G to function ahead of its beta testing, which will begin today.
- Users of recent 4G SIM cards from Airtel won't require a new card to access 5G in supported areas. While Vodafone Idea has yet to launch its 5G networks, when the telecom provider does, we should
- know more about any new SIM needs.

### Pros and Cons of 5G

#### Pros

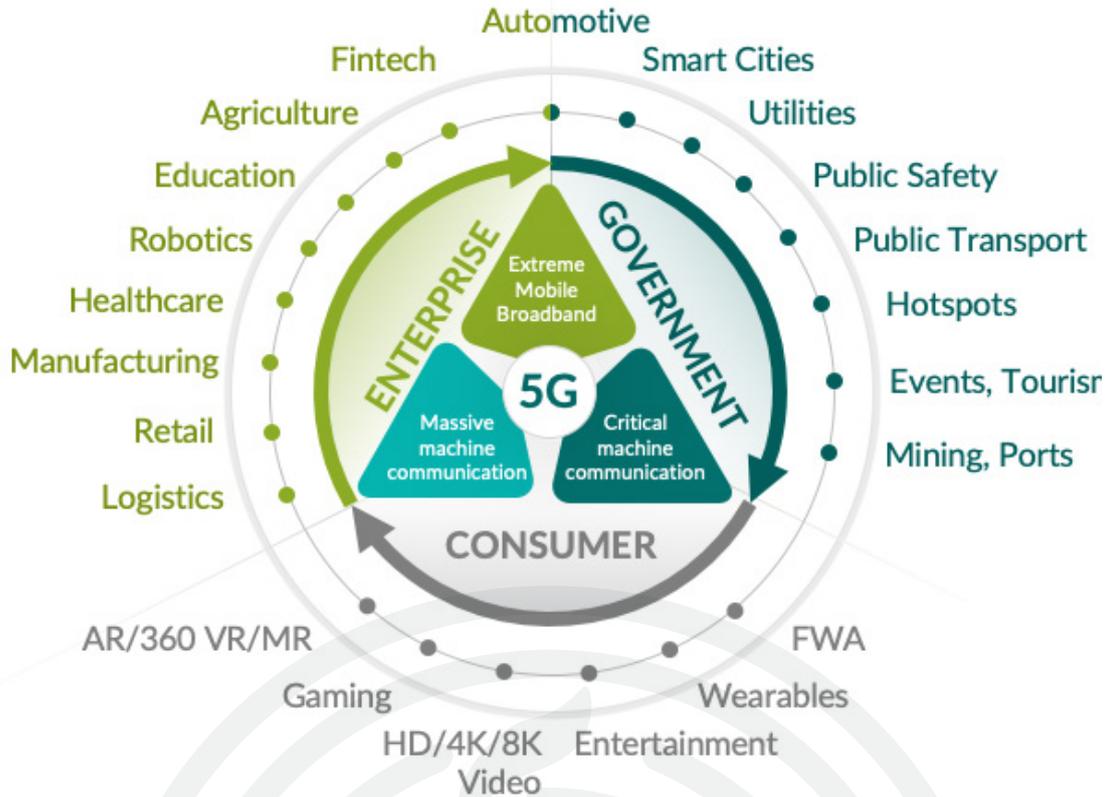
- In comparison to 4G and 4G LTE, 5G operates more quickly on mobile phones and other devices. Instead of taking minutes, it enables customers to download movies, videos, and music in seconds.
- In comparison to 4G, 5G offers lower latency, which will effectively enable emerging applications like AI, IoT, and virtual reality.
- Up to 100 times more capacity than 4G is possible with 5G. It enables businesses to transition between cellular and Wi-Fi wireless solutions, greatly enhancing performance.
- One of the key benefits of 5G is that it improves bandwidth, which will aid in quick data transfer.
- Drones and sensors are just a couple of the many items that 5G technology may link to.

#### Cons

- The biggest drawback of 5G is that it only has local availability and has patchy worldwide coverage.
- Although 5G operates quickly at high speeds, it won't have the same range as 4G. Additionally, tall structures and trees may block the frequency of the 5G network, which will cause a number of issues.
- Users of mobile phones may guarantee fast download rates thanks to 5G technologies. In contrast, compared to 4G, the upload rates are not greater than 100 Mbps.
- A 5G connection on a phone will cause a significant power drain, greatly reducing battery life.
- One of the issues with 5G is cybersecurity since hacking will happen.
- The increase in bandwidth makes it simple for thieves to grab the database. Additionally, the software it employs makes it subject to attacks.
- Due to the lack of encryption in 5G, hackers would be able to plan their assaults more effectively, which will significantly harm the businesses.

### What is the global progress on 5G?

- Companies like AT&T, T-Mobile, and Verizon have taken the lead in launching commercial 5G for their subscribers in nations like the US.
- While some corporations, like AT&T, began testing and deploying the technology as early as 2018, other businesses, like Verizon, have since followed suit.
- By the end of 2020, Verizon plans to have expanded its 5G ultra-wide internet services to as many as 60 cities.
- In other nations, like China, some telecoms, like China Unicom, began 5G trials as early as 2018 and later rolled out the paid services for customers. Samsung, a South Korean firm, began investigating 5G technology back in 2011.



## OneWeb-NSIL partnership

Context: OneWeb has teamed up with NewSpace India Limited (NSIL), the commercial arm of national space agency Indian Space Research Organisation (ISRO) to facilitate the launch

- OneWeb and NSIL had already agreed on a letter of intent (LoI) as one of the potential launch sites for their satellites.
- For the purpose of launching OneWeb LEO Broadband Communication Satellites on board ISRO's most powerful launcher, LVM3, NewSpace India Limited (NSIL), a CPSE under the Department of Space and the commercial arm of ISRO, has signed two launch service contracts with M/s Network Access Associated Limited (M/s OneWeb), of the United Kingdom.
- One LVM3 from the Satish Dhawan Space Center will launch 36 satellites into orbit as part of the Contract.
- The second launch pad at the Satish Dhawan Space Centre, SHAR, has been completely integrated with two solid strap-on boosters and a liquid core stage of LVM3.

### OneWeb satellite constellation

- OneWeb is a projected constellation of 648 low-earth orbit (LEO) satellites that aims to provide “real global coverage to the poles, high data throughput, and minimal latency.”
- OneWeb, a communications firm with offices in London, is the organisation behind the project.
- A Russian Soyuz rocket carrying the first six satellites of the OneWeb constellation programme was launched on February 27, 2019, off the coast of French Guiana. Following that, other launches occurred during 2020 and 2021.
- In February 2022, 34 satellites were launched into orbit, bringing the overall number of satellites in orbit to 428, or 66% of the network’s projected number.

### New Space India Limited

- The commercial division of India’s ISRO space agency is called NSIL.
- The Department of Space (DOS) of the Government of India has administrative control over it as of its incorporation in March 2019.
- NSIL works to meet industry needs in the space sector by, among other things, using Indian businesses to build launch vehicles, offering launch services, building satellites and related ground support services, transferring technology, and offering satellite-based services.
- Its goal is to assist Indian industry in creating a base of high-tech manufacturing for space programmes.



## World Space Week 2022

Context: *World Space Week 2022 celebrates 'space and sustainability' this year*

About

- Theme: 'space and sustainability', succeeding last year's theme of "women in space".
- The advancement of human condition through science and technology is being celebrated on a global scale.
- In 1999, the UN General Assembly agreed that the week of October 4–10 would become known as World Space Week.
- One of the main goals of the event is to raise awareness of the benefits that come from space operations, win public support for space Programmes, and promote global collaboration.
- These days honor two occasions:
- Sputnik 1, the first Earth satellite built by humans, was launched on October 4, 1957, paving the stage for further space research.
- The Treaty on Principles Governing the Activities of States in the Exploration and Peaceful Utilization of Outer Space, including the Moon and Other Celestial Bodies was signed on October 10, 1967.

What are the goals of World Space Week?

- Provide unique leverage in space outreach and education
- Educate people around the world about the benefits that they receive from space
- Encourage greater use of space for sustainable economic development
- Demonstrate public support for space programs
- Excite young people about science, technology, engineering, and math
- Foster international cooperation in space outreach and education

WORLD SPACE WEEK  
4 - 10 OCTOBER 2022

SPACE AND SUSTAINABILITY



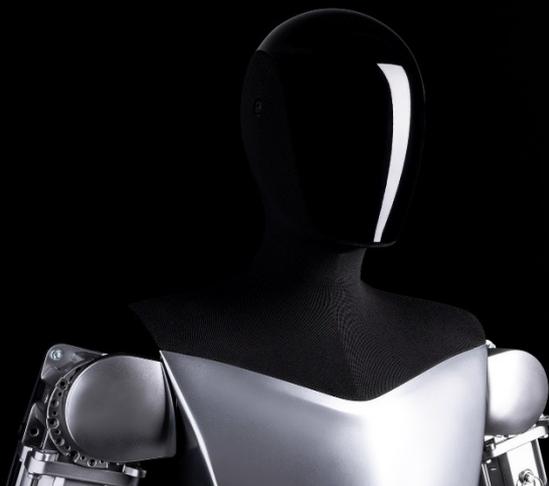
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SEMAINE MONDIALE DE L'ESPACE 4-10 OCTOBRE  
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ВСЕМИРНАЯ НЕДЕЛЯ КОСМОСА, 4-10 ОКТЯБРЯ 2022

## Optimus Humanoid Robot

Context: "Optimus humanoid robot" walks, waves, but doesn't show off complex tasks"

About

- Developed by: Tesla
- Technology backup: Uses artificial intelligence that Tesla is testing in its "Full Self-Driving" vehicles, carrying boxes and placing a metal bar into what appeared to be a factory machine.
- In order to have the dexterity of humans, Optimus robots would have four fingers and a thumb with a tendon-like mechanism.
- The robot is supported by enormous computers with artificial intelligence that monitor millions of video frames from "Full Self-Driving" cars. The robots would be taught tasks using similar computers.





## Digital Services Act (DSA)

Context: DSA: Council gives final approval to the protection of users' rights online

About

- The social media and e-commerce regulations in the area are being revised.
- The Digital Services Act (DSA) is a piece of legislation that strictly controls how intermediaries, particularly major platforms like Google, Meta, Twitter, and YouTube, operate in terms of moderating user content.
- Online users and fundamental rights will be better protected, a strong transparency and accountability framework for online platforms will be established, and there will be one consistent framework applied throughout the EU.

Key features of the Digital Services Act

Faster removals and clauses that can be contested:

- As part of the revamp, social media companies will be required to implement “new procedures for faster removal” of content that is judged damaging or illegal.
- Users will also need to understand how their content takedown policy operates.
- Users may contest takedown decisions made by platforms and look for out-of-court agreements thanks to the DSA.

Greater accountability comes with larger platforms:

- One of the law's most important aspects is that it avoids a one-size-fits-all approach while increasing accountability for Big Tech firms.
- The DSA will impose stricter standards on “Very Large Online Platforms” (VLOPs) and “Very Large Online Search Engines,” or platforms, with more than 45 million EU users.

Direct oversight by the European Commission:

- More crucially, the European Commission will centrally oversee these requirements and their enforcement, which is an important measure to prevent businesses from skirting member-state-level regulations.

More transparency regarding the operation of algorithms:

- VLOPs and VLOSEs will be subject to transparency requirements, scrutiny of the operation of their algorithms, and requirements.
- The act allows to conduct systemic risk analysis and reduction in order to increase accountability regarding the effects of their products on society.
- Both academics and regulators must have access to VLOPs' data in order to assess compliance and to find systemic hazards of unlawful or harmful content.

Better ways to identify adverts and the sponsors of them:

- Users must be able to quickly recognize adverts on online platforms and understand who is behind or paying for them.
- The DSA states that they cannot show customized advertising aimed towards children or based on delicate personal information.

## Operation Garuda

Context: Central Bureau of Investigation has launched a multi-phase 'Operation Garuda' against illicit drug trafficking.

About

- Launched by: Central Bureau of Investigation.
- Objective: Against illicit drug trafficking.
- It has been started to break up drug trafficking networks with connections to other countries through coordinated international law enforcement efforts through Interpol.
- This international operation was started to combat the smuggling of illegal drugs and psychotropic substances, with a particular focus on the Indian Ocean region, in close conjunction with Interpol and the Narcotics Control Bureau.
- International law enforcement coordination is required to combat drug trafficking networks with connections to other countries.
- The CBI-led worldwide operation aims to take action against handlers, operatives, manufacturing hubs, and support elements within narcotics networks with global reach.



## NASA's Dragonfly

Context: *NASA's Dragonfly will land on dunes and shattered ice on Saturn's moon Titan*

About

- In the year 2034, NASA's Dragonfly rotorcraft is planned to arrive at the Selk Crater region of Saturn's moon Titan.
- According to NASA, Titan is the perfect place to do research on astrobiology, prebiological chemistry, and the viability of extraterrestrial life. This is due to the fact that it is an ocean world with a carbon-rich chemistry where water and ice predominate.
- The moon has rivers, lakes, and a subsurface ocean of liquid water in addition to lakes and lakes of methane. Additionally, there are rain and methane clouds, as well as an atmosphere that enables Dragonfly to fly.

## About the rotorcraft

- Dragonfly will launch in 2026 and arrive in 2034.
- The rotorcraft will fly to dozens of promising locations on Titan looking for prebiotic chemical processes common on both Titan and Earth.
- Dragonfly marks the first time NASA will fly a multi-rotor vehicle for science on another planet; it has eight rotors and flies like a large drone.
- It will take advantage of Titan's dense atmosphere – four times denser than Earth's – to become the first vehicle ever to fly its entire science payload to new places for repeatable and targeted access to surface materials.

## PowerEX-2022

About

- Conducted by: CERT-In and Power-CSIRTs
- Theme: "Defending Cyber induced disruption in IT & OT Infrastructure"
- Objective: "Recognize, Analyze & Respond to Cyber Incident in IT & OT Systems".
- On its platform for exercise simulation, CERT-In served as the host.
- A total of 350+ representatives from different power sector utilities took part in the event.
- The "PowerEX" exercise was successful in achieving its goals and assisting the participants in understanding, practising, and responding to cyber security problems.

## World's first CNG terminal

Context: *Prime Minister Narendra Modi laid the foundation stone for the "world's first CNG (Compressed Natural Gas) terminal."*

About

- Location: Bhavnagar in Gujarat
- This three-year-old project will invest 4,000 crore rupees in enhancing the Bhavnagar port's current infrastructure.
- A consortium made up of the London-based Foresight Group, the Mumbai-based Padmanabh Mafatlal Group, and the Rotterdam-based Boskalis signed a Memorandum of Understanding (MoU) with the Gujarat Maritime Board (GMB) for the development of the CNG terminal during the January 2019 Vibrant Gujarat summit, which gave birth to the project.
- The private consortium will also build additional facilities, including an ultra-modern container terminal, a multipurpose terminal (LPG and Chemical), a Ro-Ro (roll-on/roll-off) terminal for cargo ships that can load and unload wheeled cargo, such as trolleys and cars, and a liquid cargo terminal. The CNG terminal will be a part of the existing Bhavnagar port.
- Why is the port at Bhavnagar significant?
  - The Dholera Special Investment Region (SIR) is close by, and the Bhavnagar port is anticipated to serve the businesses that have established bases there.
  - A railway line that runs to the port's current berths already connects it to the northern hinterland.



## Next-Gen Launch Vehicle (NGLV)

Context: ISRO's Next-Gen Launch Vehicle may assume PSLV's role

About

- Developed by: Indian Space Research Organisation.
- According to reports, ISRO is considering NGLV, a reusable heavy-lift vehicle with three stages to orbit and a ten-ton payload capacity for geostationary transfer orbit (GTO).
- For the booster stages, NGLV will use more affordable and effective semi-cryogenic propulsion using refined kerosene as the fuel and liquid oxygen (LOX) as the oxidizer.
- NGLV will have a straightforward, reliable architecture that enables mass production, modularity in systems, subsystems, and stages, and quick turnaround.
- Future human spaceflight, distant space missions, cargo missions, and satellite communication are all possible applications.

## India's First Aluminum Freight Rake

Context: Union Minister for Railways, Communications and Electronics & Information Technology, Shri Ashwini Vaishnaw inaugurated India's First Aluminum Freight Rake.

About

India's First Aluminum Freight Rake - 61 BOBRNALHSM1.

Designed and developed indigenously in collaboration with RDSO, HINDALCO and Besco Wagon.

Features of Aluminum Rake:

- Fully Lock bolted construction with no welding on superstructure.
- The tare is 3.25 tons lower than normal steel rakes, 180 ton extra carrying capacity resulting in higher throughput per wagon.  
Higher payload to tare ratio 2.85.
- The reduced tare will reduce carbon footprint as lower consumption of fuel in empty direction and more transport of freight in loaded condition. A single rake can save over 14,500 tons of CO<sub>2</sub> over its lifetime.
- 80% is resale value of the rakes.  
Cost is 35% higher as the superstructure is all aluminum.
- Lower maintenance cost due to higher corrosion and abrasion resistance.



# CSAT





**COMPREHENSION**



## TYPES OF PASSAGES

Following are some types of passages you will encounter while solving Reading Comprehension.

- Descriptive Passages
- Descriptive Passages
- Hypothetical Passages

**DESCRIPTIVE PASSAGES** - Long passages with less significance.

- If you encounter any long passage don't panic as 90% probability it will be data-driven.
- For solving these passages, it is suggested you should note the important points so that you don't need to scroll up and down.
- The questions will be direct that don't require analytical skills.

**ANALYTICAL PASSAGES** – Analytical passages of scientific, political theory.

- Tricky ones, if you aren't an avid reader, they will bore you.
- Read carefully, these are the perplexing ones but they won't ask you much of inference-based questions.
- Go through the key points, frame the main idea for a smooth sail.

**HYPOTHETICAL PASSAGES** - Abstract "philosophical/ fantasy-based passage".

- Difficult ones. You may not be able to decode the main idea.
- Suggest to not get biased or form opinions.
- Just believe what the author is saying even if it is drop dead bizarre.

## HOW TO TACKLE READING COMPREHENSION?

### TIP NO. 1

- Start reading comprehension of different genre.
- This will help you to tackle different passages in those 60 minutes.

### TIP NO. 2

- Attempt it whole-heartedly, like you watch or drink the last cup of your coffee.
- Don't skip, don't rush. Take your time, and gradually build up a fast pace.

### TIP NO. 3

- Learn to skip questions. If you can't perceive the main idea don't try to touch the inference-based questions.
- It is a game of negative marking, so, play wisely.

### TIP NO. 4

- Don't skip the data-driven questions.
- Develop the skill to note down the main points so that you don't need to search again. Requires a lot of practice.

### TIP NO. 5

- Aim to solve at least 3 to 4 passages per day.
- Mastering reading comprehension is a slow process.
- Keep practicing.

**Read the passage given below and then answer the questions. Some words may be highlighted for your attention. Read carefully.**

**PARAGRAPH 1** - The report titled "India Online Grocery Market Outlook to 2019 - High Growth Prospects due to Increasing Internet Coverage and Smart Cities' Emergence" provides a comprehensive analysis of various aspects such as market size, segmentation and future projections of the online groceries market of India. This report also offers prevalent trends and developments in industry, government regulations, SWOT analysis, external environment analysis, Porter's five force analysis, and challenges in the industry. The report also covers the competitive landscape of the industry, in which the information related to the players operating in this industry has been comprehensively presented. This has been complemented with the major investment deals that have been finalized in the industry.



It also includes information on the major macroeconomic indicators affecting the market. Moreover, the report also offers information regarding the supply chain models operating in the market and the domestic and international trends in the online groceries market. The groceries segment holds a share of 60% out of the total market value of Indian retail market as food is the basic requirement of all the people irrespective of their class or society status.

**QUESTION: 1**

**In the question below is given a statement from the passage followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement. (Based on Para 1)**

STATEMENT: The groceries segment holds a share of 60% out of the total market value of Indian retail market as food is the basic requirement of all the people irrespective of their class or society status.

ASSUMPTIONS:

People need to eat in order to survive.

Class and society dictate the type of food available in a particular area.

Select the correct code:

- a. Only assumption I is implicit.
- b. Only assumption II is implicit.
- c. Either assumption I or II is implicit.
- d. Neither assumption I nor II is implicit.

**QUESTION: 2**

**From the given options, choose the correct synonym for the word 'comprehensive' in context of the given passage. (Based on Para 1)**

- a. Complete
- b. Partial
- c. General
- d. Specific

**QUESTION: 3**

**From the given options, choose the correct antonym for the word 'affecting' in context of the given passage. (Based on Para 1)**

- a. Unaffected
- b. Calm
- c. Discourage
- d. Alter

**QUESTION: 4**

**In context of the given passage, choose the correct meaning of the phrase 'competitive landscape' as highlighted in Paragraph 1.**

- a. Competitive landscape is the action of defining, gathering, analyzing, and distributing intelligence about products, customers, competitors, and any aspect of the environment needed to support executives and managers making strategic decisions for an organization.
- b. Competitive landscape is a business analysis which identifies direct or indirect competitors and at the same time, it permits the comprehension of their mission, vision, core values, niche market, strengths and weaknesses.
- c. A competitive landscape in marketing is one in which your business competes against a number of competitors trying to get their messages out to the same target markets.
- d. The competitive landscape, also known as the market structure, is the dynamic system in which your business competes. The state of the system as a whole limit the flexibility of your business.

SOLUTION (1. A 2. A 3. A 4. B)



**Read the passage given below and then answer the questions. Some words may be highlighted for your attention. Read carefully.**

**PARAGRAPH 2** - Online groceries market refers to the purchase and sale of groceries over the internet. Although, this process was initially implemented in the west, but this industry has been an emerging industry in India. The first firms that were founded in this segment of total retail were formed in 2011. Since then, this industry has expanded at a commendable pace and has attracted huge investments by venture capitalists and angel investors alike. The major players in the market that lead from the front are Big Basket, Aaramshop, Zopnow and Local Banya. These firms have been operational for about three years each and have grabbed a large market share in their respective cities of operations. The rise in the public's demand for convenience shopping as well as the penetration of internet among the population has led to the growth of this industry at a fast pace. The market also thrives as it has been able to offer steep discounts on the prices of the products offered and lure customers away from the brick-and-mortar shops to online grocery shopping.

**QUESTION: 1**

**From the given options, choose the correct synonym for the word 'commendable' in context of the given passage. (Based on Para 2)**

- a. Unworthy
- b. Creditable
- c. Blameworthy
- d. Honourable

**QUESTION: 2**

**When were the first online grocery shopping firms founded in India? (Based on Para 2)**

- a. 1995
- b. 2000
- c. 2003
- d. 2011

**QUESTION: 3**

**What is the reason behind the fast pace growth of the online groceries industry? (Based on Para 2)**

- a. Modern urban population leads a lazy lifestyle and online groceries allow them to shop without having to leave the comfort of their house and this has led to a fast-paced growth of the industry.
- b. Steep discounts, growth of internet usage amongst the urban population and convenience shopping has all contributed to the fast paced growth of the online groceries industry.
- c. Steep discounts on products has helped online groceries industry to achieve a fast paced growth.
- d. High internet usage in the urban population has allowed the online groceries to create a niche market and achieve fast paced growth.

**QUESTION: 4**

**Who has invested in the online groceries industry and why? (Based on Para 2)**

- a. Venture capitalists and angel investors have made huge investments in the online groceries industry as they have realised that the plain neighbourhood shops are not making any profits for big market players.
- b. Venture capitalists and angel investors have made huge investments in the online groceries industry as it is an easy way to hide any black money gained from other business ventures considering the lack of government regulation in the industry.
- c. Venture capitalists and angel investors have made huge investments in the online groceries industry as they have realised the potential of the same in making huge profits based on its high expansion and growth rate.
- d. Venture capitalists and angel investors have made huge investments in the online groceries industry as the government has provided huge incentives for the same.

**SOLUTION (1. B 2. D 3. B 4. C)**



**Read the passage given below and then answer the questions. Some words may be highlighted for your attention. Read carefully.**

**PARAGRAPH 3** - Online groceries offer several advantages for the users of their services, according to the service providers. As per them, the customers can enjoy a sense of ease as this service enables them to purchase their monthly top-up of groceries, fruits and vegetables while in the comfort zone of their homes. This also spares the customers from the hassle of carrying their bags, prevents them to face parking and traffic problems, as well as the queues in their local markets or supermarkets. The online stores also promise a wider variety of products to choose from, about 10,000 stock keeping units whereas an average traditional storehouse offers product range below 1,000 SKUs which puts it at a disadvantage to the online grocers. The share of Big Basket has been the largest among the businesses running as the top-line is fuelled by growth in the segment as well as its presence in 4 different cities. The total GMV for Big Basket was INR ~ 50 million in 2014 which is expected to rise in the future. This aided the firm to grab a market share of ~24% and placed it firmly atop the ladder. Zopnow is the second largest player which has been able to capture a large customer base in Bangalore with the help of its active and attractive website and the smart-phone app. Zopnow has a total GMV of INR ~ 46 million in FY'2014. The company is gaining traction in Mumbai and Hyderabad.

**QUESTION: 1**

**According to the passage, which company is the second largest player in the online grocery market in Bangalore? (Based on Para 3)**

- a. Big Basket
- b. Grofers
- c. Nature's Basket
- d. Zopnow

**QUESTION: 2**

**Which of the following options correctly differentiates between online groceries and traditional shops? (Based on Para 3)**

- a. Online groceries tend to reduce traffic problems in any city effectively and has more stocks than average traditional storehouses.
- b. Traditional shops not only provide their customers a hassle-free experience in shopping, they also are better stocked than most online groceries.
- c. Online groceries not only provide their customers a hassle-free experience in shopping, they also are better stocked than most traditional shops and supermarkets.
- d. Online groceries allow people to shop from the comfort of their home using the internet, while traditional shops allow the same via phone.

**SOLUTION (1. D 2. C)**

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**PANGASIUS ICARIA**

**INDIA'S FIRST SLENDER LORIS SANCTUARY**

**DARK-SKY-RESERVE**

**INDIA'S FIRST SOLAR-POWERED VILLAGE**



## PANGASIUS ICARIA

The Indian Council of Agricultural Research (ICAR) discovered *Pangasius icaria* (*P. icaria*), a new edible catfish species belonging to the *Pangasius* genus from the river Cauvery near Mettur Dam.



## INDIA'S FIRST SLENDER LORIS SANCTUARY



PROTECTION STATUS  
IUCN – Endangered  
CITES – Appendix I

Tamil Nadu Government has notified the Kaduvur slender loris sanctuary, spread across Karur and Dindigul districts. Slender Loris are small arboreal nocturnal mammals native to India and Sri Lanka found in tropical forests, shrub forests, semi-deciduous forests, and swamps.

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## DARK-SKY-RESERVE

CONTEXT: The UT Government of Ladakh along with the Indian Institute of Astrophysics (IIA) and India's Scientific Ministries is laying the groundwork to have Hanle declared as an International Dark Sky Reserve by the International Dark-Sky Association.

*"an area, usually surrounding a park or observatory, that restricts artificial light pollution generally to promote astronomy and avoid interference during astronomical observations."*

-DARK-SKY RESERVE



*"Hanle is located atop Saraswati in the Nilamkhul Plain in the Hanle Valley of Changthang. Hanle is a dry, cold desert with cloudless skies and low atmospheric water vapour making it one of the best sites in the world for optical, infrared, sub-millimetre, and millimetre*

## INDIA'S FIRST SOLAR-POWERED VILLAGE

CONTEXT: PM Narendra Modi declared Modhera in Mehsana (Gujarat), known for Sun Temple as the country's first round-the-clock solar-powered village. During the day time, the village will get solar power and at night, it will be powered by BESS (Battery Energy Storage System).

PALLI, village in Jammu's Samba district has become the country's first Panchayat to become carbon neutral, fully powered by solar energy and with all its records digitised and saturation of benefits of all the Central schemes.

The Department of Environment and Forest, Assam in partnership with French Development Agency launched "Sustainable Action for Climate Resilient Development in MAJULI" (SACReD, Majuli) make the river island, Majuli the country's first ever carbon neutral district in 2020.



ETHICS





**ANCIENT INDIAN PHILOSOPHY: A PAINLESS INTRODUCTION**



# ANCIENT INDIAN PHILOSOPHY: A PAINLESS INTRODUCTION

## A Painless Introduction

This is a short book about ancient Indian philosophy for people who care more about the central questions of philosophy themselves – What exists? How should we live? How can we know? – than they do about the historical matter of ancient Indian thought. But current research in philosophy often refers to the ideas of ancient Indian philosophy, so it is worth knowing a bit about it. My book explains the bare essentials about ancient Indian philosophy you must understand to do philosophy today.

This book does not assume you know much about philosophy. It does not discuss every aspect or interpretation of a philosopher's work. It will only tell you what you need to know to engage with philosophy today. Luckily, that knowledge can fit on just a few pages.

My main sources are the historical works of Surendranath Dasgupta, Debiprasad Chattopadhyaya, and Satishchandra Chatterjee (of whom you will hear echoes below), along with translations of the original works.

## Ancient India

No ancient culture but Greece was more fertile in philosophy than India. While Parmenides, Democritus, Socrates, Plato, and Aristotle were laying the foundations for Western philosophy in Greece, India's geniuses produced treatises in linguistics, mathematics, logic, astronomy, philosophy, and medicine.

Unfortunately, one cannot write a history of Indian philosophy the way one can write a history of Western philosophy. In Western philosophy, particular individuals are known to have advanced certain views, and the historian may arrange each philosopher chronologically and comment on how each thinker responded to their predecessors and how they influenced later philosophers. But ancient Indian philosophy is represented in a mass of texts for which the authors and dates of composition are mostly unknown.

Chief among these texts are the Vedas, written from perhaps 1500-1000 B.C., the oldest religious texts in the world. They consist mainly of praise hymns to nature gods and instructions for ritual, and exemplify a primitive pre-theism. The latest works among the Vedas, the Upanishads, were written after 700 B.C. and are on occasion more philosophical. These Indian scriptures very loosely laid the foundation for most of India's philosophical schools.

So early Indian philosophy is much foggier to us than is early Western philosophy. What, then, shall be our strategy? We will examine each major school of ancient Indian philosophy, and we will not speculate much about who influenced whom or when certain developments occurred.

Indians distinguish two classes of Indian philosophies: *astika* and *nastika*. The *astika* systems respect the Vedas to some degree. They are: Sankhya, Yoga, Vedanta, Mimamsa, Nyaya, and Vaisheshika. The *nastika* systems reject Vedic thought. They are: Jainism, Buddhism, and Lokayata. Though forms of most of these schools still exist today, I will write of them in the past tense to refer to their ancient forms.

In the West, philosophical schools tended to rise and fall, one after the other. But in India all these systems competed for adherents beside each other for centuries.

Each system (or *darshana*, literally "view") eventually developed sutras: aphoristic summaries of its positions, along with quick responses to common objections and brief attacks on the other systems. But the systems themselves predate their sutras, probably by many centuries.

## Jainism

The Jains replied to the Lokayata that if we are to reject testimony and inference because they sometimes mislead, then we must also reject perception because it, too, can mislead. So the Jains accepted inference (assuming that the rules of correct reasoning are followed), and they accepted testimony when it came from a reliable authority.

For the Jains, it was through perception that we know of the material world. But we also know the soul through inner perception, just as we perceive pain and pleasure by inner perception. Through inference we know consciousness cannot be material, for without consciousness matter alone could not be animated like living bodies are. And it was on the authority of all-knowing saints (*tirthankaras*) that the Jains claimed knowledge of spiritual matters.



The Jains held that there are souls in humans, animals, plants, and even in dust particles (perhaps an anticipation of microorganisms). Some souls are more conscious than others. Dust particles may have only a sense of touch, while men and higher animals have touch, sight, taste, smell, and hearing. But all souls are capable of consciousness. Unfortunately, the desires of souls attract tiny bits of matter that weigh them down. Only by removing its desires can a soul free itself from the bondage of matter and achieve happiness.

What can free a soul from its desires? Three things: faith in the teachings of Jaina saints, right understanding of these teachings, and right conduct. Right conduct consisted of abstinence from injury to life, from lying, from stealing, from sensual indulgence, and from attachment to earthly objects. When liberated from its desires, the soul may attain infinite knowledge, power, and bliss. This is the state achieved by the Jaina saints of the past, who led the way for others. Though all Indian darshana stressed non-violence (ahimsa), this doctrine was most important to the Jains. Thus, the most radical Jaina might wear a mask to avoid inhaling gnats – not to avoid tasting a gnat but to avoid harming one. It was from the Jains that Gandhi inherited his insistence on non-violence, and from the Jains that many Hindu systems inherited vegetarianism. Jains believed that Jainism had always existed, but the earliest historical figures to whom we can ascribe a Jaina philosophy are Mahavira (6th century B.C.) and perhaps Parshva (9th century B.C.). Jainism was an atheistic view, like Lokayata and Buddhism.

As with Buddhism and the Hindu philosophies below, Jainism branched into an immense variety of religious worldviews, but in this short book we are only concerned with its ancient philosophical thought.

### **Buddhism**

Siddhartha Gautama, later known as the “Buddha” (meaning “awakened one”), probably lived in the 5th century B.C. Along with Muhammad, Jesus and Confucius, the Buddha became one of the most influential thinkers of all time without writing any texts. Instead, his sayings and doctrines were compiled later by his disciples, who unfortunately disagreed with each other on some points, and thus it is difficult to reconstruct the views of the historical Buddha.

According to legend, Siddhartha was a prince who became dissatisfied with his life of luxury when he realized that every life eventually succumbs to sickness and death. After observing the joy of a compassionate monk, he renounced his princely life to seek a higher purpose. He tried extreme asceticism, but his health deteriorated, and he settled on a “middle path” between self-indulgence and self-abasement. Finally, he achieved enlightenment under a bodhi-tree, and set out to teach what he had learned.

Siddhartha criticized the Brahmin priests who accepted the Vedas out of faith and tradition. He said they were blind men leading the blind, one after another. He was also skeptical of doctrines that emotionally appealed to people, and knowledge that came from metaphysical speculation and theorizing. Such methods do not lead to anything near certainty, he said, and not even his own teachings should remain unquestioned.

He said the best way to know something was through personal experience. And where that is unavailable, one could consider what the wisest men say. But this may not be the only methods Siddhartha advocated, for early Buddhists often used inferential reasoning and philosophical meditation to attain knowledge, too.

Because our experiences are conditioned by emotion and limited by human ways of thinking, the Buddha was ultimately critical of all methods of knowing. All sources of knowledge were to be analyzed carefully.

He also put forth something like Pascal’s wager: if karma and rebirth are real, one’s actions have enormous consequences. If these doctrines are false, little is lost by ignorantly following them. So even though we cannot know whether karma and rebirth are real, it may be best to live in accordance with them anyway.

He agreed with Heraclitus that everything changes. Thus, there is nothing permanent, such as God or an eternal soul or even a persistent “self” – a persistent personal identity. But there is some continuity from life to life, following the law of karma, just as a tree spawns another tree through its seed.



Suffering lay at the core of Siddhartha's philosophy. According to him, there was some suffering even in what appeared to be joy. But everything has a cause, and the cause of suffering is desire for worldly things, which causes us to be born into suffering again and again. If we understood that worldly desires cause suffering, we would not hold on to these desires. But we are ignorant. Liberation from suffering, the Buddha taught, comes through awareness of these truths and abstinence from worldly desire.

This philosophy was codified as the "four noble truths": that there is suffering, that suffering has a cause, that there is an end to suffering, and that there is a path leading to the end of suffering. The path to liberation was called the "eight-fold noble path", and consisted of right view, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration.

Right view was to accept the four noble truths. Right intention was to aim toward ridding oneself of wrong belief and action. Right speech was to avoid lies, divisive speech, abusive speech, and idle gossip. Right action was abstinence from killing, stealing, and sexual misconduct. Right livelihood was to avoid making a career of harm, such as business in weapons or meat or slave trading.

Right effort was persistent striving to abandon wrong thought, speech, and action. Right mindfulness was constant awareness of that which affects the body and the mind, including desire and emotion and thought itself. Right concentration was the practice of concentrating or meditating on something, which cuts off distractions and leads to self-awakening.

By these methods, the Buddha taught, one may reach a liberation from suffering into nirvana: a perfect peace of mind, free from desire – the end of identity due to a realized oneness with the world, perfect bliss and highest spiritual attainment.

### **Sankhya**

Of the astika (Vedic) views, Sankhya appears to be the oldest. It was a dualist view based on two fundamentally different types of being: purusha (soul) and prakriti (matter, energy, and agency). Prakriti was the cause of the material world, but purusha had no cause. The soul did not change, but observed and enjoyed the ever-changing objects of prakriti.

Like a rope woven from three cords, the material world was woven of three gunas. They were inferred from the three ways we may react to things: with pleasure, displeasure, or indifference. Thus, the three constituents of prakriti were sattva (illumination, joy), rajas (excitation, pain), and tamas (roughness, obstruction, sloth).

According to Sankhya, a soul often confuses itself with its body. We feel pain upon the body as if it was pain upon the self, but this is a confusion. Once we realize the separateness of the soul, we cannot be affected by the joys and sorrows of the material world. But liberation does not result from propositional knowledge alone, but through spiritual training and deep meditation upon the truth that the soul is beyond the causes and effects of spacetime.

Sankhya had no need of God, for the material universe was sufficient to explain itself.

Sankhya is often credited to a Vedic sage named Kapila, whose dates are unknown. His philosophy had a major influence on other Indian darshanas, but disappeared as it was subsumed into Vedanta and Yoga.

### **Yoga**

The Yoga darshana, founded by Patanjali in the 2nd century B.C., accepted the metaphysics of Sankhya, but added God. God was a perfect, eternal, omniscient being, and the highest object of meditation.

The Yoga argument for God was as follows: Whatever comes in degrees must have a maximum. Knowledge comes in degrees, thus there must be a maximum of knowledge; omniscience must exist. The being with omniscience is called God.

But the more important addition to Sankhya was the practice of yoga: the cessation of all mental function. The correct practice of yoga included eight things:

Yama: restraint from violence, lying, theft, or avarice.

Niyama: building good habits like contentment, purity, Vedic study, and meditation on God.

tAsana: good posture.



Pranayama: breath control.

Dharana: focused attention on an object.

Dhyana: meditation.

Samadhi: concentration so deep that self-awareness is lost.

According to Yoga, success in the practice of yoga led to a full realization of the gulf between purusha and prakriti, and therefore liberation from suffering.

Mimamsa

Mimamsa was the darshana tied most closely to the Vedas. The purpose of the philosophy was to provide a method of interpretation that could harmonize and make sense of all the complicated rituals that were added to the Vedas during the many centuries of its composition, and also to provide a philosophical justification for these rituals.

The chief doctrines Mimamsa tried to justify were:

1.The personal soul survives death and enjoys the consequences of the rituals performed on Earth.

2.A certain force carries the effects of these rituals on Earth and into the afterlife.

3.The Vedas are infallible.

4.Earth is real and not a mere illusion.

Mimamsa apologetics began with epistemology, the method of knowing. Mimamsa acknowledged two kinds of knowledge: direct and indirect. Direct knowledge is had when one of the senses perceives something, and the sense organ is functioning correctly. But this tells us only that the object is, not what it is.

To know what the object is, we must interpret this direct knowledge. For this, we draw on past experience and logical inference to determine what classes the object belongs to, what qualities it has, and so on. Thus in the first stage we have knowledge of, say, redness with a particular shape. And in the second stage we process this perception through past experience and logical inference and, if our senses are working correctly and our inferences are sound, we correctly interpret the red shape as an apple.

But in addition to perception, Mimamsa admitted five other sources of knowledge: inference, comparison (noticing that two things have similarities), testimony, postulation, and (for some) “non-perception.”

Testimony was the most important after perception, for it was used to justify the infallibility of the Vedas. For Mimamsa, written or spoken claims gave us knowledge except when made by a known liar. And since, Mimamsa claimed, the Vedas are not known to lie, they may be taken as knowledge.

But Mimamsa usually revered the Vedas only for their commands about how to perform rituals, and thus they tried to ignore Vedic sentences that spoke of other things, such as what exists. Or, they tried to relate all such sentences to the commands about ritual. All knowledge in the Vedas was for the purpose of performing rituals correctly. knowledge in the Vedas was for the purpose of performing rituals correctly.

The Vedas were not held to be reliable because they were the words of God or of reliable prophets. According to Mimamsa, the Vedas were never written at all. They were an eternal part of the universe, and carry their own impersonal authority.

How did Mimamsa argue that the Vedas had never been written? First, they pointed out that its authors were not known. But more important was an argument of a Platonic nature.

A common view in some schools was that the sound of a spoken word was merely an instance of the real word (shabda), which is eternal. Why? Because if it were not so, then five different pronunciations of a word would mean that five different words had been spoken. But of course we know these pronunciations are merely imperfect copies of one word. So a word is not produced by its being spoken. And if it is not produced, then the real word must be eternal. Mimamsa then claimed that the Vedas consist of these eternal words, and the written or spoken Vedas are only pronouncements of the eternal Vedas. Thus the Vedas were not composed but are merely pronounced by humans.

This also explained why the Vedas are infallible. Since they were not composed by any person,



they are not touched by any of the defects of fallible humans.

Concerning testimony in general, some schools replied that knowledge by testimony is really knowledge by inference, for the validity of testimony is determined by inference from the general reliability of such testimony. Mimamsa responded by saying that all knowledge is warranted by the conditions that generate that knowledge, and so testimony is no different: it provides knowledge when it is given in the right context.

As mentioned earlier, another source of knowledge for the Mimamsa was postulation. Here it was meant that we gain knowledge when some phenomenon can only be explained by postulating a certain explanatory hypothesis (arthapatti). Postulation, then, is an argument to the best explanation, except that an arthapatti was held to be the only possible explanation for some phenomenon, not merely the “best.”

Finally, we come to non-perception (anupalabdhi). This explained how we know that something does not exist before us. When I know that there is no cat sitting before me, it is not because of perception. It is not because I “perceive a non-cat.” It is because the cat is not perceived. Thus non-perception is an independent source of knowledge.

But here again, the conditions must be suitable for non-perception to work properly. We do not see a table in the dark, but that does not mean a table is not there. For non-perception to show us that a table is not there, we must have enough light to see that a table is not there.

According to Mimamsa, truth was self-evident, for it carried with it assurance about its own truth. Only when we are alerted to certain defective conditions for truth, or to contrary knowledge, can we infer the falsity of what at first seemed true. Belief should be default; doubt is unusual. Against a Nyaya view that all knowledge ultimately comes by inference, Mimamsa replied that this leads to an infinite regress. If a perception provides knowledge only by inference, then that inference itself must be verified by another inference, and so on. To end this regress we must see that truth comes with its own warrant, given the proper conditions.

Mimamsa then argued that because perception and other methods give knowledge of things in the world, we can reject those views which say the world is an illusion. Moreover, the Vedas give knowledge of other things, such as souls, heaven, hell, karma, and gods who demand sacrifice and ritual.

What of ethics? In Mimamsa, the Vedas played the role that Almighty God plays in Western religions. Moral duties came from the Vedic commands. A good life was one obedient to the Vedas. And though the rituals and sacrifices commanded by the Vedas would bring blessing by the law of karma, obligatory actions were to be performed not from selfish motivation but because we had a duty to perform them, as in Kant.

## **Nyaya**

The Nyaya school was founded by a man named Gotama with his Nyaya-sutra, but evolved greatly after that. Thus it is hard to take a snapshot of what Nyaya philosophy was at any one time, and this overview bleeds together elements of ancient and later Nyaya philosophy.

The Nyaya school's chief concern was epistemology. What is correct thinking, and how can we come to know reality? Only when we know the answers to these questions can we achieve liberation.

How do we test if what we “know” corresponds to reality? The Nyaya, Vaisheshika, Jaina, and Buddhist schools said that true knowledge led to success in practical activity, while false knowledge led to failure and disappointment.

The standard illustration of this was a story about putting sugar in tea. Suppose you think the white powder in a jar is sugar, so you put a spoonful of it in your tea to sweeten it. Your tea tastes sweeter than before, so your belief that the white powder was sugar has been confirmed. But let us say you put some of the powder in your tea and now it tastes bitter! Your belief that the white powder was sugar has been disproven – it was salt all along!

According to Nyaya, there were four valid sources of knowledge – perception, inference, comparison, and testimony – and also four sources of invalid knowledge: memory, doubt (when there is no definite mark that would distinguish the truth from illusion), error (false certainty), and hypothetical argument (“If there was no fire, there wouldn't be smoke, but there is smoke, so there must be fire”).



Perception was an unerring belief produced by contact between an object and the senses. When I have clear and certain sight of a table, this is perception, and valid knowledge. If I see a shape in the distance that could be a man or a post but I cannot tell which, this is doubt, and not valid knowledge. If I am certain that I see a snake in a coil of rope, but there is no snake, this is error.

But Nyaya, perhaps even more-so than the other schools, was a system open to vicious internal debates. Some Nyaya adherents said that perception does not require contact between an object and the senses. God, for example, perceives all things but has no senses. So perception really is just an immediate awareness of something in the mind that does not call upon previous experiences or any reasoning process, such as inference.

Inference, then, was knowledge that followed from some other knowledge: "Gotama is mortal, because Gotama is a man, and all men are mortal." Each case of inference has at least three propositions and, as in Aristotle's logic, a minor, major, and middle term. Here, Gotama's manhood is the minor term (paksa), for it is the subject we are considering. Gotama's mortality is the major term (sadhya), for it is that which we want to establish by means of inference. The mortality of all men is the middle term (linga), for it is what grounds our inference from Gotama's manhood to his mortality. Also as in Aristotle's logic, each proposition in Nyaya inference was categorical.

However, most Nyaya adherents preferred to state these categorical syllogisms in five propositions, like so:

1. Gotama is mortal;
2. Because he is a man;
3. All men are mortal, for example Siddhartha, Brhaspati, and Kapila;
4. Gotama is also a man;
5. Therefore Gotama is mortal.

First, the conclusion is asserted. Second, the reason for the conclusion. Third, the universal proposition is given, which connects the conclusion with the reason given, supported by known instances. Fourth, we apply the universal proposition to the present case. Fifth, the conclusion is restated.

The ground of inference involved a correlation between two things, for example mortality and manhood. Nyaya said that the one pervades the other, in that it always accompanies the other. Mortality pervades manhood; manhood is pervaded by mortality. But manhood does not pervade mortality, for many things are mortal without exhibiting manhood. A fish is mortal but it is not a man.

But how do we justify the universal proposition? How do we know that all men everywhere are mortal? This is the problem of induction. Vedanta defended induction by enumeration. When we always experience two things together ("swan" and "white"), we can take them to be universally related. When we discover there are black swans in southern Australia, well... we were wrong. Nyaya required more than this to justify induction. They said that in addition to an agreement in presence between two things ("where there's smoke, there's fire"), there must also be an agreement in absence ("where there is no fire, there is no smoke"). This agrees with John Stuart Mill's "joint method of agreement and difference."

Third, Nyaya said we must also be careful to eliminate any conditions (upadhis) on which the apparently universal agreement in presence and absence depends. If I flip the switch there is light, and if I don't then there is none. But I make a mistake if I infer there is an invariable relation between flipping the switch and lighting the room, for I have ignored an important condition: electrical current. If there is no electrical current, flipping the switch and producing light will no longer be invariably related.

Still, skeptics like the Lokayata and David Hume would press that we still can't know whether such relations will hold in distant places or into the future, and Nyaya admitted that induction from particulars was not foolproof. In fact, said Nyaya adherents, there are degrees of certainty in induction. We are more certain that all men are mortal than that all crows are black, for there does not seem to be anything in the nature of crows that compels them to be black, but



there does seem to be something in the nature of manhood that compels men to be mortal. This “seeming” was, according to Nyaya, a special kind of direct perception about the class-essences of mortality and manhood. After perception and inference, the third form of valid knowledge for Nyaya was comparison (upamana). This was the knowledge of what a word denotes. A young girl who does not know what a jackdaw is may be told it is like a crow, but bigger and of grey and black color. If she later encounters a bird like a crow but bigger and of grey and black color, she may think, “This must be a jackdaw,” and she would know this by “comparison.”

The final source of valid knowledge for Nyaya was testimony, which consisted of understanding the meaning of what is said by a trustworthy person. But this required an analysis of what a sentence is, and how it can be understood.

For Nyaya, a sentence was a group of words, carefully arranged. A word referred to an object. This reference was called its potency (sakti), and its potency was due to God. In order for words to be arranged successfully into a sentence, their arrangement must meet four conditions: expectancy, mutual fitness, proximity, and intended meaning.

Expectancy referred to the fact that some words “expect” others. When I say “bring,” you ask: “Bring what?” The word “bring” needs an object in order to make sense.

Mutual fitness required that the words of a sentence not contradict each other. The sentence “Wet the food with fire” fails because “wet” contradicts “fire.”

The words of a sentence also needed correct proximity. To speak the sentence “Bring a cow,” it will not work to say “bring” on March 1st, “a” on March 5th, and “cow” on March 12th – even if those are the only words you say in the month of March, and even if the other conditions are met. Whether a sentence succeeded also depended on its intended meaning. The sentence “Bring a bat to the party” can only succeed if we first ascertain which meaning of “bat” was intended by the speaker: a wooden play-tool or a flying mammal.

Using these sources of knowledge, what did Nyaya say about the physical world? Like some ancient Greeks, they said the world is made of eternal atoms of earth, water, fire, and air.

What of the self? Lokayata said the self was the living body plus consciousness. Buddhism said the self was only a stream of thoughts. Vedanta said the self was Brahman, the One. For Nyaya, the self was a unique thing with its own thoughts, feelings, desires, and volition. Each body had its own self, for each body had its own thoughts, feelings, desires, and volition. Moreover, each self was eternal. The self could not be merely the body, for the body by itself is unconscious. It could not be the senses, for these cannot account for imagination. It could not be a stream of thoughts, for this would not explain memory. But neither was the self Brahman, for each self has its own thoughts, feelings, and desires that are not shared by other selves.

When one achieved true knowledge of the world and the self, one could achieve liberation from pain. When one realized that the self is separate from the body, one could be liberated from the body, and therefore from all the pain and pleasure that comes to the self through it.

What of God? God arranged the world from the eternal atoms, space, time, ether, and souls. God was all-powerful, all-beautiful, all-knowing, perfectly moral, and perfectly free from attachment.

The first argument for God’s existence was a causal argument: many objects in the world are limited and made of parts, and thus must be the effects of some intelligent cause. Without an intelligent cause, they could not have been so ordered and coordinated. But unlike Western natural theology, Nyaya did not invoke God to explain the existence of things, for atoms are eternal.

They only invoked God to explain the order of things. Nyaya also asserted an argument from delayed karma. This took the law of moral cause and effect for granted, but noted that there was often a delay between good action and reward, or a delay between bad action and punishment.

A youthful sinner may suffer infirmity only in old age. How does the “merit” and “demerit” produced by good and bad actions affect our lives so many years later, and how do they produce the proper effects? Only an intelligent agent that has knowledge of all these merits and demerits could guide the force of karma to produce the proper effects. A third argument concerned the authority of scripture. The Vedas were taken to be authoritative by all the astika schools. How could we explain this? Their authority must come from the fact that the Vedas were written by an omniscient God. Unfortunately, a short book like this one must pass over many aspects of Nyaya epistemology and theology.



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# TOPICS OF THE MONTH





**TO A MAN WITH EMPTY STOMACH FOOD IS GOD**

**“ INDIA MUST BREAK WITH MUCH OF HER PAST AND SHOULD NOT ALLOW IT TO DOMINATE THE PRESENT “ (NEHRU)**

**SOCIAL EDUCATION'S IMPACT ON NATIONAL RECONSTRUCTION**

**POLITICS IS THE ART OF GAINING POWER AND THE CRAFT OF RETAINING**



## TO A MAN WITH EMPTY STOMACH FOOD IS GOD

Man's inherent instinct is to survive, and he would never want to sacrifice his life in an unnecessary way. Every time a person is moved to act or when he is required to do so by the situation, he makes all kinds of sacrifices. He performs highly peculiar tasks due of his need to survive. There was a time when, in order to survive, man had to contend with countless forces of nature as well as the wrath of God. By establishing many institutions, including the family, church, and even the government, he has been nationalising his way of life. Man has developed ways to use Nature to his advantage and obtain everything necessary for his survival because of this instinct.

Naturally, this urge to protect oneself is so powerful that it overpowers all other feelings and emotions and permeates man's thought processes to the point that he becomes a slave to his desires. Even man strived to become fit to survive, so it is impossible to interpret survival of the fittest just from the perspective of natural causes. Naturally, eating is one of the most important things to keep him alive, so he can make any kind of sacrifice to gain food. Additionally, he would idolise it and regard it as one of God's greatest gifts to humanity.

Man cannot think or behave correctly while he is hungry. Despite his kindness and generosity, he is unable to give these feelings a concrete form. He will constantly worry about his meals, which will prevent him from having any mental energy and very certainly cause him to become lethargic to the point of death. In other words, he is unable to carry out his social duties because doing so would utterly stifle his social urge. Charity always starts at home, as is without dispute. Man is self-centred enough to put his needs before those of others. He feels motivated to engage in other activities by food. Man loses his ability to function physically and mentally without food and feels helpless. He would not like to sacrifice the food for the sake of some of social or political activities.

The creation of basic requirements is absolutely essential to the nation's development. A country's citizens would be vulnerable to exploitation by other interested parties if it failed to provide them with food. People's actions will become desperate as a result of their frustration over the lack of food. Social ethics and morals will be completely forgotten by people. It's possible that he will begin engaging in antisocial behaviour, which is harmful to society as a whole.

This suggests that food not only inspires man, but also provides him the freedom to consider other issues in life. This suggests that food not only inspires man, but also provides him the freedom to consider other issues in life.

This suggests that food not only inspires man, but also provides him the freedom to consider other issues in life. Although a man is fundamentally social and moral, his need to fully satisfy his appetite supersedes both of these components of his personality.

It has frequently been observed that the hungry races attack the well-fed races. There have been invasions of abundance over poverty. Simply said, this indicates that individuals will make any sacrifice necessary to obtain food. Obtaining food in the 20th century was synonymous with having the ability to make money. Man's capacity for thought and his worldview have widened to the point where he considers the security of his means of survival. Therefore, among the signs of the ordinary man's hunger, unemployment is one. The man would have the utmost respect for everyone who manages to survive in some way.

There has always been a great respect for food among humans. For improving the fertility of the soil, man has been sacrificing both humans and animals. The loss of fertility was regarded even in mythology as the worst sin against God. For instance, Oedipus accidentally killed his father and wed his mother in Greek mythology. God removed fertility from his land. In a similar manner, during the time of King Fisher, certain nuns were sexually assaulted by troops, and God cursed their lands and women. Man could only be punished in this way. Therefore, one of God's greatest rewards is food.

On this same reality, many political theories are established. Marxism and socialism are terms we use to describe economic systems that aim to give everyone in society access to food and other necessities of life. Political liberty loses all value unless there is economic equality and everyone has access to the bare essentials of existence. One of the guiding concepts of the U.N. is that poverty, wherever it exists, is a source of unrest and a source of humiliation for those who regard themselves to be the most civilised generation on earth. Every country makes an effort to feed its citizens in some way.

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It is now possible to prevent starvation in the countries due to the world's unification and transformation into a global society. The foundation for that assistance may be political or humanitarian, but the fundamental truth is that man has understood the value of food and that it is essential that he be given access to it. Just as a person is willing to endure great pain and penances for the sake of God, so too is he willing to do anything to obtain food. God has given man food at no cost, but because of man's possessive mentality, this gift from God has been turned into worldly gains.

Nations continue to try to utilise their resources, conduct various forms of research, and attempt to control the population boom only in order to feed their citizens. If the tyrant is willing to feed the populace, not even tyranny can inspire rebellion. The reason why the poor have hatred towards the capitalists – rather than jealousy – is because they aim to provide the least amount of food possible for them. Maybe every human activity can be quantified in terms of food, and every human interest requires a minimum amount of food.



Make their  
**Dreams**  
colorful





## INDIA MUST BREAK WITH MUCH OF HER PAST AND SHOULD NOT ALLOW IT TO DOMINATE THE PRESENT “ (NEHRU)

Every country is proud of its past because it is something special. It provides direction for the future. It serves as the cornerstone on which society's structure is based, and if it is ignored, civilization will crumble. Due to the motivation provided by the past, the independent nations that were formerly slaves have become independent once again. One has better and more firm ground to stand on as a result of the frustrations, disappointments, shocks, and jolts they may have previously encountered. Because of this, history is often referred to as a book of lessons for statesmen. The lure of the past, it is said, has always been a roadblock to progress, and as such, this cannot be overlooked.

If the past of India is viewed from this point of view there is much which is of greater use to us in the present. As a matter of fact, India has rich heritage; our culture is one of the three greatest out of which two, namely Greek and Egyptian have vanished. The cause of its stay doubtlessly lies in its superiority over them. India has contributed to Philosophy, Science, Art, Literature and culture of the World. The philosophy of Upanishads is regarded as the highest in the world. The discoveries and inventions of science which are regarded as extra-ordinary were known to us earlier; sophisticated weapons of today were used in the battle of Mahabharata. Politically, economically and socially India was on the top in the world. Democracy existed long ago in India. In society the status enjoyed by a woman was very high.

Nature worship was the traditional religion of India. And all of the customs and rituals associated with it were created scientifically. Scientifically speaking, yoga activities, once-a-week fasting, and tranquil sitting for 30 minutes each day are all beneficial for health. In accordance with their religious practises, they adopted sanitary regulations; washing their hands in sand and worshipping the rising sun are two examples. The same is true of the traditions and practises that were followed. A unique form of caste system based on professional classification existed. In society, maximum coordination was therefore achieved. Despite the fact that it had eliminated unemployment, it deteriorated and brought about rigidity.

India's past is particularly significant in art and literature. It generated the unique kind of art. We cannot afford to overlook the Ajanta Caves, the Somnath Temple, or the Rajasthani forts. Those are exceptional works of art. The world's richest literature is in Sanskrit. The Vedas cannot be destroyed. It is impossible to criticise the Upanishad's ideology, which even the West found inspiring. The creations of Chanakya are masterpieces in their respective fields

Of the finest calibre is Kalidas' poetry. These are the cornerstones of our society, and if we depart from them, we will fall prey to stupidity. The past paints a clear picture of our creativity, broadens our knowledge, and teaches us the values we should uphold in order to preserve our culture. The moral lesson we learn from our past is still relevant today. We now have new weaponry thanks to science, but in ancient India we had automated guns, sound control, and weapons that would attack the opponent and then come back. Therefore, we cannot claim that the past brings us back to a primitive age because there was significant scientific advancement at that time. We shouldn't abandon the old ideologies because they undoubtedly had a positive influence on us. The moral standards and social mores of the past are still relevant today.

It is also foolish to solely rely on the past. We will live in fool's paradise if we only daydream about the past and take no action for the future. The past ought to help us in the future. The future shouldn't be dominated by it. The past should not be used to judge the future, but it should offer some lessons for it. The past should serve as a guide rather than be the master. It should make suggestions rather than impose rules. Since the past is no longer relevant, it shouldn't be allowed to affect the concerns of the present. Things from the past might not be appropriate today. What was unethical in the past might now be moral. The scientific revolution transformed society from an abstract to a real state. It is the age of the head, not the heart, so we must cultivate a scientific outlook. The old ways of the past are dusty and useless; we must shatter the dome of superstition of the past and forge our own path into the future. That is why Mr. Nehru said, “ we must break with much of our past and should not allow it to dominate the present. “

Even though it has been declared illegal in society, untouchability still exists in some form. Since the caste system was in place, this abhorrent practise has persisted. When we follow our forebears, we consider the past. Even though they erred, that does not entail that we should. They are important, and we ought to treat them with respect. A father or a daughter cannot live happily in the presence of the legacy of dowry, which still exists today. Even though people remain static, society should be dynamic. The ideas have evolved along with the times. Never before has India been as it is now. The moral standards of the past shouldn't be used in the present. The mind-set needs to change. To maintain the outdated beliefs is to halt advancement. We cannot hold God accountable for our acts in the era of science. You can't depend on God to provide for you.



You must labour if you want to survive. The results of scientific research have demonstrated that what was previously unknown to humans.

After decoding, we come to the conclusion that while some of the past must be abandoned, the rest should be kept. For fear that it may skew our understanding of the present, we can refuse the past a place. The practises of the past are stigmatised. The idea that we carry the weight of the past is completely false, but it is also false to claim that the past has no bearing on us. If we merely separate the useless from the beneficial, we will undoubtedly make some progress. But doing so would mean avoiding quite a few challenges. The change will be resisted by the traditional mindset and behaviour. Advancement is not possible under conservatism. Additionally,

the people's religious viewpoint will hinder us. Because we are emotionally attached to the past and are proud of it, we are unwilling to move forward. If India entirely breaks with her past, she won't remain India. But it's also true that India wouldn't have the glories of the past today if it had let the past rule. New life values have been accepted; western culture has severely impacted our traditional way of life, and science has revolutionised our way of thinking such that the past and its values are no longer relevant. Even now, we still place a high value on our sense of beauty, cult of morality, commitment to communal living, spirit of accommodation, and spirituality. But a large portion of our past will shield us from the currents of contemporary life. The present will change the past, but we must draw heavily from the past to make the present.



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## SOCIAL EDUCATION'S IMPACT ON NATIONAL RECONSTRUCTION

It is now widely acknowledged that unless education advances quickly, the nation cannot successfully address its numerous reconstruction-related issues. The people of the country have embarked on a massive experiment in democracy, its meaning, and its content with the achievement of political independence and the avowed goal of creating a welfare state. Citizens must be educated if they are to practise the informed and continual vigilance that is the price of liberty, even for the preservation of political democracy. However, the problem of education has a special significance where the objective is to build a social, economic, and cultural democracy. A certain level of education for the populace is necessary whether one is concerned with personal growth, social reconstruction, preparing for democratic citizenship, or increasing the bar for productivity at work. Any movement's success depends on the calibre and competency of the men and women involved, and by extension, on the educational effect that has been exerted on them.

A programme of adult education, however, has more reasons behind it than only economic or practical ones, such as the ability to increase voters' intelligence or workers' productivity. The most fundamental rationale for such a programme is that the lives of the vast majority of our fellow citizens are miserable, barren, and full of unfulfilling routine; they lack access to both economic security and the cultural treasures that make up man's greatest inheritance.

The material and cultural resources at the disposal of modern man are virtually limitless; however, despite the fact that the world has technically moved from the economy of scarcity into the age of plenty, many people still go hungry both economically and culturally. In my opinion, the greatest challenge of this century has been to give people's lives meaning. Modern conscience should not be satisfied with looking upon the peasant, the labourer, the "petty" clerk and all others engaged in various types of humble but productive work-which really keep the world going-as mere instruments and means for serving the needs of others as just good enough to do their job and entitled, in return, to protection from starvation and possibly a bare smattering of literacy.

They have to be regarded as full human beings with a capacity-possibly latent or limited to enter into the kingdom of the mind and the riches of culture with an eye for pictures and ears for music and some appreciation of good literature and dramas and art and other manifestations of beauty in life.

In the past certain privileged classes have regarded these treasures as their special preserve but now the so-called 'common man' cannot be denied access to them-both democracy and social justice affirm his right to them. In fact, no one can rise to its full stature as a human being without developing three distinctive characteristics which elevate him above the level of brutish existence-his reason, his sense of right and wrong, his feeling for beauty. It is through the exercise of these qualities that man has been able to develop science and philosophy and ethical and moral codes and the flowerings of art in diverse ways and as his life impinges on these three limitless frontiers he achieves a deepening and broadening of his personality. So the broader lines of adult education must be to enrich the lives of the people. We still have a long way to go but we are moving towards it. The unwilling and bewildered adult tired out after the day's hard work grappled with mysteries of the alphabet often without any appreciation of its relevance to his life and interests. For most students this bare literacy-laboriously acquired and often-quickly lost-proved to be of little value. If people are taught to read without at the same time developing their literary taste of judgement, if they acquire the habit of reading papers or listening to political speeches without cultivating the habit of critical analysis they will be at the mercy of every advertising quack-commercial, medical, political or religious. At the second stage adult literacy was replaced by the concept of adult education which included the imparting of useful knowledge about social, civic and health problems, and which attempted to raise the student's general level of awareness. This was an improvement but it was not enough; it still remained something of an imposition from outside and not a growth from within, not a response to the expressed needs of the people.

The realisation led to the concept of social education which aims not merely at improving the mind but at raising the whole level of life-material as well as cultural. This education becomes an integral part of the various movements which are working for the social and economic reconstruction of national life. It is based on the conviction that the education of the adult can either be organised as a crusade for improving the whole social, political and cultural life of the people or not at all. It has thus come to include literacy, health education, the discussion of social and civic problems, the organisation of recreational and cultural activities and training in simple crafts and productive work.

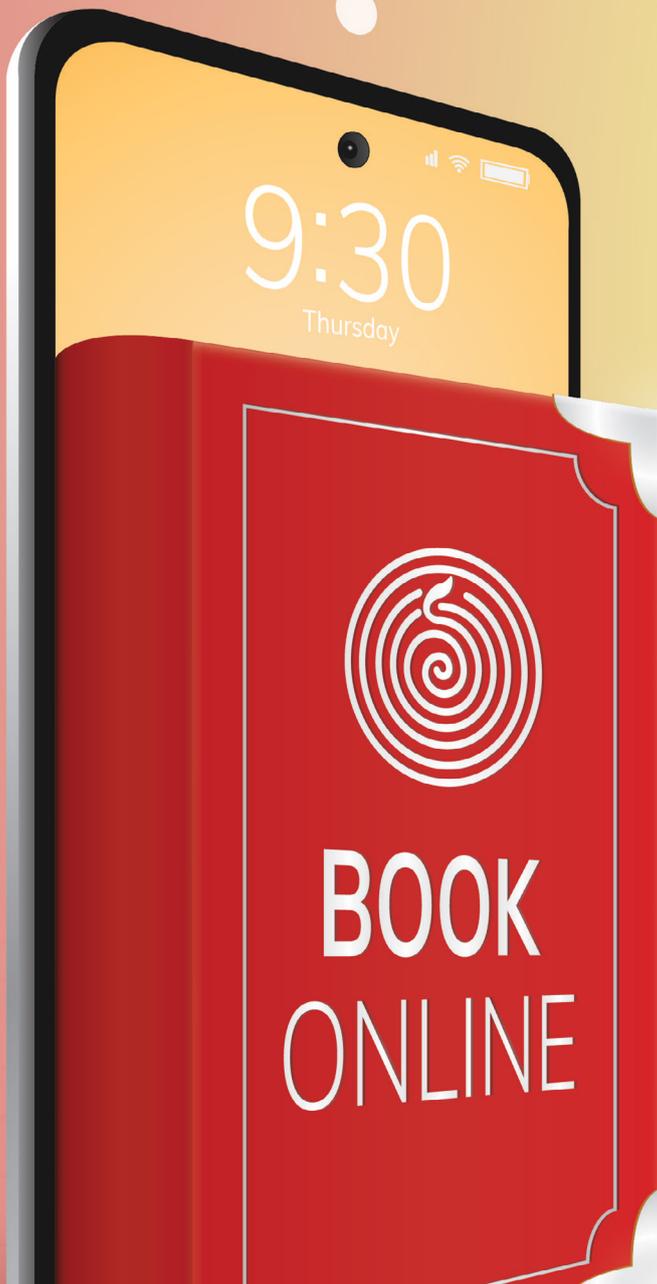


If social education is to have required impact on everyday life of the people it must be based on their centres of interest, their games and sports, their social and religious celebration; their economic difficulties, even their pet grouses against those who make life difficult for them. Sincere and sympathetic approach in which there is no trace of condescension or propaganda will often evoke an unexpected degree of enthusiasm and interest and once these have been aroused an intelligent and tactful teacher can not only help his adult pupils in their practical problems but he can also guide them into the rich kingdom of ideas and culture.

The state governments have organised departments of social education. It has been recognised as an integral part of Community Projects and National Extension Service. All over the country there are centres run by the teachers, voluntary organisations, local bodies and educational institutions. A network of libraries is being established. An attempt is also made to draw the various media of mass communications—films, radio and press—into more active partnership in this work. We hope, if not realise the ideal at least find an adjustment between the ideal aimed at and the sobering realities of the situation that exists.



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## POLITICS IS THE ART OF GAINING POWER AND THE CRAFT OF RETAINING IT

Milton's Satan in *Paradise Lost* holds the view that it is preferable to rule in hell rather than heaven. It is not in any way a vanquished angel's self-comfort or a modest resignation to the ministers of fate; rather, it is the ingrained desire of everyone on earth. Physical superiority had increased man's exalted standing, given might more importance than right, and increased the likelihood of the fittest surviving. Wars were waged to prove one's dominance over the opposing side and to compel the countries to follow the degrading path of tribute. Civilized countries are starting to realise that using physical force to make decisions is no longer effective; mechanical power has taken its place. But the urge to control and steer the behaviour and thought of others – the love of power – remains at the top of human psyche. Instead, it has taken on a variety of other forms, including those with lovely names and fair colours.

While capitalists utilise money as the source of their economic power and use it to oppress others, communists advocate for the regimentation of the working class to exercise collective influence for their collective interests. International alliances are made to pool resources and strength in order to intimidate or terrify other countries into inaction. However, political power dominates both the global and domestic arenas. It has complete control over all aspects of social and economic life on earth and is omnipotent. It can sway public opinion, set up the apparatus for propaganda, enact or repeal legislation, invoke or change the constitution, and more. Contrary to popular opinion, political authority has broader powers in a democratic system. It goes beyond even dictatorial powers since it has the support of the majority of legislators, the backing of the public, and the ability to keep the populace in the dark. Political manipulation is a convenient way to gain power because democracy provides and guarantees equal possibilities. Political power can be compared to the strongest intoxication in that it can cause those in positions of authority forget their moral commitments and societal obligations. As a result, politics becomes a tool for gaining power and satisfies man's ego. Gaining power is the art of politics.

Politics is the tool that can be used to gain power. It is so closely related to political and economic beliefs that in democracies, people are duped into thinking that a specific ideology will be the cure-all for their problems. They are so seduced that the ideal or ideology takes on the status of an intellectual superstition for them; they adhere to it fervently and risk their lives for it.

Because they thought they were destined to govern, many Germans lost their lives. Thus, Hitler mesmerised the populace by promoting racial purity, Mussolini mesmerised the Italians with fascism, and Pakistani tyrants powerfully expressed anti-India sentiment. People must support, even if after coming to power the ruler becomes all-powerful dictator. Without people's support even the powerful tyrants like the Czar of Russia or Louis of France had to bow out of office. Politics is the means to win the people and so power.

Politics, especially in democratic regimes, aims to win the public's active support. Election manifestos are meant to impress the voters they are luring. Politicians use a variety of strategies to win the public's favour, including false promises, appeals to their emotions, political bait, and elegant language. They nourish them with pre-made viewpoints and alluring beliefs.

The adversary is outsmarted. Politics involves a lot of strategic planning, out-manipulating opponents' manoeuvres, and countering their programmes. The opposition is persuaded within the party; positions are offered, their factions are promised representation, and language groups are appeased. Politicians target individuals who represent particular groups, interests, and communities. One discovers a smooth path to power when they avoid these impediments. People's opinions are acquired through political feelers; opposition is defeated through a spirit of compromise; opposition is paralysed through the art of identifying the predominate influence; and power is attained through controlling the entire situation. Are these not the methods of politics?

Gaining political power is, of course, a skill that requires understanding how the human heart operates as well as national hopes and concerns. Power cannot be maintained if those in position of authority do not adhere to popular sentiment and do not focus their energies within the confines of national tradition. Gandhiji, an intelligent politician, developed a nonviolent strategy for resisting colonial control by drawing on India's rich cultural legacy. It obviously has a connection to the national experiences, aspirations, successes, and failures of the Indians. If he had imposed a foreign method, it would have required adaptation, especially from the masses. A common man is typically sceptical of novel concepts since he is traditional and so impervious to all novel influences. Politicians in general, including those seeking office, must yield to the desires and aspirations of the populace.



Instead, propaganda tools should be employed to instil certain attitudes and viewpoints. Thus, politics is the art of holding onto power.

If the rise to prominence is swift, the fall from grace could be violent. The leaders fail to keep their promises, expectations, and even obligations when they discover a disconnect between theory and practise. The growing discontent of the populace could eventually manifest as a revolution. It will be necessary to pacify the populace. This requires the art of propaganda – tell two lies before you discover the truth – and it also assumes the art of eradicating the root of anger. Silence must be maintained either by publicly demonstrating that one is playing an ethical game or by keeping the commitments made to the crowd. Power is maintained by using politics.

Politicians' private life is exposed because political rivalries sink down to personal animosity. The opposition tries to tarnish the public image of the people in power. Some projects may fail and other politicians may exploit the situation. If opposition gets the upper hand, the people in power are brought to light. In fact eternal vigilance is the price of liberty and vigilance brings darker spot to light. The people in power may be shaken ; a Watergate scandal may rock even Mr.Nixon, the President of America, who was holding one of the most powerful offices among World Governments.

It is politician's stubborn attitude, his adherence to his own point of view, his skill to manipulate, his effective lobbying, in short his political moves that will help him to retain power.

Laski, a well-known political theorist, asserted that those in positions of authority work to keep society stagnant. He works to stop social change since it threatens their own stability. As a result of the changes, new ideals arise that require fresh adjustments, turning these people into square pegs in round holes. They therefore want to make civilization stagnant. However, civilization is constantly evolving since the progression of life necessitates it. Fundamentally, society is dynamic. Politics alone has the power to halt the currents of change, albeit only temporarily.

In some ways, national politics are dirtier than international politics since in the former, the only goal is to obtain power by any means necessary, whereas in the latter, at least national interests are taken into consideration. National politics is reduced to a personality cult; Stalin was revered as a prophet and seen as the saviour, while Mao was idolised. Political manipulation is necessary to create an impression of competing interests in the modern society. It is another strategy for holding onto power. Politics is a means of advancing oneself and of securing one's advantages.

  
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## UPSC MAINS GENERAL STUDIES PAPER – 1 MAINS 2022

### UPSC MAINS GENERAL STUDIES PAPER – 1 MAINS 2022

1. How will you explain the medieval Indian temple sculptures represent the social life of those days? (Answer in 150 words) 10
2. Why did the armies of the British East India Company – mostly comprising of Indian soldiers – win consistently against the more numerous and better equipped armies of the Indian rulers? Give reasons. (Answer in 150 words) 10
3. Why was there a sudden spurt in famines in colonial India since the mid-eighteenth century? Give reasons. (Answer in 150 words) 10
4. Describe the characteristics and types of primary rocks. (Answer in 150 words) 10
5. Discuss the meaning of colour-coded weather warnings for cyclone prone areas given by India Meteorological department. (Answer in 150 words) 10
6. Discuss the natural resource potentials of 'Deccan trap'. (Answer in 150 words) 10
7. Examine the potential of wind energy in India and explain the reasons for their limited spatial spread. (Answer in 150 words) 10
8. Explore and evaluate the impact of 'Work From Home' on family relationships. (Answer in 150 words) 10
9. How is the growth of Tier 2 cities related to the rise of a new middle class with an emphasis on the culture of consumption? (Answer in 150 words) 10
10. Given the diversities among the tribal communities in India, in which specific contexts should they be considered as a single category? (Answer in 150 words)
11. The political and administrative reorganization of states and territories has been a continuous ongoing process since the mid-nineteenth century. Discuss with examples. (Answer in 250 words) 15
12. Discuss the main contributions of Gupta period and Chola period to Indian heritage and culture. (Answer in 250 words) 15
13. Discuss the significance of the lion and bull figures in Indian mythology, art and architecture. (Answer in 250 words) 15
14. What are the forces that influence ocean currents? Describe their role in fishing industry of the world. (Answer in 250 words) 15
15. Describing the distribution of rubber producing countries, indicate the major environmental issues faced by them. (Answer in 250 words) 15
16. Mention the significance of straits and isthmus in international trade. (Answer in 250 words)
17. Troposphere is a very significant atmospheric layer that determines weather processes. How? (Answer in 250 words) 15
18. Analyze the salience of 'sect' in Indian society vis-a-vis caste, region and religion. (Answer in 250 words) 15
19. Are tolerance, assimilation and pluralism the key elements in the making of an Indian form of secularism? Justify your answer. (Answer in 250 words) 15
20. Elucidate the relationship between globalization and new technology in a world of scarce resources, with special reference to India. (Answer in 250 words)



## UPSC MAINS GENERAL STUDIES PAPER – 1 MAINS 2022

1. What do you understand by 'Deccan traps'? Describe its characteristics. (150 words) #Indian Civil Services, 1995#

An irregular triangular shaped plate with a general elevation from the west to the east. The northern boundary of the Deccan plateau runs roughly parallel to the Vindhya-Satpura Ranges flanked by Western Ghats and Eastern Ghats. Deccan traps are most commonly found intrusive forms in the western Maharashtra.

The 'Deccan traps' refer to a large igneous province located on the Deccan Plateau of west-central India. It is estimated that the volcanic eruptions at the Western Ghats (near Mumbai) approximately 66 million years ago at the end of the Cretaceous period discharged around 512,000 km<sup>3</sup> of lava. The Deccan traps consists of multiple layers of solidified basaltic lava more than 2,000 m thick, covering an area of 0.5 million km<sup>2</sup> and have a volume of 512,000 km<sup>3</sup>. The erosion and plate tectonics reduced the Deccan Traps region to its current size.

Question 2.

Discuss the mechanism of tri-cellular meridian circulation of atmosphere.

Tri-cellular meridian circulation:

1. Hadley cell refers to the permanent planetary wind system operating between statically developed LP Inter Tropical Convergence Zone (ITCZ) belts and dynamically developed subtropical HP belts in both hemispheres. Air mass expands and rises to the upper layers of the troposphere, up to an altitude of 14 km and moves towards the poles. The Coriolis forces cause the poleward air masses to deflect clockwise and counter-clockwise direction in north and southern hemispheres respectively. The poleward moving air mass gradually loses heat and descends towards the ground, causing accumulation of air to develop and dynamically developed subtropical HP belt at about 30° N and S latitudes. The subsided air mass proceeds toward the equator as easterlies.

2. Ferrel cell refers to permanent planetary wind system operating between dynamically developed subtropical HP belts and dynamically developed sub-polar LP belts in both hemispheres. The cold air mass from the upper troposphere descending at dynamically developed subtropical HP belt displaces the warmer air mass at ground levels towards the dynamically developed sub-polar LP belt as sub-polar westerlies.

3. Polar cell refers to permanent planetary wind system operating between a statically developed polar HP belts and dynamically developed sub-polar LP belts in both hemispheres. The cold air mass descending from upper troposphere at statically developed polar HP belt displaces the warmer air mass towards the dynamically developed sub-polar LP belt at surface levels as polar easterlies.



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# MODEL QUESTION PAPER-MCQ





Q1. 'Ranipur wildlife sanctuary' often seen in news is located at

- A. Madhya Pradesh
- B. Uttar Pradesh
- C. Gujarat
- D. West Bengal

Q2. With reference to Global Methane, Climate and Clean Air Forum 2022, consider the following statements.

1. It is a joint event sponsored by the Global Methane Initiative (GMI) and the UNEP-convened Climate and Clean Air Coalition (CCAC).
2. It is a premier global event that brings together policymakers, industry leaders, technical experts, and researchers from around the world.

Select the correct statement/s using the code given.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Q3. Which among the following is India's first 24x7 solar-powered village?

- A. Modhera in Gujarat
- B. Sathiala in Punjab
- C. Jamkhandi in Karnataka
- D. None of the above

Q4. With reference to Leopards, consider the following statements.

1. They are protected under the Schedule 1 of Wildlife Protection Act 1972.
2. They are listed as endangered in IUCN Red list of endangered species.

Select the correct statement/s using the code given.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Q5. "Living Planet Report 2022" is a report published by

- A. World Wide Fund for Nature (WWF)
- B. World Economic Forum
- C. International Union for Conservation of Nature
- D. None of the above

Q6. The term 'Paraliparis selti' recently seen in news

- A. New species of deep-sea fish
- B. New species of green algae
- C. New species of kelp forest
- D. New species of corals

Q7. 'Climate Transparency Report 2022' is a report released by

- A. Partnership of climate analysis Organisations in G20 countries
- B. Partnership of climate analysis Organisations in G7 countries

C. Partnership of climate analysis Organisations in ASEAN countries

D. Partnership of climate analysis Organisations in SAARC countries

Q8. Asia's largest Compressed Biogas plant recently inaugurated in

- A. Haryana
- B. Punjab
- C. Madhya Pradesh
- D. Kerala

Q9. 'The coldest year of the rest of their lives' report recently in news is released by

- A. World Wide Fund for Nature (WWF)
- B. World Economic Forum
- C. United Nations International Children's Emergency Fund (UNICEF)
- D. Intergovernmental Panel on Climate Change

Q10. Consider the following.

1. Automotive
2. Smart cities
3. Public Transport

Which of the above can be considered as the potential application of 5th Generation technologies?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Q11. Central Bureau of Investigation has launched a multi-phase 'Operation Garuda' against which of the following?

- A. Drug trafficking
- B. Human trafficking
- C. Black Money
- D. Illegal wildlife trade

Q12. With reference to Small Satellite Launch Vehicle (SSLV) often seen in news, consider the following statements.

1. It is developed to cater the launch of up to 500 kg satellites to Low Earth Orbits on 'launch-on-demand' basis.
2. It is configured with two solid stages.

Select the correct statement/s using the code given.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Q13. With reference to Global Methane Initiative (GMI) often seen in news, consider the following statements.

1. It is an international public-private partnership focused on reducing barriers to the recovery and use of methane as a valuable energy source.
2. Oil and Gas, Biogas, and Coal Mines were the focus sectors under this initiative.



Select the correct statement/s using the code given.

- A.1 only
- B.2 only
- C.Both 1 and 2
- D.Neither 1 nor 2

Q14. 'Emissions Gap Report 2022' recently in news is released by

- A.World Wide Fund for Nature (WWF)
- B.World Economic Forum
- C.Intergovernmental Panel on Climate Change
- D.United Nations Environment Programme (UNEP).

Q15. Consider the following.

- 1.Scheme for Development of Solar Parks.
- 2.Grid Connected Rooftop
- 3.Off-Grid scheme- SPV lighting systems and power plants, Solar Pumps

Q16.Which of the above can be consider as the initiatives by the government to promote solar energy in India?

- A.1 only
- B.2 and 3 only
- C.1 and 3 only
- D.1, 2 and 3

following statements.

Q17.With reference to Lok Adalat, consider the following statements:

- 1.It is a constitutional body under article 39A.
- 2.The first Lok Adalat was organized in Chhattisgarh.

Q18Which of the statements given above is/are correct?

- a.1 only
- b.2 only
- c.Both 1 and 2
- d.Neither 1 nor 2

Q19.In the context of WHO Air Quality Guidelines, consider the following statements (UPSC 2022)

1.The 24-hour mean of PM<sub>2.5</sub> should not exceed 15 ug/m<sup>3</sup> and the annual mean of PM<sub>2.5</sub> should not exceed 5 ug/m<sup>3</sup>.

2.In a year, the highest levels of ozone pollution occur during periods of inclement weather.

3.PM<sub>10</sub> can penetrate the lung barrier and enter the bloodstream.

4.Excessive ozone in the air can trigger asthma.

- d.1, 2, 3 and 4

.Which of the statements given above is correct?

- a.1, 3 and 4
- b.1 and 4 only
- c.2, 3 and 4
- d.1 and 2 only

Which of the statements given above is correct?

- a.1, 3 and 4
- b.1 and 4 only
- c.2, 3 and 4
- d.1 and 2 only

Q20.Which of the following are the reasons/factors for exposure to benzene pollution? (UPSC 2020)

- 1.Automobile exhaust
- 2.Tobacco smoke
- 3.Wood burning

Q21.Using varnished wooden furniture

Using products made of polyurethane

Select the correct answer using the code given below:

- a.1, 2 and 3 only
- b.2 and 4 only
- c.1, 3 and 4 only
- d.1, 2, 3, 4 and 5

Q22.Other than resistance to pests, what are the prospects for which genetically engineered plants have been created? (UPSC 2012)

- 1.To enable them to withstand drought
- 2.To increase the nutritive value of the produce
- 3.To enable them to grow and do photosynthesis in spaceships and space stations
- 4.To increase their shelf life

Select the correct answer using the codes given below

- a.1 and 2 only
- b.3 and 4 only
- c.1, 2 and 4 only

Q23.Capital conversion buffer and counter-cyclic buffer are terms often seen in the context of

- a.World Bank
- b.IMF
- c.Bank of international settlement
- d.Asian Development Bank

Q24.Which one of the following groups of plants was domesticated in the 'New World' and introduced into the 'Old World'? (UPSC 2019)

- a.Tobacco, cocoa and rubber
- b.Tobacco, cotton and rubber
- c.Cotton, coffee and sugarcane
- d.Rubber, coffee and wheat

Q25.Consider the following statements: (UPSC CSE 2020)

1.Jet streams occur in the Northern Hemisphere only.

2.Only some cyclones develop an eye.

3.The temperature inside the eye of a cyclone is nearly 10 C lesser than that of the surroundings.

Q26.Which of the following statement is not correct about news broadcasters and Digital Standards Association



- 1.It is a statutory body functioning.
  - 2.It is under direct regulation of the ministry of Information and broadcasting
  - 3.It can impose fines of up to Rs. 10Cr
- Select the correct code:

- a.1 only
- b.1 and 3 only
- c.2 and 3 only
- d.1, 2 and 3

Q27.In India, which of the following reviews the independent regulators in sectors like telecommunications, insurance, electricity, etc.?(UPSC 2019)

- 1.Ad Hoc Committees set up by the Parliament
- 2.Parliamentary Department-Related Standing Committees
- 3.Finance Commission
- 4.Financial Sector Legislative Reforms Commission
- 5.NITI Aayog

Select the correct answer using the code given below:

- a.1 and 2
- b.1, 3 and 4
- c.3, 4 and 5
- d.2 and 5

Q28.Consider the following statement(s) regarding the North Atlantic Treaty Organization.

- 1.The North Atlantic Treaty Organization is an Inter-Governmental military alliance comprising of countries lying across the Atlantic Ocean.
- 2.The Washington treaty (signed on 4 April 1949) constituted the North Atlantic Treaty Organization

Which among the above statement(s) is / are true?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q29.'Glyphosate' is recently seen in the news, what is its primary usage

- a.As a pesticide
- b.As a herbicide
- c.As an industrial solvent
- d.As a preservative

Q30.Which of the following is/are the principal UN organs?

- 1.UN Security Council
- 2.The Economic and Social Council
- 3.The Trusteeship Council and the Secretariat
- 4.World Health Organization (WHO)

Select the correct answer using the codes given below:

- a.1, 2 and 3 only
- b.2, 3 and 4 only
- c.1 and 2 only
- d.1, 2, 3 and 4

Q31.Which of the following is/are Nordic countries?

- 1.Denmark
- 2.Norway
- 3.Estonia
- 4.Finland

Select the correct answer using the codes given below:

- a.1, 2 and 4 only
- b.2, 3 and 4 only
- c.1 and 2 only
- d.1, 2, 3 and 4

Q32.With reference to Visible Light Communication (VLC) technology, which of the following statements are correct? (UPSC 2020)

- 1.VLC uses electromagnetic spectrum wavelengths 375 to 780 nm.
- 2.VLC is known as long-range optical wireless communication.
- 3.VLC can transmit large amounts of data faster than Bluetooth
- 4.VLC has no electromagnetic interference.

Select the correct answer using the code given below:

- a.1, 2 and 3 only
- b.1, 2 and 4 only
- c.1, 3 and 4 only
- d.2, 3 and 4 only

Q33.With reference to Mid-day Meal scheme, consider the following statements:

- 1.Students upto class VI are guaranteed one nutritional cooked meal at least 200 days in a year.
- 2.The scheme comes under the Ministry of Education.

Which of the statements given above is/are correct?

- a.1 only
- b.2 only
- c.Both 1 and 2
- d.Neither 1 nor 2

Q34.With reference to National Commission for Scheduled Castes (NCSC), consider the following statements;

1.It is a statutory body that works to safeguard the interests of the scheduled castes (SC) in India.

2.The Commission has powers to set up special courts for the speedy trial of offences under the Civil Rights Act.

Which of the statements given above is/are correct?



- a.1 only
- b.2 only
- c.Both 1 and 2
- d.Neither 1 nor 2

Q35.With reference to the Parliament of India, which of the following Parliamentary Committees scrutinizes and reports to the House whether the powers to make regulations, rules, sub-rules, by-laws, etc. conferred by the Constitution or delegated by the Parliament are being properly exercised by the Executive within the scope of such delegation? (2018)

- a.Committee on Government Assurances
- b.Committee on Subordinate Legislation
- c.Rules Committee
- d.Business Advisory Committee

Q36.In the context of WHO Air Quality Guidelines, consider the following statements (UPSC 2022)

- 1.The 24-hour mean of PM<sub>2.5</sub> should not exceed 15 ug/m<sup>3</sup> and the annual mean of PM<sub>2.5</sub> should not exceed 5 ug/m<sup>3</sup>.
- 2.In a year, the highest levels of ozone pollution occur during periods of inclement weather.
- 3.PM<sub>10</sub> can penetrate the lung barrier and enter the bloodstream.
- 4.Excessive ozone in the air can trigger asthma.

Which of the statements given above is correct?

- a.1, 3 and 4
- b.1 and 4 only
- c.2, 3 and 4
- d.1 and 2 only

Q37.Which of the following are the reasons/factors for exposure to benzene pollution? (UPSC 2020)

- 1.Automobile exhaust
- 2.Tobacco smoke
- 3.Wood burning
- 4.Using varnished wooden furniture
- 5.Using products made of polyurethane

Select the correct answer using the code given below:

- a.1, 2 and 3 only
- b.2 and 4 only
- c.1, 3 and 4 only
- d.1, 2, 3, 4 and 5

Q38.Consider the following statements: (UPSC CSE 2020)

.In terms of short-term credit delivery to the agriculture sector, District Central Cooperative Banks (DCCBs) deliver more credit in comparison of Scheduled Commercial Banks are Regional Rural Banks

2.One of the most important functions of DC-CBs is to provide funds to the Primary Agricultural Credit Societies.

Which of the statements given above is/are correct?

- a.1 only
- b.2 only
- c.Both 1 and 2
- d.Neither 1 nor 2

Q40.Other than the Fundamental Rights, which of the following parts of the Constitution of India reflect/reflect the principles and provisions of the Universal Declaration of Human Rights (1918)? (UPSC 2020)

- 1.Preamble
- 2.Directive Principles of State Policy
- 3.Fundamental Duties

Select the correct answer using the code given below:

- a.1 and 2 only
- b.2 only
- c.1 and 3 only
- d.1, 2 and 3

Q41.With reference to non-permanent members of the UNSC, consider the following statements:

- 1.Asia has the highest representation among all continents.
- 2.The representation of Latin America and Europe is the same.
- 3.The total number of non-permanent members is 10.

Which of the statements given above is-are not correct?

- a.1 and 2 only
- b.1 and 3 only
- c.3 only
- d.1, 2 and 3

Q42 .With reference to "Blockchain Technology", consider the following statements: (UPSC CSE 2020)

- 1.It is a public ledger that everyone can inspect, but which no single user controls.
- 2.The structure and design of the blockchain are such that all the data in it are about cryptocurrency only.
- 3.Applications that depend on the basic features of blockchain can be developed without anybody's permission.

Which of the statements given above is/are correct?

- a.1 only
- b.1 and 2 only
- c.2 only
- d.1 and 3 only

13.Which of the following statements best describes the term 'Scheme for Sustainable Structuring of Stressed Assets (S4A)', recently seen in the news? (UPSC CSE 2017)



- a. It is a procedure for considering the ecological costs of developmental schemes formulated by the Government.
- b. It is a scheme of RBI for reworking the financial structure of big corporate entities facing genuine difficulties.
- c. It is a disinvestment plan of the Government regarding Central Public Sector Undertakings.
- d. It is an important provision in 'The Insolvency and Bankruptcy Code' recently implemented by the Government.

Q43. Consider the following statements:

- 1. The SC collegium is headed by the CJI and comprises four other senior most judges of the court.
  - 2. A HC collegium is led by its Chief Justice and four other senior most judges of that court.
- Which of the statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q44. Which of the following is/are the principal UN organs?

- 1. UN Security Council
- 2. The Economic and Social Council
- 3. The Trusteeship Council and the Secretariat
- 4. World Health Organization (WHO)

Select the correct answer using the codes

- a. 1, 2 and 3 only
- b. 2, 3 and 4 only
- c. 1 and 2 only
- d. 1, 2, 3 and 4

Q45. With reference to India's satellite launch vehicles, consider the following statements: (UPSC 2018)

- 1. PSLVs launch satellites are useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites.
- 2. Satellites launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location on Earth.
- 3. GSLV Mk III is a four-staged launch vehicle with the first and third stages using solid rocket motors; and the second and fourth stages using liquid rocket engines.

Which of the statements is/are correct?

- a. 1 only
- b. 2 and 3
- c. 1 and 2
- d. 3 only

Q45. Which of the following reports is/are published by the World Economic Forum (WEF)?

- 1. Global Gender Gap report
- 2. Global Risk report
- 3. Energy transition Index
- 4. Global Hunger Index

Select the correct answer

- a. 1, 2 and 3 only
- b. 2 and 3 only
- c. 1 and 4 only
- d. 1, 2, 3 and 4

Q46. Which of the following is/are indicators used by Concern Worldwide and Welthungerhilfe for measuring Global hunger index?

- 1. Child mortality
- 2. Child Wasting
- 3. Anemia
- 4. Undernourishment

Select the correct answer

- a. 1, 2 and 3 only
- b. 1, 2 and 4 only
- c. 2 and 4 only
- d. 1, 2, 3 and 4

Q47. With reference to Constitutional bench, consider the following statements:

- 1. The formation of a constitutional bench is mandated by the constitution of India.
- 2. Power to constitute and referring of cases to constitutional benches lies with CJI

Which of the statements is/are not correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q48. Consider the following statements:

- 1. The International Solar Alliance was launched at the United Nations Climate Change Conference in 2015.
- 2. The Alliance includes all the member countries of the United Nations.

Which of the statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Q49. With reference to 74th constitutional amendment Act, consider the following statements:

- 1. All members of the municipality should be elected directly by the people.
- 2. The Parliament is empowered to provide for the manner of election of the chairperson of a municipality.

Which of the statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

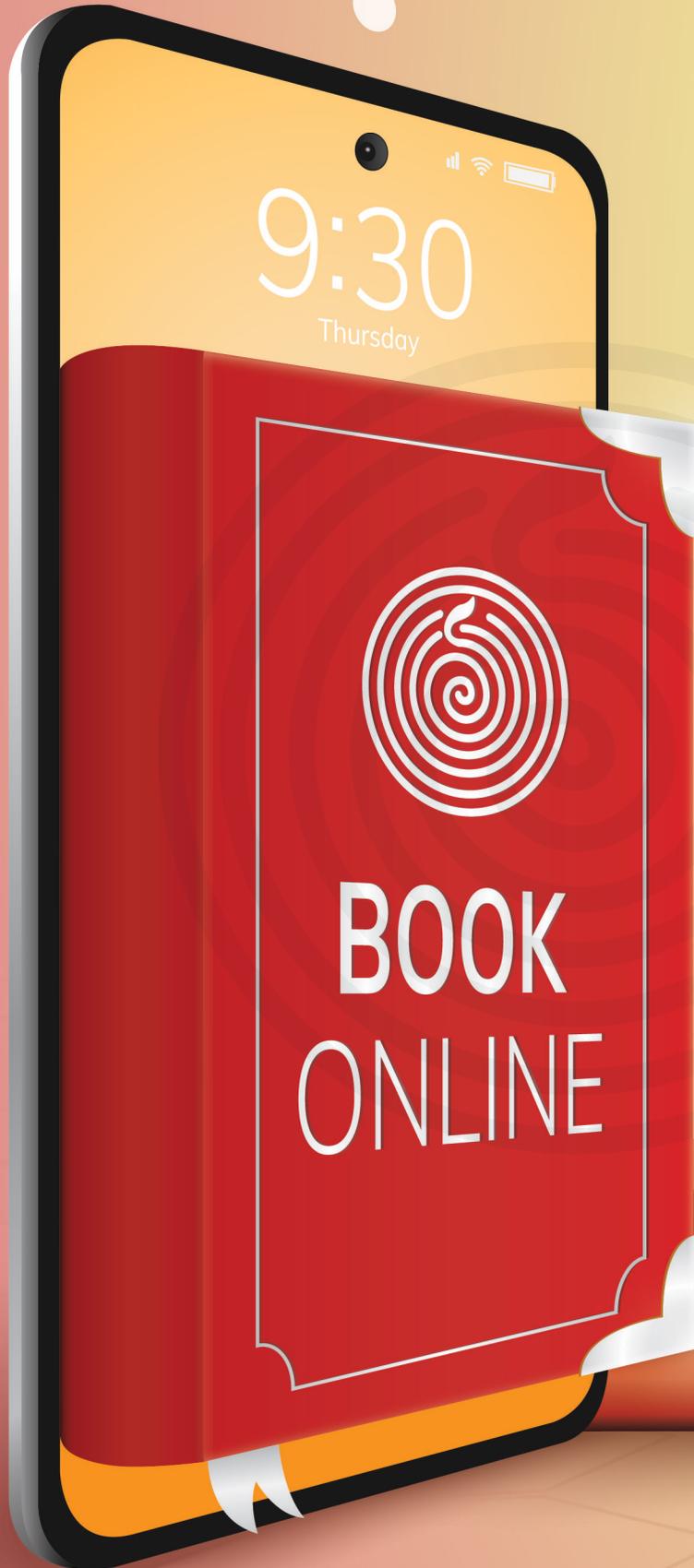
Q50. Which among the following is the first carbon neutral panchayath in India?

- a) Palli
- b) Majuli
- c) Modhera
- d) Hanle



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**OMR ANSWER SHEET**

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