

MONTHLY CURRENT AFFAIRS JULY-AUGUST 2023 for Competitive Exams

The Complete Coverage of All Important
Events from JULY-AUGUST 2023
























HIGHLIGHTS

- ▶ CHANDRAYAAN 3
- ▶ PM'S VISIT TO UAE
- ▶ HUMAN TRAFFICKING
- ▶ LEFT WING EXTREMISM (LWE)
- ▶ LEGAL CHALLENGE TO CHANGES IN ARTICLE 370



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Many many congratulations to our Top Rankers and Successfull Candidates for UPSC CSE 2022

Foreword

Dear Aspirants,

This magazine by **Plutus IAS team** is designed in such a fashion that it holistically covers all the relevant and important topics for civil services exam or IAS exam to make aspirants battle or exam ready. **Plutus IAS Current Affairs Magazine** is a secondary source of information, the newspaper will always remain the first source for preparation of current affairs.

Now, current affairs no longer remain the current, it is contemporary affairs. Questions asked in prelims as well as mains test the conceptual clarity of an aspirant. This magazine prepared with an aim to help you understand the interlinkage of both statics and current and internalize those concepts required to crack this examination.

Plutus IAS team wishes you all the best. Prepare for UPSC Civil Services Examination with calm, composed and serene mind with some patience to crack this examination in one go.

Team
Plutus IAS

Sources:

The Hindu | The Indian Express | The Economic Times | Press Information Bureau (keep checking the Features section for imp articles and our weekly PIB Gist) | PRS (only for recent Bills and articles related to them) | IDSA: Institute for Defense Studies and Analysis (keep checking every 2-3 days for in-depth IR articles) | Yojana and Kurukshetra (no need to read all articles – read selectively) | Lok Sabha and Rajya Sabha Debates | NCERTs All standard reference books.

Plutus IAS Current Affairs Magazine covers a wide range of topics that overlaps with the CORE subjects.



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General studies - 1

(Indian Heritage and Culture, History and Geography
of the World and Society)

ALLURI SITARAMA RAJU

This article covers "Daily Current Affairs" and the topic details "Alluri Sitarama Raju". The topic "Alluri Sitarama Raju" has relevance in the "Modern History" section of the UPSC CSE exam.

For Prelims:

Who was Alluri Sitarama Raju?

For Mains:

GS1: Alluri Sitarama Raju and his contribution to Indian Freedom struggle

Why in the news?

The President of India, Smt Droupadi Murmu graced and addressed the closing ceremony of the 125th Birth Anniversary of Alluri Sitarama Raju at Hyderabad on July 4, 2023.

Alluri Sitaram Raju

Alluri Sitarama Raju, born on July 4, 1897, in the village of Mogallu near Bhimavaram in **Andhra Pradesh**, was a **sanyasi** deeply committed to justice. He vocally opposed unjust British policies and fought numerous battles against them.

Early Education and Transformation into a Sanyasi

- Alluri Sitarama Raju received his primary education in his native village and later moved to Visakhapatnam for higher studies.
- At the age of 18, he renounced worldly pleasures and embraced the life of a sanyasi.
- As a bala sanyasi, he wandered through the hills and forests of the Agency area, interacting with the local tribal community.
- The tribals revered him as a mystical figure capable of liberating them from the oppressive rule of the British authorities.

Non-Cooperation Movement and the Quest for Justice

- **Initially influenced by Gandhi's Non-cooperation movement**, Sitarama Raju encouraged the tribals to seek justice through local panchayat courts and boycott the colonial courts.
- However, these measures failed to alleviate their suffering. Eventually, he utilized this movement to raise awareness about the necessity for fundamental change.

The Rampa Rebellion and the Plight of the Tribes

- **In August 1922, Sitarama Raju initiated the Rampa Rebellion, a significant uprising against the British.**
- The **Rampa administrative region** was inhabited by approximately 28,000 **tribes who practiced the 'Podu' cultivation system**, clearing portions of forests annually for sustenance. While the forests were crucial to the tribes' survival, the British sought to evict them to exploit the wood for constructing railways and ships.
- The passage of the **Madras Forest Act in 1882 restricted the movement of tribal communities and prohibited them from engaging in their traditional Podu agricultural practices**. This oppressive act became the catalyst for the tribal revolt, also known as the **Manyam Rebellion**.
- Refusing to work as forced laborers, the tribal population, led by Sitarama Raju, employed guerilla warfare against the British. They launched attacks, raided police stations, eliminated British

officers, and seized arms and ammunition. Benefitting from extensive local support, they successfully evaded British authorities for an extended period.

- The sustained armed struggle between 1922 and 1924 frustrated the British to such an extent that a reward of Rs.10,000/- was offered for Sitarama Raju's capture, dead or alive.

Betrayal and Tragic Demise

Despite Sitarama Raju's efforts to alleviate the tribals' suffering, the British persisted in inflicting misery upon them. In the hope of obtaining a fair trial, he surrendered, only to be treacherously trapped, tied to a tree, and shot dead on May 7, 1924. His cremation on May 8 marked the end of his heroic fight against the British Government.

Legacy of Anti-Imperialist Rebellion and Commemoration

- Sitarama Raju left behind an inspiring legacy as a fearless revolutionary who fought for the rights and freedom of tribal people, despite not belonging to the tribal community himself.
- He was bestowed with the title "**Manyam Veerudu**" (**Hero of the Jungle**) in recognition of his valor and fiery spirit.
- Each year, the Government of Andhra Pradesh celebrates his birth date, July 4, as a state festival, honoring his memory.

Sources:

Alluri Sitarama Raju | Indian Culture
Press Information Bureau (pib.gov.in)

Q1. With reference to Rampa Rebellion, consider the following statements:

1. The Rampa Rebellion occurred before the launch of the Non-Cooperation Movement by Mahatma Gandhi.
2. Jagannath Singh, the local Zamindar was the leader of Rampa Rebellion.
3. One of the factors that led to the uprising of the tribals in the Rampa region was the enactment of the Madras Forest Act in 1882.

Which of the statements given above is/are **not** correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (a)

Q2. How many of the following pairs are correctly matched?

Leader Revolt

1. Chittur Singh – Rampa Rebellion
2. Birsa Munda – Munda Rebellion
3. Alluri Sitaram Raju – Ramosi Uprising
4. Rani Gaidinliu – Naga Revolt

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (b)

Q3. Discuss the significance of tribal revolts in India and their role in challenging colonial rule. Highlight how these revolts contributed to the broader anti-colonial movement.

MULTIDIMENSIONAL POVERTY INDEX

This article covers "Daily Current Affairs" and the topic details "Multidimensional Poverty Index". The topic "Multidimensional Poverty Index" has relevance in the Poverty section of the UPSC CSE exam.

For Prelims:

About the Multidimensional Poverty Index?

For Mains:

GS 1: Poverty

Key Highlights of the Index?

Recommendations?

Why in the news?

A total of 415 million people moved out of poverty in India within just 15 years from 2005/2006 to 2019/2021, the United Nations (UN) said on July 11, highlighting the remarkable achievement by the world's most populous nation.

Multidimensional Poverty Index:

- The index is an international resource that measures acute multidimensional poverty in more than 100 developing countries.
- It was launched in 2010 by the Oxford Poverty and Human Development Initiative (OPHI) and the Human Development Report Office of the UNDP.
- The MPI monitors deprivations in 10 indicators related to health, education, and standard of living, considering both the incidence and intensity of poverty.
- An individual is classified as multidimensionally poor if they experience deprivation in at least one-third or more (33% or higher) of the weighted indicators out of the ten indicators used.
- Those who face deprivation in one-half or more of the weighted indicators are categorized as living in extreme multidimensional poverty.

Key Highlights of the Index:

Global Outlook:

- 1.1 billion people (18% of the total population) across 110 countries are acutely multidimensionally poor.
- Sub-Saharan Africa has 534 million poor and South Asia has 389 million, together accounting for five out of every six poor people.
- Children under 18 years old represent half of the MPI-poor population (566 million).
- The poverty rate among children is 27.7%, while among adults it is 13.4%.

Outlook for India:

- Poverty in India: More than 230 million people in India are considered poor.

- Vulnerability: Around 18.7% of the population in India falls into the category of vulnerability, where they are not considered poor but experience deprivations in 20-33.3% of the weighted indicators.
- India's Progress in Poverty Reduction: India is among 25 countries that have successfully halved their global MPI values within 15 years.
- Between 2005-06 and 2019-21, around 415 million Indians escaped poverty.
- The incidence of poverty in India decreased from 55.1% in 2005/2006 to 16.4% in 2019/2021.
- The number of people experiencing multidimensional poverty decreased from about 645 million in 2005/2006 to 230 million in 2019/2021.

Improvement in Deprivation Indicators:

- India has shown significant progress in all three deprivation indicators: health, education, and standard of living.
- The decline in poverty has been observed across regions and socio-economic groups.
- The poorest states and groups, including children and people in disadvantaged caste groups, have experienced the fastest progress.
- The percentage of people deprived of nutrition decreased from 44.3% in 2005/2006 to 11.8% in 2019/2021, and child mortality fell from 4.5% to 1.5%.

Recommendations:

- Customized multidimensional poverty indices that consider national definitions of poverty are essential for a comprehensive understanding of poverty in each country.
- Although the global Multidimensional Poverty Index (MPI) offers a standardized methodology, national definitions provide a more tailored approach to address poverty based on specific country contexts.
- Utilizing context-specific indices is crucial in effectively evaluating and addressing poverty in a way that aligns with the unique circumstances and needs of each country.

SOURCE:

<https://www.thehindu.com/news/international/india-registers-remarkable-reduction-in-poverty-with-415-million-people-coming-out-of-it-in-15-years-united-nations/article67066698.ece>

Q.1 The Multi-dimensional Poverty Index developed by Oxford Poverty and Human Development Initiative with UNDP support covers which of the following? (2012)

1. Deprivation of education, health, assets and services at household level
2. Purchasing power parity at national level
3. Extent of budget deficit and GDP growth rate at national level

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (a)

Q.2 Which of the following accurately describes the Multidimensional Poverty Index (MPI)?

- (a) A global indicator that measures poverty solely based on income levels.
- (b) An index that evaluates poverty using a single-dimensional approach.
- (c) A comprehensive measure that assesses poverty across multiple dimensions.

(d) An index developed exclusively for developing countries.

Answer: (c)

Q.3 Despite Consistent experience of high growth, India still goes with the lowest indicators of human development. Examine the issues that make balanced and inclusive development elusive.

UNDERSTANDING FLOODS

This article covers "Daily Current Affairs" and the topic details "Understanding Floods". The topic "Understanding Floods" has relevance in the "Disaster Management" section of the UPSC CSE exam.

For Prelims:

What is Flood, its causes, effects, and implications?

Basics of Disaster Management

For Mains:

GS1: Physical Geography, GS3: Disaster Management

Why in the news?

Heavy rainfall during the 2023 monsoon season has caused severe flooding across Northern India, primarily affecting residents in Himachal Pradesh, Punjab, Chandigarh, Uttarakhand, Jammu and Kashmir, Haryana, Rajasthan and Delhi.

Understanding Floods

- Floods occur when an overflow of water submerges typically dry land and are one of the most frequent and devastating natural disasters worldwide.
- India is highly vulnerable to floods with over 40 million hectares of its 329 million-hectare geographical area prone to flooding.
- Floods cause significant loss of lives and damage to livelihood systems, property, infrastructure, and public utilities. The average annual flood damage in the last 10 years (1996-2005) was Rs. 4,745 crore, compared to Rs. 1,805 crore in the preceding 53 years.
- This vulnerability can be attributed to factors such as population growth, urbanization, increased developmental and economic activities in flood plains, and global warming.

Types of Flood

There are several different types of floods, each with its own characteristics and causes. These include flash floods, river floods, coastal floods, and urban flooding, which is often the result of rapid land development.

Causes of Floods

Natural causes

- **Prolonged or intense rainfall**, which saturates the soil and leads to increased surface runoff.
- **Relief characteristics**, such as mountainous or hilly areas, can accelerate the flow of water from higher to lower elevations, making low-lying regions more susceptible to flooding.

- In addition, **climate change** has been linked to the increase in extreme weather events, including heavy rainfall and storm surges, which can contribute to flooding.

Anthropogenic causes

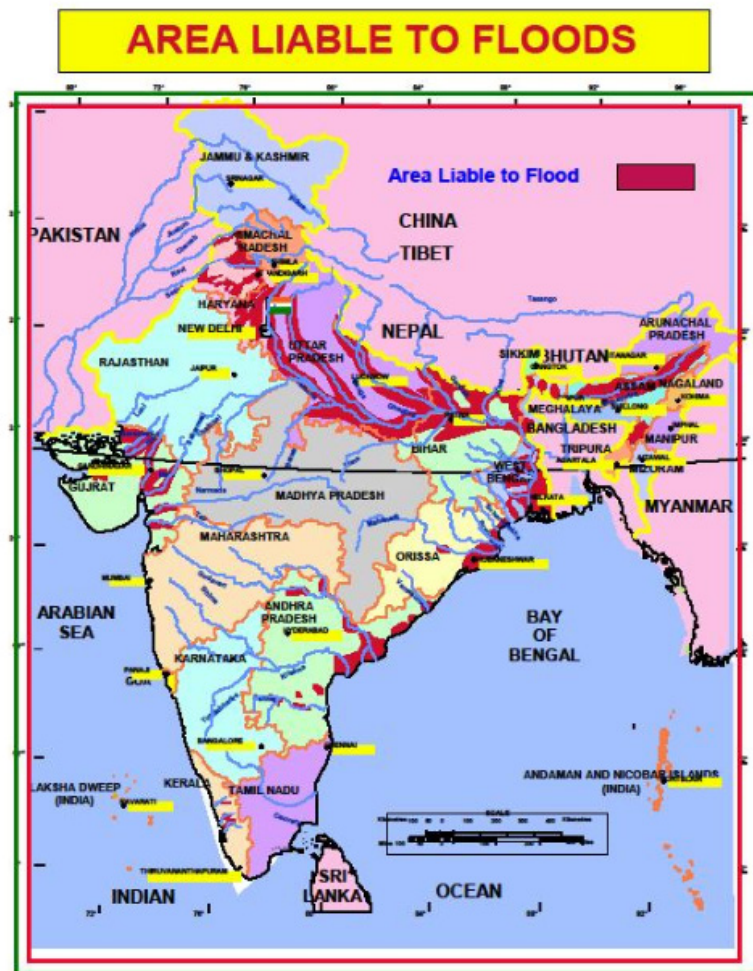
- **Deforestation**, for instance, removes the protective vegetation cover that helps regulate water flow and promotes infiltration into the soil.
- **Poor land use practices**, such as over-cultivation and overgrazing, degrade the soil's fertility, reducing its ability to absorb water.
- **Urbanization** plays a significant role as well, as the replacement of permeable soil with impermeable surfaces like concrete and asphalt prevents water from infiltrating into the ground, leading to increased runoff and potential flooding.
- Other **human activities**, including improper waste disposal, quarrying, and the collapse of dams, can also exacerbate the risk of flooding.

Implications of Floods

- **Drowning** is a significant cause of death during flood disasters, accounting for a majority of the fatalities.
- Low- and middle-income countries with limited resources and weak flood response systems are particularly vulnerable to the devastating effects of flooding.
- Beyond the immediate risk to human life, floods can lead to **physical injuries, health issues, and disrupted health systems**, amplifying the challenges faced by affected communities. Water- and vector-borne diseases, such as cholera, typhoid, and malaria, can spread more easily in the aftermath of a flood.
- **Injuries** resulting from evacuations and disaster cleanup efforts are also common.
- Moreover, the **mental health** effects associated with emergency situations and the loss of homes and livelihoods can have long-term consequences.
- In addition to the human toll, floods cause **substantial damage to infrastructure, including roads, bridges, buildings, and utilities**. This leads to disruptions in access to basic services such as healthcare, food, and clean water, further compounding the challenges faced by affected communities.
- The **economic losses incurred by both the state and individuals** are significant, as flood damage often requires extensive recovery and rebuilding efforts.

Preventive Measures

- **Improving drainage systems** through proper planning and expansion is essential to ensure efficient water flow and reduce the risk of flooding.
- **Diverting flood water** through natural or constructed channels can help alleviate pressure on vulnerable areas and redirect water away from populated regions.
- **Implementing watershed management measures**, such as afforestation and soil conservation, promotes the development of a vegetative cover that helps retain water and reduce the intensity of runoff.
- **Anti-erosion works**, such as building structures to deflect or reduce the current along riverbanks, can minimize bank erosion and stabilize vulnerable areas.
- **Constructing seawalls and coastal protection works**, such as groins, helps safeguard coastal areas from erosion and the destructive impact of storm surges.
- **Regular inspection, rehabilitation, and maintenance of structural works** are essential to ensure their effectiveness in flood prevention and management.



Flood as a National Calamity

In recent times, there have been several calls to declare floods as national calamity.

Significance of National Calamity Declaration

- Assistance at the national level provided when a calamity is declared of “rare severity” or “severe nature.”
- Additional support considered from the National Disaster Response Fund (NDRF).
- Calamity Relief Fund (CRF) established, with shared contributions from the Centre and states.
- Insufficient CRF resources may lead to additional aid from the National Calamity Contingency Fund (NCCF), fully funded by the Centre.
- Possibility of relief measures for affected individuals, including loan repayment assistance or concessional loans.

Criteria for Classifying a National Calamity

- There is no legal or executive provision to declare a natural disaster a national disaster.
- The intensity, magnitude, and assistance needed are evaluated on a case-by-case basis.
- Factors considered include the capacity of the state to address the problem and available alternatives for relief.
- The National Committee on Disaster Management (2001) examined parameters for defining a national calamity.

Legal Definition of a Disaster

- According to the Disaster Management Act, 2005, a disaster is defined as a catastrophic event caused by natural or man-made factors, accidents, or negligence.
- Natural disasters encompass various events like earthquakes, floods, landslides, cyclones, tsunamis, urban floods, and heatwaves.
- Disasters result in significant loss of life, human suffering, property damage, environmental degradation, exceeding the affected community's coping capacity.

Sources:

Declare floods as national calamity, compensate farmers: Samyukt Kisan Morcha
Delhi under water as Yamuna breaches danger mark

Q1. With reference to Floods, consider the following statements:

1. Floods can be caused by both natural and man-made factors.
2. The declaration of floods as a national calamity is mandatory in all affected regions.
3. Encouraging deforestation in flood-prone areas can help in mitigating floods.

Which of the statements given above is/are **NOT** correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (b)

Q2. Consider the following statements with reference to floods:

1. Implementing watershed management measures
2. Constructing buildings and infrastructure in floodplains
3. Developing early warning systems and evacuation plans
4. Replacement of permeable soil with impermeable surfaces

How many of the statements mentioned above can be considered as preventive measures against disasters like flooding?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All Four

Answer: (b)

Q3. Explaining the causes, impacts, and mitigation strategies for floods in India, examine how effective are current flood management policies, and what measures can be taken to increase flood resilience in the country?

General Studies - 2

(Governance, Constitution, Polity, Social Justice & International Relations)

INDIA- PHILIPPINES

This article covers "Daily Current Affairs" and the topic details "India- Philippines". The topic "India- Philippines" has relevance in the International Relations section of the UPSC CSE exam.

For Prelims:

Facts about the Philippines?

For Mains:

GS 2: International Relations

Facts about India- Philippines relations?

Highlights of the meeting?

Why in the news?

Recently, the 5th meeting of the Joint Commission on Bilateral Cooperation was organised, between the Indian External Affairs Minister and his Philippines counterpart.

Facts about the Philippines?

Geographical Features:

- Archipelago located in Southeast Asia.
- It is a group of 7,641 islands, with Luzon and Mindanao being the largest.
- Manila is the capital city situated on Luzon Island.
- Mount Apo (2,954 meters) on Mindanao Island is the highest peak and an active volcano.

Climate and Biodiversity:

- Tropical climate with high temperatures and humidity year-round.
- Experiences wet and dry seasons.
- Considered one of the world's biodiversity hotspots.

Geological Activity:

- Part of the Pacific Ring of Fire.
- More than 20 active volcanoes, including recent eruptions of Mayon.
- Notable volcanoes include Taal and Mount Pinatubo, which erupted in 1991.

Facts about India- Philippines relations?

Political Relations:

- Diplomatic relations established in 1949.
- Intensified relations with the Philippines through the Look East Policy and Act East Policy.
- Common approach towards the Indo-Pacific region, emphasizing a free, open, and stable region.

Economic Relations:

- India is the Philippines' fifteenth largest trading partner.
- Bilateral trade worth approximately USD 3 billion in 2022.
- Philippines is a net importer in goods trade with India.

Defense Cooperation:

- Growing defense and security partnership.

- Significant development is the BrahMos missile deal, a supersonic cruise missile co-developed by India and Russia.

Highlights of the meeting?

Defense Cooperation:

- Both countries expressed interest in enhancing defense cooperation.
- They discussed regular or upgraded official-level interactions between defense agencies.
- Consideration of India's offer for concessional Line of Credit to meet Philippines' defense requirements.
- Opening of a resident Defense Attaché office in Manila.

Maritime Security:

- Emphasis on cooperation in maritime domain awareness (MDA).
- Information exchange and Joint patrols to enhance MDA capabilities.
- Early operationalization of the standard operating procedure for the White Shipping Agreement between the Philippines Coast Guard and Indian Navy .

Cyber Security Cooperation:

- Discussions on expanding cooperation in existing domains, including anti-terrorism measures and intelligence exchange.
- Exploring collaboration in cyber security, artificial intelligence, and space cooperation.

Regional and International Issues:

- Wide-ranging discussions on regional and international issues of mutual interest.
- Focus on China's growing assertiveness and territorial claims in the South China Sea.
- Emphasis on peaceful settlement of disputes and adherence to international law, including UNCLOS and the 2016 Arbitral Award on the South China Sea.

Source:

<https://economictimes.indiatimes.com/news/defence/india-philippines-to-upgrade-defence-partnership-boost-maritime-security/articleshow/101374489.cms?from=mdr>

Q.1 Consider the following countries: (2018)

1. Australia
2. Canada
3. China
4. India
5. Japan
6. USA

Which of the above are among the 'free-trade partners' of ASEAN?

- (a) 1, 2, 4 and 5
- (b) 3, 4, 5 and 6
- (c) 1, 3, 4 and 5
- (d) 2, 3, 4 and 6

Ans: (c)

Q2. The term 'Regional Comprehensive Economic Partnership' often appears in the news in the

context of the affairs of a group of countries known as (2016)

- (a) G20
- (b) ASEAN
- (c) SCO
- (d) SAARC

Ans: (b)

Q.3 Examine the key areas of cooperation discussed during the 5th Meeting of the Joint Commission on Bilateral Cooperation between India and the Philippines. Discuss the significance of defense cooperation and maritime security in strengthening bilateral relations.

IRAN'S INDUCTION IN SHANGHAI COOPERATION ORGANIZATION

This article covers "Daily Current Affairs" and the topic details "Shanghai Cooperation Organization". The topic "Shanghai Cooperation Organization" has relevance in the "International Relations" section of the UPSC CSE exam.

For Prelims:

What is the Shanghai Cooperation Organization? Who are SCO's members?

For Mains:

GS2: SCO as an organization of importance for India's geopolitical interests

Why in the news?

Recently, Iran joined the Shanghai Cooperation Organisation (SCO) as its ninth member at the New Delhi Summit of SCO.

Shanghai Cooperation Organization:

The Shanghai Cooperation Organisation (SCO) is an organization formed by China and Russia in 2001. It focuses on politics, economics, international security, and defense in Eurasia.

The SCO is the largest regional organization in the world, covering about 60% of Eurasia's area and 40% of the global population. In 2021, its combined GDP accounted for roughly 20% of the global GDP.

Membership of SCO:

Members:

China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Uzbekistan, India, Pakistan and Iran.

Observers:

Afghanistan, **Belarus**, and Mongolia

Dialogue Partners:

The list of current dialogue partners includes Azerbaijan, Armenia, Egypt, Qatar, Turkey, Saudi Arabia, the United Arab Emirates, Maldives, Nepal, and Sri Lanka.

Origins of SCO:

- The SCO was formed from the original '**Shanghai Five**' alliance, which consisted of **Russia, China, Kazakhstan, Kyrgyzstan, and Tajikistan**.
- The purpose of this alliance, established in 1996 after the Soviet era, was to address regional security concerns, reduce border troop presence, and combat terrorism.
- In **2001**, the Shanghai Five welcomed **Uzbekistan** into the group and renamed it the SCO.
- In June **2017**, SCO expanded to eight states, **with India and Pakistan**.
- **Iran joined the group in July 2023.**

Institutional Framework:

- The SCO is governed by the Heads of State Council (HSC), its supreme decision-making body, which meets once a year.
- The organization is supported by two permanent bodies: the **SCO Secretariat located in Beijing** and the **Executive Committee of the Regional Anti-Terrorist Structure based in Tashkent**.
- **The official languages of the SCO are Chinese and Russian.**

Objectives of the SCO:

- Strengthening mutual trust and neighborliness among member states
- Promoting effective **cooperation in various areas including politics, trade, economy, research and technology, culture, education, energy, transport, tourism, and environmental protection**
- Making joint efforts to maintain peace, security, and stability in the region
- Working towards the establishment of a democratic, fair, and rational new international political and economic order.

Regional Anti-Terrorist Structure (RATS):

- The Regional Anti-Terrorist Structure (RATS) Executive Committee, based in Tashkent, Uzbekistan, is a permanent body of the SCO.
- Its main purpose is to facilitate cooperation among member states in combating the three evils of terrorism, separatism, and extremism.
- The Director of the SCO RATS Executive Committee is elected for a three-year term.
- Each member state appoints a permanent representative to RATS to ensure continuous communication and coordination.

SCO and India:

- **Economic Cooperation:**
 - The SCO offers India a platform to enhance economic cooperation with Central Asian countries, which are rich in natural resources.
 - India seeks to expand trade and investment ties with SCO member states like Kazakhstan and Uzbekistan to access their oil, gas, and mineral resources.
- **Energy Security:**
 - Central Asian countries within the SCO possess vast reserves of oil and gas, providing India with opportunities to enhance its energy security.
 - India is exploring energy cooperation with SCO members like Kazakhstan and Turkmenistan, considering projects like the **Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline**.
- **Connectivity and Infrastructure Development:**
 - The SCO promotes connectivity initiatives and infrastructure development, aligning with In-

dia's priorities.

- India's participation in SCO-led projects like the **International North-South Transport Corridor (INSTC)** and the Chabahar Port in Iran enhances regional connectivity and trade.
- **Counterterrorism and Security Cooperation:**
 - The SCO focuses on counterterrorism cooperation, which is crucial for India's security concerns.
 - India collaborates with SCO members to address cross-border terrorism, intelligence sharing, and joint military exercises.
- **Cultural Exchange and People-to-People Contacts:**
 - The SCO facilitates cultural exchange and people-to-people contacts, fostering better understanding and cooperation.
 - The SCO member countries have initiated a rotating program to designate one city as the tourism and cultural capital each year.
 - **Varanasi (Kashi) has been designated as the first cultural capital of the SCO** under this initiative.
- **Regional Diplomacy and Multilateral Engagement:**
 - The SCO provides India with a platform for regional diplomacy and multilateral engagement in Eurasia.

Significance of Iran's Induction:

- Iran's induction into the SCO holds significant importance due to the organization's recent **focus on connectivity in the region**, aligning with India's connectivity strategy.
- Iran's presence in the SCO supports India's efforts to **bypass land-based trade routes through Pakistan**, which has hindered transit trade for India.
- **Central Asian states**, including Uzbekistan, aim to establish a multimodal trade route via Afghanistan to ports in Pakistan and Iran, **providing India with additional trade opportunities in the region**.
- Iran's inclusion in the SCO enables India to engage in trade with Central Asia while **avoiding dependency on China's Belt and Road Initiative**.
- Iran's historical closeness to India and shared concerns regarding terrorism from Pakistan and Afghanistan **strengthen India's position in advocating for an end to terror safe havens**.

Challenges with Inclusion of Iran:

- India may face challenges due to the **SCO being perceived as an "anti-West" forum** and Iran's sanctions, along with the U.S. accusing Iran of supplying weapons to Russia.
- As India strengthens ties with the Quad, the induction of Belarus into the SCO next year could further **complicate India's balancing act between different international alliances**.

Source:

[Explained | Iran's induction in the Shanghai Cooperation Organisation – The Hindu](#)
[Shanghai Cooperation Organisation | SCO \(sectsco.org\)](#)

Q1. With reference to Shanghai Cooperation Organization (SCO), consider the following statements:

1. The Shanghai Cooperation Organization (SCO) is an alliance of Eurasian countries, with Russia and China as its leading members.
2. English and Russian serve as the official working languages of the SCO.

3. India has been a member of the SCO since its establishment.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (a)

Q2. Consider the following pairs:

Country – Capital

- 1. Kazakhstan – Tashkent
- 2. Uzbekistan – Astana
- 3. Turkmenistan – Ashgabat
- 4. Belarus – Minsk

How many of the pairs given above are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Answer: (b)

Q3. Analyze the significance of Iran's inclusion in the Shanghai Cooperation Organization (SCO) from the perspective of India's interests.

NATIONAL GREEN TRIBUNAL

This article covers "Daily Current Affairs" and the topic details "National Green Tribunal". The topic "National Green Tribunal" has relevance in the "Governance and Environment" section of the UPSC CSE exam.

For Prelims:

National Green Tribunal

Composition, Functions, Procedures

For Mains:

GS2: Role and effectiveness of the National Green Tribunal (NGT) in addressing environmental issues

Why in the news?

During the past five years, the National Green Tribunal (NGT) has reported receiving 15,312 cases and resolving 16,402 cases, as reported in recent news articles.

National Green Tribunal

- The National Green Tribunal is a **statutory body** established in 2010 under the **National Green Tribunal Act 2010**.

- The National Green Tribunal is a specialized and proficient body that deals with complex environmental disputes encompassing multiple disciplines.
- The Tribunal's exclusive jurisdiction in environmental matters ensures swift dispensation of environmental justice and alleviates the load of litigation in higher courts.
- The Principal bench of the Tribunal is in New Delhi, while Bhopal, Pune, Kolkata, and Chennai serve as the other four regional benches.

Objectives of NGT

- Ensuring prompt and efficient resolution of cases concerning the protection of the environment and conservation of forests and other natural resources.
- Upholding and enforcing legal rights pertaining to the environment.
- Providing redress and compensation for individuals affected by damages related to the environment.

Composition of NGT

- The National Green Tribunal (NGT) is led by a **Chairperson who presides over the Principal Bench.**
- The Tribunal comprises a minimum of ten and a maximum of twenty judicial as well as expert members.
- The members of the National Green Tribunal (NGT) have a **term of three years or until they reach the age of sixty-five**, whichever comes first.
- They are **not eligible for reappointment.**
- The appointment of the Chairperson of the National Green Tribunal (NGT) is made by the Central Government after consulting with the Chief Justice of India (CJI).
- To appoint the Judicial Members and Expert Members, a Selection Committee is formed by the central government.

Powers & Jurisdiction

- **Anyone affected by environmental damage related to the subjects listed in Schedule I** of the National Green Tribunal Act, 2010 can seek relief and compensation by approaching the Tribunal.
- The statutes in Schedule I are:
 - The Water (Prevention and Control of Pollution) Act, 1974;
 - The Water (Prevention and Control of Pollution) Cess Act, 1977;
 - The Forest (Conservation) Act, 1980;
 - The Air (Prevention and Control of Pollution) Act, 1981;
 - The Environment (Protection) Act, 1986;
 - The Public Liability Insurance Act, 1991;
 - The Biological Diversity Act, 2002.
- The Tribunal has **jurisdiction over all civil cases involving a substantial question relating to the environment and the question.**
- Furthermore, individuals who are dissatisfied with an order or direction issued by any of the Appellate Authorities mentioned above have the right to challenge them before the National Green Tribunal. The Tribunal is not obligated to follow the procedural rules outlined in the Code of Civil Procedure, 1908, but must adhere to principles of natural justice.
- The Tribunal has a responsibility to make every effort to resolve applications or appeals within six months of their submission.
- It is not mandatory to hire a lawyer in order to approach the Tribunal. Affected parties have the option to personally approach the Tribunal by submitting an application in the specified format.

- The decisions of the Tribunal hold legal weight and are enforceable, as it possesses the same powers as a civil court under the Code of Civil Procedure, 1908.
- The Tribunal is empowered to review its own decisions. If this fails, the decision can be challenged before the Supreme Court within a period of ninety days.

Strength of NGT

- **Evolution of Environmental Jurisprudence:** The National Green Tribunal (NGT) plays an important role in the growth of environmental jurisprudence by offering an alternative dispute settlement system. This reduces the burden of environmental litigation in higher courts.
- **Litigation load Reduction:** It aids in the reduction of the litigation load on environmental matters in the higher courts.
- **Faster Dispute Resolution:** The NGT provides a less formal and less expensive alternative for certain environmental conflicts.
- **Limiting Environmentally Harmful Activities:** The NGT also helps to limit environmentally harmful activities, supporting sustainable practices and conserving natural resources.

Challenges in the functioning of NGT

- **Lack of adequate members and infrastructure:**
 - The NGT Act envisages a minimum of 10 judicial and 10 expert members, but the NGT is currently functioning with only 6 judicial and 5 expert members.
 - The NGT also faces issues such as lack of basic amenities, staff shortage, and inadequate funds.
- **Restriction on suo motu jurisdiction:**
 - The NGT Act does not explicitly grant or deny the NGT the power to take up cases on its own motion.
 - However, some High Courts have restrained the NGT from exercising this power, which limits its ability to address environmental issues proactively.
- **Frequent appeals to High Courts:**
 - The NGT Act provides that any person aggrieved by an order of the NGT may appeal directly to the Supreme Court within 90 days.
 - However, some High Courts have entertained appeals under Articles 226 and 227 of the Constitution, which defeats the purpose of expeditious disposal of cases by the NGT.
- **Non-scientific determination of compensation:**
 - The NGT Act does not prescribe any methodology or criteria for calculating environmental compensation.
 - The NGT has often relied on arbitrary percentages of project cost or sale proceeds, without considering the actual extent of environmental damage or the polluter's ability to pay.
- **Trend of not penalizing governmental authorities:**
 - The NGT has failed to impose significant monetary penalties on governmental authorities who have violated environmental laws or failed to perform their duties.
 - Even in cases where the NGT has held them accountable, the implementation of orders has been poor.
- **Dilution of NGT's independence through amendments to the Finance Act, 2017:**
 - The Finance Act, 2017 inserted a provision in the NGT Act that allows the Central Government to make rules regarding the qualifications, appointment, term, salaries, removal and other conditions of service of the NGT's members.
 - This undermines the autonomy and credibility of the NGT as a quasi-judicial body.
- **Exclusion of certain laws from NGT's jurisdiction:**
 - **The NGT Act does not empower the NGT to deal with matters relating to the Wildlife**

(Protection) Act, 1972 and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

- These are important laws for protecting biodiversity and forest rights, which are often linked to environmental issues.
- **Lack of expertise in the functioning of the Tribunal:**
 - The NGT is supposed to have expert members who can advise judges on scientific and technical aspects of environmental cases.
 - However, there have been instances where the NGT's decisions have been questioned or overruled by the Supreme Court for lack of expertise or merits-based review.

Sources:

NGT received 15,312 cases, disposed of 16,402 during 2018-2023 – The Hindu Volume-IX-Issue-I-17-55.pdf (nliu.ac.in)

Q1. With reference to National Green Tribunal, consider the following statements:

1. The Principal Bench of National Green Tribunal (NGT) is constituted at New Delhi with Zonal Benches at Mumbai, Kolkata, Chennai and Bhopal.
2. According to the NGT Act, the appeal from the Tribunal shall lie directly before the Supreme Court.
3. Although the Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908, it is necessary to have legal representation in order to approach the Tribunal.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (c)

Q2. How many of the following legislations mentioned in Schedule I of the National Green Tribunal Act, 2010?

1. The Water (Prevention and Control of Pollution) Cess Act, 1977
2. The Forest (Conservation) Act, 1980
3. The Public Liability Insurance Act, 1991
4. The Biological Diversity Act, 2002
5. Wildlife (Protection) Act, 1972
6. Forest Rights) Act, 2006.

How many of the statements given above are correct?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) Only five

Answer: (c)

Q3. Examine the role and effectiveness of the National Green Tribunal (NGT) in addressing environmental issues.

HUMAN TRAFFICKING

This article covers "Daily Current Affairs" and the topic details "Human Trafficking". The topic "Human Trafficking" has relevance in the Governance section of the UPSC CSE exam.

For Prelims:

What is Human Trafficking?

For Mains:

GS 2 : Governance

Status of Human Trafficking in India?

Relevant Laws and Conventions?

Causes of Human Trafficking?

Impacts of Human Trafficking?

Way Forward?

Why in the news?

The Ministry of Women and Child Development, Government of India, has approved a scheme that aims to provide financial assistance to states and Union Territories to establish protection and rehabilitation homes for victims of trafficking, particularly in states with international borders.

What is Human Trafficking?

Human trafficking refers to the illegal trade and exploitation of human beings. It involves the recruitment, transportation, harboring, or receipt of individuals through force, fraud, or coercion, often across national borders. Human trafficking is considered a grave violation of human rights and a form of modern-day slavery.

Forms of Human Trafficking:

- **Forced Labor:** Exploitation in industries such as agriculture, construction, domestic work, and manufacturing.
- **Sexual Exploitation:** Trafficking for prostitution and pornography.
- **Child Trafficking:** Involving child labor, forced begging, child marriage, adoption scams, and sexual exploitation.
- **Bonded Labor:** Trapping individuals in debt bondage, where they work to repay an increasing debt.
- **Organ Trafficking:** Illegal trade of organs for transplantation purposes.

Status of Human Trafficking in India:

- Statistics provided by the National Crime Records Bureau (NCRB) show that 2,189 cases of human trafficking were filed in 2022, involving 6,533 victims of which 4,062 were female victims and 2,471 male victims. Also, 2,877 victims were minors.
- States like Telangana, Maharashtra, and Assam reported higher numbers of cases due to various factors such as porous border, high population density and more active organised crime networks.

Relevant Laws and Conventions:

Constitution of India:

- Article 23 prohibits human trafficking and begar (forced labor without payment).

- Article 24 forbids the employment of children below the age of 14 years in hazardous occupations like factories and mines.

Indian Penal Code (IPC):

- Section 370 and 370A of the IPC provide comprehensive measures to counter human trafficking, including trafficking of children for exploitation in any form, physical exploitation, sexual exploitation, slavery, servitude, or forced removal of organs.
- Sections 372 and 373 deal with selling and buying of girls for the purpose of prostitution.

Immoral Traffic (Prevention) Act, 1956 (ITPA):

- The ITPA is the primary legislation for preventing and combating trafficking for commercial sexual exploitation in India.
- It criminalizes various activities related to prostitution, brothel keeping, and solicitation.

International Conventions Addressing Human Trafficking:

- UN Convention on Transnational Organized Crime: This convention, also known as the Palermo Convention, is a comprehensive framework to combat transnational organized crime, including human trafficking.
- SAARC Convention on Preventing and Combating Trafficking in Women and Children for Prostitution: It aims to promote cooperation among SAARC member countries to address the root causes of trafficking, protect and rehabilitate victims, and prosecute offenders.

Causes of Human Trafficking:

- Socioeconomic Factors: Economic inequality and disparities, unemployment and lack of economic opportunities, lack of education and awareness, migration and displacement
- Gender Inequality and Discrimination: Violence against women, child marriage, and limited access to education.
- Political Instability and Conflict: Displacement and vulnerability.
- Corruption and Organized Crime: Impunity for traffickers due to corruption within law enforcement and immigration authorities.

Impacts of Human Trafficking:

- Physical and Psychological Trauma: Abuse, violence, injuries, and psychological disorders.
- Violation of Human Rights: Deprivation of freedom, dignity, and security.
- Economic Exploitation: Harsh working conditions, low or no pay, and debt bondage.
- Disruption of Social Fabric: Separation of families, loss of social support networks, and strained relationships within communities.

Way Forward:

- Strengthen Legislation and Law Enforcement: Enact and enforce robust anti-trafficking laws and enhance training programs for law enforcement agencies.
- Technological Solutions: Develop advanced tools for data analysis, artificial intelligence, and blockchain technology to combat trafficking and enhance supply chain transparency.
- International Collaboration: Facilitate knowledge exchange and partnerships between countries, NGOs, academia, and the private sector to combat human trafficking effectively.

Source:

<https://www.thehindu.com/news/national/centre-to-assist-border-states-and-uts-to-set-up->

Q.1 Which international convention addresses the prevention and suppression of human trafficking, especially women and children?

- (a) United Nations Convention on the Rights of the Child
- (b) UN Convention on the Elimination of All Forms of Discrimination Against Women
- (c) Convention on the Elimination of All Forms of Racial Discrimination
- (d) UN Convention on Transnational Organized Crime

ANSWER: (d)

Q.2 Which article of the Indian Constitution specifically prohibits human trafficking and forced labor?

- (a) Article 19
- (b) Article 21
- (c) Article 23
- (d) Article 24

ANSWER: (c)

Q.3 Discuss the socio-economic factors contributing to human trafficking in India and analyze the measures that can be taken to address these factors and prevent trafficking.

PANGONG TSO LAKE

This article covers "Daily Current Affairs" and the topic details "Pangong Tso Lake". The topic "Pangong Tso Lake" has relevance in the International Relations section of the UPSC CSE exam.

For Prelims:

About Pangong Tso Lake?

For Mains:

GS 2 : International Relations

India's Infrastructure Projects?

China's Infrastructure Efforts?

Way Forward?

Why in the news?

Three years after the violent clash between Indian and Chinese forces in Galwan followed by tanks facing each other around the Pangong Tso — a lake spanning eastern Ladakh and western Tibet — there is hectic activity in the area from both sides. While China is rushing to complete a bridge across the Pangong Tso, connecting the north and south banks, India is also building a black-topped road on its side on the north bank.

Pangong Tso Lake:

- Pangong Tso is a landlocked lake, approximately 135 km long, located at an altitude of over 14,000

feet (4350 m) above sea level.

- The lake is a glacial melt with mountain spurs of the Chang Chenmo range jutting down into it, forming fingers.
- It is one of the highest altitude lakes in the world filled with saline water.
- The lake freezes completely despite being saline.
- The brackish water of the lake has very low micro-vegetation and no aquatic life except for crustaceans during winters.
- Pangong Tso is known for its changing colors, ranging from shades of blue to green to red.

The Fingers of Pangong Tso:

- The Pangong Tso lake has a unique shape resembling a boomerang and is approximately 135 kilometers long.
- The lake is characterized by mountain spurs that into the water, known as “fingers.”
- The fingers of Pangong Tso are numbered from 1 to 8, with Finger 1 being the closest to the eastern end of the lake and Finger 8 the farthest.

India and China's Share:

- India and China each control a portion of Pangong Tso.
- India has around 45 km of the lake under its control, while China holds the remaining two-thirds.
- The eastern end of Pangong Tso lies in Tibet.

Border Dispute at Pangong Tso:

- India claims control over the lake until Finger 4 but believes its territory extends up to Finger 8.
- The north bank, where the fingers are located, has been the center of clashes and tensions between India and China.
- Indian troops are stationed near Finger 3, while the Chinese have a base east of Finger 8, claiming territory up to Finger 2.

India's Infrastructure Projects:

- A black-topped road is being constructed on the north bank of Pangong Tso, leading towards Finger 4.
- The Border Roads Organisation (BRO) is close to completing infrastructure projects, including the Sela, Nechipu, and Sela-Chhabrela tunnels..
- Advancing construction work on an alternate axis to the critical Darbuk-Skyok-Daulat Beg Oldie road through the Saser La.
- Implementation of the India-China Border Roads (ICBR) initiative, with three phases: ICBR-I, ICBR-II, and ICBR-III.
- Increased capital budget of the BRO by 43% to Rs 5,000 crore in 2023-24.
- Construction of roads under ICBR-III, with 70% focused on Arunachal Pradesh.
- Prominent Sela Tunnel Road project, connecting Arunachal Pradesh via a network of roads.
- Implementation of the Vibrant Villages Programme to improve infrastructure in border villages and enhance the quality of life.

China's Infrastructure Efforts:

- Construction of a bridge across the Pangong Tso, connecting the north and south banks.
- Large-scale construction activity, including road connectivity towards Shandong village.
- Construction of a 22 km-long tunnel along the G-0177 expressway, connecting to the vital G-216 highway in Tibet.

Way Forward

- Diplomatic Engagement: Maintain open lines of communication and engage in diplomatic dialogues to address border disputes and ensure peaceful resolutions.
- Confidence-Building Measures: Implement confidence-building measures between India and China to reduce tensions and build trust, such as regular military-to-military dialogues, joint exercises, and information sharing.
- Border Infrastructure Development: Continue investing in border infrastructure development to enhance connectivity, security, and economic opportunities in the border regions, while keeping in mind the need for environmental sustainability.
- Bilateral Agreements: Work towards strengthening bilateral agreements and frameworks that promote peace, stability, and cooperation along the border, including border management and confidence-building measures.

Source:

<https://www.thehindu.com/news/national/both-china-india-ramp-up-infrastructure-on-north-bank-of-pangong-tso/article67034490.ece>

Q.1 Which lake has a unique shape with mountain spurs protruding into the water, known as “fingers”?

- (a) Dal Lake
- (b) Chilika Lake
- (c) Pangong Tso
- (d) Vembanad Lake

Answer: (c)

Q. 2 Which of the following statements is/are correct?

1. India and China have differing perceptions of the Line of Actual Control (LAC) around Pangong Tso.
2. The Indian government has implemented the Vibrant Villages Programme to improve infrastructure in border villages.
3. The Pangong Tso lake is characterized by mountain spurs called “fingers.”
4. The Border Roads Organisation (BRO) is primarily responsible for infrastructure projects in China’s border regions.

Options:

- (a) 1 and 2 only
- (b) 3 and 4 only
- (c) 2 and 4 only
- (d) All of the above

Answer: (d)

Q.3 Discuss the significance and challenges of infrastructure developments in the border regions of India, with a focus on their implications for border disputes and regional stability.

LEGAL CHALLENGE TO CHANGES IN ARTICLE 370

This article covers "Daily Current Affairs" and the topic details "Legal Challenge to Changes in Article 370". The topic "Legal Challenge to changes in Article 370" has relevance in the "Polity" section of the UPSC CSE exam.

For Prelims:

What is Article 370?

What were the changes in status of Jammu and Kashmir?

What is the doctrine of colorable legislation?

For Mains:

GS2: Indian Constitution and Issues related to it

Why in the news?

On 11th July, a panel of five judges from the Supreme Court will commence hearings on petitions that challenge the alterations made to Article 370 and the reclassification of Jammu & Kashmir (J&K) state into two Union Territories.

What is Article 370?

Article 370 of the Constitution accorded Jammu & Kashmir a special status that substantially limited Parliament's power to legislate for the State as compared to other States.

- The provision was implemented through the signing of the Instrument of Accession by Maharaja Hari Singh, the former ruler of Jammu & Kashmir, in 1947.
- Its purpose was to serve as a temporary measure, facilitating the transition of the state from an independent princely state to a democratic state under the dominion of India.
- This provision exempted the state from most provisions of the Indian Constitution, except for Article 1 and Article 370, granting the state the ability to draft its own constitution.
- However, on August 5, 2019, the Indian government revoked Article 370, resulting in Jammu and Kashmir being reconstituted as a union territory with a legislature.

Chronology of Events

Date	Event
June 19, 2018	Governor's Rule implemented in Jammu & Kashmir
November 21, 2018	Legislative Assembly dissolved
December 12, 2018	President's Rule imposed on Jammu & Kashmir before the completion of six months
June 12, 2019	Extension of President's Rule for another six months
August 5, 2019	The Constitution (Application to Jammu and Kashmir) Order, 1954, amended
August 6, 2019	Declaration by the President under Article 370(3)

The constitutional changes introduced:

- The Constitution (Application to Jammu and Kashmir) Order, 1954, amended with The Constitution (Application to Jammu and Kashmir) Order, 2019, making all provisions of the Indian Consti-

tution applicable to Jammu & Kashmir.

- Amendment of Article 367, adding Clause (4) to make the Constitution of India directly applicable to Jammu & Kashmir.
- The President's declaration on August 6, 2019, rendered all clauses of Article 370 ineffective, except for the provision mandating the application of all articles of the Constitution to Jammu & Kashmir.

Changes to Article 370

- Article 370 of the Indian Constitution had specific provisions for the application of laws to Jammu & Kashmir.
 - It only applied Article 1 (which defines India's territory) and Article 370 itself to the state.
 - The extension of other provisions of the Constitution to Jammu & Kashmir did not occur automatically.
 - However, Clause (1)(d) of **Article 370 empowered the President of India to extend other provisions through an executive order, but with the concurrence of the government of J&K.**
- **Clause 3 of Article 370 allowed the President to declare that the article would cease to be operative**, either completely or partially, but only **if recommended by the Constituent Assembly of J&K.**
 - However, since the Constituent Assembly no longer existed after dispersing in 1957, the President's power to act under this clause was no longer applicable.
- **The provisions of Article 370 made it clear that the state government of Jammu and Kashmir, acting on the advice of the council of ministers**, was responsible for making decisions.
- However, due to the **absence of a functioning state government in J&K**, the President had no avenue to obtain the agreement or consent of the state government.
- This lack of constitutional and legal mechanisms meant that the central **government had no clear way to repeal or amend Article 370.**
- However, the **central government utilized the President's powers under Article 370(1)(d) to amend Article 367**, which provides guidelines for interpreting the Constitution.
 - They added a **new clause to Article 367, replacing the reference to the "Constituent Assembly of the State" in Article 370(3) with "Legislative Assembly of the State."**
- In essence, the **central government used the route of a presidential order under Article 370(1)(d) to amend Article 370 itself.**

Legal Challenges

Equating Parliament with State Legislative Assembly

- During the direct rule imposed by the President in Jammu & Kashmir, all functions of the state government were assumed by the President.
 - **The President also took over the powers of the Governor as defined in both the Indian Constitution and the J&K Constitution.**
 - Furthermore, the **powers of the state legislature were extended to Parliament.**
- In practical terms, this meant that the President of India effectively became the J&K state government, and Parliament became the state legislature.
- The authority originally held by the J&K Constituent Assembly was transferred to the state legislature.
- It is worth noting that when the **"state government"** gave its concurrence to these significant changes, **it was essentially the President providing consent to his own decision.**
- There is an **argument that President's Rule**, which is considered an interim arrangement until

an elected government is established, **should not be used to make decisions that fundamentally alter the constitutional structure of the state.**

Legislative Assembly of J&K

- The attempt to abolish the Jammu and Kashmir (J&K) Constitution has faced opposition due to the limitation of power held by the J&K Legislative Assembly.
- **According to Article 147 of the J&K Constitution, the Legislative Assembly was prohibited from proposing any changes to the provisions of the Indian Constitution as applicable to the state.**
- As a result, it has been argued that the **Legislative Assembly lacked the legal authority to give consent to the President's order.**

Article 3

Article 3 in The Constitution Of India states that- Parliament may by law –

- (a) form a new State by separation of territory from any State or by uniting two more States or parts of States or by uniting any territory to a part of any State;
 - (b) increase the area of any State;
 - (c) diminish the area of any State;
 - (d) alter the boundaries of any State;
 - (e) alter the name of any State;
- **The Jammu and Kashmir (Reorganisation) Act, 2019 divided J&K into two Union Territories:**
 - J&K with a Legislative Assembly
 - Ladakh without an Assembly
 - This is the first time in India's constitutional history that a state has been downgraded to a Union Territory.
 - While Article 3 of the Indian Constitution allows Parliament to create new states, unite states, change boundaries, or add areas to existing states, it is argued that the Centre's decision violates Article 3.
 - According to the proviso to this article, **if a Bill affects the area, boundaries, or name of any state, the President must refer it to the state's legislature.**
 - The **argument is that** – the view of Parliament cannot replace the view of the state legislature, as the state legislature represents the opinion of the people.
 - **Under President's Rule, only essential powers of the state legislature can be exercised to manage day-to-day affairs, and Parliament cannot represent the specific views of a state legislature.**

What is the Doctrine of Colorable Legislation?

- The challenge is based on the argument that the constitutional changes are “colourable legislation,” which means they are legally invalid.
- **This doctrine holds that if something cannot be done directly, it cannot be done indirectly either.**

Need for the Doctrine

- **Separation of powers** refers to the division or sharing of powers among different branches of government. Its purpose is to prevent the misuse of power by any branch. **The Constitution mandates that each branch should have distinct powers, creating a system of checks and bal-**

ances. Powers are allocated between the central government and the states, each with their own specific jurisdictions.

- However, **sometimes the legislative body exceeds its authority and enacts laws outside its scope.** This is known as the **colourable exercise of legislative power**, where laws are made indirectly when direct enactment is prohibited.
- To prevent such transgressions, the doctrine of colourable legislation was established as a check on legislative authorities.

Sources:

The issues in challenge to Centre's 2019 Jammu & Kashmir decisions | Explained News, The Indian Express

Q1. With reference to Constitution of India, consider the following statements:

1. Article 2 of the Constitution empowers the Parliament to add or establish new states in the Union of India.
2. Article 3 of the Constitution deals with internal readjustment of the states of Union of India.
3. Schedule 3 to the Constitution contains the list of states and union territories and their extent and territorial jurisdictions.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (a)

Q2. Consider the following statements in context of Article 3 of the Constitution?

1. Article 3 of the Indian Constitution allows the Constituent Assembly to create new states, unite states, change boundaries, or add areas to existing states.
2. A bill for changes stated above can be introduced only with prior recommendation of the President.
3. The President has to refer the bill to the State Legislature and is bound by the views of the State Legislature.

How many of the above mentioned statements are correct ?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a)

Q3. Critically analyse the provisions of Article 3 in the light of the recent changes in the status of Jammu and Kashmir under Article 370.

THE GLOBAL SOUTH

This article covers "Daily Current Affairs" and the topic details "The Global South: origins and significance". The topic "The Global South: origins and significance" has relevance in the "International Relations" section of the UPSC CSE exam.

For Prelims:

What is Global South?

For Mains:

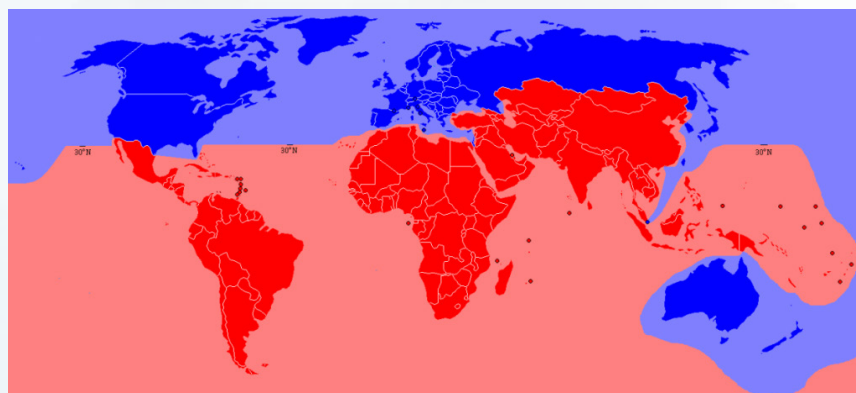
GS2: Agreements Affecting India's Interests

Why in the news?

The Global South, composed of countries in Asia, Africa, and South America, is now asserting its political and economic influence in ways that were previously unseen in the "developing countries" and "Third World."

What is the Global South?

- The term "Global South" encompasses a range of countries worldwide, often characterised as "developing," "less developed," or "underdeveloped."
- While not exclusively limited to the Southern Hemisphere, many of these countries are **predominantly located in Africa, Asia, and Latin America.**
- Generally, they exhibit **higher poverty rates, greater income inequality, lower life expectancy, and more challenging living conditions** compared to the wealthier nations of the "Global North."
- The "Global North" primarily includes North America and Europe, with additional contributions from Oceania and other regions.



Origin of the term in Vietnam War:

The term "Global South" was coined in 1969 by political activist Carl Oglesby, who argued in the liberal Catholic magazine *Commonweal* that the Vietnam War represented the culmination of a long history of Northern dominance over the countries of the Global South.

Earlier term of Third World:

- The term "Global South" gained momentum after the 1991 breakup of the Soviet Union.

- Before that, the more common term for developing nations was “Third World.”
- “Third World” was coined by Alfred Sauvy in 1952 and referred to the developing nations, many of which were still under colonial rule at that time.
 - The term “First World” designated the advanced capitalist nations, while the term “Second World” referred to the socialist nations led by the Soviet Union. The term “Third World”

End of the ‘Third World’:

- The fall of the Soviet Union led to the decline of the term “Third World” in the 1990s.
- Criticisms of “developed,” “developing,” and “underdeveloped” labels prompted the use of the more neutral-sounding term “Global South” as a replacement.

Significance of the term

A geopolitical concept:

- The term “Global South” does not have a purely geographical meaning.
- Surprisingly, the two largest countries associated with the Global South, China and India, are located entirely in the Northern Hemisphere.
- Instead, the term signifies a combination of political, geopolitical, and economic similarities shared among nations.

Shared similarities:

- Countries in the Global South, particularly African nations, have predominantly experienced the impacts of imperialism and colonial domination.
- This **history has shaped their distinct perspective on the** relationship described by dependency theorists as the **centre-periphery dynamic** in the global political economy.

What the Future Holds:

- In recent years, a significant “wealth shift” has occurred, according to the World Bank, moving economic power from the North Atlantic region to the Asia Pacific. This shift challenges conventional notions of where global wealth is being generated.
- By 2030, it is projected that three out of the four largest economies will belong to the Global South, with China, India, the United States, and Indonesia leading the way.
- Already, the combined GDP of the Global South-dominated BRICS nations (Brazil, Russia, India, China, and South Africa) surpasses that of the Global North’s G-7 club when measured in terms of purchasing power.

Political Power:

- Countries in the Global South are progressively asserting their influence on the global stage.
- Examples include China’s involvement in mediating between Iran and Saudi Arabia, as well as Brazil’s efforts to promote a peace plan for ending the conflict in Ukraine.
- This shifting power dynamic in both economic and political realms has prompted geopolitical experts to discuss the emergence of an “Asian Century”.

Way ahead

- The rise of the Global South and its increasing political and economic influence signifies a significant shift in the global landscape. This presents both opportunities and challenges for the future.
- Moving forward, it is crucial to recognize the Global South’s contributions, address inequality, foster collaboration, redefine development, promote South-South cooperation, and adapt to changing geopolitical dynamics. By doing so, we can create a more inclusive, equitable, and prosperous

future for all nations.

Sources:

Heine, Jorge. "The Global South: origins and significance." *The Hindu*, 11 July 2023, p. 8.

Photo: Wikimedia Commons/Bramfab

Q1. With reference "Global South" term sometimes seen in news, consider the following statements:

1. The term "Global South" gained prominence after the breakup of the Soviet Union, replacing the previously used term "Third World" for developing nations.
2. Global South refers to the countries that wholly lie in the Southern Hemisphere sometimes described as 'developing', 'less developed' or 'underdeveloped'.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None

Answer: (a)

Q2. Consider the following countries:

1. Brazil
2. Russia
3. Australia
4. India
5. China
6. South Africa
7. Indonesia

How many of the above mentioned countries can be called a part of Global South?

- (a) Only four
- (b) Only five
- (c) Only six
- (d) All Seven

Answer: (b)

Q3. Analyze the concept of the "Global South" in the context of international relations and its implications for the changing global landscape.

PLACES OF WORSHIP ACT

This article covers "Daily Current Affairs" and the topic details "Places of Worship Act". The topic "Places of Worship Act" has relevance in the Governance section of the UPSC CSE exam.

For Prelims:

About the Places of Worship Act?

For Mains:

GS 2: Governance

Criticism?

Supreme Court's Stance?

Way Forward?

Why in the news?

The Supreme Court of India has adjourned the case regarding the validity of the Places of Worship Act of 1991, allowing the Centre until October 31, 2023, to clarify its stand on the matter.

What is the Places of Worship Act?

The Places of Worship Act, 1991, was enacted with the objective of preserving the status and religious character of places of worship as they existed on August 15, 1947. The Act prohibits the conversion of any place of worship, ensuring that their religious identity remains unchanged.

Major Provisions of the Act:

- **Prohibition of Conversion:** Prevents the conversion of a place of worship from one religious denomination to another or within the same denomination.
- **Maintenance of Religious Character:** Ensures that the religious identity of a place of worship remains the same as it was on August 15, 1947.
- **Abatement of Pending Cases:** Terminates ongoing legal proceedings concerning the conversion of a place of worship's religious character before August 15, 1947, and prohibits new cases.
- **Exceptions to the Act:** Excludes ancient and historical monuments, archaeological sites, and remains covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also excludes cases already settled or resolved, and disputes resolved by mutual agreement or conversions before the Act's implementation.
- **Exclusion of Ayodhya Dispute:** The Act does not extend to the specific place of worship known as Ram Janmabhoomi-Babri Masjid in Ayodhya, including associated legal proceedings.

Criticism:

- **Bar on Judicial Review:** Critics argue that the Act prevents judicial review, undermining the checks and balances system and limiting the judiciary's role in protecting constitutional rights.
- **Arbitrary Retrospective Cutoff Date:** Critics argue that using August 15, 1947, as a cutoff date disregards historical injustices and denies redressal for encroachments before that date.
- **Violation of the Right to Religion:** Critics claim that the Act infringes upon the religious rights of certain communities by restricting their ability to reclaim and restore their places of worship.
- **Violation of Secularism:** Critics argue that the Act violates the principle of secularism and favors one community over others, undermining equal treatment of religions under the law.

- Exclusion of Ayodhya Dispute: The Act is criticized for excluding the land involved in the Ayodhya dispute, leading to concerns about differential treatment of religious sites.

Supreme Court's Stance:

- The Supreme Court views the Places of Worship Act as a legislative intervention that upholds secularism and ensures equality among all religions.
- The Act enforces the constitutional obligation of the State to preserve places of worship for every religious community.

Way Forward:

- Conduct a comprehensive review of the Act to address criticisms and address any shortcomings.
- Ensure that the Act does not impede judicial review, allowing the judiciary to fulfill its role in safeguarding constitutional rights.
- Strike a balance between preserving the religious character of places of worship and respecting the rights of different communities.
- Facilitate public consultation and engagement to gather diverse perspectives, promote transparency, and ensure inclusivity in the decision-making process.
- Review the exclusion of specific sites, considering fairness, consistency, and the principles of equality and justice.

SOURCE:

<https://www.thehindu.com/news/national/validity-of-places-of-worship-act-sc-gives-centre-time-to-clarify-stand-adjourns-case-to-october-31/article67066721.ece>

Q.1 Which of the following is true regarding the Places of Worship Act?

1. It was enacted to freeze the status of religious places of worship as they existed on August 15, 1947.
2. The Act allows for the conversion of a place of worship from one religious denomination to another.
3. It applies to ancient and historical monuments covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958.
4. The Act extends to the specific place of worship known as Ram Janmabhoomi-Babri Masjid in Ayodhya.

Select the correct answer using the code given below:

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

ANSWER: C

Q.2 Consider the following criticism of the Places of Worship Act?

1. The Act allows for judicial review, undermining the constitutional checks and balances.
2. The Act was enacted in 1947, which is considered an arbitrary retrospective cutoff date.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only

- (c) Both 1 and 2
(d) None of the above

ANSWER: B

Q.3 Critically analyze the provisions and implications of the Places of Worship Act, 1991, in preserving the religious character of places of worship in India. Discuss its impact on secularism, the right to religion, and the principle of equality under the law.



CHANDRAYAAN 3

This article covers "Daily Current Affairs" and the topic details "Chandrayaan 3". The topic "Chandrayaan 3" has relevance in the "Science and Technology" section of the UPSC CSE exam.

For Prelims:

What is Chandrayaan? What are the components and features?

For Mains:

GS2: Achievements of Indians in Science and Technology, Awareness of Space

Why in the news?

India successfully launched its third Moon Mission named Chandrayaan- 3 on 14th July 2023 from the Satish Dhawan Space Centre, Sriharikota.

Chandrayaan-3:

Chandrayaan-3 is a mission that aims to prove the ability to land and move safely on the lunar surface. The lunar mission is a successor to Chandrayaan 2, which was launched in September 2019 but failed to land on the moon due to problems with its onboard computer and propulsion system.

Mission Objectives:

- To land safely on the lunar surface
- To deploy a rover to explore the surface of the moon

- To conduct scientific experiments on the moon

Components of Chandrayaan- 3:

- **Chandrayaan-3 is a mission comprising three modules: the Lander module (LM), the Propulsion module (PM), and the Rover.** The Lander and Rover both carry scientific equipment to conduct experiments on the moon's surface.
- **Propulsion module**
 - The Propulsion module's primary function is to transport the Lander from the launch vehicle to a final lunar orbit and then separate from it.
 - The Propulsion module also has a scientific payload that will be operated after the Lander module has separated.
- **Vikram Lander module**
 - It is capable of performing a soft landing on a specified lunar site.
- **Pragyan Rover**
 - The rover, which will be deployed by the lander, will analyse the chemical composition of the lunar surface as it travels.
- The GSLV-Mk3 rocket will launch Chandrayaan-3 into an Elliptic Parking Orbit (EPO) that is approximately 170 x 36500 km in size.

Propulsion Module Payload:

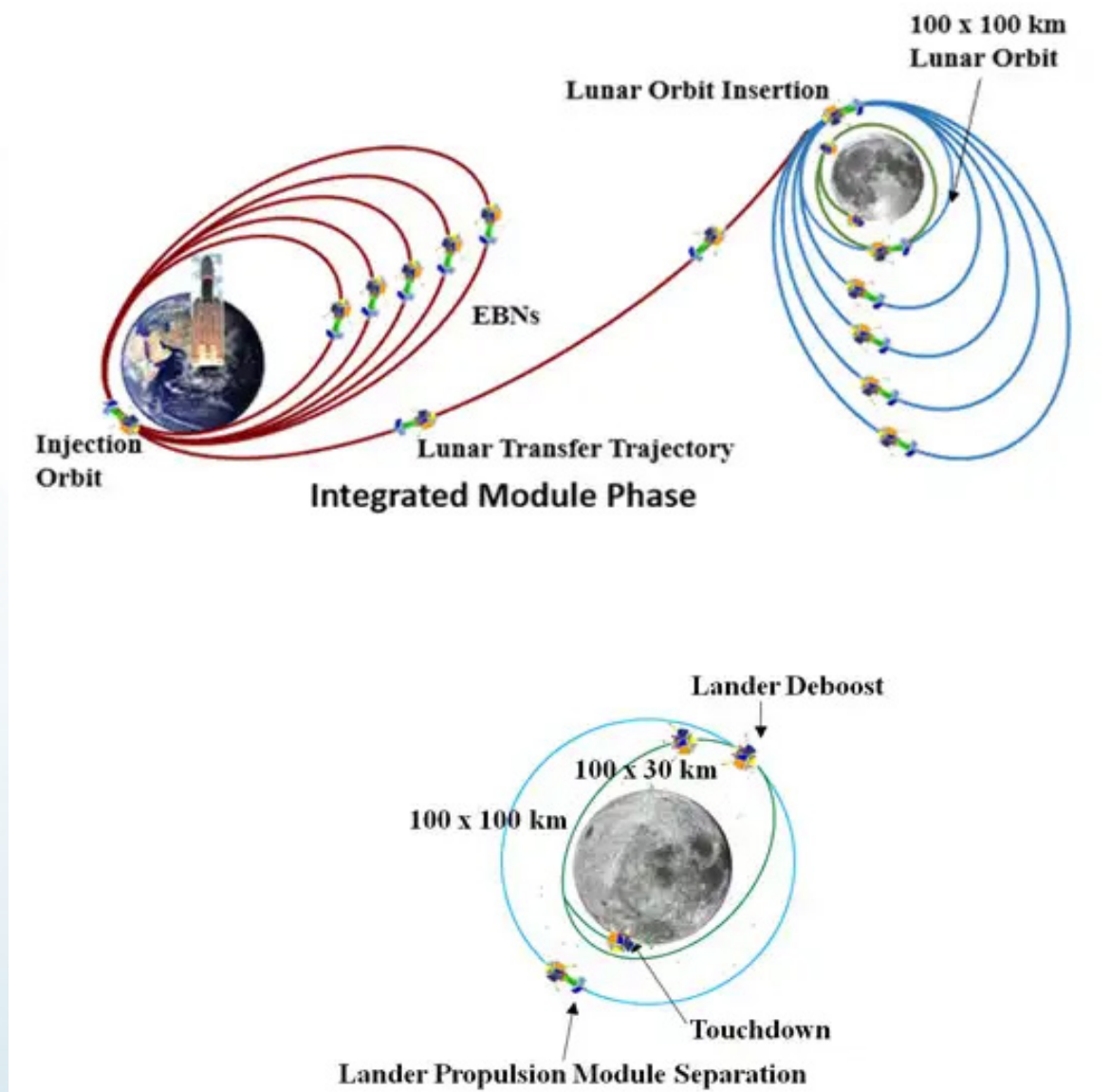
Spectro-polarimetry of HAbitable Planet Earth (SHAPE)	Future discoveries of smaller exoplanets in reflected light could help us probe habitability and life on other worlds.
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Lander payloads:

Chandra's Surface Thermophysical Experiment (ChaSTE)	Measures the thermal conductivity and temperature of the lunar surface.
Instrument for Lunar Seismic Activity (ILSA)	Measures the seismicity around the landing site.
Langmuir Probe (LP)	Estimates the plasma density and its variations.
Passive Laser Retroreflector Array from NASA	Accommodated for lunar laser ranging studies.

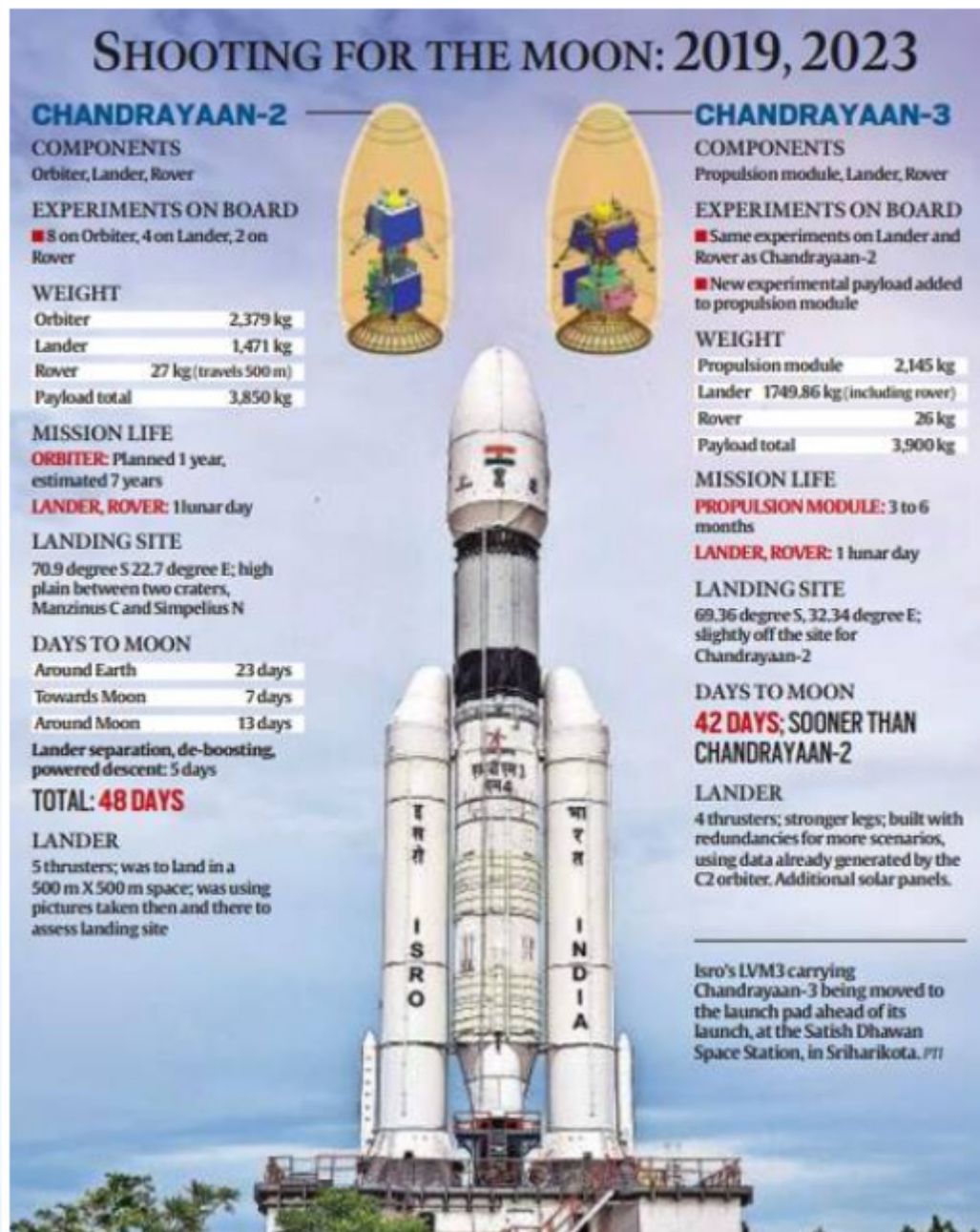
Rover payloads:

Alpha Particle X-ray Spectrometer (APXS)	For deriving the elemental composition in the vicinity of the landing site.
Laser Induced Breakdown Spectroscopy (LIBS)	



Chandrayaan- 3 Details

Feature	Details
Launcher	LVM3 M4 (GSLV Mk III)
Components	Lander module (LM), Propulsion module (PM), and Rover
Landing Site	Moon's South Pole- Around 70 degrees South of Equator
Rover Operating time	1 lunar day, equivalent to Forteen Earth days.
Trajectory	Same as Chandrayaan 2, with the propulsion module orbiting Earth several times before slingshotting towards the moon.
Orbit	The module will lower itself to a 100 x 100 km circular orbit before the lander detaches and descends to the surface.
Travel time	Approximately one month from the time of launch.
Landing date	Scheduled for August 23-24, but may change depending on when the Sun rises over the moon.



Significance of South Pole Landing:

- Chandrayaan-3 will be the first mission in the world to make a soft landing near the lunar south pole.
- The south pole is a challenging location for Earthlings to land, live, and work, but it has unique characteristics that could lead to unprecedented scientific discoveries.
- Lunar polar volatiles are chemical elements or compounds that melt or evaporate at moderately warm temperatures and can be found on the moon.
- Space missions could help us understand the distribution of lunar polar volatiles.
- If lunar polar volatiles contain elements like hydrogen and oxygen, this could have a profound impact on the future of deep space exploration and commerce.

Why India Wants to Do a Mission to the Moon

- **Scientific research:**

- The moon is a unique and valuable natural laboratory for scientific research.
- India's space program has a long history of conducting scientific research on the moon, and the Chandrayaan-3 mission will continue this tradition.
- The mission will study the composition of the lunar surface, the presence of water ice, and the history of lunar impacts.
- This information will help us to better understand the formation and evolution of the moon, and it could also have implications for the future of human exploration of the moon.
- **Technological development:**
 - The Chandrayaan-3 mission will also help to develop India's space technology.
 - The mission will require the development of new technologies for landing on the moon, exploring the lunar surface, and conducting scientific research.
 - These technologies will have applications in other areas of space exploration, as well as in other fields such as agriculture, healthcare, and manufacturing.
- **National pride:**
 - The Chandrayaan-3 mission will be a major achievement for India's space program, and it will be a source of pride for the Indian people.
 - The mission will demonstrate India's capabilities in space exploration and will help to put the country at the forefront of this field.

Sources:

ISRO's Chandrayaan-3 takes off for the moon: Here's everything you need to know | Explained News, The Indian Express

Image Credits: ISRO, The Indian Express

Q1. With reference to Chandrayaan- 3, consider the following statements:

1. Chandrayaan-3 will become the world's third mission to soft-land near the lunar south pole.
2. The mission that aims to demonstrate the capability of landing and roving on the lunar surface safely.
3. Only the Lander and Rover module are designed to do scientific experiments and are fitted with payloads.

Which of the statements given above is/are NOT correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) None

Answer: (c)

Q2. Consider the following:

1. GSLV Mk-III has three stages- Solid, Liquid and Solid.
2. The GSLV is also called the workhorse of ISRO.
3. The Chandrayaan- 3 Mission is launched on GSLV Mk-III into Geostationary Orbit.
4. PSLV, another ISRO launcher, has four stages.

How many of the above-mentioned statements are correct ?

- (a) Only one
- (b) Only two
- (c) Only three

(d) All Four

Answer: (a)

Q3. Explain the significance of India's Chandrayaan-3 mission and its potential impact

NATIONAL HUMAN RIGHTS COMMISSION (NHRC)

This article covers "Daily Current Affairs" and the topic details "National Human Rights Commission". The topic "National Human Rights Commission" has relevance in the Governance section of the UPSC CSE exam.

For Prelims:

About NHRC?

For Mains:

GS 2: Governance

Role and Function of NHRC?

Limitations of NHRC ?

About United Nations Human Rights Council (UNHRC)?

Why in the news?

The National Human Rights Commission (NHRC) has called for an action taken report from the Odisha government on a complaint filed by a Delhi-based advocate who had alleged that the State government and the Indian Railways failed to maintain the dignity of the dead in the case of the Balasore train accident

About NHRC:

- The NHRC ensures the protection of rights related to life, liberty, equality, and dignity of individuals.
- It upholds rights guaranteed by the Indian Constitution and international covenants enforceable by Indian courts.

Establishment:

- The NHRC was established on October 12, 1993, under the Protection of Human Rights Act (PHRA), 1993.
- It has been amended by the Protection of Human Rights (Amendment) Act, 2006, and the Human Rights (Amendment) Act, 2019.
- The establishment of the NHRC is in conformity with the Paris Principles, which were adopted to promote and protect human rights.

Composition:

- The NHRC consists of a chairperson, five full-time members, and seven deemed members.
- The chairman is a former Chief Justice of India or a Supreme Court judge.
- The chairman and members are appointed by the President based on the recommendations of a six-member committee.

- The committee comprises the Prime Minister, Speaker of the Lok Sabha, Deputy Chairman of the Rajya Sabha, leaders of the Opposition in both Houses of Parliament, and the Union Home Minister.
- The chairman and members hold office for a term of three years or until they reach the age of 70.

Role and Function:

- The NHRC possesses powers of a civil court with judicial proceedings.
- It is empowered to utilize the services of central or state government officers or investigation agencies for investigating human rights violations.
- The NHRC can investigate matters within one year of their occurrence.
- Its functions are primarily recommendatory in nature, meaning it can make recommendations and suggestions to the government regarding human rights issues.

Limitations:

- The NHRC cannot inquire into any matter after one year from the date of the alleged human rights violation.
- It has limited jurisdiction in cases of human rights violations by armed forces.
- The NHRC lacks authority to act in cases of human rights violations by private parties.

United Nations Human Rights Council (UNHRC):

- The United Nations Human Rights Council (UNHRC) is an inter-governmental body established within the framework of the United Nations. Its primary mandate is to promote and protect human rights globally.
- It was established in 2006 by the United Nations General Assembly, replacing the former United Nations Commission on Human Rights.
- The United Nations Human Rights Council (UNHRC) operates with the support of the Office of the High Commissioner for Human Rights (OHCHR), which serves as its Secretariat. The OHCHR is located in Geneva, Switzerland.

Membership:

- The UNHRC consists of 47 United Nations Member States elected by the UN General Assembly.
- The membership is based on equitable geographical distribution, with seats allocated to different regions.
- Members serve for three-year terms and are not eligible for immediate re-election after two consecutive terms.

Procedures and Mechanisms:

- The Universal Periodic Review (UPR) assesses human rights situations in all UN Member States.
- The Advisory Committee provides expertise and advice on thematic human rights issues.
- The Complaint Procedure allows individuals and organizations to bring human rights violations to the Council's attention.
- UN Special Procedures monitor and report on specific thematic issues or human rights situations in countries.

Issues:

- The composition of membership in the UNHRC has raised concerns, as some countries accused of human rights abuses have been included.
- Disproportionate focus on certain countries, such as Israel, has been criticized.

India's involvement:

- In 2020, India's NHRC submitted its report as part of the third round of the Universal Periodic Review (UPR) process.
- India was elected to the UNHRC for a period of three years beginning on January 1, 2019.

SOURCE:

<https://www.thehindu.com/news/national/other-states/nhrc-calls-for-action-taken-report-on-bal-asore-train-accident/article67072053.ece>

Q.1 Which of the following statements accurately describes the National Human Rights Commission (NHRC)?

- (a) NHRC is a constitutional body established under Article 356 of the Indian Constitution.
- (b) NHRC is a statutory body established under the Protection of Human Rights Act, 1993.
- (c) NHRC is an executive body established by an executive order of the President.
- (d) NHRC is a judicial body established by the Supreme Court of India.

ANSWER: B

Q.2 Which of the following statements accurately describes the composition and tenure of the National Human Rights Commission (NHRC)?

- (a) The NHRC consists of a chairperson and ten members appointed by the President, and their tenure is for a period of five years.
- (b) The NHRC consists of a chairperson and five members appointed by the Prime Minister, and their tenure is for a period of three years.
- (c) The NHRC consists of a chairperson and five members appointed by the President, and their tenure is for a period of three years.
- (d) The NHRC consists of a chairperson and ten members appointed by the Chief Justice of India, and their tenure is for a period of six years.

ANSWER: C

Q.3 Discuss the role and significance of the National Human Rights Commission (NHRC) in safeguarding human rights in India. How does the NHRC contribute to the protection and promotion of fundamental rights, and what challenges does it face in fulfilling its mandate?

PM'S VISIT TO UAE

This article covers "Daily Current Affairs" and the topic details "PM's Visit to UAE". The topic "PM's Visit to UAE" has relevance in the "International Relations" section of the UPSC CSE exam.

For Prelims:

India UAE Groupings, Trade and UAE in map

For Mains:

GS2: Bilateral Relations, Agreements affecting India's interests

Why in the news?

The Prime Minister's recent visit to the United Arab Emirates marked his fifth visit to the country within the past eight years.

Highlights of the visit

The outcomes of the visit include the signing of several Memoranda of Understanding (MoUs) and discussions on various topics such as the energy sector, climate change, the Indian diaspora, etc.

- **Both countries signed MoUs:**
 - To establish a framework that will promote the use of local currencies (INR-AED) for cross-border transactions.
 - On interlinking payment and messaging systems, also signed by the Governors of the respective Central Banks.
 - For the planning of establishing the Indian Institute of Technology – Delhi in Abu Dhabi.
- **Energy security:**
 - The two countries will continue their collaboration in the areas of green hydrogen, solar energy, and grid connectivity.
 - The two sides also agreed to increase investment in the energy sector, including India's Strategic Petroleum Reserve Programme.
- **Climate Change:**
 - The leaders commended the joint efforts on climate change, especially during India's presidency of the G20 and the UAE's presidency of COP28.
 - They agreed to cooperate to ensure that COP28 is a success for all.
- **Indian Diaspora:**
 - The UAE expressed gratitude to the large Indian diaspora for their continued significant contribution to the UAE's society and economy, which has further strengthened bilateral relations.
- **Bilateral Trade:**
 - The two leaders praised the economic partnership, which is currently worth USD 85 billion, and expressed hope that it would reach USD 100 billion in trade before the G20 meeting in Delhi this year.



The two leaders of both countries reiterated their dedication to further strengthening the Comprehensive Strategic Partnership, exploring new areas of cooperation, and promoting peace, stability, and prosperity in the region and beyond.

Local Currency Settlement System (LCSS)

- One of the significant achievements of the visit was the signing of an MoU between India and the UAE to establish a framework for promoting the use of local currencies, specifically the Indian Rupee (INR) and the UAE Dirham (AED), for cross-border transactions.
- It encompasses all current account transactions and approved capital account transactions.
- The implementation of the LCSS would enable exporters and importers to invoice and make payments in their respective domestic currencies.
- This development would facilitate the growth of an INR-AED foreign exchange market.
- The Reserve Bank of India (RBI) emphasized that this arrangement would also stimulate investments and remittances between the two countries.
- Moreover, utilizing local currencies would enhance transaction cost efficiency and reduce settlement time for various transactions, including remittances from Indian residents in the UAE.

India UAE Bilateral Relations

- India and the United Arab Emirates (UAE) established formal ties in 1972.
- The bilateral ties were upgraded to a Comprehensive Strategic Partnership in 2017 during the visit of Sheikh Mohamed bin Zayed Al Nahyan (MBZ), then Crown Prince of Abu Dhabi and now the President of the UAE.

Plurilateral Cooperation

- India and the UAE are currently participating in several multilateral platforms, such as I2U2 (India-Israel-UAE-USA) and UFI (UAE-France-India) Trilateral.
- I2U2 is a new grouping of India, Israel, the United States, and the United Arab Emirates.
 - The group was formed in 2021 with the aim of promoting economic cooperation and investment in six key areas: water, energy, transportation, space, health, and food security.
 - The first I2U2 summit was held in July 2022, and the group has since announced several joint initiatives, including a food security project and a hybrid renewable energy facility.
- UFI is a trilateral cooperation initiative between the United Arab Emirates, France, and India. It was established in February 2023 with the goal of promoting cooperation in the fields of energy, climate change, and the circular economy. The first UFI summit was held in Paris in March 2023.

Trade Relations:

- India-UAE trade reached USD 85 billion in 2022.
- The United Arab Emirates (UAE) became India's third-largest trading partner and second-largest export destination for the year 2022-23. Conversely, India is the UAE's second-largest trading partner.
- Bilateral trade has increased by approximately 15% since the implementation of the Comprehensive Economic Partnership Agreement (CEPA) signed in March 2022.

NRI Remittances:

- The Indian community in the UAE, estimated to be around 3.3 million, made annual remittances exceeding US \$17.06 billion in 2019.

Energy Security:

- The UAE has proven to be a reliable and resilient energy exporter as India's industrial and manufacturing capacity expands.
- In 2018, the Indian Strategic Petroleum Reserves Ltd (ISPRL) and the UAE's Abu Dhabi National Oil Company (ADNOC) signed an agreement ensuring stable pricing and oil supply.

Technology Partnerships:

- India and the UAE have established digital innovation and technology partnerships.
- Collaborative plans between ISRO and UAESA include missions like the Red Moon mission.

Residency Permits and Collaboration:

- The UAE offers "golden visa" residency permits to professionals such as doctors, engineers, PhD scholars, and specialists in high-end technology fields like AI, Big Data, virology, and epidemiology.

India and UAE have strengthened ties in recent years due to shared economic visions and aligned geopolitical outlooks. Economic engagement, diaspora relations, and strategic convergences have deepened, and the CEPA and the new MoUs will further strengthen ties.

Sources:

India, UAE to start trade settlement in local currencies, says PM Modi in Abu Dhabi

Q1. With reference to India UAE relations, consider the following statements:

1. The United Arab Emirates (UAE) became India's third-largest trading partner
2. UAE is the second-largest export destination for the India
3. India and UAE have signed the Free Trade Agreement recently in 2022.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (a)

Q2. Consider the following countries:

1. Oman
2. Yemen

3. Iraq
4. Saudi Arabia
5. Qatar

How many of the above mentioned are neighboring countries of the United Arab Emirates?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) Only Four

Answer: (b)

Q3. Analyze the key factors contributing to the growing economic partnership between India and the UAE, highlighting the sectors of collaboration and potential areas for further expansion.

UNAIDS REPORT

This article covers "Daily Current Affairs" and the topic details "UNAIDS Report". The topic "UNAIDS Report" has relevance in the Public Health section of the UPSC CSE exam.

For Prelims:

About AIDS Disease?

For Mains:

GS 2: Public Health

India's Initiatives to Curb AIDS Disease?

Key Highlights of the UNAIDS Report?

Why in the news?

Acquired Immunodeficiency Syndrome (AIDS) claimed a life every minute in 2022, according to a new report by UNAIDS.

About AIDS Disease:

- AIDS (Acquired Immunodeficiency Syndrome) is a chronic and potentially life-threatening health condition caused by the Human Immunodeficiency Virus (HIV).
- HIV primarily targets CD4, a type of white blood cell (T cells), in the body's immune system.
- T cells play a crucial role in detecting anomalies and infections in the body.
- Once HIV enters the body, it multiplies and destroys CD4 cells, leading to severe damage to the immune system. Once infected, the virus remains in the body permanently.
- The CD4 count of an HIV-infected person significantly reduces. In a healthy body, the CD4 count is between 500-1600, but in an infected body, it can drop as low as 200.

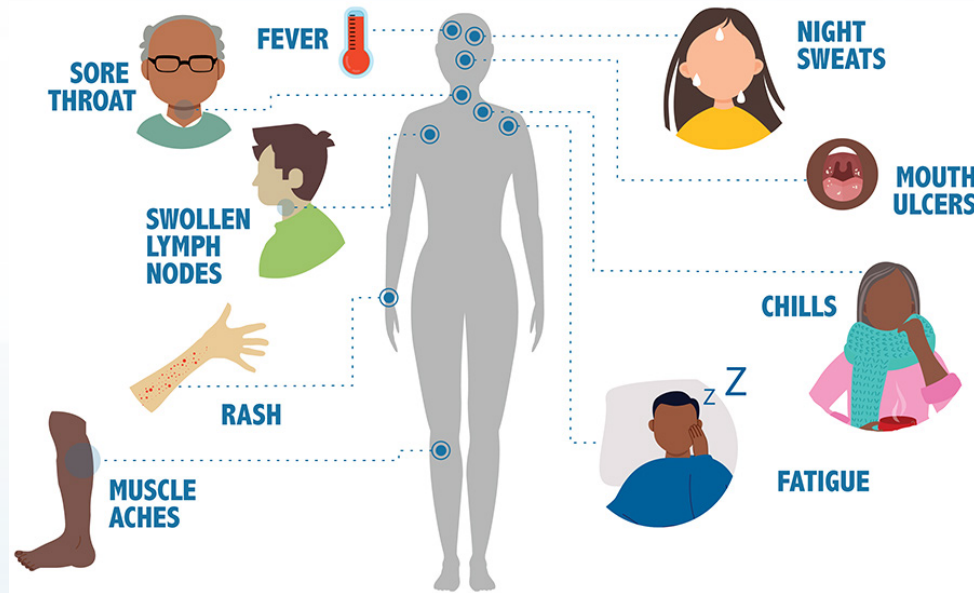
Transmission:

- HIV spreads through contact with certain body fluids, such as blood and semen, from an infected person.
- Transmission routes include unprotected sex, sharing contaminated needles, and mother-to-child

transmission during childbirth or breastfeeding.

Symptoms:

- Initial symptoms of HIV infection include fatigue, fever, and sores.
- Over time, if HIV is not treated, it can progress to AIDS, leading to severe symptoms like pneumonia and certain cancers.



Prevention:

- Precautions can be taken to prevent mother-to-child transmission of HIV.
- Early diagnosis and treatment are crucial to managing the disease effectively.
- Pre-marital testing, including an HIV test, can ensure overall safety.
- Protective techniques should be used to prevent transmission of HIV and other sexually transmitted diseases.

India's Initiatives to Curb AIDS Disease:

- HIV and AIDS (Prevention and Control) Act, 2017:
- The Act mandates both central and state governments to take measures to prevent the spread of HIV or AIDS.

Access to ART:

- India has made Antiretroviral Therapy (ART) affordable and accessible to over 90% of people living with HIV in the world.

Memorandum of Understanding (MoU):

- In 2019, the Ministry of Health and Family Welfare signed a MoU with the Ministry of Social Justice and Empowerment to enhance HIV/AIDS outreach.
- The MoU aims to reduce the incidence of social stigma and discrimination against victims of drug abuse, children, and people living with HIV/AIDS.

Project Sunrise:

- Launched in 2016 by the Ministry of Health and Family Welfare.
- Project Sunrise aims to tackle the rising HIV prevalence in north-eastern states of India, particu-

larly among people injecting drugs.

Key Highlights of the UNAIDS Report:

AIDS-Related Deaths and Access to Treatment:

- AIDS claimed a life every minute in 2022.
- Approximately 9.2 million people living with HIV worldwide lacked access to treatment in 2022.
- Out of the 2.1 million people receiving treatment, many were not virally suppressed.

Treatment Progress and Global Targets:

- 29.8 million out of 39 million people living with HIV globally are receiving life-saving treatment.
- Between 2020 and 2022, 1.6 million additional people received HIV treatment each year.
- The global target of 35 million people receiving HIV treatment by 2025 is within reach if the progress is sustained.

Slow Treatment Progress in Certain Regions:

- Eastern Europe, Central Asia, the Middle East, and North Africa exhibited slower treatment progress.
- Only around half of the over two million people living with HIV in these regions received antiretroviral therapy in 2022.

Gender Discrimination and Treatment Rates:

- Men living with HIV in sub-Saharan Africa, the Caribbean, Eastern Europe, and Central Asia are less likely to receive treatment compared to women.
- Gender discrimination needs to be addressed to ensure equal access to treatment.

Impact on Children:

- AIDS-related deaths among children reduced by 64% from 2010 to 2022.
- However, approximately 84,000 children lost their lives to HIV in 2022.
- Around 43% of the 1.5 million children living with HIV did not receive treatment in 2022.

Challenges in HIV Prevention:

- Women and girls accounted for 63% of all new HIV infections in sub-Saharan Africa.
- Only about 42% of districts with high HIV incidence in the region have dedicated prevention programs.
- Enhanced prevention efforts are needed to address this gap.

Funding Gaps:

- HIV incidence has declined in regions with increased prevention funding.
- Eastern Europe, Central Asia, the Middle East, and North Africa face challenges in their HIV epidemics due to a lack of funding.
- In 2022, only USD 20.8 billion was available for HIV programs in low- and middle-income countries, falling short of the USD 29.3 billion required by 2025.

Fluctuating Funding Levels:

- In the early 2010s, funding substantially increased, but it has since fallen back to 2013 levels.
- In 2022, there was a 2.6% drop in funding compared to the previous year, with only USD 20.8 billion available for HIV programs in low- and middle-income countries.
- The funding gap remains significant, as the required amount by 2025 is USD 29.3 billion.

SOURCE:

<https://www.downtoearth.org.in/news/world/aids-claimed-1-life-every-minute-in-2022-9-2-million-patients-sans-hiv-treatment-unaid-90615>

Q.1 Which ministry in India launched Project Sunrise to address the rising HIV prevalence?

- (A) Ministry of Health and Family Welfare
- (B) Ministry of Social Justice and Empowerment
- (C) Ministry of Home Affairs
- (D) Ministry of Women and Child Development

ANSWER: A

Q.2 Which of the following statements is/are true according to the UNAIDS Report?

1. The global target of 35 million people receiving HIV treatment by 2025 is achievable based on current progress.
2. Eastern Europe, Central Asia, the Middle East, and North Africa exhibited significant progress in HIV treatment rates in 2022.
3. AIDS-related deaths among children reduced by 64% from 2010 to 2022.
4. The HIV and AIDS (Prevention and Control) Act, 2017, mandates state governments to take measures to prevent the spread of HIV.
5. India has made Antiretroviral Therapy (ART) accessible to over 90% of people living with HIV in the world.

Select the correct option(s):

- (A) 1, 2, and 3
- (B) 3, 4, and 5
- (C) 1 and 5
- (D) 2 and 4

ANSWER: C

Q.3 Discuss the prevalence of HIV/AIDS in India and the measures taken by the Indian government to combat the disease. How effective have these initiatives been in reducing the impact of HIV/AIDS on public health and society? Identify the challenges faced by India in its fight against HIV/AIDS and suggest potential strategies to overcome them.

NATIONAL MULTIDIMENSIONAL POVERTY INDEX

This article covers "Daily Current Affairs" and the topic details "National Multidimensional Poverty Index". The topic "National Multidimensional Poverty Index" has relevance in the "Economic and Social Development" section of the UPSC CSE exam.

For Prelims:

What is the National Multidimensional Poverty Index? Who releases the index? What are its dimensions and indicators?

For Mains:

GS2: Issues related to Poverty and Hunger

GS3: Inclusive Development

Why in the News?

The NITI Aayog has released the second edition of the Multidimensional Poverty Index report named 'National Multidimensional Poverty Index: A Progress Review 2023'.

What is Multidimensional Poverty?

- Most countries define poverty as a lack of money, but the poor themselves view poverty in a broader context.
- They experience multiple disadvantages simultaneously, including poor health, malnutrition, lack of clean water or electricity, low-quality work, and limited education. Focusing solely on income fails to capture the full reality of poverty.
- Multidimensional poverty measures offer a more comprehensive understanding by depicting who is poor and the various disadvantages they face.
- These measures not only provide an overall poverty indicator but also allow for analyzing poverty levels in different regions and among different sub-groups.

National Multidimensional Poverty Index

- The Government of India has acknowledged the significance of the global MPI.
- **NITI Aayog has been responsible for constructing an indigenized index for monitoring the performance of States and Union Territories in addressing multidimensional poverty.**
- **The national MPI model keeps the ten indicators of the global MPI model, remaining closely aligned with the global methodology.**
- It also includes two new indicators, namely Maternal Health and Bank Accounts, which are in line with national priorities.

Sub-indices of the National MPI

- As per the Alkire-Foster (AF) methodology, an individual is considered multidimensionally poor or MPI poor if they experience deprivation in at least one-third of the weighted MPI indicators. Simply put, a person is deemed MPI poor if their weighted deprivation score reaches or exceeds the poverty threshold of 33.33%.
- **Headcount ratio (H): How many are poor?**
 - Proportion of multidimensionally poor in the population, which is arrived at by dividing the number of multidimensionally poor persons by total population.
- **Intensity of poverty (A): How poor are the poor?**
 - The average level of deprivations experienced by individuals living in multidimensional poverty is determined by calculating the intensity. This involves adding up the weighted deprivation scores of all poor individuals and dividing the sum by the total number of poor individuals.
- MPI value is arrived at by multiplying the headcount ratio (H) and the intensity of poverty (A), reflecting both the share of people in poverty and the degree to which they are deprived.

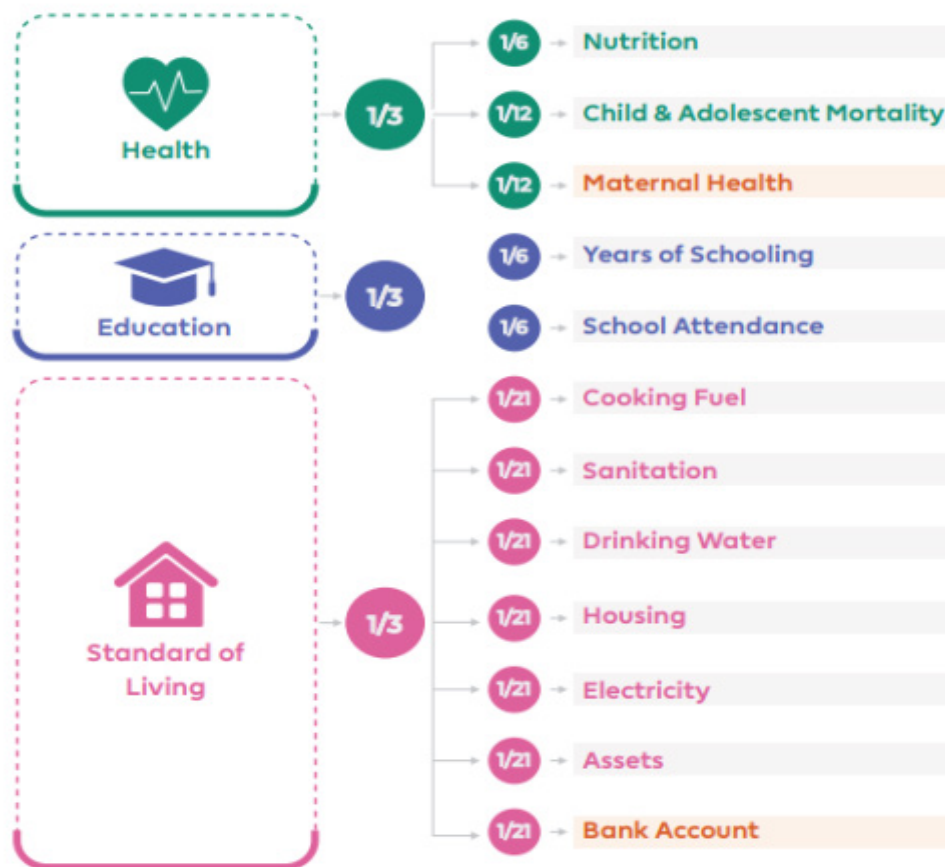
$$\text{MPI} = H \times A$$

National MPI 2023

- **The National Multidimensional Poverty Index: A Progress Review 2023** is the second edition of the national MPI and follows up on the Baseline Report published in November 2021. It provides an update on the progress made in reducing multidimensional poverty in the country.

- It provides multidimensional poverty estimates for India's 36 States & Union Territories, along with 707 administrative districts across 12 indicators of the national MPI.
- These estimates were calculated using data from the 5th round of the National Family Health Survey (NFHS-5), which was conducted in 2019-21, using the same methodology as the baseline report.
- This edition also presents the changes in multidimensional poverty between the survey periods of NFHS-4 (2015-16) and NFHS-5 (2019-21).

Indicators and their weights



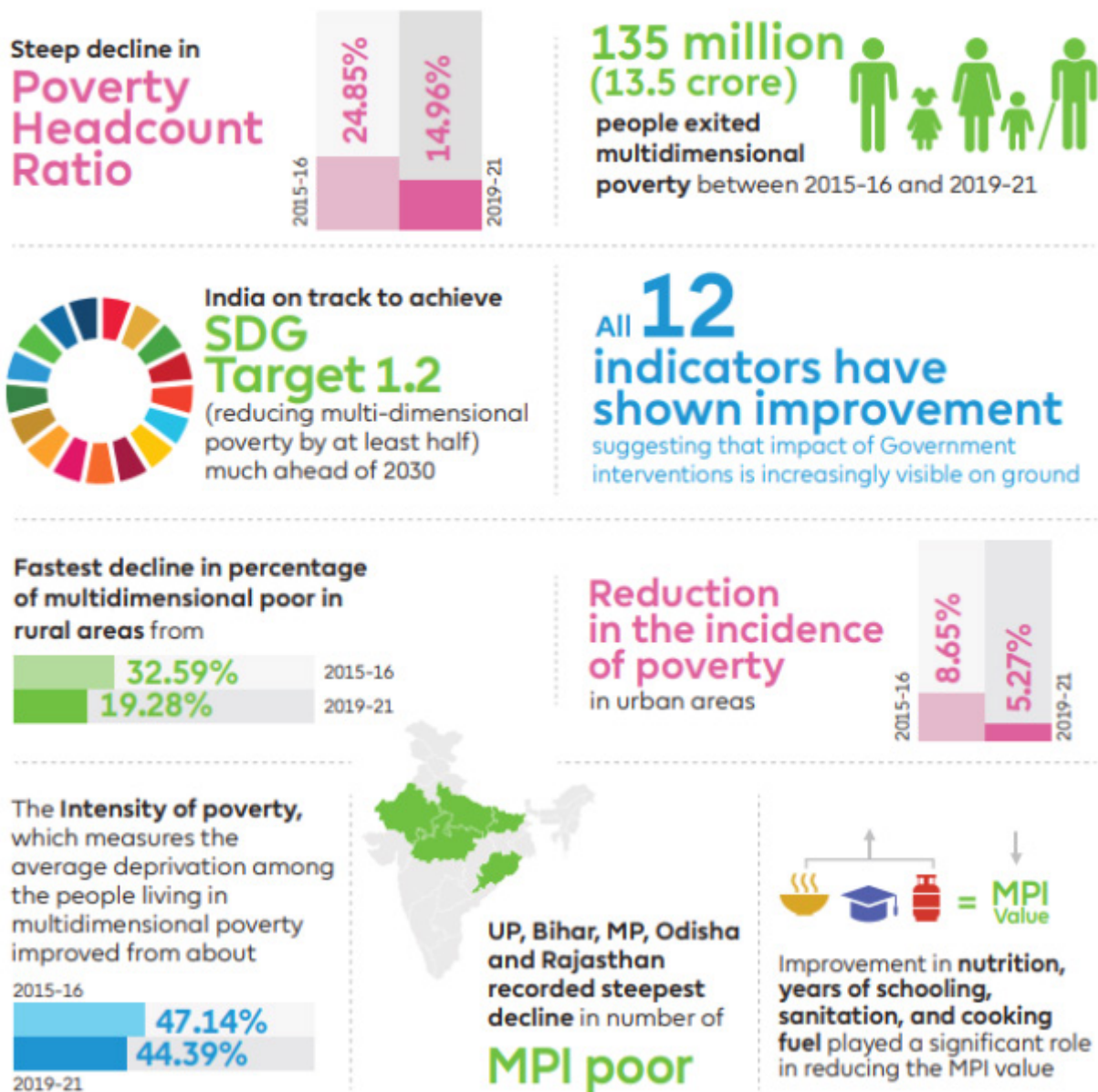
National MPI 2023 – Key findings

- Key findings from the National MPI 2023 Report reveal that India has made significant progress in reducing multidimensional poverty. The percentage of multidimensionally poor individuals in India has decreased from 24.85% in 2015-16 to 14.96% in 2019-2021, marking a remarkable decline of 9.89 percentage points.
- The rural areas of the country experienced the most rapid reduction in poverty, with the poverty rate dropping from 32.59% to 19.28%. Similarly, urban areas witnessed a decrease in poverty from 8.65% to 5.27% during the same period.
- Uttar Pradesh witnessed the most significant decrease in the count of impoverished individuals, as 3.43 crore people successfully lifted themselves out of multidimensional poverty.
- Uttar Pradesh, Bihar, Madhya Pradesh, Odisha, and Rajasthan demonstrated the swiftest reduction in the percentage of people living in multidimensional poverty.
- Additionally, the MPI value has nearly halved from 0.117 to 0.066 between 2015-16 and 2019-21, indicating significant progress.
- The intensity of poverty, which measures the average deprivation among the poor, also declined

from 47.14% to 44.39%.

- These positive trends demonstrate that India is on track to achieve SDG Target 1.2, which aims to reduce multidimensional poverty by at least half, well ahead of the set timeline of 2030.

Highlights: MPI Progress Report 2023



Government Schemes related to MPI Indicators:

- Prominent initiatives such as the Poshan Abhiyan and Anaemia Mukta Bharat have made notable contributions to diminishing health-related deprivations.
- The Swachh Bharat Mission (SBM) and Jal Jeevan Mission (JJM) have successfully enhanced sanitation levels throughout the nation, as evidenced by a substantial improvement of 21.8 percentage points in sanitation deprivations.
- The implementation of the Pradhan Mantri Ujjwala Yojana (PMUY), which offers subsidized cooking fuel, has had a significant positive impact on people's lives. This initiative has resulted in an impressive improvement of 14.6 percentage points in addressing cooking fuel deprivations.
- Furthermore, initiatives like Saubhagya, Pradhan Mantri Awas Yojana (PMAY), Pradhan Mantri

Jan Dhan Yojana (PMJDY), and Samagra Shiksha have played crucial roles in significantly reducing multidimensional poverty across the country.

Other Indices and Reports of NITI Ayog include:

- SDG India Index
- Export Preparedness Index
- India Innovation Index
- Healthy States, Progressive India: Health Index
- SDG Urban Index
- Data Governance Quality Index
- State Energy and Climate Index
- Composite Water Management Index
- India's Booming Gig and Platform Economy
- School Education Quality Index (SEQI)

Sources:

Niti Aayog report claims decrease in multidimensional poverty

Q1. According to the National Multidimensional Poverty Index (MPI) methodology, which of the following accurately represents the determination of multidimensional poverty in India?

- (a) An individual is considered multidimensionally poor if they experience deprivation in at least one-third of the weighted MPI indicators.
- (b) An individual is considered multidimensionally poor if they experience deprivation in all of the weighted MPI indicators.
- (c) An individual is considered multidimensionally poor if they experience deprivation in at least two-third of the weighted MPI indicators
- (d) An individual is considered multidimensionally poor based on their educational attainment alone.

Answer: (a)

Q2. Consider the following:

1. SDG India Index
2. Export Preparedness Index
3. India Innovation Index
4. Energy Performance Index
5. Data Governance Quality Index
6. Performance Grading Index for Districts (PGI-D)

How many of the abovementioned reports and indices are released by NITI Aayog?

- (a) Only three
- (b) Only four
- (c) Only five
- (d) All Six

Answer: (b)

Q3. Discuss India's recent success in addressing multidimensional poverty and outline the roadmap for further progress.

BAY OF BENGAL INITIATIVE FOR MULTI-SECTORAL TECHNICAL AND ECONOMIC COOPERATION (BIMSTEC)

This article covers "Daily Current Affairs" and the topic details "Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)". The topic "Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)" has relevance in the "International Relations" section of the UPSC CSE exam.

For Prelims:

BIMSTEC, its members and sectors

For Mains:

GS2: Important International Institutions and their mandate

Why in the news?

The inaugural Foreign Ministers' meeting of BIMSTEC commenced in Bangkok, Thailand, on July 17, 2023 with the presence of India's External Affairs Minister, S Jaishankar.

Evolution of BIMSTEC

- BIMSTEC, or the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, is a regional organization that was founded on June 6, 1997, with the signing of the Bangkok Declaration.
- Originally known as BIST-EC, it was renamed BIMSTEC and currently consists of seven Member States. Myanmar joined on 22nd December 1997, followed by Bhutan and Nepal in February 2004.
- In 2014, during the Third BIMSTEC Summit, it was decided to establish the BIMSTEC Secretariat in Dhaka, Bangladesh, which provided a formal framework for enhancing cooperation among member states.
- The BIMSTEC Charter was signed and adopted during the Fifth BIMSTEC Summit held in Colombo, Sri Lanka, on 30th March 2022.

Aim : to combat the effects of globalisation by promoting regional development through collaboration and the use of regional resources and geographic advantages.

Members of BIMSTEC: Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, Thailand

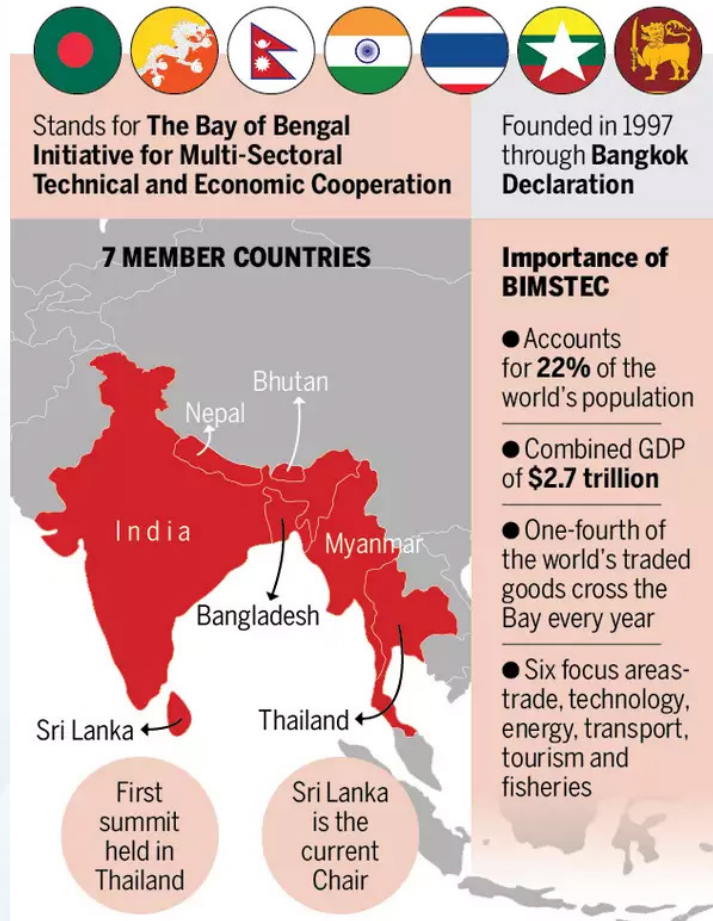
Secretariat: Dhaka, Bangladesh

Sector Driven Group

- Initially, BIMSTEC, a sector-focused regional grouping, prioritized six sectors in 1997: trade, technology, energy, transport, tourism, and fisheries.
- Over time, the cooperation expanded in 2008 to include additional sectors such as agriculture, public health, poverty alleviation, counter-terrorism, environment, culture, people-to-people contact, and climate change.
- In 2021, the sectors and sub-sectors were rationalised and reorganised, with each member state leading specific areas of cooperation.

BIMSTEC

WHAT YOU SHOULD KNOW



Country	Main Sector	Sub-sectors
Bangladesh	Trade, Investment, and Development	Blue Economy
Bhutan	Environment & Climate Change	Mountain Economy
India	Security	Counter-Terrorism and Transnational Crime, Disaster Management, Energy
Myanmar	Agriculture and Food Security	Agriculture, Fisheries & Livestock
Nepal	People-to-People Contact	Culture, Tourism, Poverty Alleviation, People-to-People Contact (forums of think tanks, media etc.)
Sri Lanka	Science, Technology & Innovation	Technology, Health, Human Resource Development
Thailand	Connectivity	

Why is BIMSTEC seen as a more promising regional organisation than SAARC?

- **Economic potential:** BIMSTEC has a combined GDP of over US\$2 trillion, which is larger than the GDP of SAARC. This means that BIMSTEC has a greater potential for economic cooperation.

- **Geostrategic location:** BIMSTEC countries are located in a strategically important region, at the intersection of South Asia, Southeast Asia, and East Asia. This gives BIMSTEC a greater potential for regional cooperation and connectivity.
- **Political will:** The member countries of BIMSTEC have a stronger political will to cooperate than the member countries of SAARC. This is due in part to the fact that BIMSTEC countries have a shared interest in countering the influence of China in the region.
- **Recent progress:** BIMSTEC has made more progress in recent years than SAARC. For example, BIMSTEC has signed a framework agreement on security cooperation as well as BIMSTEC Charter.

BIMSTEC vs SAARC: At a Glance

Feature	SAARC	BIMSTEC
Type of organization	Regional	Interregional
Region	South Asia	South Asia and Southeast Asia
Year established	1985	1997
Motivation for establishment	Cold War era	Post-Cold War
Member countries	Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka	Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, Thailand
Political relations	Mistrust and suspicion	Reasonably friendly
Economic relations	Low intra-regional trade	Increasing intra-regional trade
Security relations	Tense	Improving
Core objective	Economic cooperation	Economic and technical cooperation
Strengths	Long history, cultural ties	Strong economic potential, strategic location
Weaknesses	Political tensions, mistrust	Asymmetric power balance, lack of progress
Future prospects	Potential for improvement	Promising organisation

BIMSTEC and assertive China

Promoting an Alternative to Chinese Investments

- China's extensive financing and infrastructure development initiatives in South and Southeast Asia under the Belt and Road Initiative have reached all BIMSTEC countries except Bhutan and India.
- Consequently, BIMSTEC has emerged as a new battleground for India and China to assert dominance.

Countering Chinese Investments through BIMSTEC

- BIMSTEC presents India with an opportunity to counter Chinese investments by advocating for connectivity projects aligned with recognized international norms and best practices.
- Chinese projects have been widely criticised for disregarding these norms and engaging in debt-trap diplomacy.

Showcasing the Bay of Bengal as an Open and Peaceful Region

- BIMSTEC can serve as a platform to showcase the Bay of Bengal as an open and peaceful region, setting it apart from China's behavior in the South China Sea.
- Through BIMSTEC, codes of conduct can be developed to preserve freedom of navigation and ensure adherence to existing regional maritime laws.

Curbing the Escalation of Military Presence

- BIMSTEC has the potential to reduce the growing military presence in the region by establishing a Bay of Bengal Peace Zone.
- The objective would be to restrict aggressive actions by external powers and foster a more peaceful and stable environment.

Bay of Bengal has become an arena where India and China vie for influence and assert their respective agendas. BIMSTEC offers India a platform to counter Chinese investments, emphasize the importance of international norms, promote regional peace in the Bay of Bengal, and limit the escalation of military activities in the area.

Sources:

<https://indianexpress.com/article/explained/everyday-explainers/jaishankar-bimstec-explained-members-significance-8843569/>

Image Credits: TOI

Q1. With reference Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), consider the following statements:

1. BIMSTEC is a regional organisation established in 1997 with the signing of the Bangkok Declaration.
2. BIMSTEC has members only from South Asia.
3. Trade integration in SAARC is more deepened than in BIMSTEC.

Which of the statements given above is/are **NOT** correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (b)

Q2. Consider the following:

- Thailand
- Bangladesh
- Myanmar
- Sri Lanka
- Indonesia

How many of the abovementioned countries are both part of BIMSTEC and ASEAN groups?

- (a) Only One
- (b) Only Two
- (c) Only Four
- (d) All Five

Answer: (b)

Q3. Do you think that BIMSTEC is a parallel organisation like the SAARC ? What are the similarities and dissimilarities between the two ? How are Indian foreign policy objectives realized by forming this new organisation ? (2022)

WOMEN EMPOWERMENT GAP

This article covers "Daily Current Affairs" and the topic details "Women Empowerment Gap". The topic "Women Empowerment Gap" has relevance in the Social Justice section of the UPSC CSE exam.

For Prelims:

Key Findings of the Report?

For Mains:

GS 2: Social Justice

Recommendations for Comprehensive Policy Action?

Indian Initiatives to Reduce Gender Gap?

About UN Women?

Why in the news?

Only an abysmal 1 percent of women across the world live in countries that have managed to achieve both high women empowerment and gender parity, according to a new report by the United Nations.

Key Findings of the Report:

- **Global Women's Empowerment:** Only 1% of women globally live in countries with high women's empowerment and gender parity.
- **Male-Dominated Leadership:** Leadership roles and decision-making remain predominantly male-dominated, restricting opportunities for women.
- **Women Achieving Full Potential:** On average, women achieve only 60% of their full potential, according to the Women's Empowerment Index (WEI).
- **Gender Gap in Human Development:** Women lag behind men by 28% across key dimensions of human development, as measured by the Global Gender Parity Index (GGPI).
- **Lack of Complete Empowerment:** In the comprehensive analysis of 114 countries, it was found that none of them have achieved complete women's empowerment or gender parity.
- **Low Women's Empowerment Worldwide:** The vast majority of women worldwide, over 90%, live in countries where women's empowerment is categorized as low or moderate, and where progress towards achieving gender parity is also limited or moderate.
- **Challenges in Highly Developed Countries:** Gender equality challenges persist even in highly developed countries. Over 85 countries, including more than half in the high or very high human development categories, show low or moderate women's empowerment and gender parity.
- **Economic Progress Not Enough:** Economic progress alone does not ensure gender equality.
- **Gender Gap in India:** India has low women's empowerment and gender parity despite moderate human development, highlighting the need for concerted efforts to bridge the gender gap and uplift women's status.
- **Gender Equality and Women's Empowerment:** Gender equality alone does not guarantee

women's empowerment. No country with a gender gap has achieved high women's empowerment. About 8% of women live in countries with low empowerment but high gender parity.



Recommendations for Comprehensive Policy Action:

- **Health Policies:** Governments should support and promote universal access to sexual and reproductive health for all.
- **Equality in Education:** In the digital age, empowering women and girls can be achieved by focusing on reducing disparities in skills and the quality of education, particularly in STEM fields.
- **Work-life Balance and Support for Families:** Investing in policies and services that promote work-life balance is crucial to empower women and support their participation in the workforce.
- **Women's Equal Participation:** Establish targets and action plans to achieve gender parity in all spheres of public life, while eliminating discriminatory laws and regulations that hold women back.
- **Violence Against Women:** It is essential to implement a range of measures that focus on prevention of violence, changing social norms, and eliminating discriminatory laws and policies.

The Women's Empowerment Index (WEI):

- The WEI is a composite index developed by UN Women and UNDP.
- It measures women's empowerment across five dimensions; life and good health, education, skill-building and knowledge, labor and financial inclusion, participation in decision-making, and freedom from violence.
- The WEI captures women's power and freedom to make choices and seize life opportunities.
- It serves as a baseline for monitoring progress towards Sustainable Development Goal 5 (SDG5) on gender equality and empowerment of women and girls.

The Global Gender Parity Index (GGPI):

- The GGPI is a composite index that assesses gender disparities in key dimensions of human development, including health, education, inclusion, and decision-making.
- It reflects the status of women relative to men across different contexts and dimensions, highlighting the multidimensional and interrelated nature of gender equality.

Indian Initiatives to Reduce Gender Gap in Social, Economic, and Political Life:

Economic Participation, Health and Survival:

- **Beti Bachao Beti Padhao:** Ensures the protection, survival, and education of the girl child.
- **Mahila Shakti Kendra:** Empowers rural women with opportunities for skill development and employment.
- **Rashtriya Mahila Kosh:** Provides micro-credit at concessional terms to poor women for various

livelihood and income-generating activities.

- **Sukanya Samriddhi Yojana:** Empowers girls economically by opening bank accounts for them.
- **Female Entrepreneurship:** Initiatives like Stand-Up India and Mahila e-Haat support women entrepreneurs and SHGs (Self-Help Groups).

Education:

- **Kasturba Gandhi Balika Vidyalaya:** Schools opened in Educationally Backward Blocks (EBBs) to improve girls' education.

Political Participation:

- **Political Reservation:** 33% of seats in Panchayati Raj Institutions reserved for women.
- **Capacity Building of Elected Women Representatives:** Empowering women to participate effectively in governance processes.

These initiatives aim to address gender disparities in various aspects of life and foster women's empowerment and gender parity in India.

UN Women

- UN Women established in 2010 by the UN General Assembly to advance women's rights and needs globally.
- Supports UN Member States in achieving gender equality and setting global standards.
- Collaborates with governments and civil society to design and implement beneficial laws, policies, programs, and services for women and girls.
- **Focuses on four strategic priorities:**
 1. Women's leadership and political participation.
 2. Women's economic empowerment.
 3. Ending violence against women.
 4. Peace, security, and humanitarian action.

SOURCE:

<https://www.downtoearth.org.in/news/world/only-1-women-live-in-countries-with-high-gender-parity-female-empowerment-un-report-90685>

Q.1 Which of the following gives 'Global Gender Gap Index' ranking to the countries of the world?

- (a) World Economic Forum
- (b) UN Human Rights Council
- (c) UN Women
- (d) World Health Organization

ANSWER: (a)

Q.2 What are the four strategic priorities of UN Women to accelerate progress on gender equality and women's empowerment worldwide?

- (a) Women's economic empowerment, sustainable development, healthcare improvement, and education equality.
- (b) Ensuring women's access to technology, promoting cultural diversity, eradicating child labor, and fostering environmental conservation.
- (c) Women's leadership and political participation, women's economic empowerment, ending violence against women, and peace, security, and humanitarian action.

- (d) Advancing women's access to finance, promoting gender-responsive budgeting, improving maternal healthcare, and ensuring equal pay for equal work.

ANSWER: (c)

Q.3 Discuss the major challenges in achieving women's empowerment and gender equality globally, and propose comprehensive strategies that governments and stakeholders can adopt to overcome these challenges

INTERNATIONAL CRIMINAL COURT (ICC)

This article covers "Daily Current Affairs" and the topic details "International Criminal Court (ICC)". The topic "International Criminal Court (ICC)" has relevance in the "International Relations" section of the UPSC CSE exam.

For Prelims:

What is the International Criminal Court (ICC)? What are its functions?

For Mains:

GS2: International Institutions and their structure, mandate

Why in the news?

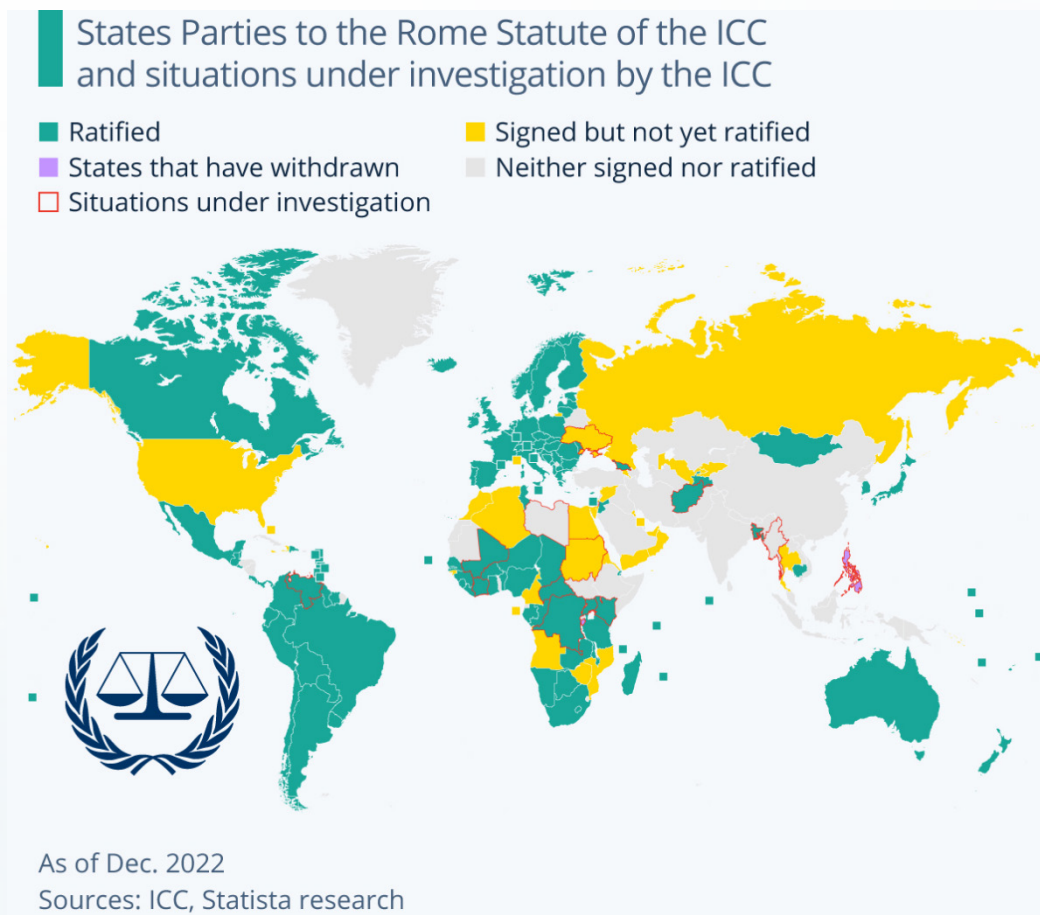
Russian President Vladimir Putin will skip the BRICS summit in South Africa because the International Criminal Court issued a warrant against him, putting South Africa in a challenging situation as an ICC member.

International Criminal Court (ICC)

- The International Criminal Court, situated in The Hague, Netherlands, is a permanent institution tasked with prosecuting individuals for serious international crimes, including genocide, war crimes, crimes against humanity, and aggression.
- It was created to combat worldwide impunity and hold criminals accountable under international law, irrespective of their position or status.
- *It should not be confused with the United Nations' International Court of Justice, also located in The Hague.*

The Rome Statute

- Prior to its operational establishment in 2002, the International Criminal Court (ICC) was established by its founding treaty, the Rome Statute, which was adopted by the UN General Assembly in 1998 in Rome, Italy.
- To become a member of the ICC or a State party to the Rome Statute, countries must sign and ratify the statute through their respective legislatures.
- Currently, there are 123 member countries in the ICC, with the largest representation from African nations.
- Significantly, countries such as India, China, Iraq, North Korea, and Turkey never signed the Rome Statute, while others like the US, Russia, Israel, and Syria signed but never ratified it.



Functions of ICC

Judges (Presidency and Judicial Divisions)

- The 18 judges of the International Criminal Court (ICC) are elected by the Assembly of States Parties (ASP) based on their qualifications, impartiality, and integrity.
- They serve 9-year, non-renewable terms.
- The ICC President and two Vice-Presidents, who lead the Court, are elected from among the 18 judges.

The Assembly

The Assembly of States Parties, comprising representatives from States that ratified or acceded to the Rome Statute, serves as the Court's management oversight and legislative body.

The Crimes

- The International Criminal Court (ICC) has jurisdiction over four main crimes under its founding treaty, the Rome Statute:
 - Genocide
 - Crimes against humanity
 - War crimes
 - Crime of aggression
- The ICC can prosecute serious violations, such as murder, rape, torture, and attacks against civilian populations.
- The crime of aggression involves the use of armed force by one State against another's sovereignty. On 15 December 2017, the Assembly of States Parties adopted a resolution activating the ICC's jurisdiction over the crime of aggression from 17 July 2018.

BRICS Group

BRICS is an informal interstate association of the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa



The advantages of the BRICS countries



Agriculture



Intellectual resources



Mineral resources



Natural resources



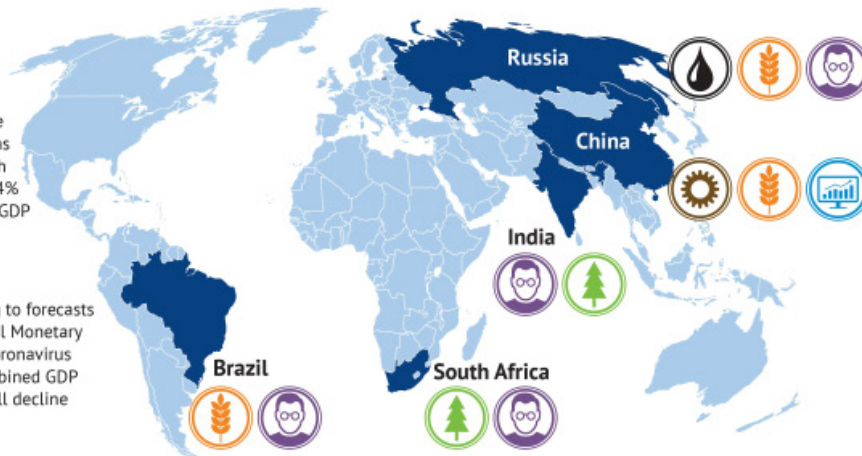
Powerful industry



Digital economy

■ In 2019, the total nominal GDP of the BRICS countries was \$20.8 trillion, which in value terms is 24% of the global total GDP at current prices

■ However, according to forecasts by the International Monetary Fund, due to the coronavirus pandemic, the combined GDP of the countries will decline by more than 5%



Today the BRICS countries account for



33.3% of world purchasing power parity GDP



42% of the world's population (3 billion people)



26% of the earth's land mass



19% of world exports



16% of world imports



19% of direct investment inflows



19% of direct investment outflows

The Jurisdiction

- The Court can exercise jurisdiction if genocide, crimes against humanity, or war crimes occurred on or after 1 July 2002, under these conditions:
 - The crimes were committed by a State Party's national.
 - The crimes were committed within the territory of a State Party.
 - The crimes were committed in a State that accepted the Court's jurisdiction.
 - The crimes were referred to the ICC Prosecutor by the United Nations Security Council (UNSC).

- The UNSC can refer cases, and acts of aggression can also be investigated, regardless of States Parties' involvement.
- If the UNSC doesn't refer to an act of aggression, the Prosecutor may investigate with certain conditions.
- The Court's jurisdiction for a crime of aggression is limited for States Parties that haven't ratified or accepted the relevant amendments.

Charges on President Putin

- Warrants were issued against Putin and Lvova-Belova for alleged war crimes of unlawfully deporting and transferring children from occupied areas of Ukraine to Russia.
- The charges fall under the Rome Statute's Articles 8(2)(a)(vii) and 8(2)(b)(viii).
- These alleged crimes took place in Ukrainian occupied territory since at least 24 February 2022, when Russia invaded Ukraine.
- The ICC is the international court responsible for prosecuting such crimes under the Rome Statute, adopted in 1998.

Doubts over ICC's the authority to prosecute President Putin

- Russia has consistently stated its non-recognition of the International Criminal Court's (ICC) jurisdiction.
- The ICC's authority extends to offences occurring after July 1, 2002, within countries that ratified the agreement or committed by nationals of such countries.
- Russia, the United States, China, and India are not among the 123 States Parties to the Rome Statute that acknowledge the ICC's authority.
- Ukraine, although not a State Party, accepted the ICC's jurisdiction for alleged crimes committed on its territory during specific periods in 2013 and 2014.

What is BRICS that President Putin won't be attending in person?

Sources:

Why Putin won't go to South Africa for the BRICS summit in August | The Indian Express
Infographics- Valdaiclub.com

Q1. With reference to International Criminal Court (ICC), consider the following statements:

1. The International Criminal Court (ICC) is a permanent institution located in South Africa, responsible for prosecuting individuals for international crimes, including genocide, war crimes, crimes against humanity, and aggression.
2. The ICC can prosecute crimes that occurred after July 1, 1945.
3. The ICC can prosecute crimes if committed by a State Party national, within a State Party's territory, or in a State that has accepted the ICC's jurisdiction.

Which of the statements given above is/are **NOT** correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (a)

Q2. Consider the following statements:

1. India
2. Iraq
3. South Africa
4. Turkey
5. US
6. Russia

How many of the abovementioned countries have not signed the Rome Statute?

- (a) Only Two
(b) Only Three
(c) Only Five
(d) All Six

Answer: (b)

Q3. Discuss the role of the International Criminal Court (ICC) in prosecuting international crimes and challenges faced by ICC.

DIRECTORATE OF ENFORCEMENT

This article covers "Daily Current Affairs" and the topic details "Directorate of Enforcement". The topic "Directorate of Enforcement" has relevance in the "Indian Polity" section of the UPSC CSE exam.

For Prelims:

What is the Directorate of Enforcement? What are its functions?

For Mains:

GS2: Statutory, Regulatory, and various quasi judicial bodies

Why in the news?

The Madras High Court recently upheld the Enforcement Directorate's (ED) arrest of Tamil Nadu Minister V. Senthilbalaji.

About Directorate of Enforcement

The Directorate of Enforcement (ED) is a multidisciplinary organisation responsible for investigating economic crimes and violations of foreign exchange laws. It is under administrative control of the Department of Revenue, Ministry of Finance.

History of Directorate of Enforcement

Year	Event
1956	Enforcement Unit formed in the Department of Economic Affairs for handling Exchange Control Laws violations under FERA '47

1957	Enforcement Unit renamed as Enforcement Directorate and another branch opened at Madras
1960	Administrative control of the Directorate was shifted from the Department of Economic Affairs to the Department of Revenue.
1973	FERA '47 repealed and replaced by FERA, 1973
1973-1977	The Directorate was under the administrative jurisdiction of the Department of Personnel & Administrative Reforms
1977- Present	The Directorate operates under the administrative control of the Department of Revenue, Ministry of Finance
2000	FERA, 1973 repealed and replaced by FEMA
2002	Prevention of Money Laundering Act, 2002 (PMLA) enacted and ED entrusted with its enforcement
2018	Fugitive Economic Offenders Act, 2018 (FEOA) passed and ED entrusted with its enforcement

Composition of ED:

- The ED is headed by a Director, who is an IRS officer of the rank of Additional Director General of Revenue.
- The Director is appointed by the Central government and has a tenure of two years, which can be extended by one year.
- The Director is assisted by a number of Special Directors, Joint Directors, and Deputy Directors.
- The ED also has a number of regional offices and sub-regional offices across India.

Acts under which ED functions:

- **The Prevention of Money Laundering Act, 2002 (PMLA):**
 - It is a criminal law enacted to prevent money laundering and confiscate property derived from such activities.
 - The Enforcement Directorate (ED) holds the responsibility for investigating assets linked to proceeds of crime.
 - The law allows for the provisional attachment of property and prosecution of offenders in a Special court.
- **The Foreign Exchange Management Act, 1999 (FEMA):**
 - It is a civil law designed to facilitate external trade, payments, and the development of the foreign exchange market in India.
 - The ED is responsible for investigating suspected contraventions of foreign exchange laws.
 - The law grants the authority to adjudicate and impose penalties for contraventions of foreign exchange regulations.
- **The Fugitive Economic Offenders Act, 2018 (FEOA):**
 - The law aims to prevent economic offenders from evading Indian law by remaining abroad.
 - The ED is empowered to attach properties of fugitive economic offenders and confiscate them.
- **The Foreign Exchange Regulation Act, 1973 (FERA):**
 - *This law has been repealed and its functions included adjudicating Show Cause Notices and pursuing prosecutions for contraventions until 31st May 2002.*
- **Sponsoring agency under COFEPOSA:**
 - The Directorate is the sponsoring agency under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA).
 - ED is authorised to sponsor cases of preventive detention related to contraventions of FEMA.

Criticism of ED

- **Misuse of power:** The ED has been accused of using its powers to target political opponents and harass businesses. For example, in 2018, the ED raided the offices of the National Herald, a newspaper owned by the Gandhi family, on charges of money laundering. The raids were widely seen as politically motivated, and the ED eventually dropped the charges.
- **Lack of transparency:** The ED's investigations are often shrouded in secrecy, and the agency has been accused of not being transparent about its methods and procedures. For example, the ED does not release the names of the people it is investigating, and it often refuses to share information with the accused or their lawyers.
- **Political bias:** The ED has been accused of being biased in its investigations, and of targeting political opponents of the ruling party. For example, the ED has been criticized for its investigation into the Rafale fighter jet deal, which is seen as a major political issue in India.
- **Low conviction rate:** The ED has a low conviction rate, and many of the cases it investigates do not result in any charges being filed. For example, between 2005 and 2013, the ED filed charges in only 1% of the cases it investigated.

Solutions to these issues:

- **Strengthening oversight:** The ED should be subject to stronger oversight, and it should be made more accountable for its actions. This could be done by creating an independent oversight body, or by giving more powers to the existing oversight bodies.
- **Boosting ED's Funding:** Providing more financial resources to the ED will enhance the quality of investigations and lead to higher conviction rates.
- **Strengthening Manpower:** Increasing the number of personnel in the ED will improve efficiency and reduce the backlog of cases, enhancing the agency's overall credibility.
- **Ensuring Autonomy:** Granting autonomous status to the ED will address concerns about its independence and bolster its reputation as a reputable agency combating economic offenses in the country.

Ultimately, the goal should be to create an ED that is effective in combating economic crime, but that also respects the rights of individuals and businesses. By addressing the issues raised above, the government can help to ensure that the ED is a force for good in India.

Sources:

[Explained | Senthilbalaji case: What has the SC said about ED's powers to arrest and seek custody in the past? – The Hindu](#)

Q1. With reference to Enforcement Directorate (ED), consider the following statements:

1. The Enforcement Directorate (ED) is an autonomous financial investigation agency under the Department of Economic Affairs, Ministry of Finance.
2. The ED operates only within the territorial boundaries of India and does not have the jurisdiction to investigate international financial crimes.
3. The Director of the Enforcement Directorate is appointed by the Central government and has a fixed tenure of two years, which can be extended by one more year.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Answer: (c)

Q2. Consider the following:

1. Companies Act, 2013
2. The Foreign Exchange Regulation Act, 1973
3. The Foreign Exchange Management Act, 1999
4. The Fugitive Economic Offenders Act, 2018

Under how many of the aforementioned acts does the Enforcement Directorate (ED) function?

(a) Only one

(b) Only two

(c) Only three

(d) All Four

Answer: (c)

Q3. Critically analyze the effectiveness of the Enforcement Directorate in combating financial crimes and money laundering in India.

THE RAJASTHAN PLATFORM BASED GIG WORKERS BILL, 2023

This article covers "Daily Current Affairs" and the topic details "The Rajasthan Platform Based Gig Workers Act, 2023". The topic "The Rajasthan Platform Based Gig Workers Act, 2023" has relevance in the "Governance" section of the UPSC CSE exam.

For Prelims:

What is The Rajasthan Platform Based Gig Workers Bill, 2023?

Who are platform workers? Who are gig workers?

For Mains:

GS2: Governance

Why in the news?

The Rajasthan Assembly recently passed a bill to provide social security to gig workers.

Key Points of the Bill

The Rajasthan Platform Based Gig Workers (Registration and Welfare) Bill is designed to provide essential rights and protections to gig workers. It ensures that gig workers are registered with the state and granted access to various social security schemes. Moreover, they will have a platform to address their grievances and concerns.

- **Registration:** The bill aims to register all gig workers and aggregators in the state, maintaining a comprehensive database and issuing unique IDs to each worker.
- **Welfare Board:** A key aspect of this legislation is the establishment of the Platform Based Gig

Workers Welfare Board.

- The Welfare Board will consist of State officials, five representatives each from gig workers and aggregators, and two additional members from Civil Society and other fields.
 - At least one-third of the nominated members must be women.
- **Workers Fund and Welfare Fee:** One of the crucial highlights of the Rajasthan Bill is the creation of the “Platform Based Gig Workers Fund and Welfare Fee.”
 - This will establish a social security and welfare fund dedicated to supporting gig workers.
 - Funding for this initiative will come from various sources, including a fee levied on aggregators.
 - The specific rate of this fee, based on a percentage of each transaction involving a platform-based gig worker, will be notified by the state government.
- **Penalties for violations:** To ensure compliance, the bill introduces penalties for aggregators who fail to pay the welfare fee on time.
 - They will be subject to an interest charge of 12 per cent per annum from the due date.
 - Additionally, in case of violations of other provisions within the Act, the state government has the authority to impose fines ranging from Rs 5 lakh for the first contravention to Rs 50 lakh for subsequent contraventions.

Significance of Rajasthan Platform Based Gig Workers (Registration and Welfare) Bill:

- Gig workers engaged on a contract basis currently lack social security benefits and labour law coverage, thus the bill seeks to address these vulnerabilities and protect their rights.
- It introduces a formal registration process to ensure recognition and accountability for gig workers and grants them access to social security schemes, thereby enhancing their welfare.
- The establishment of the Platform Based Gig Workers Welfare Board will provide a platform to address their grievances.
- Additionally, the bill introduces the “Platform Based Gig Workers Fund and Welfare Fee” to secure social security for gig workers from the value of their transactions, rather than relying on charity from aggregators or government allocations.
- By setting a precedent for fair treatment, this bill can inspire other states and the country to prioritise worker welfare and create an inclusive gig economy.

Gig Economy

- **A gig economy is a labour market characterised by short-term contracts or freelance work as opposed to permanent jobs.**
 - The Government Think Tank- Niti Aayog released a report titled ‘India’s Booming Gig and Platform Economy’ in 2022.
- In its report, **NITI Aayog defines ‘gig workers’ as individuals engaged in income-earning activities outside of the traditional employer-employee relationship and also in the informal sector.**
 - Gig workers can be classified into two main categories: platform workers and non-platform workers.
- **Platform workers rely on online software apps or digital platforms for their work.**
- **Non-platform gig workers are typically casual wage workers, working either part-time or full-time.**

Sector	Description	Sub-Sectors Included	Example Platforms
Asset-Sharing Services	Digital platforms that facilitate short-term P2P rentals of one owner's (or "freelancer") property to another individual	Home-sharing, car-sharing, boat-sharing, parking space-sharing, P2P equipment sharing	HomeAway TURO airbnb
Transportation-Based Services	Digital platforms that require a freelance driver to complete the requested transport service	Ride-sharing, carpooling, restaurant delivery, and goods delivery	BlaBlaCar Careem DOORDASH Uber
Professional Services	Digital platforms that connect freelancers directly with businesses to complete projects	Business work, microwork, design, tech/coding, writing/translation, administrative	Upwork CATALANT guru
Handmade Goods, Household & Miscellaneous Services (HGHS)	Digital platforms for freelancers to sell homemade crafts or offer on-demand services for household-related tasks	Home-services, babysitting, handmade crafts, tutoring, pet services, and misc. (DJ, events, etc.)	Care.com Airtasker Etsy

Significance of the Gig Economy:

- The gig economy revolves around temporary or freelance jobs facilitated through online platforms, offering adaptability to workers' needs and the demand for flexible lifestyles.
 - **Time Flexibility:** Gig workers have the freedom to choose their work hours according to their preferences.
 - **Income Flexibility:** The gig economy provides an appealing market for individuals seeking extra income due to its high level of flexibility.

Observations of the Report:

- According to the report, 47% of gig work falls under medium-skilled jobs, 22% in high-skilled, and around 31% in low-skilled jobs.
- Drivers and salespersons constituted more than 52% of gig workers in the year 2019-2020.
- Regarding industries, approximately 26.6 lakh gig workers were involved in retail trade and sales, while around 13 lakh were in the transportation sector.
- Manufacturing and finance/insurance activities employed roughly 6.2 lakh and 6.3 lakh gig workers, respectively.

Niti Aayog's Recommendations for the Gig Economy

Niti Aayog's recommendations for the gig economy aim to create a more inclusive and secure environment for workers.

- They include providing fiscal incentives to platforms with substantial representation of women workers and those accessible to Persons with Disabilities. The report suggests promoting gender-inclusive communication by having more women managers and supervisors.
- Firms are advised to offer retirement plans, insurance coverage, and social security benefits from a corpus fund to assist gig workers during contingencies.
- The extension of social security benefits in partnership mode and offering paid sick leave are also recommended to ensure worker welfare and minimum earnings.

Sources:

Drawn from gig workers' struggles, hewn in Rajasthan – The Hindu

Q1. With reference The Rajasthan Platform Based Gig Workers Bill, 2023, consider the following statements:

1. The Bill aims to provide gig workers with access to various social security schemes and establish a Welfare Board comprising State officials and representatives from gig workers and aggregators.
2. The Platform Based Gig Workers Fund and Welfare Fee will be funded solely by a fee levied on aggregators.
3. The bill aims to discourage gig workers from engaging in contractual work and promote traditional full-time employment with steady pay and benefits.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (a)

Q2. Consider the following statements:

1. The gig economy is characterized by permanent jobs and long-term contracts, providing stability to workers.
2. NITI Aayog defines gig workers as individuals engaged in income-earning activities outside of the traditional employer-employee relationship.
3. The gig economy offers time flexibility to workers, allowing them to choose their work hours as per their preferences.
4. Non-platform gig workers typically work on short-term contracts and freelance assignments.

How many of the abovementioned statements are correct ?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All Four

Answer: (b)

Q3. Discuss the significance of the Rajasthan Platform Based Gig Workers (Registration and Welfare) Bill in the context of the gig economy. How does it address the vulnerabilities of gig workers and enhance their welfare?

OVER 5 CR MGNREGS WORKERS' NAMES DELETED IN 2022-23

This article covers "Daily Current Affairs" and the topic details "Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)". The topic "Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)" has relevance in the "Governance" section of the UPSC CSE exam.

For Prelims:

Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), its aims, objectives, im-

plementing agencies

For Mains:

GS2: Welfare Schemes for vulnerable sections and their performance

Why in the news?

In a written reply to the Lok Sabha on July 25, Rural Development Minister stated that over 5 crore workers have been removed from the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in the financial year 2022-23.

Reasons for deletion:

The Ministry has described these deletions as a routine procedure carried out by State governments. They have provided a comprehensive list of five reasons for such deletions, which include instances such as

- fake job cards,
- duplicate job cards,
- individuals unwilling to work,
- families permanently relocating from the gram panchayat area,
- cases where a job card is issued to a single person who has passed away.

The number of job card deletions is increasing due to the government's emphasis on linking MGNREGS job cards with Aadhaar cards and making wage payments through the Aadhaar-Based Payments System (ABPS).

Issues with Aadhaar-Based Payments System (ABPS) for MGNREGS

- Payments may get credited to wrong or multiple bank accounts linked to Aadhaar numbers
- Payments may get rejected due to inactive Aadhaar or other technical errors
- Aadhaar does not help in corruption control or grievance redressal
- Aadhaar linking is not justified for MGNREGA payments which are not subsidies or benefits but wages for work done.

About MGNREGS:

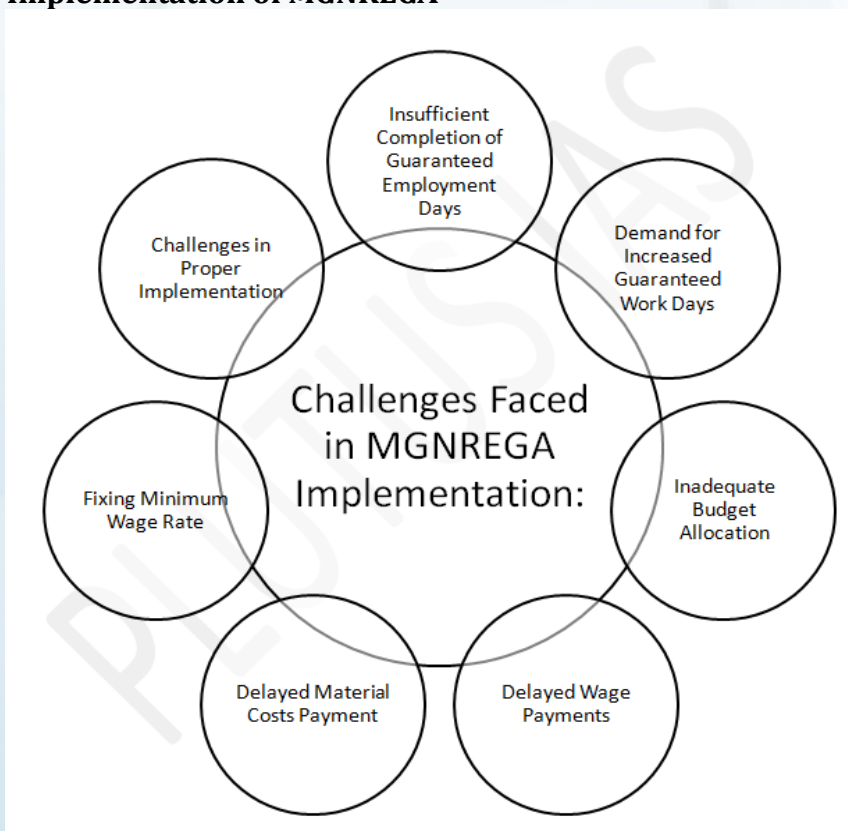
- The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) was enacted in 2005 to improve the livelihood security of rural households.
- It is a **demand-driven program that guarantees 100 days of unskilled labor per year to every rural household** that requests it, covering all districts in the country except those with a 100% urban population.
- It mandates that **at least one-third of the beneficiaries must be women**, and wages are set according to the rates specified for agricultural labourers in the state, as per the Minimum Wages Act, 1948.
- The MGNREGA wage rates are fixed according to changes in the **CPI-AL (Consumer Price Index-Agriculture Labour)**, which reflects the increase in the inflation in rural areas.
- The responsibility for planning, execution, and monitoring of the undertaken works primarily lies with Panchayati Raj Institutions (PRIs).
- Gram Sabhas are entrusted with recommending the works to be undertaken, and at least 50 per cent of these projects must be executed by them.
- Funding for MGNREGS is shared between the Central and State Governments.
 - The Central Government bears the entire cost of unskilled labour, 75 percent of semi-skilled and skilled labour costs, 75 percent of material costs, and 6 percent of administrative expenses.

- The ideal wage and material cost ratio is set at 60:40 at the panchayat level.
- The scheme mandates that workers be given a daily unemployment allowance if they are not provided with work within 15 days of requesting it. Additionally, unskilled workers must be paid their wages within 15 days, and the Centre must compensate them if there is a delay.

Significance of MGNREGS:

- MGNREGS holds paramount importance as a social security scheme aimed at generating employment opportunities for the rural poor, thus ensuring livelihoods in rural areas.
- It empowers women and other traditionally marginalized sections of society by providing them with the Right to Work.
- Furthermore, the program plays a pivotal role in bolstering the rural economy through the creation of essential infrastructure assets.
- Additionally, MGNREGS contributes significantly to sustainable development, particularly evident in its emphasis on water conservation efforts.
- The program also fosters decentralised, participatory planning and strengthens Panchayati Raj Institutions (PRIs), promoting democracy at the grassroots level.
- It additionally encourages transparency and accountability in governance, contributing to the overall welfare of the nation.

Challenges to the Implementation of MGNREGA



- **Insufficient Completion of Guaranteed Employment Days:**
 - Since 2016-17, less than 10% of households have completed the guaranteed 100 days of wage employment per year.
 - The average days of employment provided per household have been declining, reaching a five-year low, with just 42 days in the current financial year.

- **Demand for Increased Guaranteed Work Days:**
 - Activist groups and the Parliament Committee have strongly recommended increasing the guaranteed work days from 100 to 150 per household.
 - This is to provide rural populations with a safety net for a longer period in the year.
- **Inadequate Budget Allocation:**
 - Peoples' Action for Employment Guarantee (PAEG) and NREGA Sangarsh Morcha demand a minimum budget of ₹2.72 lakh crore for the upcoming financial year to fulfill the legally guaranteed 100 days of work per household.
- **Delayed Wage Payments:**
 - The scheme has faced issues of delayed wage payments to workers.
 - As of December 14, 2022, the Centre owed ₹4,700 crore in MGNREGA wages to 18 States, despite the financial year nearing its end.
 - Delayed wage payments have been criticized as equivalent to “forced labour” by the Supreme Court.
- **Delayed Material Costs Payment:**
 - The government also owed ₹5,450 crore worth of material costs (for MGNREGA projects) to 19 States as of December 14.
 - This delay in material costs impacts the supply chain and hinders timely completion of MGNREGA projects.
- **Fixing Minimum Wage Rate:**
 - The method of fixing the minimum wage rate under MGNREGA based on the Consumer Price Index-Agricultural Labourers has been questioned.
 - The type of work performed by agricultural laborers and MGNREGA workers is different, and some suggest using the Consumer Price Index-Rural for a more accurate and higher wage rate that considers education and medical care expenses.
- **Challenges in Proper Implementation:**
 - Fake job cards and widespread corruption have affected the proper implementation of the scheme.
 - Late uploading of muster rolls and inconsistent payment of unemployment allowance have been reported, further hindering the program's effectiveness.

MGNREGS remains a crucial lifeline for millions of rural workers, and its continued success depends on the government's commitment to addressing the identified challenges and implementing measures that ensure its equitable and effective implementation for the betterment of rural livelihoods and sustainable development.

Sources:

Parliament proceedings | Names of 5 crore MGNREGS workers deleted in 2022-23, Minister informs Lok Sabha – The Hindu

Q1. With reference Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), consider the following statements:

1. MGNREGS guarantees 100 days of employment per household per year.
2. The responsibility for planning, execution, and monitoring of MGNREGS works lies primarily with the Central Government.
3. The minimum wage rate under MGNREGS is fixed on the basis of the Consumer Price Index-Rural.
4. The government's emphasis on linking MGNREGS job cards with Aadhaar cards has resulted in a

decrease in the number of job card deletions.

Which of the statements given above is/are correct?

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

Answer: (a)

Q2. Consider the following:

1. The average days of employment provided per household under MGNREGS increased in the financial year 2022-23 compared to the previous years.
2. The Supreme Court of India has mandated the use of Aadhaar-Based Payments System (ABPS) for MGNREGS wage payments.
3. The government's efforts to link MGNREGS job cards with Aadhaar cards have effectively eliminated fake job cards and corruption from the scheme.

How many of the abovementioned statement/s is/are correct ?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

Answer: (d)

Q3. Examine the challenges faced in the implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in recent years.

INDIA VIETNAM RELATIONS

This article covers "Daily Current Affairs" and the topic details "INDIA VIETNAM RELATIONS". The topic "INDIA VIETNAM RELATIONS" has relevance in the International Relations section of the UPSC CSE exam.

For Prelims:

About INS Kirpan?

Facts About Vietnam?

For Mains:

GS 2: International Relations

Areas of Cooperation Between India and Vietnam?

Challenges in India-Vietnam Relations?

Why in the news?

The Navy has decommissioned INS Kirpan and handed it over to Vietnam People's Navy, Reflecting the growing defence ties and strategic partnership between New Delhi and Hanoi.

About INS Kirpan

INS Kirpan is a warship belonging to the Indian Navy. It is classified as a Khukri class missile corvette. The Khukri class corvettes are a group of naval vessels equipped with various capabilities to fulfill multiple roles, including coastal and offshore patrol, surface warfare, coastal security, anti-piracy operations

key features of INS Kirpan:

- **Commissioning:** INS Kirpan was commissioned into the Indian Navy on January 12, 1991. It became an active part of the Indian Navy's fleet to fulfill its designated roles and responsibilities.
- **Propulsion:** The corvette is powered by Diesel Engines assembled in India under license by Kirloskar Group. This use of indigenous engines showcases India's efforts in self-reliance and the growth of its defense capabilities.
- **Indigenous Content:** Approximately 65% of the ship's components and systems are indigenous, further highlighting India's commitment to domestic defense production and technological advancements.
- **Speed and Maneuverability:** INS Kirpan is capable of achieving a speed of more than 25 knots, which allows it to operate effectively in various maritime environments and execute its missions efficiently.
- **Armaments:** The missile corvette is equipped with a range of armaments, including missile systems, guns, and other offensive and defensive weaponry. These armaments enable it to engage threats effectively and protect vital sea lanes.
- **Versatility:** INS Kirpan's design and capabilities make it a versatile naval asset, capable of carrying out various tasks in different scenarios. From safeguarding coastal regions to conducting combat operations, it contributes significantly to India's maritime security.



Facts About Vietnam:

- **Location:** Southeast Asia, bordered by China, Laos, Cambodia, and the South China Sea.
- **Capital:** Hanoi
- **Largest Rivers:** The Mekong in the south and the Red in the north, ending at the South China Sea.

- **Currency:** Vietnamese Dong (VND)
- **Independence:** September 2, 1945, from France.
- **Historical Events:** Vietnam War (1955-1975) involving the US and North and South Vietnam, followed by reunification in 1976.

Areas of Cooperation Between India and Vietnam:

Historical and Diplomatic Relations:

- In 1956, India took a significant step in strengthening bilateral ties by establishing the Consul General's office in Hanoi, Vietnam's capital city.
- India supported Vietnam in opposing US intervention during the Vietnam War, which contributed to strengthening bilateral ties.

Strategic Partnership: In July 2007, India and Vietnam elevated their relations to a "Strategic Partnership," signifying a deeper engagement in various fields.

Comprehensive Strategic Partnership: In 2016, the bilateral relations were further elevated to a "Comprehensive Strategic Partnership," indicating a comprehensive and multifaceted cooperation.

Economic Cooperation:

Mekong-Ganga Cooperation (MGC): Both countries are members of MGC, working towards enhancing ties between India and Southeast Asian nations and promoting development cooperation.

Bilateral Trade: In the financial year 2021-22, bilateral trade between India and Vietnam reached USD 14.14 billion, with a 27% growth rate.

Capacity Building: India provides training programs and scholarships under the Indian Technical and Economic Cooperation (ITEC) to Vietnam, contributing to Vietnam's socio-economic development.

Political Backing:

- Both countries support each other in various international forums and organizations, exemplifying their commitment to global cooperation.
- Vietnam has supported India's bid to become a permanent member of the United Nations Security Council (UNSC) and join the Asia-Pacific Economic Cooperation (APEC).

Defense Cooperation:

- India extended a Line of Credit (LoC) of USD 100 million in September 2014 for the procurement of 12 high-speed patrol boats for the Vietnamese border guard force.
- In 2016, an additional USD 500 million defense LoC was extended to Vietnam.
- A Joint Vision Statement on India-Vietnam defense partnership towards 2030 was signed in June 2022.
- The countries conduct joint army exercises, like the Vietnam-India Bilateral Army Exercise (Ex VINBAX).

Maritime Security and Cooperation:

- Both countries firmly support freedom of navigation, overflight, and lawful commerce in national waters, in accordance with international laws, particularly UNCLOS.
- India and Vietnam emphasize that the South China Sea Code of Conduct should be consistent with relevant UN conventions and respect the legitimate rights and interests of nations not participating in the discussions.

Challenges in India-Vietnam Relations:

- **Regional Geopolitical Complexities:** Both countries navigate complex regional dynamics, particularly concerning the South China Sea, which may impact their bilateral cooperation.
- **Economic Imbalances:** While trade has grown, addressing trade imbalances and promoting more balanced economic ties remains a challenge.

- **Connectivity:** Improving physical and digital connectivity between India and Vietnam to enhance trade and people-to-people exchanges.
- **Competition for Influence:** Amidst growing engagement, both nations face competition from other major powers seeking to expand their influence in Southeast Asia.
- **Non-Tariff Barriers:** Addressing non-tariff barriers and ensuring a conducive business environment for investments and trade.
- **Defense Coordination:** Enhancing coordination in defense cooperation and joint military exercises to address regional security concerns.

SOURCE:

<https://indianexpress.com/article/india/in-latest-move-towards-growing-ties-india-hands-over-missile-corvette-ins-kirpan-to-vietnam-8856051/>

Q.1 In the Mekong-Ganga Cooperation, an initiative of six countries, which of the following is/are not a participant/ participants?

1. Bangladesh
2. Cambodia
3. China
4. Myanmar
5. Thailand

Select the correct answer using the code given below:

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

Answer: (c)

Q.2 Consider the following pairs:

	River	Flows into
1.	Mekong	Andaman Sea
2.	Thames	Irish Sea
3.	Volga	Caspian Sea
4.	Zambezi	Indian Ocean

Which of the pairs given above is/are correctly matched?

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

Answer: (c)

Q.3 Discuss the evolving dynamics of India-Vietnam relations and the challenges faced in deepening their Comprehensive Strategic Partnership. Also, analyze the potential areas of co-operation and the role of regional geopolitics in shaping their bilateral ties.

RESOURCE EFFICIENCY CIRCULAR ECONOMY INDUSTRY COALITION (RECEIC)

This article covers "Daily Current Affairs" and the topic details "Resource Efficiency Circular Economy Industry Coalition (RECEIC)". The topic "Resource Efficiency Circular Economy Industry Coalition (RECEIC)" has relevance in the "Economy" section of the UPSC CSE exam.

For Prelims:

What is the Resource Efficiency Circular Economy Industry Coalition (RECEIC)?

What is Circular Economy?

For Mains:

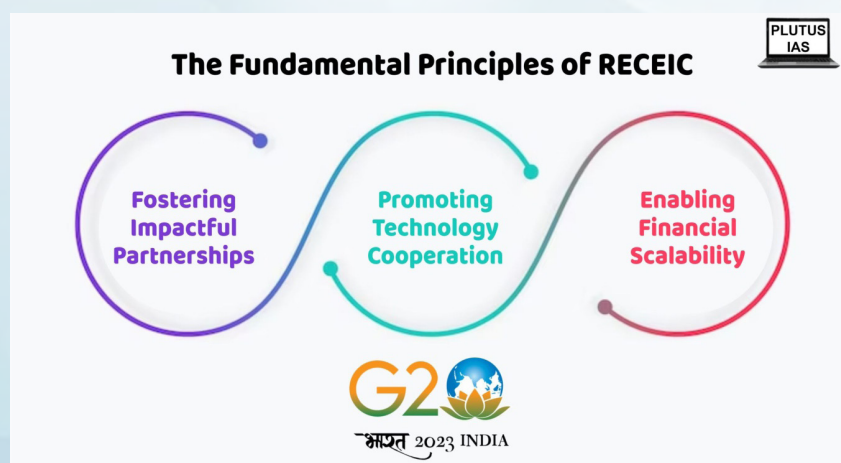
GS2: Economic Development, Environment

Why in the news?

The Resource Efficiency Circular Economy Industry Coalition (RECEIC) was launched on the sidelines of the 4th G-20 Environment and Climate Sustainability Working Group (ECSWG) and Environment and Climate Ministers' meeting in Chennai. The coalition aims to promote resource efficiency and circular economy practices in the G-20 countries.

What is RECEIC?

- The Coalition, conceptualised by India's G20 Presidency, is expected to be an industry-driven and self-sustaining initiative that will continue to function even after India's G20 Presidency ends.
- The coalition comprises "39 original members representing 11 different countries." The main purpose of RECEIC is to serve as a platform for exchanging knowledge and best practices, encouraging sustainable approaches within its participating industries.
- The fundamental principles of RECEIC centre on
 - fostering impactful partnerships
 - promoting technology cooperation
 - enabling financial scalability
- **Their aim is to tackle environmental issues arising from waste, encompassing areas such as plastics, microplastics, e-waste, and chemical waste.**
- The launch of RECEIC included the signing of the foundational charter and the unveiling of the coalition's logo. Dignitaries from seven countries, including Mauritius, Denmark, Italy, Canada, UAE, France, and the European Union, participated in the event.

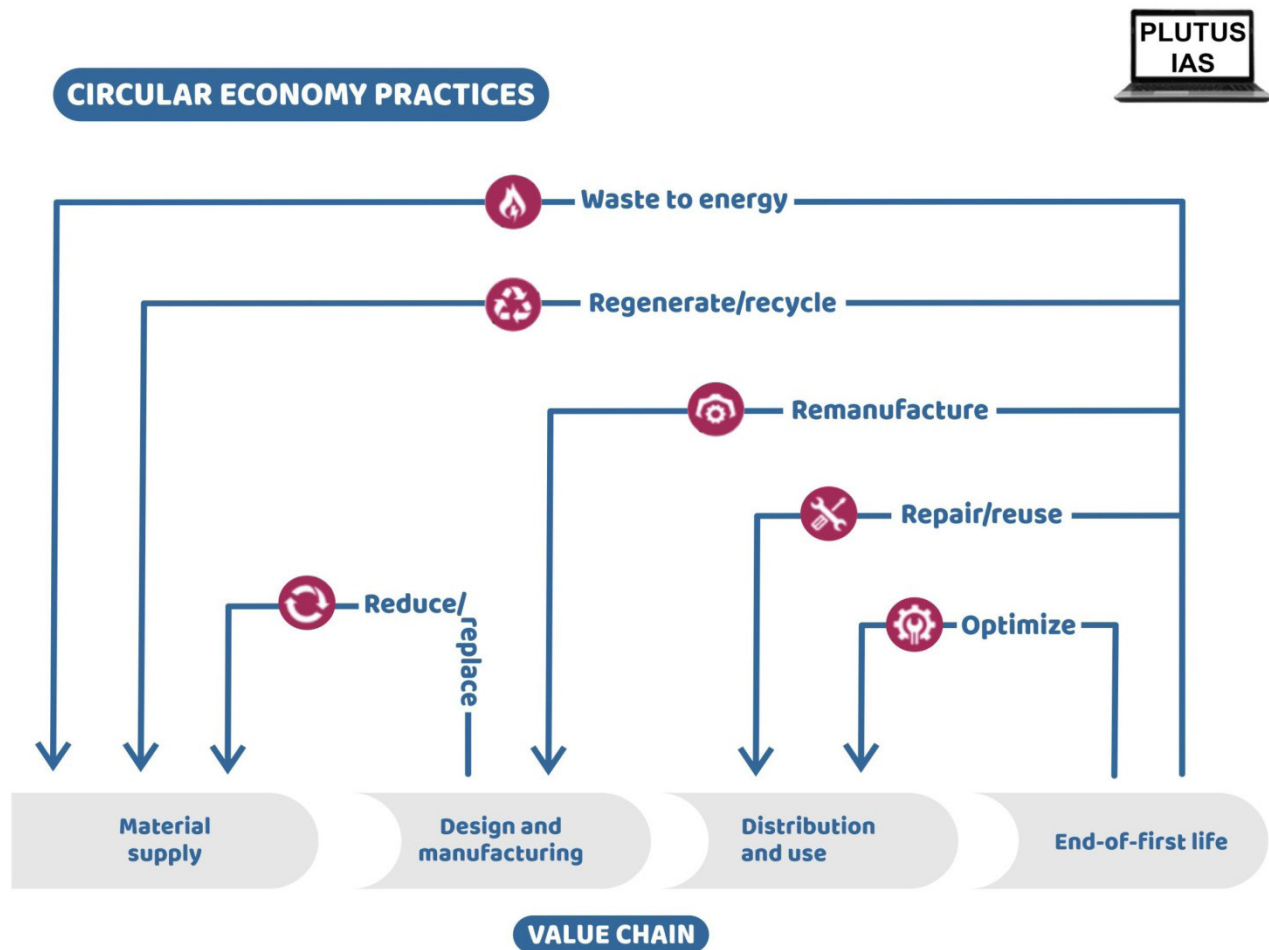


Circular Economy

The circular economy is a production and consumption model that emphasizes various practices to maximize the use of existing materials and products, aiming to extend their life cycle and minimize waste.

Key Principles:

- **Sharing:** Encouraging the sharing of resources and products among multiple users to optimize their utilization.
- **Leasing:** Promoting leasing or rental services for products, enabling multiple users to benefit from a single item's functionality.
- **Reusing:** Emphasizing the reuse of products or materials in their original form for as long as possible.
- **Repairing:** Encouraging the repair and maintenance of products to extend their useful life and prevent premature disposal.
- **Refurbishing:** Upgrading or renovating products to give them a new life and improve their functionality.
- **Recycling:** Collecting and processing materials from discarded products to create new items or inputs for other industries.



Contrasting the Linear Economic Model

- **Traditional Approach:** The linear economic model follows a linear path of take-make-consume-throw away, leading to excessive resource consumption and waste generation.

- **Challenging Planned Obsolescence:** The circular economy opposes planned obsolescence, where products are intentionally designed with a limited lifespan to stimulate frequent replacements.

Benefits of Transitioning to a Circular Economy

Environmental Protection:

- **Reducing Resource Usage:** By reusing and recycling products, natural resource consumption is minimized, curbing landscape disruption and habitat destruction.
- **Combating Climate Change:** Circular practices contribute to lower greenhouse gas emissions, as industrial processes and waste management are significant emission sources.

Reduced Raw Material Dependence:

- **Addressing Finite Supplies:** With a growing global population, circularity helps mitigate the risks associated with limited raw materials.
- **Mitigating Import Dependency:** Recycling raw materials domestically reduces reliance on imports, stabilizing supply chains and mitigating price fluctuations.

Job Creation and Consumer Savings:

- **Fostering Economic Growth:** Transitioning to a circular economy promotes innovation, making industries more competitive and supporting economic growth.
- **Job Opportunities:** Job creation is stimulated, with estimates suggesting hundreds of thousands of new jobs in the EU alone by 2030.
- **Enhanced Consumer Experience:** Durable and innovative products lead to improved quality of life for consumers and long-term cost savings.

Government Initiatives to Promote Circular Economy:

- **Policy Formulation:** Government has introduced rules like Plastic Waste Management, e-Waste Management, Construction and Demolition Waste Management, and Metals Recycling Policy to address waste management and resource utilization.
- **NITI Aayog's Efforts:** NITI Aayog has initiated projects for sustainable economic growth, waste utilization, promoting industrial by-products' usage, and organizing conferences on sustainable growth through recycling.
- **Strategic Collaboration:** NITI Aayog, along with ministries, has prepared resource efficiency strategy papers for sectors like steel, aluminum, construction, demolition, and e-waste, aiming to transition towards a circular economy.
- **Committee Formation:** 11 committees, led by concerned ministries, officials, experts, and industry representatives, have been established to develop action plans for implementing circular economy practices in their focus areas.

The circular economy presents a sustainable and economically viable alternative to the linear consumption pattern. Emphasising reuse, recycling, and responsible production practices, it offers environmental protection, resource efficiency, and economic benefits for individuals and society as a whole. By adopting this model, we can work towards a greener and more prosperous future.

Sources:

39 MNCs come together for circular economy coalition – The Hindu

Q1. With reference Resource Efficiency Circular Economy Industry Coalition (RECEIC), consider the following statements:

1. RECEIC is an industry-driven and self-sustaining coalition aimed at promoting resource efficiency and circular economy practices in G-20 countries.
2. The RECEIC initiative is solely driven by India's G20 Presidency, and its existence is expected to

end after India's presidency term concludes.

3. The coalition aims to focus solely on environmental issues related to waste, such as plastics, microplastics, e-waste, and chemical waste.

Which of the statements given above is/are **NOT** correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (b)

Q2. Consider the following :

1. The circular economy opposes planned obsolescence, which involves intentionally designing products with a limited lifespan to encourage frequent replacements.
2. Transitioning to a circular economy leads to a decline in job opportunities and economic growth, as it discourages innovation.
3. Transitioning to a circular economy primarily benefits businesses and industries with little impact on consumers.

How many of the abovementioned statements are correct ?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a)

Q3. Examine the role of the circular economy in addressing environmental challenges, and discuss how RECEIC can contribute to tackling these issues.

General Studies - 3

(Technology, Economic Development, Biodiversity,
Security & Disaster Management)

CRITICAL MINERALS

Relevance:

For Prelims:

What are Critical Minerals?

Critical Minerals for India?

For Mains:

GS 3: Science and Technology

Significance of Critical Minerals for India?

Challenges for India?

Why in the news?

An expert committee set up by the Centre Government has identified 30 minerals as critical to India, including lithium and vanadium which are largely used in the manufacturing of batteries.

What are Critical Minerals?

- Critical minerals refer to a group of minerals that are essential for various sectors, including technology, energy, defense, and manufacturing, and are considered critical due to their economic and strategic importance. Here are the key points about critical minerals:
- Importance: They are necessary for key industries, such as electronics, renewable energy, electric vehicles, aerospace, and defense.
- Supply Risk: Critical minerals often face supply chain vulnerabilities, including limited global production, geopolitical factors, and trade restrictions
- Economic Impact: Countries with domestic reserves of critical minerals can gain a competitive advantage in industries reliant on these resources.
- Technological Advancement: Critical minerals are crucial for the advancement of technologies like smartphones, batteries, electric vehicles, and renewable energy systems.

Critical Minerals for India?

- Identification of Critical Minerals: An expert committee under the Ministry of Mines in India has identified a set of 30 critical minerals.
- List of Critical Minerals: The identified critical minerals include Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE (Platinum Group Elements), Phosphorous, Potash, REE (Rare Earth Elements), Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium, and Cadmium.
- Centre of Excellence for Critical Minerals (CECM): The committee has recommended the creation of a Centre of Excellence for Critical Minerals within the Ministry of Mines.

Significance of Critical Minerals for India?

- Industrial Development: Critical minerals are essential for the growth and development of key industries in India, including electronics, electric vehicles and defense.
- Technology Sector: These minerals play a crucial role in advanced technologies, such as smartphones, batteries, solar panels, driving innovation and economic competitiveness.
- Energy Transition: Critical minerals are vital for India's transition to a cleaner and more sustainable energy system
- Strategic Importance: Access to domestic reserves of critical minerals reduces India's dependency on imports, enhances national security, and strengthens its position in global supply chains
- Job Creation and Economic Growth: The development of critical mineral resources can generate employment opportunities and contribute to economic growth

Challenges for India?

- Limited Domestic Reserves: India's domestic reserves of critical minerals are relatively limited, leading to a high dependence on imports from other countries.

- **Supply Chain Vulnerabilities:** supply chains for critical minerals are complex and subject to various risks such as trade restrictions and disruptions caused by geopolitical tensions or natural disasters.
- **Environmental Impacts:** The extraction and processing of critical minerals can have significant environmental impacts, including habitat destruction, water pollution, and carbon emissions.
- **Technological Expertise:** Developing the necessary technological expertise for efficient extraction, processing, and recycling of critical minerals requires huge investment in research and development.

Source:

<https://www.aninews.in/news/business/business/india-identifies-30-critical-minerals-in-self-reliance-push-read-here20230629100554/>

Q.1 Which of the following properties are associated with critical minerals?

1. High economic value
2. Limited global production
3. Strategic importance
4. Essential for renewable energy technologies
5. Environmental sustainability

Select the correct option(s):

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

Answer: (a)

Q.2 Which of the following minerals are included in the list of critical minerals for India?

1. Lithium
2. Gold
3. Copper
4. Rare Earth Elements (REE)

Select the correct option(s):

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

Answer: (a)

Q.3 Examine the significance of critical minerals for India's economic growth, technological advancement, and strategic interests. Analyze the challenges associated with the availability, extraction, and sustainable management of critical minerals in the country.

GRAVITATIONAL WAVES

This article covers "Daily Current Affairs" and the topic details "Gravitational Waves". The topic "Gravitational Waves" has relevance in the Science and Technology section of the UPSC CSE exam.

For Prelims:

What are Gravitational waves?

What is LIGO?

For Mains:

GS 3: Science and Technology

LIGO India?

Benefits for India?

Why in the news?

Scientists have said that they have found evidence to suggest that the universe is replete with low-frequency gravitational waves – ripples in the fabric of space-time that are created by huge objects moving around, colliding, and merging with each other, and predicted by Albert Einstein's General Theory of Relativity more than 100 years ago

What are Gravitational waves?

Gravitational waves are ripples or disturbances in the fabric of space-time that propagate through the universe at the speed of light. They are caused by the acceleration or movement of massive objects, such as black holes, neutron stars, or even the entire universe itself. Gravitational waves are a consequence of Einstein's general theory of relativity, which describes gravity as the curvature of space-time caused by mass and energy. Gravitational waves were first detected in 2015 using LIGO detectors.

What is LIGO?

LIGO (Laser Interferometer Gravitational-Wave Observatory):

- Purpose: LIGO is an international collaboration dedicated to detecting and studying gravitational waves.
- Detection Method: LIGO uses highly sensitive interferometers to measure tiny changes in the length of laser beams caused by passing gravitational waves.
- Observatories: LIGO consists of two identical observatories located in Livingston, Louisiana, and Hanford, Washington.
- Interferometer Design: Each observatory has two perpendicular arms, each 4 kilometers long, where laser beams are split and recombined to detect gravitational wave-induced length changes.
- Sensitivity: LIGO can detect changes in length on the scale of a thousandth the size of a proton.
- First Detection: LIGO made history in 2015 by directly detecting gravitational waves, confirming Albert Einstein's general theory of relativity.
- Besides the United States (in Hanford and Livingston), such gravitational wave observatories are currently operational in Italy (Virgo) and Japan (Kagra).
- To detect gravitational waves, four comparable detectors need to be operating simultaneously around the globe.

LIGO India?

- Objective: The LIGO-India project aims to detect gravitational waves from the universe.
- Detector Design: The Indian LIGO observatory will consist of two vacuum chambers with a length of 4 km each. These chambers will be placed perpendicular to each other, forming highly sensitive interferometers.
- Scientific Runs: The project is expected to begin scientific runs starting from 2030.
- Location: The LIGO-India observatory will be located in the Hingoli district of Maharashtra. It is situated approximately 450 km east of Mumbai.
- Network Node: LIGO-India will serve as the fifth node of the planned network, joining the existing LIGO detectors.

Benefits for India?

- **Scientific Advancement:** LIGO-India will position India at the forefront of gravitational wave astronomy, contributing to cutting-edge scientific research and discoveries.
- **Technological Expertise:** The project will drive the development of advanced technologies in India, particularly in the fields of precision measurement, optics, and vacuum systems.
- **STEM Education and Outreach:** LIGO-India will inspire and engage students and researchers in the fields of science, technology, engineering, and mathematics (STEM), promoting scientific literacy and fostering a culture of scientific inquiry.

Source:

<https://indianexpress.com/article/explained/explained-sci-tech/scientists-detect-hum-gravitational-wave-background-explained-8696086/>

Q.1 Which of the following statements about LIGO (Laser Interferometer Gravitational-Wave Observatory) is/are correct?

1. The first direct detection of gravitational waves was made by LIGO in 2015, confirming Einstein's theory of general relativity.
2. LIGO-India is an operational observatory that has joined the LIGO network.

Select the appropriate option:

- (a) 2 only
- (b) 1 only
- (c) Both 1 and 2
- (d) None of the above

Answer: (a)

Q.2 Which of the following statements about LIGO-India is/are correct?

1. LIGO-India is an international collaboration for the detection and study of gravitational waves.
2. LIGO-India is located in the Hingoli district of Madhya Pradesh..
3. LIGO-India is expected to begin scientific runs in the year 2025.

Select the appropriate option:

- (a) 1 only
- (b) 1, 2, and 3 only
- (c) 2 and 3 only
- (d) 1 and 3 only

Answer: (a)

Q.3 What are the objectives and significance of the LIGO-India project in advancing gravitational wave astronomy and India's scientific and technological capabilities?

SICKLE CELL ANAEMIA AND NATIONAL SICKLE CELL ANAEMIA ELIMINATION MISSION

This article covers "Daily Current Affairs" and the topic details "Sickle Cell Anaemia and National Sickle Cell Anaemia Elimination Mission". The topic "Sickle Cell Anaemia" has relevance in the "Science and Technology as well as Government Schemes" sections of the UPSC CSE exam.

For Prelims:

*What is the National Sickle Cell Anaemia Elimination Mission, objectives, implementing agency?
What is Sickle Cell Anaemia? Causes, Treatment?*

For Mains:

GS2/ GS3: What are the steps taken by the government to eradicate Sickle Cell Anaemia?

Why in the news?

Recently, the Prime Minister launched the National Sickle Cell Anaemia Elimination Mission in Madhya Pradesh's Shahdol (MP) on 1st July 2023.

National Sickle Cell Anaemia Elimination Mission:

- The National Sickle Cell Anaemia Elimination Program, **introduced in the Union Budget 2023**, focuses on addressing the health challenges of **sickle cell disease among tribal populations**.
- Sickle cell disease (SCD) is a chronic **single gene disorder** that causes chronic anemia, acute painful episodes, organ infarction, and chronic organ damage.
- The program is implemented in **17 high-focus states, including Gujarat, Maharashtra, Rajasthan, Madhya Pradesh**, Jharkhand, Chhattisgarh, West Bengal, Odisha, Tamil Nadu, Telangana, Andhra Pradesh, Karnataka, Assam, Uttar Pradesh, Kerala, Bihar, and Uttarakhand.
- The program aims to
 - improve care for SCD patients,
 - reduce the prevalence of the disease,
 - **eliminate sickle cell genetic transmission by 2047.**
- The program is executed under the **National Health Mission (NHM)** in a mission mode.
- Over **three years (spanning from the fiscal year 2023-24 to 2025-26)**, approximately **7.0 crore people** will be screened, promoting early diagnosis and intervention.

Sickle Cell Disease:

Sickle cell disease is a group of inherited red blood cell disorders that affect hemoglobin, the protein that carries oxygen through the body.

- Normally, red blood cells are disc-shaped and flexible, facilitating easy movement through blood vessels. Sickle cell disease causes red blood cells to become crescent-shaped, hindering their ability to bend and move freely.
- The altered shape of sickle cells can block blood flow in the body, leading to severe complications.
- Complications include stroke, eye problems, infections, and episodes of pain known as pain crises.

Causes:

- SCD occurs due to a change in the hemoglobin protein found in red blood cells, known as hemoglobin S.
- When these red blood cells pass through tiny blood vessels called capillaries, they can form rigid

and sticky strands.

- These strands often get stuck and block the capillaries, preventing adequate oxygen supply to various parts of the body.

Symptoms:

- Newborns with SCD usually do not show symptoms until around 5 or 6 months old.
- Early signs and symptoms of SCD may include:
 - Yellowing of the skin and eyes (jaundice)
 - Fatigue or fussiness due to anemia
 - Painful swelling of the hands and feet

Treatment:

- **Sickle cell disease is a lifelong condition with no known cure, although a blood and bone marrow transplant can offer a potential cure.**
- There are treatments available to manage symptoms and prolong life.
- **Hydroxyurea, Blood Transfusion** are some of the treatments used in India.

Other steps taken by government to tackle SCD:

- Under the **National Health Mission**, the Government of India supports states in preventing and managing sickle cell disease based on their annual proposals.
- Treatment support under the National Health Mission includes providing **hydroxyurea capsules and free blood transfusions** for all sickle cell patients based on state proposals.
- **A State Hemoglobinopathy Mission has been established in Madhya Pradesh** to address screening and management challenges of sickle cell disease.
- The government of **Madhya Pradesh has set up Integrated Centers for Hemophilia and Hemoglobinopathies** across 22 tribal districts, aiming to offer medical care and diagnostic services to individuals affected by these conditions.

What should be done to eliminate the SCD on mission mode?

- **Early Diagnosis and Treatment:**
 - Timely detection through testing is crucial for early management and personalized care.
 - Neonatal screening and preventive measures have improved survival rates.
- **Premarital Counseling and Prenatal Screening:**
 - Testing couples before marriage helps in informed decision-making to prevent passing on the disease.
 - Prenatal screening enables access to appropriate care and interventions.
- **Enhancing Awareness and Education:**
 - Public education campaigns dispel myths and promote informed decision-making.
- **Improved Healthcare Services:**
 - Access to specialized care, regular check-ups, and pain management are essential.
 - Vaccination, timely drug treatment, and training for healthcare providers are crucial.
- **Population Screening and Public Health:**
 - Regular screening benefits public health planning and resource allocation.
 - Identifying individuals with the sickle cell trait aids education and awareness.
- **Research and Advancements:**
 - Testing contributes to ongoing research, advancements, and potential cure exploration.

Way forward:

To eliminate sickle cell anemia in India, a comprehensive approach is needed, including awareness, screening, improved healthcare access, research, and collaboration among individuals, communities,

healthcare professionals, researchers, and policymakers.

Sources:

Eradicating sickle cell disease, securing the future of India's tribal communities | The Indian Express

Q1. With reference to Sickle Cell Disease (SCD), consider the following statements:

1. Sickle cell disease comprises a collection of hereditary disorders affecting white blood cells.
2. SCD occurs due to a change in the hemoglobin protein.
3. A potential cure for SCD can be achieved through a blood and bone marrow transplant.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (c)

Q2. National Sickle Cell Anaemia Elimination Mission was launched recently, consider the following statements with reference to it:

1. The program was launched in the 2023 Union Budget with the aim of tackling the health challenges posed by sickle cell disease specifically among tribal communities.
2. The mission aims to eliminate sickle cell genetic transmission by 2030.
3. The program is implemented in all North-Eastern states and Union Territories of India.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a)

Q3. India aims to eradicate Sickle Cell Anaemia by 2047. What are the steps taken by the government to eradicate Sickle Cell Anaemia?

ENERGY TRANSITION INDEX

This article covers "Daily Current Affairs" and the topic details "Energy Transition Index". The topic "Energy Transition Index" has relevance in the Environment section of the UPSC CSE exam.

For Prelims:

What is the Energy Transition Index?

Reports published by WEF?

For Mains:

GS 3: Environment

Key Highlights of the Energy Transition Index

About WEF?

Why in the news?

According to the World Economic Forum's 2023 report, India & Singapore are the only major economies showing transition momentum by advancing sustainability, energy security & equity in a balanced way.

What is the Energy Transition Index?

The Energy Transition Index is an index developed by the World Economic Forum (WEF) to assess the readiness of countries to transition to a sustainable, reliable, and inclusive energy system. It measures the performance of countries across various dimensions related to energy transition, including energy policy and regulation, system performance, infrastructure, environmental sustainability, and access to energy.

Key Highlights of the Energy Transition Index:

- Sweden topped the list, followed by Denmark, Norway, Finland, and Switzerland in the top five.
- France was the only G20 country in the top 10, followed closely by Germany, the U.S., and the U.K.

Global Outlook:

- Global average ETI scores increased by 10% since 2014 but showed only marginal growth in the past three years.
- Only 41 countries have made steady progress in the past decade.

India's Energy Transition Progress:

- With significant improvement in key parameters of energy equity & security, and environmental sustainability, India jumped 20 places to the 67th position among 120 countries in the 'Energy Transition Index' (ETI)
- Universal electricity access, clean cooking options, and renewable energy deployment have improved India's performance.
- Low reliance on natural gas and effective utilization of existing capacities helped India withstand the recent energy crisis.

Concerns for India's Energy Transition:

- Rising import dependence amid global energy market volatilities.
- Predominantly carbon-intensive energy mix.
- Balancing economic growth and creating quality jobs for the growing working-age population.
- Recommendations for India's Energy Transition:
 - Sustained momentum, effective policy management, and partnerships are crucial.
 - Promoting clean energy investments, innovation, and energy efficiency while ensuring inclusivity.
 - Building a skilled workforce, fostering public-private collaboration, and investing in low-carbon technology research and development.

About the World Economic Forum (WEF):

- WEF is a Swiss nonprofit foundation established in 1971, based in Geneva, Switzerland.
- Recognized by the Swiss authorities as the international institution for public-private cooperation.
- Committed to improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas.
- Founder and Executive Chairman: Klaus Schwab.

Major Reports Published by WEF:

- Global Competitiveness Report.
- Global IT Report (published with INSEAD and Cornell University).
- Global Gender Gap Report.
- Global Risk Report.
- Global Travel and Tourism Report

Source:

<https://theprint.in/environment/india-ranks-67th-on-wefs-energy-transition-index-over-10-percentage-point-improvement-in-score/1645361/>

Q.1 Which of the following gives 'Global Gender Gap Index' ranking to the countries of the world?

- (a) World Economic Forum
- (b) UN Human Rights Council
- (c) UN Women
- (d) World Health Organization

Answer: (a)

Q3. The Global Competitiveness Report is published by?

- (a) International Monetary Fund
- (b) United Nations Conference on Trade and Development
- (c) World Economic Forum
- (d) World Bank

Answer: (c)

Q.3 Discuss the challenges and opportunities in achieving a successful energy transition for developing countries. How can developing countries balance their energy needs with sustainable development goals? Provide examples and suggestions for effective strategies

BHARAT 6G ALLIANCE

This article covers "Daily Current Affairs" and the topic details "Bharat 6G Alliance". The topic "Bharat 6G Alliance" has relevance in the Science and technology section of the UPSC CSE exam.

For Prelims:

What is Bharat 6G Alliance?

For Mains:

GS 3: Science and technology

Importance of Bharat 6G Alliance?

6G Technology?

Evolution of India's Telecom Sector in Recent Years?

Telecom Technology Development Fund (TTDF) Scheme?

Why in the news?

Union Minister of Communications and Electronics & Information Technology, Ashwini Vaishnaw, announced the introduction of the Bharat 6G Alliance, a groundbreaking initiative aimed at launching the next-generation technology in India following the successful implementation of 5G.

About Bharat 6G Alliance (B6GA):

The B6GA is a collaborative platform comprising public and private companies, academia, research institutions, and standards development organizations.

The alliance aims to facilitate international collaboration and knowledge exchange by forging partnerships and synergies with other 6G global alliances.

Objective:

- The primary objective of the B6GA is to understand the business and societal needs of 6G technology.
- It aims to foster consensus and drive high-impact research and development initiatives related to 6G technology.

Importance:

- **Development and Adoption Leadership:** The B6GA will enable India to take a lead role in the development and adoption of 6G technology globally.
- **Economic Impact:** The advancement of 6G technology is expected to have a significant positive impact on India's economy, driving growth and innovation across various sectors.
- **Societal Impact:** 6G technology has the potential to transform society by enabling new applications and services, improving connectivity, and empowering individuals and businesses.
- **Environmental Impact:** By embracing 6G technology, India can leverage its potential to develop sustainable and eco-friendly solutions, contributing to environmental conservation efforts.
- **Avoid drain of Talent Pool:** India's large talent pool in fields like engineering, computer science, and telecommunications will be utilised in the research, development, and deployment of 6G technology.

6G Technology:

- 6G technology is the successor of 5G technology, offering even higher speeds and advanced capabilities.
- It is expected to provide speeds up to 100 times faster than 5G, ultra-low latency, high reliability, and massive connectivity.
- 6G technology unlocks transformative applications: holographic communication for immersive experiences, brain-computer interfaces for mind-controlled devices, quantum internet for secure and high-speed communication, and artificial intelligence advancements.
- Holographic communication refers to the transmission and reception of real-time 3D holographic images for immersive communication experiences.
- Brain-computer interface is a technology that allows users to control computers and devices with their thoughts.
- 6G technology aims to utilize the terahertz band of frequency, which is currently unutilized, to achieve high data rates.

Evolution of India's Telecom Sector in Recent Years:

- India is the world's second-largest telecommunications market with a subscriber base of 1,170.38 million as of December 2022.

- There have been significant reductions in data costs, from Rs. 300/GB in 2014 to Rs. 10/GB in 2023.
- Regulatory processes have improved, including a reduction in the Right of Way permission duration from 230 to 9 days.
- Foreign Direct Investment (FDI) in the telecom sector has increased, amounting to 24 billion dollars.
- Spectrum allocation to Telecom Service Providers (TSPs) has been streamlined, with allocations happening within 24 hours.
- India has aligned with Japan on the Digital Payment system.
- India has successfully exported technology to 12 countries, including the USA.

Telecom Technology Development Fund (TTDF) Scheme:

- The TTDF Scheme was launched by the Department of Telecommunications (DoT)/Universal Service Obligation Fund (USOF) in 2022.
- Under this scheme, 5% of annual collections from USOF are allocated for funding research and development of telecom technologies, products, and services.
- The scheme aims to bridge the digital divide by developing and manufacturing state-of-the-art technologies.
- It encourages synergies among academia, start-ups, research institutes, and the industry to build and develop the telecom ecosystem.

Source:

<https://www.businesstoday.in/technology/news/story/centre-launches-bharat-6g-alliance-as-india-acquires-200-patents-relating-to-6g-388053-2023-07-04>

Q.1 Which alliance aims to foster international collaboration and drive research and development initiatives for the advancement of 6G technology?

- (a) B6GA
- (b) G7
- (c) BRICS
- (d) NATO

Answer: (a)

Q.2 What are some potential applications of 6G technology that could revolutionize industries and everyday life?

- (a) Holographic communication
- (b) Brain-computer interface
- (c) Quantum internet
- (d) All of the above

Answer: (d)

Q.3 Discuss the potential impact of 6G technology on society, economy, and environment, highlighting its transformative applications and the opportunities it presents for India.

PM GATI SHAKTI PLATFORM

This article covers “Daily Current Affairs” and the topic details “PM Gati Shakti Platform”. The topic “PM Gati Shakti Platform” has relevance in the “Economy” section of the UPSC CSE exam.

For Prelims:

What is PM Gati Shakti? What is its institutional structure?

For Mains:

GS3: Infrastructure: Energy, Ports, Roads, Airports, Railways.

Why in the news?

Recent news reports indicate that the **government is developing a system to facilitate the sharing of data on multi-modal connectivity**, as well as various physical and social infrastructure encompassed within the PM Gati Shakti platform.

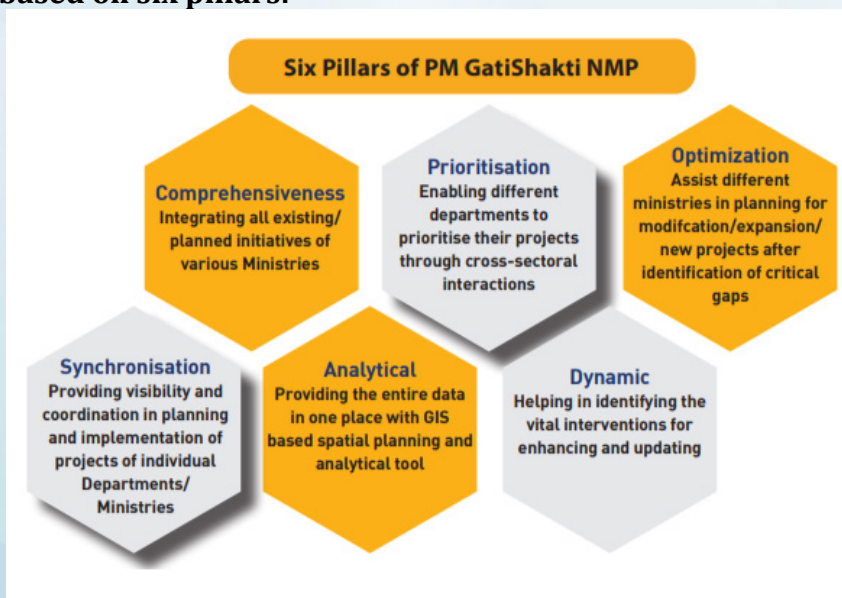
PM Gati Shakti Scheme:

- The Pradhan Mantri Gati Shakti (PMGS) scheme was launched by the Prime Minister on October 13, 2021.
- Its main **goal is to eliminate inter-ministerial barriers and foster the integration of infrastructure project planning**.
- Through the Gati Shakti digital platform, 27 Ministries, including Railways and Roadways, will collaborate to achieve coordinated implementation and integrated planning of infrastructure connectivity projects.

The aims of PM Gati Shakti are:

- **Coordinate with different ministries** during the planning stage to identify areas of collaboration.
- **Schedule projects to avoid overlaps and delays**.
- **Develop standard designs for projects to expedite approval**.
- **Implement standardized procedures** across all agencies to reduce project delays.

PM Gati Shakti is based on six pillars:



Institutional Framework for PM GatiShakti:

- PM GatiShakti is a government program that coordinates 27 central government ministries under a single institutional structure. It aims to foster a **whole-of-the-government approach** to infrastructure development.
- An **Empowered Group of Secretaries (EGoS)** has been constituted to oversee the implementation of PM GatiShakti. The EGoS is **chaired by the Cabinet Secretary** and includes representatives from 23 infrastructure and user ministries of the Government of India.
- An **integrated multimodal Network Planning Group (NPG)** has been operationalised to examine projects and put them up to the EGoS for approval. The NPG is represented by heads of the Network Planning Divisions of 8 various infrastructure ministries.
- The **Logistics Division of the Department for Promotion of Industry and Internal Trade (DPIIT)** is the **Secretariat of the NPG**.
- The **Technical Support Unit** provides technical support to the NPG, which includes a group of domain/subject matter experts who support the evaluation process.

Significance of PMGS

- **Inter-departmental coordination:** There is a lack of coordination between different Departments, for example, once a road is being constructed, other agencies dig up the constructed road again for activities like laying of underground cables, gas pipelines etc. This not only causes great inconvenience but is also a wasteful expenditure.
- **Reduce Logistic Costs:** India's logistics costs are 13% of GDP, compared to 8% in the rest of the world, making it difficult for Indian exports to compete globally. The PM Gati Shakti Master Plan will reduce logistics costs in India by improving infrastructure, streamlining processes, and promoting multimodal transportation. The plan will also help to reduce delays and improve efficiency.
- **Ease of Living:** Multi-modal connectivity will make it easier for people, goods, and services to move from one mode of transportation to another. It will also improve last-mile connectivity and reduce travel time.
- **Attracting Investments:** PM GatiShakti is a national infrastructure plan that will provide information about upcoming connectivity projects, business hubs, industrial areas, and the surrounding environment. This will help investors plan their businesses at suitable locations, leading to enhanced synergies.
- **Utilization of resources:** The plan will also create multiple employment opportunities and boost the economy. Additionally, it will lead to optimum utilization of the country's resources as everyone will be able to make their plans with complete information.
- **Improved Competitiveness:** It will improve the global competitiveness of local products by cutting down logistics costs, improving supply chains, and ensuring proper linkages for local industry and consumers.

How will PM GatiShakti Work?

- PM GatiShakti will address past issues by **institutionalizing comprehensive planning for stakeholders** involved in major infrastructure projects. Instead of separate and isolated planning and design processes, these projects will be **conceived and executed with a unified "silo-less" vision**.
- The initiative will integrate infrastructure schemes from various Ministries and State Governments, such as Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN, etc. Additionally, it will encompass Economic Zones like textile clusters, pharmaceutical clusters, defense corridors, electronic parks, industrial corridors, fishing clusters, and agri zones, thereby enhancing connectivity and improving the competitiveness of Indian businesses.

- The **extensive use of technology** will play a crucial role, including the utilization of spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics).

Sources:

Govt to soon share infrastructure data from Gati Shakti portal with industry, investors – The Hindu
doc20221124135401.pdf (pib.gov.in)

Q1. With reference to PM Gati Shakti Platform seen in the news, consider the following statements:

1. PM Gati Shakti seeks to Coordinate with different ministries to ensure a silo- centric approach.
2. The Empowered Group of Secretaries (EGS) oversees the implementation of PM Gati Shakti which is chaired by the Principal Secretary to the Prime Minister.
3. The Logistics Division of the Department for Promotion of Industry and Internal Trade (DPIIT) is the Secretariat of the Network Planning Group (NPG).

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (c)

Q2. Consider the following statements:

1. India's logistics costs are 8% of GDP, compared to 12% in the rest of the world.
2. PM Gati Shakti Portal envisages an monetisation through the leasing of core assets of the Central government and Public Sector Units.
3. The extensive use of technology with spatial planning tools will play a crucial role in PM Gati Shakti Portal.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: (a)

Q3. What role does PM Gati Shakti and the National Monetization Pipeline play in India's future infrastructure development?

INTERNATIONALISATION OF THE RUPEE

This article covers "Daily Current Affairs" and the topic details "Internationalisation of the Rupee". The topic "Internationalisation of the Rupee" has relevance in the "Indian Economy" section of the UPSC CSE exam.

For Prelims:

What is internationalisation of a currency? What are its benefits and issues?

For Mains:

GS3: Internationalisation of Rupee and its roadmap

Why in the news?

Recently, RBI's Inter-Departmental Group (IDG) said that the Rupee has the potential to become an internationalised currency.

What does internationalisation of the rupee mean?

Internationalisation of the rupee refers to the process of expanding the usage of the Indian rupee in cross-border transactions.

The aim is to encourage the utilisation of the rupee in various transactions, including import and export trade, as well as other current account activities, involving residents of India and non-residents. Ultimately, the objective is to extend the use of the rupee to capital account transactions too.

Prerequisites to become an international currency

To become an international currency, certain prerequisites must be met. These include–

- **Further opening up currency settlement,**
- **Establishing a robust swap and forex market,**
- **Achieving full convertibility of the currency on the capital account.**
- **The transfer of funds across borders should be unrestricted.**

Historical Context

- **Legal Tender in Gulf:** In the 1950s, the Indian rupee was widely accepted as legal tender in countries like the United Arab Emirates (UAE), Kuwait, Bahrain, Oman, and Qatar. These Gulf monarchies acquired rupees by exchanging them with the British pound sterling.
- **Creation of Gulf Rupee:** To address issues related to gold smuggling, the Reserve Bank of India (Amendment) Act was passed in 1959, which led to the creation of the **"Gulf Rupee."** **This new currency was issued by the central bank specifically for circulation in the West Asian region.** People holding Indian currency were given six weeks to exchange it, and the transition occurred smoothly.
- **Decline of Gulf Rupee:** However, in 1966, India devalued its currency, resulting in some West Asian countries replacing the Gulf rupee with their own currencies. A decline in confidence regarding the stability of the Indian rupee, coupled with an oil-driven economic boom, gradually led to the introduction of independent currencies in the region.
- **Demonetization:** Furthermore, the demonetization policy implemented in 2016 also affected trust in the Indian rupee, particularly in Bhutan and Nepal. These countries remain concerned about potential future policy changes by the Reserve Bank of India, including the possibility of further demonetization.

- The recent decision to withdraw the ₹2,000 note in 2023 has also affected confidence in the rupee.

Current Status

- **Currently, India has achieved full convertibility only on the current account, which covers day-to-day transactions.**
- In the global financial landscape, the **leading reserve currencies are the US dollar, the euro, the Japanese yen, and the pound sterling.**
- China has made some efforts to internationalise its currency, the **renminbi, but has encountered limited success** thus far.

Advantages of Internationalisation of the Rupee

- **Mitigates currency risk for Indian businesses:**
 - The use of the rupee in cross-border transactions helps Indian businesses to mitigate currency risk.
 - This reduction in currency volatility not only lowers the cost of doing business but also enables better growth opportunities for Indian companies.
 - It improves the chances for Indian businesses to expand globally with more confidence.
- **Reduces dependence on foreign exchange reserves:**
 - Internationalisation of the rupee decreases the need for holding large foreign exchange reserves.
 - By reducing dependence on foreign currency, India becomes less vulnerable to external shocks.
 - This reduction in dependence on reserves also helps in managing exchange rate volatility and projecting external stability, without imposing a significant cost on the economy.
- **Improves bargaining power and global stature:**
 - As the use of the rupee becomes more significant in international transactions, the bargaining power of Indian businesses would improve.
 - This increased bargaining power adds weight to the Indian economy in negotiations and business interactions.
 - Consequently, it enhances India's global stature and respect, elevating its position in the global economic landscape.

Some Disadvantages of Internationalising the Rupee:

- **Increased exchange rate volatility:**
 - If the rupee becomes more widely traded, it will be more susceptible to fluctuations in global financial markets. This could make it more difficult for businesses and investors to plan their financial activities, and could lead to higher transaction costs.
- **Reduced monetary policy autonomy:**
 - The Reserve Bank of India (RBI) would have less control over the value of the rupee if it were more widely traded.
 - This could make it more difficult for the RBI to manage inflation and other macroeconomic variables.
- **Increased risk of capital flight:**
 - If the rupee becomes more widely held by foreign investors, there is a greater risk that they could suddenly sell their holdings and withdraw their capital from India.
 - This could lead to a depreciation of the rupee and a financial crisis.
- **Increased vulnerability to external shocks:**
 - If the rupee becomes more integrated with global financial markets, it will be more vulnerable

to external shocks, such as changes in interest rates or commodity prices.

- This could lead to economic instability in India.

The Recommendations of RBI Working Group

The working group, led by RBI Executive Director Radha Shyam Ratho, has put forward several recommendations to expedite the internationalisation of the rupee. These recommendations span across short, medium, and long-term measures.

Short-term measures:

- Adoption of a standardized approach for assessing proposals on bilateral and multilateral trade arrangements involving invoicing, settlement, and payment in rupees and local currencies.
- Encouragement of the opening of rupee accounts for non-residents, both within and outside India.
- Integration of Indian payment systems with those of other countries to facilitate smooth cross-border transactions.
- Strengthening the financial market by establishing a global 24×5 rupee market.
- Recalibration of the foreign portfolio investor (FPI) regime to enhance its effectiveness.

Medium-term measures:

- Review of taxes on masala bonds (rupee-denominated bonds issued by Indian entities outside India).
- Promotion of the international use of Real-Time Gross Settlement (RTGS) for cross-border trade transactions.
- The addition of Indian government bonds to global bond indices.

Long-term measures:

- Advocating for the inclusion of the rupee in the International Monetary Fund's (IMF) Special Drawing Rights (SDR).
- The SDR is an international reserve asset created by the IMF and is based on a basket of five major currencies, including the **U.S. dollar, euro, Chinese renminbi, Japanese yen, and British pound sterling.**

Conclusion

As stated by MP Varun Gandhi, the government's plan to internationalize the rupee will facilitate Indian businesses in conducting investments and operations overseas. This initiative aims to increase the liquidity of the rupee and improve financial stability.

Additionally, it should bring benefits to Indian citizens, enterprises, and the government's capacity to fund deficits. However, there is a careful trade-off between ensuring rupee convertibility and maintaining exchange rate stability. It is expected that consistent and predictable currency management policies will be implemented to achieve these goals.

Sources:

Internationalisation of rupee: Why and what are the benefits? The Indian Express
Internationalising the rupee without the 'coin tossing' – The Hindu

Q1. With reference to 'Internationalisation of Rupee' seen in news reports, consider the following statements:

1. India has achieved full convertibility on both the current and capital account.

2. One of the major advantages of internationalising the rupee will be reduced vulnerability to external shocks.
3. Internationalisation of the Rupee would help in reducing the dependence on foreign exchange reserves.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (c)

Q2. Consider the following currencies:

1. Renminbi
2. Pound Sterling
3. Swiss Franc
4. South African Rand
5. Japanese Yen

How many of the currencies stated above are included in the Special Drawing Rights of the IMF?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

Answer: (b)

Q3. Discuss the significance and challenges of the internationalisation of the Indian rupee in promoting economic growth and stability.

WHOLE-GENOME SEQUENCING

This article covers "Daily Current Affairs" and the topic details "Whole-Genome Sequencing". The topic "Whole-Genome Sequencing" has relevance in the Science and Technology section of the UPSC CSE exam.

For Prelims:

About Whole-Genome Sequencing?

Genome vs. Gene?

For Mains:

GS 3: Science and Technology

Importance of Sequencing Newborn Genomes?

Challenges Associated with Newborn Genome Sequencing?

Way Forward?

Why in the news?

Recently, the use of rapid whole-genome sequencing (WGS) in newborns, including healthy newborns, has emerged as a revolutionary approach to diagnose and treat genetic diseases.

About Whole-Genome Sequencing:

The use of rapid whole-genome sequencing (WGS) in newborns, including healthy infants, has emerged as a groundbreaking approach to diagnose and treat genetic diseases. By providing a comprehensive view of an infant's genetic makeup, WGS enables healthcare professionals to make fast and effective diagnoses, leading to improved outcomes and reduced healthcare costs.

- All organisms have a genome composed of nucleotide bases: Adenine (A), Thymine (T), Cytosine (C), and Guanine (G).
- The sequence of these bases in an organism's genome forms its unique DNA fingerprint or pattern.
- Sequencing refers to the process of determining the order of bases in a genome.
- Whole-genome sequencing is a laboratory procedure that allows for the complete determination of base order in an organism's genome in a single process.

Genome vs. Gene:

A genome refers to all of the genetic material in an organism, while a gene is a specific segment of DNA that carries the instructions for creating a particular protein or trait. The genome contains all the genes required to build and maintain an organism, while genes are individual units responsible for specific characteristics.

Importance of Sequencing Newborn Genomes:

- **Rapid Diagnosis of Rare Genetic Diseases:** WGS allows for the precise and swift diagnosis of rare genetic diseases that may not be detected by standard screenings.
- **Detection of Treatable Conditions:** WGS can identify treatable conditions, enabling early intervention or gene-based therapies for better health outcomes.
- **Insight into Future Health Risks:** Sequencing newborn genomes provides valuable information about an individual's future health risks and predispositions, empowering informed choices and preventive measures.
- **Revelation of Ancestry, Traits, and Carrier Status:** WGS can also reveal information about an individual's ancestry, traits, and carrier status, which holds personal and social value.

Sequencing Healthy Newborns:

- The BabySeq project in the U.S. is studying the benefits of sequencing newborns for routine care.
- A study conducted by the project found that over 10% of apparently healthy infants had unanticipated genetic disease risks.
- Sequencing healthy newborns expands the scope of newborn screening for genetic diseases that may not be detected by standard biochemical tests.

Challenges Associated with Newborn Genome Sequencing:

- **Ethical, Legal, and Social Issues:** Generating large amounts of personal and sensitive data raises concerns about privacy, consent, ownership, disclosure, and discrimination.
- **Uncertain or Incidental Findings:** Newborn genome sequencing may uncover findings with unclear clinical implications or actionability, potentially causing anxiety, confusion, or harm to the individual or their family.
- **Education and Training:** Adequate education and training for healthcare professionals and the public are necessary to ensure proper interpretation and communication of sequencing results.

The Way Forward:

- **Establish Ethical and Legal Frameworks:** Develop strong frameworks to address privacy,

consent, ownership, disclosure, and discrimination concerns related to personal genomic data in newborn genome sequencing.

- **Integration with Existing Programs:** Integrate newborn genome sequencing with existing newborn screening programs, clinical care, and public health services to ensure coordination, quality, and equity.
- **Continuous Research and Evaluation:** Conduct ongoing research, evaluation, and feedback to ensure evidence-based practice, innovation, and improvement in newborn genome sequencing.

In conclusion, rapid whole-genome sequencing in newborns, including healthy infants, has the potential to revolutionize genetic disease diagnosis and treatment. However, addressing ethical, legal, and social challenges and ensuring proper integration and research are crucial for the successful implementation of this technology.

SOURCE:

<https://www.thehindu.com/sci-tech/science/newborn-genome-sequencing-ethics-explained/article67025996.ece>

Q.1 With reference to agriculture in India, how can the technique of 'genome sequencing', often seen in the news, be used in the immediate future?

1. Genome sequencing can be used to identify genetic markers for disease resistance and drought tolerance in various crop plants.
2. This technique helps in reducing the time required to develop new varieties of crop plants.
3. It can be used to decipher the host-pathogen relationships in crops.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Q.2 DNA Barcoding can be a tool to:

1. Assess the age of a plant or animal.
2. Distinguish among species that look alike.
3. Identify undesirable animal or plant materials in processed foods.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 3 only
- (c) 1 and 2
- (d) 2 and 3

Ans: (d)

Q.3 What are the research and developmental achievements in applied biotechnology? How will these achievements help to uplift the poorer sections of society?

GLOBAL FOREST WATCH REPORT

This article covers "Daily Current Affairs" and the topic details "Global Forest Watch Report". The topic "Global Forest Watch Report" has relevance in the "Ecology and Environment" section of the UPSC CSE exam.

For Prelims:

What is the Global Forest Watch? Who publishes it? What is primary forest?

For Mains:

GS3: Ecological Conservation

Why in the news?

In its new research, Global Forest Watch has stated that in 2022 tropical areas will lose 4.1 million hectares of forest cover – equivalent to losing an area of 11 football fields per minute.

Global Forest Watch

Global Forest Watch (GFW) is an open-source web application that monitors global forests in near real-time.

- It provides data and tools to track deforestation, forest degradation, and forest cover change.
- GFW is used by governments, businesses, and civil society organisations to inform decision-making and take action to protect forests.
- **GFW is a project of the World Resources Institute (WRI), in partnership with Google, USAID, the University of Maryland, and many other academic, non-profit, public, and private organisations.**

2022 Report Findings:

- The 2022 Global Forest Watch report found that **tropical primary forest loss worsened in 2022**, despite international commitments to end deforestation.
- The report found that **tropical primary forest loss totaled 4.1 million hectares in 2022, an increase of 10% from 2021**. This loss is equivalent to an area the size of 11 football fields disappearing every minute.
- **Brazil and the Democratic Republic of the Congo had the highest rates of primary forest loss in 2022**, while **Indonesia and Malaysia continued to reduce their loss**.
- **Ghana and Bolivia experienced record-high levels of primary forest loss in 2022**, driven by agriculture, mining and fires.
- **Global tree cover loss declined by 10% in 2022**, mainly due to a decrease in fire-related losses, especially in Russia.
- Global Forest Watch reports that **India experienced a loss of 43.9 thousand hectares of humid primary forest between 2021 and 2022**, representing approximately 17% of the country's total reduction in tree cover during that period. The overall tree cover loss in India between 2021 and 2022 amounted to 255 thousand hectares.

Primary Forest:

Primary forests are mature, natural forests that have not been significantly altered by human activity. They are important carbon sinks and biodiversity hotspots.

- Primary forest loss is often irreversible, as secondary forests that grow in their place do not have the same biodiversity or carbon storage capacity.

Implications

WRI evaluates progress towards two objectives which encompass various international forest commitments.

- **Ending deforestation by 2030**
- **Restoring 350 million hectares (Mha) of depleted and degraded forests by 2030**

According to the report, the majority of global forest-related commitments are not being met.

- **In order to attain the 2030 target, it is necessary to annually reduce global deforestation by at least 10%.** Although the global deforestation rate in 2022 was 3.1% lower compared to the baseline period of 2018-2020, it still exceeded the required level by over one million hectares. Consequently, the world is deviating from the path to achieve the 2030 goal.
- **To accomplish the objective of restoring 350 Mha of forests globally by 2030, it is imperative to increase tree cover by 22 Mha per year between 2021 and 2030.** Despite some progress, the **overall change in tree cover over the past two decades has resulted in a net loss of 100 Mha.**
- This indicates that **forests are still being lost, and restoration efforts are not occurring at the necessary pace.**

Other Reports by World Resources Institute:

- World Resources Report
- State of Climate Action Report
- Global Forest Review

Sources:

World's tropical forest cover continued to decrease in 2022, new research says – The Hindu

Q1. Global Forest Watch has recently published its report, consider the following statements in this context:

1. Primary forests have a higher biodiversity and carbon storage capacity than secondary forests that grow at the same place.
2. Brazil had one of the highest rates of primary forest loss in 2022.
3. India experienced an increase of humid primary forest between 2021 and 2022.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (a)

**Q2. Consider the following pairs:
Report/ Index – Organisation**

1. Global Forest Review – World Resources Institute (WRI)

2. State of the – Food and Agriculture Organization (FAO) World's Forests
3. State of Global – World Meteorological Organization (WMO) Water Resources
4. Global Forest Watch – Germanwatch

How many of the above mentioned pairs are correctly matched ?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All Four

Answer: (c)

Q3. Forests are critical ecosystems for fighting climate change, supporting livelihoods and protecting biodiversity. In light of the statement, highlight the diverse efforts undertaken by both governmental and non-governmental entities to protect and preserve forests.

WORLD ZONOSIS DAY

This article covers "Daily Current Affairs" and the topic details "World Zoonosis Day". The topic "World Zoonosis Day" has relevance in the Environment section of the UPSC CSE exam.

For Prelims:

About World Zoonosis Day?

About Zoonotic Diseases?

For Mains:

GS 3: Environment

Causes of Zoonotic Diseases?

Prevention Strategies?

India's Initiatives Related to Zoonotic Diseases?

One Health Concept?

Why in the news?

The Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying recently conducted an awareness program on zoonotic diseases as part of the Aazadi Ka Amrit Mahostav initiative on World Zoonosis Day

About World Zoonosis Day?

World Zoonosis Day commemorates the first vaccination against a zoonotic disease.

Louis Pasteur administered the first vaccine for a zoonotic disease on July 6, 1885.

Significance:

- World Zoonosis Day aims to raise awareness about the risks and impacts of zoonotic diseases on human and animal health.
- According to the World Health Organization (WHO), 60% of known infectious diseases and 75% of emerging infectious diseases are zoonotic.

About Zoonotic Diseases:

Zoonotic diseases are infections that can be transmitted between animals and humans. These diseases can be caused by various pathogens such as bacteria, viruses, parasites, or fungi.

Classification:

Based on Pathogens:

- Bacterial Zoonoses: Diseases caused by bacterial infections, such as anthrax and brucellosis.
- Viral Zoonoses: Diseases caused by viruses, including rabies, Ebola, and Covid-19.
- Parasitic Zoonoses: Diseases caused by parasites, like toxoplasmosis and leishmaniasis.
- Fungal Zoonoses: Diseases caused by fungi, such as ringworm.

Based on Animal Species:

- Wildlife Zoonoses: Diseases involving interactions between humans and wildlife, like hantavirus infections and avian influenza.
- Domestic Animal Zoonoses: Diseases transmitted by domestic animals, such as brucellosis and toxoplasmosis.

Based on Mode of Transmission:

- Direct Contact Zoonoses: Infections occurring through direct contact with infected animals or their fluids.
- Vector-Borne Zoonoses: Diseases transmitted by vectors like mosquitoes and ticks.
- Waterborne Zoonoses: Diseases transmitted through contaminated water sources.

Causes of Zoonotic Diseases:

- Environmental changes, wildlife interactions, livestock farming practices, and human behavior contribute to the emergence and spread of zoonotic diseases.
- Several factors contribute to the transmission of zoonotic diseases, including encroachment into natural habitats, wildlife trade, and inadequate food safety and sanitation measures. These factors create opportunities for interactions between humans, animals, and pathogens, increasing the risk of disease transmission. Encroachment into natural habitats disrupts ecosystems, bringing humans into closer contact with wildlife and their associated pathogens.

Prevention Strategies:

- Multisectoral collaboration, using the “One Health” approach, is crucial in preventing and controlling zoonotic diseases.
- Early detection and surveillance systems, hygiene practices, vaccination programs for animals, and public awareness are key prevention strategies.

India's Initiatives Related to Zoonotic Diseases:

- National Animal Disease Control Programme (NADCP) for controlling Foot & Mouth Disease (FMD) and Brucellosis.
- Mobile Veterinary Units (MVUs) for providing veterinary services and raising awareness.
- Animal Birth Control (Dogs) Rules, 2023, focusing on anti-rabies vaccination and neutering of stray dogs.
- National One Health Programme for Prevention & Control of Zoonoses, promoting inter-sectoral coordination.
- Vaccination efforts for FMD and brucellosis.

One Health Concept:

- The One Health concept emphasizes the collaboration between human health, animal health, and environmental sectors to address zoonotic diseases and other health threats at their interface.
- It recognizes the interconnectedness of human, animal, and ecosystem health and the need for a holistic approach to prevent and control diseases.

SOURCES:

<https://www.hindustantimes.com/lifestyle/health/world-zoonoses-day-2023-date-history-significance-of-the-day-101688526905375.html>

Q.1 Which of the following statements about zoonosis is correct?

- (A) Zoonosis refers to diseases that are only transmitted from humans to animals.
- (B) Zoonosis is caused exclusively by bacterial infections transmitted from animals to humans.
- (C) Zoonotic diseases can be caused by bacteria, viruses, parasites, or fungi.
- (D) Zoonotic diseases are limited to interactions between humans and domestic animals.

ANSWER: (C)

Q.2 Which of the following factors plays a significant role in the transmission of zoonotic diseases?

- (A) Genetic factors in humans
- (B) Air pollution levels
- (C) Encroachment into natural habitats
- (D) Global economic policies

ANSWER: (C)

Q.3 Critically evaluate the effectiveness of the “One Health” approach in addressing zoonotic diseases. Highlight the need for inter-sectoral collaboration and its implications for disease prevention and control.

MOON'S SOUTH POLE

This article covers “Daily Current Affairs” and the topic details “Moon’s South Pole”. The topic “Moon’s South Pole” has relevance in the “Science and Technology” section of the UPSC CSE exam.

For Prelims:

What are the different features of Moon’s South Pole?

For Mains:

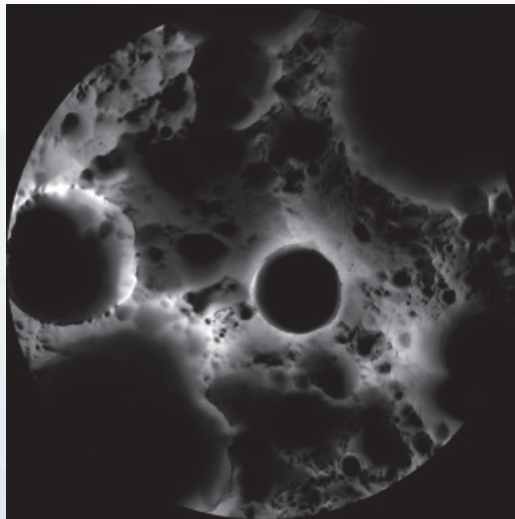
GS3: Significance of Lunar Exploration

Why in the news?

ISRO’s Chandrayaan-3 is likely to land near the south pole of the moon at 70 degrees latitude after its launch on July 14, 2023.

Moon's South Pole

- The lunar South Pole is one of the most compelling places in the entire Solar System. **The lunar south pole is located at the southern end of the Moon's axis of rotation.**
- Known for its **permanently shadowed craters**, the lunar south pole also contains other **volatiles, such as hydrogen, methane, and carbon dioxide.**
- The region surrounding the south pole of the Moon exhibits various notable geological features, including craters, basins, and mountains.
- Among these features, the **South Pole–Aitken basin** stands out as one of the most prominent and significant characteristics of the Moon.
- Additionally, the area is home to impressive **mountains, with Epsilon Peak** reaching a height of 9.050 km, surpassing any mountain found on Earth.
- In terms of craters, **Shackleton Crater** holds the rotational axis of the Moon within its boundaries. Other notable craters in close proximity to the lunar south pole include **De Gerlache, Sverdrup, Shoemaker, Faustini, Haworth, Nobile, and Cabeus.**



Why were previous landings not on the South Pole?

- Landing in the vicinity of the equator is preferable due to various factors that make it more **suitable and secure.**
- The **terrain is smoother and more accommodating for extended instrument operations, with minimal steep slopes, hills, or craters.**
- **Abundant sunlight is available**, particularly on the side facing the Earth, ensuring a consistent energy supply for solar-powered instruments.
- On the other hand, the **polar regions of the Moon present a starkly contrasting and challenging environment.**
- Many areas are situated in perpetual darkness, **devoid of sunlight, and subject to extremely frigid temperatures** that can plummet to as low as -230 degrees Celsius. These conditions pose significant obstacles to instrument functionality.
- Moreover, the **presence of numerous large craters**, varying in size from small centimeters to vast stretches spanning thousands of kilometers, further complicates matters.

Exploration of South Pole

Existence of Water:

- The harsh and challenging conditions of the Moon's polar regions have deterred exploration ef-

forts, but recent Orbiter missions have uncovered compelling evidence that makes these areas highly intriguing for further investigation.

- Notably, the presence of significant quantities of ice molecules in the deep craters has been suggested by findings from missions like India's Chandrayaan-1 in 2008. This mission employed two instruments that helped confirm the existence of water on the lunar surface.

Insights into the Solar System

- The extreme cold prevailing in these regions has the advantage of preserving substances in a frozen state, maintaining them largely unchanged over time.
- Consequently, the rocks and soil found in the north and south poles of the Moon possess the potential to provide valuable insights into the early stages of the Solar System. These frozen remnants could serve as invaluable clues for scientific research and exploration endeavours.

Scientific research

- The lunar south pole is a unique and challenging environment, and it offers a wealth of opportunities for scientific research.
- Scientists are interested in studying the geology, mineralogy, and geochemistry of the lunar south pole, as well as the history of water and volatiles on the Moon.

Lunar resources

- The lunar south pole is a potential source of resources for future space exploration. In addition to water ice, the south pole may also contain other resources, such as metals and minerals.
- These resources could be used to support future human missions to the Moon, as well as to launch missions to other destinations in the Solar System.

Permanently Shadowed Regions

- In contrast to Earth, where the spin axis is inclined by 23.5 degrees relative to the plane of its solar orbit, the Moon's axis exhibits a mere tilt of 1.5 degrees.
- This distinctive geometric arrangement results in an intriguing phenomenon: certain craters situated near the lunar north and south poles remain untouched by sunlight. These specific regions are commonly referred to as Permanently Shadowed Regions (PSRs).
- Permanently Shadowed Regions are of great scientific interest because they are thought to contain frozen volatiles such as water ice, as well as other organic compounds.
- These substances are believed to have been delivered by comets and asteroids or created through various processes on the Moon.
- Understanding the composition and properties of these PSRs is crucial for future lunar exploration and potential resource utilisation, as they could provide valuable resources for sustained human presence on the Moon.

Missions to Lunar South Pole

- **Chandrayaan- 3:**
 - As per Isro officials, Chandrayaan-3 is projected to enter the lunar orbit approximately one month after its launch. The anticipated landing date for its lander, Vikram, and rover, Pragyaan, is August 23.
 - It is worth mentioning that the landing location for this upcoming mission closely resembles that of Chandrayaan-2, situated near the moon's south pole at a latitude of 70 degrees.
 - Chandrayaan-3 will secure the distinction of being the first mission worldwide to achieve a soft landing in close proximity to the lunar south pole.

- **Chang'e 4:**
 - The Chang'e 4 mission was launched by the China National Space Administration (CNSA) in December 2018.
 - It was the first mission to land on the far side of the Moon, and it also landed near the 45-degree latitude in the lunar south pole region at the South Pole Aitken Basin.
 - The Chang'e 4 lander and rover have been exploring the region since January 2019, and they have made a number of important scientific discoveries.
- **LCROSS:**
 - The Lunar Crater Observation and Sensing Satellite (LCROSS) was a NASA mission that was launched in 2008.
 - The LCROSS spacecraft crashed into the Cabeus crater near the lunar south pole in October 2009.
 - The impact created a plume of debris that was analysed by the LCROSS spacecraft and other orbiting spacecraft. The analysis of the debris revealed the presence of water ice in the Cabeus crater.
- **Chandrayaan-1:**
 - The Chandrayaan-1 mission was launched by the Indian Space Research Organisation (ISRO) in 2008.
 - The Chandrayaan-1 spacecraft carried a number of instruments that were used to study the lunar south pole region.
 - The spacecraft's Moon Impact Probe (MIP) crashed into the Shackleton crater near the lunar south pole in November 2008. The impact of the MIP created a crater that was about 10 metres in diameter.

Sources:

Chandrayaan-3 mission: Why ISRO wants to explore the Moon's south pole | Explained
[News, The Indian Express](#)

Image Credits: NASA/GSFC/Arizona State University

Q1. With reference to Lunar Geography, consider the following statements:

1. Moon's axis tilt is greater than the Earth's, leading to creation of Permanently Shadow Region.
2. China's Chang'e -4 landed near the South Pole Aitken Basin of the Moon.
3. Abundant sunlight is available on the Southern Pole of the Moon.

Which of the statements given above is/are NOT correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (c)

Q2. Consider the following pairs

Mission Agency/Country

1. LCROSS – France's CNES
2. Chang'e – Japan's JAXA
3. SMART-1 – European Space Agency
4. Surveyor 7 – USA's NASA

How many of the above mentioned pairs are correctly matched ?

- (a) Only one

- (b) Only two
- (c) Only three
- (d) All Four

Answer: (b)

Q3. Explain the significance of exploring the lunar south pole in the broader context of lunar exploration.

MARINE HEATWAVE

This article covers "Daily Current Affairs" and the topic details "Marine Heatwave". The topic "Marine Heatwave" has relevance in the Environment section of the UPSC CSE exam.

For Prelims:

About Marine Heatwaves?

For Mains:

GS 3: Environment

How does Marine Heatwave Impact Rainfall in Northwest India?

What are the other Impacts of Marine Heatwaves?

Why in the news?

The northern Bay of Bengal has been experiencing an intense marine heatwave since June 28, 2023. This has led to India's usually arid northwest receiving extreme rainfall

What is Marine Heatwave?

- Marine Heatwaves are prolonged periods of anomalously high Sea Surface Temperature (SST).
- These events are linked to coral bleaching, seagrass destruction, and loss of kelp forests, affecting the fisheries sector adversely.
- The most common drivers of marine heatwaves include ocean currents which can build up areas of warm water and air-sea heat flux or warming through the ocean surface from the atmosphere.
- Winds can enhance or suppress the warming in a marine heatwave, and climate modes like El Niño can change the likelihood of events occurring in certain regions.

How does Marine Heatwave Impact Rainfall in Northwest India?

- The marine heatwave in the Bay of Bengal increased sea surface temperatures, causing higher evaporation rates and a greater moisture supply in the atmosphere. This surplus of moisture contributed to above-average rainfall in northwest India.
- The marine heatwave likely influenced the formation and behavior of depressions in the Bay of Bengal, which may have contributed to an increase in the frequency and intensity of depressions, particularly on faster timescales (3-10 days).
- Depressions, which are low-pressure systems, play a significant role in the monsoon and rainfall patterns.
- The marine heatwave, along with changing timescales of depressions, affected the path and trajectory of these weather systems. Depressions tended to move more towards northwest India rather

than north-central India, causing a higher concentration of rainfall in the northwest region, leading to above-average rainfall in that area.

What are the other Impacts of Marine Heatwaves?

- **Affect Ecosystem Structure:** Marine heat waves affect ecosystem structure, by supporting certain species and suppressing others. It has been associated with the mass mortality of marine invertebrates and may force species to change behaviour in a way that puts wildlife at increased risk of harm.
- **Change Habitat Ranges of Certain Species:** Marine heatwaves can change the habitat ranges of certain species, such as the spiny sea urchin off southeastern Australia which has been expanding southward into Tasmania at the expense of kelp forests which it feeds upon.
- **Economic Losses:** Marine heatwaves can cause economic losses through impacts on fisheries and aquaculture.
- **Affect Biodiversity:** A study from 2020 (Genesis and Trends in Marine Heatwaves Over the Tropical Indian Ocean and Their Interaction With the Indian Summer Monsoon) reveals that a previous marine heatwave led to bleaching of 85% of corals in the Gulf of Mannar near the Tamil Nadu coast.

Increase the Risk of Deoxygenation and Acidification:

- Often, they occur alongside other stressors such as ocean acidification, deoxygenation, and over-fishing.
- In such cases, MHWs not only further damage habitats, but also increase the risk of deoxygenation and acidification.

How does the Bay of Bengal Impact Monsoon?

Moisture Source:

The warm and humid air mass over the Bay of Bengal provides the necessary moisture that is carried by the monsoon winds towards the Indian subcontinent.

Heat Exchange:

The Bay of Bengal has warm sea surface temperatures, especially in its northern part. During the monsoon season, the landmass of the Indian subcontinent gets heated up, creating a low-pressure area. The warm air rises, and cooler air from the Bay of Bengal rushes in to replace it, causing a pressure gradient. This pressure gradient helps draw in moisture-laden winds from the Bay of Bengal, contributing to the monsoon rainfall.

U-Turn of Monsoon Currents:

- The monsoon winds blowing from the southwest over the Arabian Sea cross over into the Bay of Bengal. When they reach the Bay of Bengal, they make a U-turn and start moving towards the northeast, eventually bringing rainfall to different parts of India.
- The warm temperatures in the Bay of Bengal facilitate this U-turn and the transport of moisture to the Indian subcontinent.

Low-Level Jet Stream:

- The Bay of Bengal also influences the formation and intensity of the low-level jet stream, known as the Somali Jet.
- This jet stream plays a significant role in transporting moisture from the equatorial Indian Ocean to the Indian subcontinent, contributing to the monsoon rainfall patterns.
- The warm sea surface temperatures in the Bay of Bengal contribute to the strengthening of this

low-level jet, enhancing the moisture supply during the monsoon season.

SOURCE:

<https://www.downtoearth.org.in/news/climate-change/warming-bay-an-ongoing-heatwave-in-india-s-eastern-sea-is-causing-extreme-rain-in-its-northwest-say-experts-90481>

Q.1 Which of the following statements regarding marine heatwaves in India is/are correct?

1. Marine heatwaves have no impact on the formation and behavior of depressions in the Bay of Bengal.
2. The warm sea surface temperatures in the Bay of Bengal facilitate the U-turn of monsoon currents and enhance the moisture supply to the Indian subcontinent.

Choose the correct option:

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) None of the above

ANSWER: B

Q.2 Which of the following statements regarding marine heatwaves and their impacts is/are correct?

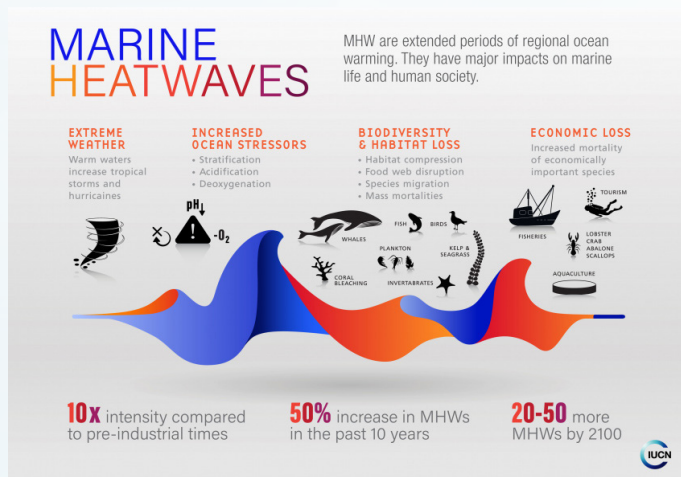
1. Marine heatwaves are primarily caused by ocean currents and have no relation to atmospheric conditions.
2. Marine heatwaves can result in economic losses by affecting the fisheries and aquaculture industries.

Choose the correct option:

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) None of the above

ANSWER: B

Q.3 Discuss the impact of marine heatwaves on marine ecosystems and their consequences for fisheries and aquaculture industries. Examine the factors contributing to the occurrence and intensity of marine heatwaves and suggest measures to mitigate their effects on marine biodiversity and economic activities.



NEW TAX RULES FOR ONLINE GAMING

This article covers "Daily Current Affairs" and the topic details "New Tax Rules for Online Gaming". The topic "New Tax Rules for Online Gaming" has relevance in the "Indian Economy" section of the UPSC CSE exam.

For Prelims:

What are the new tax rules on online gambling?

For Mains:

GS3: Indian Economy and Government Budgeting

Why in the news?

During its meeting on July 11, the GST Council made the decision to impose a consistent 28 percent tax on the complete face value of online gaming, casinos, and horse-racing.

Current Rules:

- Currently, gaming companies pay a **tax of 18 percent on platform fees for activities such as fantasy gaming platforms**, which are considered games of skill.
- For example, let's assume the platform fee charged by the game for participating in a contest was 10% of the deposit. So, **if Rs 100 was deposited, the platform earned Rs 10. With the previous 18% GST rate, the tax on the Rs 10 would be Rs 1.8.**

New Rules:

- The Revenue Department's clarification that the tax rate for these categories should be 28 percent led to the decision made on Tuesday.
- **The new structure will levy a 28% GST on the entire face value of the bet or consideration paid, rather than just the platform fee.**
- This means that the **GST on every Rs 100 deposited will be Rs 28, compared to the previous Rs 1.8.**
- As a result, online games of skill will now have to pay around 15.6 times more GST under the new regime.

The tax will be levied based on the following:

- In the case of casinos, the tax will be applicable on the face value of the chips purchased.
- For horse racing, the tax will be applied to the full value of the bets placed with the bookmaker or totalisator.
- In the case of online gaming, the tax will be imposed on the full value of the bets placed.
- **Proposed changes to the GST-related laws:**
 - Inclusion of online gaming and horse racing as **taxable actionable claims in Schedule III.**
 - An actionable claim, as defined by the Central Goods and Services Tax Act, 2017, is considered goods for GST purposes.
 - Until now, lottery, betting, and gambling were categorised as actionable claims, and the forthcoming amendments will extend this classification to include horse racing and online gaming.

Prospective impacts on the Industry:

- **Increased costs for operators:** The 28% GST will be a major increase from the current rate of

18%. This is likely to lead to higher costs for online gambling operators, which could be passed on to consumers in the form of higher fees or lower winnings.

- **Reduced investment in the industry:** The high tax rate could make it less attractive for new operators to enter the market, and could also discourage existing operators from investing in new products and services.
- **Increased levels of illegal gambling:** As the cost of legal gambling increases, some people may be tempted to turn to illegal operators who do not charge taxes. This could have a number of negative consequences, including increased crime and corruption.
- **Possibility of Job Loss** due to reduced investments as the decision is likely to affect volumes and thus the viability of gaming companies.

Gaming in India:

In India, games are generally classified into two broad categories for differentiation purposes.

Games of Chance (Gambling)	Games of Skill (Gaming)
<ul style="list-style-type: none"> • Games of chance encompass those games that are played randomly, primarily relying on luck. • These games can be played without prior knowledge or understanding, such as dice games or number picking. • Participating in such games is considered illegal in India. 	<ul style="list-style-type: none"> • Games of skill involve those games that require a person's prior knowledge or experience in playing. • These games necessitate skills such as analytical decision-making, logical thinking, and capability. • Some games may even require initial training to increase one's chances of winning. • Most Indian states consider such games to be legal.

Online Game: The Indian government defines an online game as “a game that is offered over the Internet and can be accessed by a user through a computer or an intermediary.”

Online Game Regulations:

- The Ministry of Electronics and IT (MeitY) had introduced fresh regulations aimed at safeguarding online gamers from harmful content and addiction in April 2023.
- To achieve this, a self-regulation model has been implemented for the online gaming sector, wherein Self-Regulatory Organizations (SROs) will assess and approve games that comply with the established rules for operation within the country.
- These updated rules for online gaming have been incorporated as an amendment to the IT Rules of 2021.

Goods and Services Tax (GST) Council:

- The Goods and Services Tax (GST) Council is a constitutional body responsible for making recommendations on issues related to the implementation of the Goods and Services Tax (GST) in India.
- The Council was set up by the Constitution (122nd Amendment) Act, 2017, and its first meeting was held on September 22-23, 2016.
- The GST Council is composed of the Union Finance Minister, the Minister of State for Finance, and the Chief Ministers of all the states and union territories.
- The Council takes decisions through a consensus-based approach.

Quorum	One-half of the total number of members
Majority	Three-fourths of the weighted votes of the members present and voting
States' Weightage	One-sixth of the total votes cast
Centre's Weightage	One-third of the total votes cast

Key functions of the GST Council:

- **Making recommendations on the GST rates:** The GST Council is responsible for making recommendations on the GST rates for various goods and services. The Council takes into account factors such as the revenue implications of the rates, the impact on consumers and businesses, and the need for uniformity across the country.
- **Determining the exemptions and thresholds:** The GST Council is also responsible for determining the exemptions and thresholds for the GST. Exemptions are items that are not subject to GST, while thresholds are the minimum turnover below which businesses are not required to register for GST.
- **Approving the GST laws:** The GST Council is responsible for approving the GST laws. These laws govern the implementation of the GST, including the rules on registration, filing of returns, and payment of taxes.

Sources:

Uniform 28% tax on online gaming: What the GST Council's decision says, its implications | Explained News, The Indian Express

Q1. With reference to Gaming Laws, consider the following statements:

1. The new rules on online gaming will levy a 28% GST on the platform fee rather than full face value of bets.
2. Game of chance requires initial training to increase one's chances of winning.
3. Games of skill are legal in most Indian states.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (c)

Q2. Consider the following statements:

1. Goods and Services Tax (GST) Council is a statutory body.
2. It is headed by the Prime Minister with Chief Ministers of each state as members.
3. The Council takes decisions by a majority of not less than three-fourths of the weighted votes of the members present and voting.
4. The GST Council is responsible for approving the GST laws.

How many of the above mentioned statements are correct ?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All Four

Answer: (b)

Q3. What are the implications of the GST Council's decision to impose a 28% tax on online gaming and its potential impact on the industry?

COAL GASIFICATION

This article covers "Daily Current Affairs" and the topic details "Coal Gasification". The topic "Coal Gasification" has relevance in the Science and Technology section of the UPSC CSE exam.

For Prelims:

About Coal Gasification?

For Mains:

GS 3: Science and Technology

Coal Gasification Process?

Way Forward?

Why in the news?

The Coal Ministry on Friday announced that it is considering a comprehensive scheme to promote coal gasification projects for both government Public Sector Undertakings (PSUs) and the private sector with an outlay of Rs 6,000 crores.

About Coal Gasification

The scheme aims to promote the utilization of coal gasification technology in India.

- It intends to harness the potential of natural resources and showcase the economic and technical viability of coal gasification.
- The goal is to attract both government PSUs and private sector participation, fostering innovation, investment, and sustainable development in the coal gasification sector.

Selection Process:

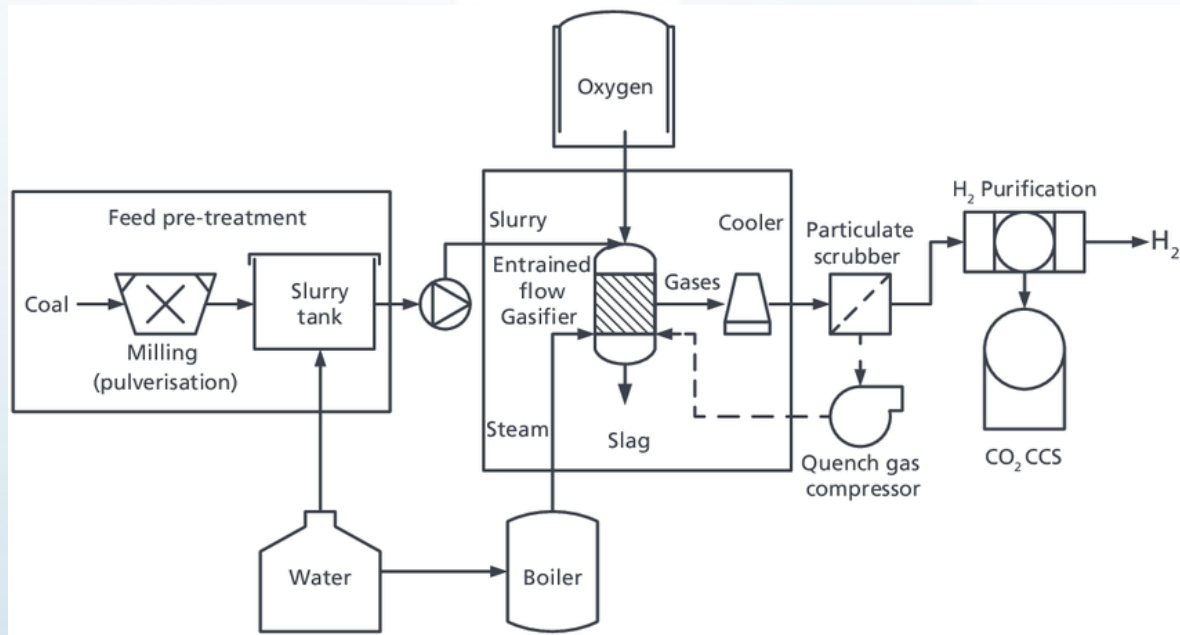
- The scheme will employ a competitive and transparent bidding process to select entities for coal/lignite gasification projects.
- Eligible government PSUs and private sector entities will receive necessary support and incentives to undertake coal gasification initiatives.

Significance:

- The scheme aims to reduce carbon emissions and promote sustainable practices, contributing to global commitments for a greener future.
- It can alleviate the environmental burden associated with traditional coal-based energy production.
- Steel companies can benefit from syngas produced through coal gasification, reducing costs by replacing imported coking coal.
- Coal gasification can be used for electricity generation and the production of chemical feedstocks, fostering self-reliance in essential products.

Coal Gasification Process:

- Coal gasification involves partially oxidizing coal with air, oxygen, steam, or carbon dioxide to produce a fuel gas.
- The resulting gas, known as syngas, primarily consists of methane, carbon monoxide, hydrogen, carbon dioxide, and water vapor.
- Syngas has diverse applications, including the production of fertilizers, fuels, solvents, and synthetic materials.
- It can be a substitute for piped natural gas and methane for energy production.
- Need for Promoting Coal Gasification Projects in India:
- Promoting gasification technology can reduce India's reliance on imports of natural gas, methanol, ammonia, and other essential products.
- The current dependency on imports for natural gas, methanol, and ammonia can be mitigated by utilizing coal gasification.
- It aligns with India's vision of self-reliance (Aatmanirbhar Bharat) and can create employment opportunities.
- By reducing imports, coal gasification contributes to the nation's development and energy security.



Way Forward:

- Conduct comprehensive evaluations of the environmental, economic, and social implications of coal gasification projects.
- Invest in research and development to improve the efficiency and environmental sustainability of coal gasification technology.
- Emphasize the development of a diversified energy mix, including renewable energy sources, energy efficiency measures, and sustainable alternatives to coal-based energy production.
- Learn from global experiences and best practices in coal gasification and hydrogen economy implementation to ensure sustainable development.

SOURCE:

<https://economictimes.indiatimes.com/industry/energy/coal-ministry-to-draw-scheme-for-coal-gasification-projects-worth-rs-6000-cr/articleshow/101750772.cms?from=mdr>

Q.1 Which of the following statements accurately describe the key points of the scheme aimed at promoting coal gasification in India?

1. The scheme aims to attract government PSUs and private sector participation in the coal gasification sector.
2. It focuses on harnessing natural resources and demonstrating the financial and technical feasibility of coal gasification.
3. The selection of entities for coal gasification projects will be done through a competitive and transparent bidding process.
4. The scheme aims to reduce carbon emissions and foster sustainable practices in line with global commitments.

Select the correct answer using the codes below:

- (a) 1, 2, and 3 only
- (b) 2, 3 and 4 only
- (c) 1, 3, and 4 only
- (d) All of the above

ANSWER: D

Q.2 Which of the following statements accurately describe the significance and benefits of promoting coal gasification in India?

- (A) Coal gasification helps in reducing carbon emissions and fostering sustainable practices, aligning with global commitments towards a greener future.
- (B) It attracts government PSUs and private sector participation, encouraging innovation, investment, and sustainable development in the coal gasification sector.
- (C) The selection of entities for coal gasification projects is done through a competitive and transparent bidding process, ensuring efficiency and accountability.
- (D) Promoting coal gasification in India reduces dependence on imports of natural gas, methanol, and ammonia, contributing to India's goal of becoming self-reliant and creating employment opportunities.

Select the correct answer using the codes below:

- (a) A and B only
- (b) B and C only
- (c) A, C, and D only
- (d) All of the above

ANSWER: D

Q.3 Discuss the significance and potential impact of promoting coal gasification in India on the country's energy sector, environmental sustainability, and self-reliance goals.

IMPACT OF CLIMATE CHANGE ON OCEAN COLOUR

This article covers "Daily Current Affairs" and the topic details "Impact of Climate Change on Ocean Colour". The topic "Impact of Climate Change on Ocean Colour" has relevance in the Environment section of the UPSC CSE exam.

For Prelims:

Key Highlights of the Study?

For Mains:

GS 3: Environment

India's Climate Change Mitigation Initiatives?

About MODIS?

Why in the news?

A recent study has suggested that climate change is causing the world's oceans to turn "green," as indicated by the analysis of ocean water. Researchers have attributed this phenomenon to anthropogenic human activities, emphasizing that it is one of the many impacts of climate change. The greening of ocean waters is particularly prominent in areas near the equator and in low latitudes.

Key Highlights of the Study:

Long-Term Trends and Data Analysis:

- Researchers analyzed data from the Aqua satellite's MODIS instrument, monitoring ocean color for two decades (2002-2022).
- MODIS measures visible light in seven wavelengths, detecting subtle color changes in the oceans, which human eyes cannot perceive.
- Green-colored water indicates the presence of phytoplankton, crucial microscopic plant-like organisms forming the base of the marine food web.
- The color of the ocean affects carbon dioxide absorption, with oceans currently absorbing 25% of global CO₂ emissions.

Role of Climate Change:

- The study identifies climate change as the primary driver behind observed changes in ocean color over the two decades.
- Researchers simulated scenarios considering greenhouse gas emissions, predicting significant color changes in 50% of the world's surface oceans, in line with observed shifts to green or blue waters.

Implications for Marine Life and Conservation:

- Changes in phytoplankton population will impact organisms dependent on them for food.
- Different plankton types' ability to absorb carbon influences the ocean's capacity for carbon sequestration.

Regional Variability and the Need for Further Study:

- The southern Indian Ocean exhibits significant color changes, while waters near India may show different trends due to natural variability.

- Ongoing monitoring and research are essential to understand regional variations and climate change's full impact on ocean color.



India's Climate Change Mitigation Initiatives:

National Action Plan on Climate Change (NAPCC):

- Launched in 2008 to address climate change challenges in India.
- Comprises 8 national missions focusing on various aspects of climate change, such as renewable energy, energy efficiency, sustainable habitat, water, Himalayan ecosystem, forestry, agriculture, and strategic knowledge for climate change.

Nationally Determined Contributions (NDC):

- India's commitments to reduce greenhouse gas emissions and adapt to climate change.
- Aims to reduce emissions intensity of GDP by 45% by 2030 from 2005 levels, generate 50% of electricity from non-fossil fuel sources by 2030, and achieve net-zero emissions by 2070.

National Adaptation Fund on Climate Change (NAFCC): Established in 2015 to provide financial assistance to state governments for implementing adaptation projects in various sectors.

State Action Plan on Climate Change (SAPCC):

- Encourages all states and union territories to prepare their own SAPCCs based on their specific needs and priorities.
- Aligned with the objectives of the NAPCC and the NDC.

About MODIS

MODIS stands for the Moderate Resolution Imaging Spectroradiometer. It is an instrument aboard two Earth-observing satellites operated by NASA, namely Aqua and Terra. The MODIS instruments were designed to provide valuable data for studying the Earth's land, ocean, and atmosphere. MODIS is one of the key instruments used in remote sensing, providing detailed and high-quality observations of the planet's surface and atmosphere.

Some key features and capabilities of MODIS include:

- **Multispectral Imaging:** MODIS measures reflected solar radiation in multiple spectral bands, allowing it to capture data in various wavelengths of light. This capability enables researchers to observe different features and phenomena on Earth's surface with high precision.
- **High Spatial Resolution:** MODIS provides moderate to high spatial resolution imagery, allowing

researchers to discern features as small as 250 meters on the Earth's surface.

- **Global Coverage:** Both Aqua and Terra satellites carrying MODIS orbit the Earth pole-to-pole, providing complete coverage of the planet every 1 to 2 days. This frequent revisit time is essential for tracking dynamic environmental processes and changes over time.
- **Applications:** MODIS data is used for a wide range of applications, including monitoring vegetation health, land use and land cover changes, wildfire detection, sea surface temperature measurement, monitoring ocean color and phytoplankton distribution, and studying atmospheric aerosols and clouds, among others.
- **Climate and Environmental Studies:** MODIS data plays a crucial role in climate research, allowing scientists to study long-term trends, climate change impacts, and variations in Earth's ecosystems.

SOURCE:

<https://timesofindia.indiatimes.com/etimes/trending/climate-change-linked-to-greening-of-worlds-oceans-study/articleshow/101753065.cms?from=mdr>

Q.1 What is the primary driver behind observed changes in ocean color over the two decades?

- (a) Phytoplankton population fluctuations
- (b) Subtle changes in ocean salinity
- (c) Greenhouse gas emissions and climate change
- (d) Solar radiation variations

ANSWER: A

Q.2 Which satellite instrument was used to monitor ocean color and phytoplankton distribution in the study's long-term data analysis?

- (a) LIDAR
- (b) RADAR
- (c) MODIS
- (d) SONAR

ANSWER: C

Q.3 Elaborate on the role of climate change in driving observed changes and its potential impact on marine life and carbon sequestration.

RADIO COLLAR CAUSING INFECTIONS IN CHEETAHS

This article covers "Daily Current Affairs" and the topic details "Radio Collar Causing Infections in Cheetahs". The topic "Radio Collar Causing Infections in Cheetahs" has relevance in the Environment section of the UPSC CSE exam.

For Prelims:

About Radio Collars?

Challenges Associated with Radio Collars?

For Mains:

GS 3: Environment

Cheetah Reintroduction Project in India?

Project Implementation and Challenges?

Conservation Efforts and Measures?

Why in the news?

Suraj, the three-year-old cheetah found dead in the wild in Madhya Pradesh, had died of septicaemia caused due to skin chafing by his radio collar, the chairman of the Cheetah Task Force has said.

Radio Collars:

- Radio collars are used to track and monitor animals in the wild, providing data on behavior, migration, and population dynamics.
- They consist of a collar with a small radio transmitter and can be combined with GPS or accelerometers for additional information.
- Collars are designed to be lightweight and comfortable for animals, but potential risks like injuries or infections must be managed.

Challenges Associated with Radio Collars:**Festering Neck Wounds and Septicaemia:**

- Two cheetahs in the Kuno National Park died due to suspected septicaemia caused by festering neck wounds from radio collars.
- Other cheetahs in the project have exhibited similar injuries, raising concerns about using radio collars in the cheetah reintroduction project.

Problems with Long-term Collar Usage:

- Long-term wear of collars can have downsides, including bacterial presence and skin issues like dermatitis in watch wearers and pet dogs.
- Tight-fitting collars can cause pressure necrosis and rapid hair loss around the neck in animals, similar to bedsores.

Weight Considerations:

- Radio collars should ideally be kept below 3% of the animal's body weight.
- Fitting collars on cheetahs can be challenging due to their small necks, especially for younger animals.

Vulnerability to Collar-Induced Injuries:

- Cheetahs' thick winter coat can retain more water, making them vulnerable to collar-related issues.
- Forces exerted by collars during movement can surpass the collar's weight, leading to potential injuries.

Lack of Adaptation to Monsoon Conditions:

- Secondary bacterial infections under collars may be more common in Indian conditions due to the monsoon and humidity.
- Cheetahs in historical times did not wear collars during the monsoon, suggesting a potential lack of adaptation to local climate conditions.

Cheetah Reintroduction Project in India:

- The Cheetah Reintroduction Project aims to restore the population of cheetahs in India, which were declared extinct in the country in 1952.
- The project involves translocating cheetahs from South Africa and Namibia to Kuno National Park

in Madhya Pradesh.

- Radio-collared cheetahs were brought to Kuno National Park, and monitoring and conservation efforts are ongoing.



Project Implementation and Challenges:

The Cheetah Reintroduction Project is a collaborative effort between the National Tiger Conservation Authority (NTCA), Madhya Pradesh Forest Department, Wildlife Institute of India (WII), and cheetah experts from Namibia and South Africa. However, implementing the project comes with various challenges that need to be addressed:

- **Monitoring:** Effective monitoring of the reintroduced cheetah population is crucial to understanding their behavior, health, and adaptation to the new environment.
- **Protection:** Ensuring the safety and protection of the reintroduced cheetahs from poaching, human-wildlife conflict, and other threats is a significant challenge.
- **Management:** Proper management and coordination among various stakeholders are essential for the success of the reintroduction project.
- **Conservation Measures:** Efforts are being made to improve conservation measures based on consultations with international experts.
- **Cheetah Research Center:** The establishment of a dedicated Cheetah Research Center aims to provide valuable insights and data to support the conservation efforts.

Conservation Efforts and Measures:

To ensure the long-term success of the reintroduced cheetah population, the government is undertaking several conservation efforts:

- **Expert Review:** Independent experts are assessing monitoring protocols, protection status, managerial inputs, veterinary facilities, and capacity building to enhance the project's effectiveness.
- **Habitat Expansion:** Efforts are being made to expand the forest areas under Kuno National Park's administrative control to provide a suitable and secure habitat for the cheetahs.
- **Frontline Staff:** Additional frontline staff is being deployed to enhance the monitoring and protection of the cheetahs in their new habitat.
- **Cheetah Protection Force:** The establishment of a specialized Cheetah Protection Force will aid in safeguarding the reintroduced cheetahs from potential threats.
- **Second Home for Cheetahs:** The creation of a second home for cheetahs in Gandhi Sagar Wildlife Sanctuary is intended to provide an alternative site for their conservation and population growth.

Characteristic	Asiatic Cheetah	African Cheetah
Physical Appearance	Smaller in size and more compact	Slightly larger and more slender
Geographic Range	Once found in parts of Asia	Found in various regions of Africa

Habitat Preferences	Prefers arid and semi-arid landscapes like deserts, scrublands, and mountains	Diverse range of habitats, including grasslands, savannas, and open woodlands
Coat Color and Pattern	Tawny or pale yellowish coat with few or no spots; some individuals may have faint spots	Tawny with black spots arranged in distinctive rows
Genetic Differences	Slightly different genetic makeup from African cheetahs	More genetic diversity due to larger population and range
Population Status	Critically endangered with fewer than 50 individuals remaining in the wild	Vulnerable with relatively higher population numbers in some areas
Behavior and Hunting Strategies	Similar hunting behavior, relying on speed and agility to catch prey; more solitary in behavior	Similar hunting strategies, using bursts of speed to chase and capture prey
Conservation Efforts	Conservation efforts focused on protecting and increasing populations in Iran and nearby regions	Several conservation initiatives in different African countries to preserve and protect the African cheetah population

SOURCE:

<https://www.hindustantimes.com/india-news/threeyearold-cheetah-dies-in-india-due-to-septicaemia-from-radio-collar-abrasions-in-ambitious-reintroduction-project-101689444890698.html>

Q.1 Consider the following:

1. Black-necked crane
2. Cheetah
3. Flying squirrel
4. Snow leopard

Which of the above are naturally found in India?

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

Answer: (b)

Q.2 Which of the following statements about Cheetahs in India is/are correct?

1. The Cheetah was declared extinct in the country in 1952.
2. The Cheetah Project commenced with the translocation of cheetahs from South Africa and Namibia to Madhya Pradesh.
3. The Radio Collar is harmless to Cheetah.
4. The Cheetah Reintroduction Project is solely implemented by the Wildlife Institute of India (WII) in collaboration with international cheetah experts.

Select the correct option:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 2 and 4 only

(d) 3 and 4 only

Answer: (d)

Q.3 Discuss the significance of the Cheetah Reintroduction Project in India. Examine the challenges faced in reintroducing cheetahs and the measures taken by the government to ensure their long-term conservation.

INDIA'S EXPORT SECTOR

This article covers "Daily Current Affairs" and the topic details "India's Export Sector". The topic "India's Export Sector" has relevance in the Economy section of the UPSC CSE exam.

For Prelims:

Target Range?

Current Scenario of Indian Export?

For Mains:

GS 3: Economy

Factors Influencing Exports?

Challenges for the Export Sector in India?

Way Forward?

Why in the news?

India's exports have encountered a challenging start this year, experiencing a significant contraction of 15.1% during the April to June 2023 quarter. This decline comes after the country's outbound shipments of goods had reached a notable milestone, surpassing \$450 billion in the previous year.

Target Range:

Target USD 2 Trillion by 2030:

- India's new Foreign Trade Policy (FTP) 2023 aims to achieve a total export of USD 2 trillion by 2030, with services and goods exports accounting for a trillion dollars each.
- This long-term objective will be considered while setting the current year's export targets.

Import to GDP Ratio of Importing Countries:

- The government will take into account the import to GDP (Gross Domestic Product) ratio of the countries that are major importers of Indian goods.
- This ratio provides insights into the potential demand for Indian products in various international markets.

Export to GDP Ratio of India:

- The export to GDP ratio of India will be assessed to gauge the country's export potential and capacity.
- This analysis helps in understanding the share of exports in India's overall economic output.

Trend Growth of Past Years:

- The past growth trends in exports will be analyzed to understand the trajectory of India's trade performance.
- Considering historical growth patterns helps in setting achievable targets for the future.

Target Range: Based on the figures of FY 2022-23, where exports amounted to USD 450 billion, and assuming a conservative growth rate of 10%, trade experts suggest the following potential target range for **the current year's exports**:

- Lower End of Range: USD 451 billion (Slightly above the previous year's exports)
- Upper End of Range: USD 495 billion (Assuming a 10% growth rate).

Monitoring Mechanism:

- The Department of Commerce will use a fixed number, which could be a mid-value or an average, to track export performance every month.
- This monitoring mechanism provides timely insights into the progress of exports and allows for necessary adjustments if required to achieve the set targets.

Current Scenario of Indian Export:

- Goods exports have experienced a series of deceleration, with a 22% drop in June 2023, the steepest fall in 37 months.
- Exported services also witnessed a slowdown, with forex earnings from intangible exports growing by only 5.2% in the first quarter of 2023-24, compared to about 28% growth in the previous year.

India's imports and exports

US\$



India's top import items

2012, US\$



India's top export items

2012, US\$



Factors Influencing Exports:

Global Oil Prices:

- Petroleum exports saw a sharp plunge of 33.2% in the first quarter due to reduced global oil prices.
- Price cap sanctions on Russian oil shipments also contributed to a moderation in demand.

External Factors: The World Trade Organisation's (WTO) forecast of slower global trade growth in 2023 is influencing India's export outlook.

Status of the Export Sector in India:

- Merchandise trade deficit increased by over 39% in 2022-23 to record USD 266.78 billion, compared to USD 191 billion in 2021-22.
- Merchandise imports increased by 16.51% in 2022-23, while merchandise exports rose by 6.03%.
- Overall trade deficit stood at USD 122 billion in 2022-23, compared to USD 83.53 billion in the previous year.

India's Major Export Arenas:

- **Engineering Goods:** Registered a 50% growth in exports, reaching USD 101 billion in FY22.
- **Agriculture Products:** Rice exports worth USD 9.65 billion, the highest among agricultural commodities.
- **Textile and Apparels:** Textile and apparel exports stood at USD 44.4 billion in FY22, a 41% increase on a YoY basis.

Challenges for Export Sector in India:

Challenges in Access to Finance:

- Exporters face difficulties in obtaining affordable and timely finance due to high interest rates, collateral requirements, and limited credit availability, especially for SMEs.
- Limited Diversification:
- India's export basket is concentrated in a few sectors, making it vulnerable to global demand fluctuations and market risks.

Rising Protectionism and Deglobalisation: Increasing protectionist trade policies globally are shrinking India's export capacities.

Major Government Initiatives to Promote Export Growth:

- Trade Infrastructure for Export Scheme (TIES)
- PM Gati Shakti National Master Plan (NMP)
- Duty Drawback Scheme

Way Forward:

- Investments in transportation networks, ports, customs clearance processes, and export-oriented infrastructure should be prioritized.
- Skill development programs should be implemented to enhance the availability of skilled labor in export-oriented industries.
- Incentivizing and promoting technology adoption, such as automation and digitization, can boost productivity and competitiveness in the export sector.

SOURCE:

<https://www.thehindu.com/opinion/editorial/downhill-driving-the-hindu-ed->

Q.1 What is the target range approach adopted by the Indian Government to promote exports?

1. Setting an export target of USD 2 trillion by 2030
2. Analyzing the past growth trends in exports
3. Considering the import to GDP ratio of major importing countries

Select the correct answer from the options below:

- (A) 1 and 2 only
- (B) 2 and 3 only
- (C) Both 1 and 3 only
- (D) 1, 2 and 3

ANSWER: D

Q.2 India's new Foreign Trade Policy (FTP) 2023 aims to achieve a total export of USD 2 trillion by which year?

- (A) 2025
- (B) 2030
- (C) 2040
- (D) 2028

Answer: B

Q.3 Discuss the challenges faced by the Indian export sector and the major government initiatives taken to promote export growth. What measures should the government undertake to further enhance India's export competitiveness?

OPEN NETWORK FOR DIGITAL COMMERCE ACADEMY

This article covers "Daily Current Affairs" and the topic details "Open Network for Digital Commerce Academy". The topic "Open Network for Digital Commerce Academy" has relevance in the "Indian Economy" section of the UPSC CSE exam.

For Prelims:

What is Open Network for Digital Commerce Academy? What is Open Network for Digital Commerce?

For Mains:

GS3: Indian Economy

Why in the news?

On 21st July 2023, the ONDC Academy, a repository of online training material for merchants, was launched by the government-backed e-commerce protocol, the Open Network for Digital Commerce (ONDC).

ONDC Academy

- **The ONDC Academy is an e-learning program available to all participants on the open network, featuring assessments and certifications provided by NSE Academy Limited.** NSE Academy is a subsidiary of NSE Investments established to enhance financial literacy and offer training in banking, insurance, and financial markets.
- The primary goal of ONDC Academy is to
 - empower individuals with knowledge to make well-informed decisions,
 - minimise operational challenges,
 - maximise efficiency while engaging in e-commerce on the open network.
- The training material is available on the ONDC website and YouTube. The first course, “ONDC Academy Seller Network Participant Excellence,” is already active.
- The Seller Network Participant course is specifically designed to guide sellers on the network, covering various operational aspects crucial for running a successful online business. Topics include seller onboarding, persuading sellers to join ONDC, catalogue management, order handling, seller management, and packaging.
- The course is structured into multiple modules such as introduction to digital commerce, seller onboarding, catalogue creation, order management system, packaging, and more. Each module includes relevant chapters to thoroughly explain the subject matter.

Open Network for Digital Commerce (ONDC)

- The Open Network for Digital Commerce (ONDC) is an initiative by the **Department of Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce, Government of India, **aimed at revolutionizing digital commerce and promoting the growth of retail e-commerce in the country.**
- The project’s inception took place at the **Quality Council of India**, an autonomous organization under DPIIT, where the foundational work for ONDC was initiated with a mission-oriented approach.
- ONDC, backed by the Government of India, is a technology infrastructure that **operates on a network-centric model.** It allows buyers and sellers to conduct transactions regardless of the platforms or applications they use, as long as those platforms are connected to the open network.
- This approach surpasses the existing platform-centric digital commerce model, where both buyers and sellers are limited to using the same platform or application to conduct business digitally.

Major ONDC objectives:

1. Making eCommerce more democratic and decentralized
2. Ensuring inclusivity and accessibility for sellers, particularly small and medium enterprises and local businesses
3. Expanding consumer choices and independence

Advantages of ONDC include:

- **Increased competition:** ONDC will reduce the dominance of a few large e-commerce platforms, giving small businesses and entrepreneurs a fairer chance to compete.
- **Lower prices:** ONDC is expected to lead to lower prices for consumers, as businesses will be able to reduce their costs by avoiding the high fees charged by the current e-commerce platforms.
- **Greater choice:** ONDC will make it easier for consumers to find the products and services they want, as they will be able to shop from a wider range of sellers.
- **Improved transparency:** ONDC will increase transparency in the e-commerce market, as buy-

ers will be able to compare prices and products more easily.

- **Enhanced interoperability:** ONDC will enable interoperability between different e-commerce platforms, making it easier for consumers to switch between platforms.
- **Support for local businesses:** ONDC will support local businesses by making it easier for them to sell their products online.
- **Improved access to rural markets:** ONDC will improve access to rural markets, as it will be easier for businesses to reach consumers in these areas.

ONDC OPEN NETWORK FOR DIGITAL COMMERCE

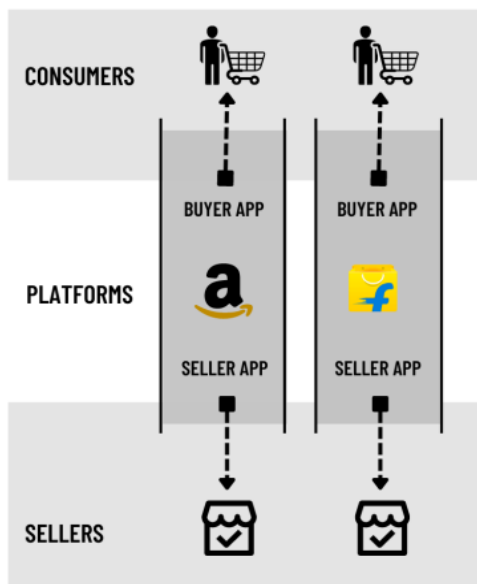
Open network-centric model backed by Government of India



INTERNET
FREEDOM
FOUNDATION

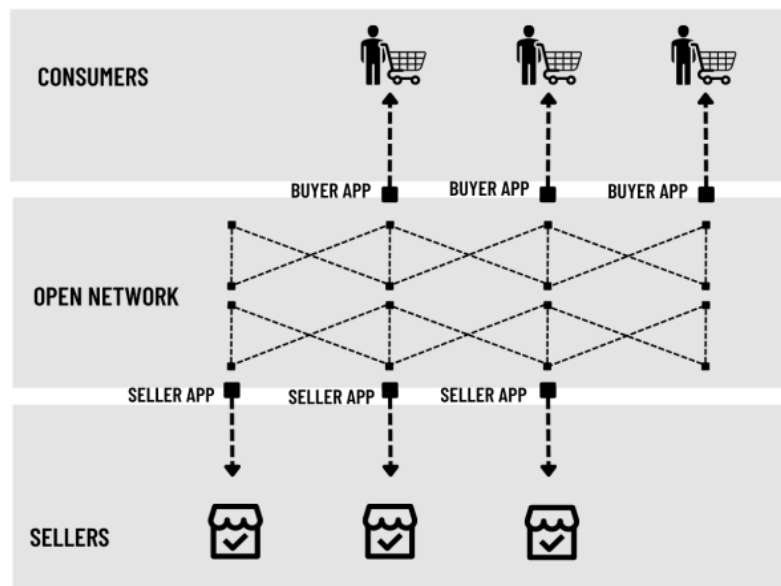
Platform Centric Models

Buyers and sellers can only interact within walled platforms.



Network Centric Models (like ONDC)

Buyers and sellers can interact with each other in a platform-agnostic manner.



Challenges with ONDC:

- **Lack of awareness:** Many businesses and consumers are not aware of ONDC, which could hinder its adoption.
- **Technical challenges:** ONDC is a complex platform, and there are some technical challenges that need to be addressed before it can be fully implemented.
- **Competition from existing platforms:** ONDC will face competition from the existing e-commerce platforms, which have a large user base and a strong brand presence.
- **Regulation:** The government needs to put in place clear regulations for ONDC to ensure that it operates in a fair and transparent manner.
- **Acceptance by sellers:** ONDC will need to be accepted by sellers in order to be successful. Some sellers may be reluctant to switch to ONDC, as they may be comfortable with the existing platforms.

- **Lack of a Robust Grievance Redressal Mechanism:** The lack of clarity on responsibility for customer service and handling complaints may deter people from joining the platform.

In conclusion, the 'Open Network for Digital Commerce' (ONDC) holds significant promise for transforming the e-commerce landscape in India. By promoting inclusivity, decentralisation, and fair competition, ONDC can empower small businesses, provide consumers with more choices, and increase transparency in the market. To ensure its successful implementation, addressing technical challenges, raising awareness, establishing clear regulations, and implementing a robust grievance redressal mechanism are crucial steps forward.

Sources:

ONDC releases learning resources for merchants as more sellers join platform – The Hindu
ONDC announces launch of ONDC Academy for sellers, other network participants to grow online |
The Financial Express
Infographics – Internet Freedom Foundation

Q1. With reference Open Network for Digital Commerce (ONDC), consider the following statements:

1. ONDC is a technology infrastructure backed by the Government of India.
2. ONDC follows a platform-centric digital commerce model.
3. ONDC aims to promote democratisation and decentralisation of eCommerce.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (b)

Q2. Consider the following statements:

1. Open Network for Digital Commerce (ONDC) is expected to lead to lower prices for consumers due to reduced business costs.
2. ONDC will restrict consumer choices as it focuses on a limited range of sellers.
3. ONDC will improve transparency in the e-commerce market, making price comparison easier.
4. ONDC will allow interoperability between different e-commerce platforms.

How many of the abovementioned statement/s is/are correct ?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All Four

Answer: (c)

Q3. Discuss the major objectives of Open Network for Digital Commerce (ONDC) and its potential impact on democratising and decentralising eCommerce in India.

INTELLECTUAL PROPERTY RIGHTS POLICY MANAGEMENT FRAMEWORK (IPRPM)

This article covers "Daily Current Affairs" and the topic details "IPRPM". The topic "IPRPM" has relevance in the Economy section of the UPSC CSE exam.

For Prelims:

IPRPM Framework – Key Highlights?

Initiatives under IPR Policy?

For Mains:

GS 3: Economy

Key Highlights of the Report?

About Intellectual Property Rights (IPR)?

Treaties and Conventions related to IPR?

Way Forward?

Why in the news?

The Ministry of Commerce and Industry, Government of India, has recently apprised the Rajya Sabha about the implementation of the Intellectual Property Rights Policy Management (IPRPM) Framework.

IPRPM Framework – Key Highlights:

About: The IPRPM (Intellectual Property Rights Policy and Management) Framework was launched as the National IPR Policy 2016, consolidating all Intellectual Property Rights into a single vision document. It establishes an institutional mechanism for implementation, monitoring, and review of IP laws in India.

Types of intellectual property rights covered: (i) Patents, (ii) Trade mark, (iii) Industrial Designs, (iv) Copyrights, (v) Geographical Indications, (vi) Semiconductor Integrated Circuit Layout Design, (vii) Trade Secret, and (viii) Plant Varieties.

Right Area	Legal Provision	Subject	Term of Protection
Patent	Patent Act, 1970 & Patent Rules, 2003 amended in 2014, 2016, 2017, 2019, 2020, and 2021	Must qualify requirements of being novel, Inventive, and having industrial utility	20 years
Trademarks	Trademark Act 1999 & Trademark Rules 2017	Protects brand name, logo, design for a business or commercial enterprise	10 years; renewed for 10 years on payment of additional fees
Designs	Designs Act 2000 & Designs (Amendment) Rules 2021	New or original designs (ornamental/visual appearance discernible to the human eye) which can be replicated industrially	10 + 5 years

Copyrights	Copyrights Act 1957 & Copyrights Rules 2013 amended in 2021	Creative, artistic, literary, Musical, and audio-visual works	Authors – Lifetime + 60 years; Producers – 60 years Performers – 50 years
Geographical Indications	Geographical Indications Act 1999 & GI Rules 2002 amended in 2020	Goods bearing unique characteristics due to geographical linkage – agricultural goods, natural goods, manufactured goods, handicrafts, and foodstuff	10 years, renewed for 10 years on payment of additional fees
Semiconductor Integrated Circuits Layout Design	Semiconductor Integrated Circuits Layout Design Act 2000 & Rules 2001	A layout of transistors and other circuitry elements including lead wires connecting such elements and expressed in any manner in semiconductor integrated circuits	10 years
Trade Secret	Common Law approach covered through IPC, Contract Act, IP Act, and Copyright	Confidential information having commercial value	Till the time confidentiality is safeguarded
Plant Varieties	Protection of Plant Varieties and Farmers Rights Act (PPVFRA), 2001	Traditional varieties and landraces, all developed varieties (non-traditional and non-landrace) in trade/use for older than 1 year and not older than 15 years or 18 years (in case of trees and vines), and new plant varieties	Varies depending on the type of variety

Objectives:

- **IPR Awareness:** Create public awareness about the economic, social, and cultural benefits of IPRs.
- **Generation of IPRs:** Stimulate the generation of Intellectual Property Rights.
- **Legal and Legislative Framework:** Strengthen and balance IPR laws to safeguard both rights owners and public interest.
- **Administration and Management:** Modernize and strengthen service-oriented IPR administration.
- **Commercialisation of IPRs:** Facilitate value generation from IPRs through commercialization.
- **Enforcement and Adjudication:** Strengthen mechanisms to combat IPR infringements effectively.
- **Human Capital Development:** Enhance human resources, institutions, and capacity-building in IPRs through teaching, training, research, and skill development.

Initiatives under IPR Policy:

- **National Intellectual Property Awareness Mission (NIPAM):** Impart IP awareness and basic training in educational institutes.
- **National Intellectual Property (IP) Awards:** Recognize and reward top achievers in IP creations and commercialization.
- **Scheme for Facilitating Start-Ups Intellectual Property Protection (SIPP):** Encourages

Startups to file Patent applications.

- **Patent Facilitation Programme:** Provides support in scouting patentable inventions and obtaining patents.

About Intellectual Property Rights (IPR):

IPRs are rights given to creators over their intellectual creations, granting exclusive rights for a specific period. Recognized under Article 27 of the Universal Declaration of Human Rights, IPRs protect the interests of authors, inventors, and creators.

Need for IPR:

- Encourages Innovation: Legal protection fosters commitment to innovation.
- Economic Growth: Promotes economic growth, job creation, and enhanced quality of life.
- Safeguards Creators: Grants creators time-limited rights over their creations.
- Ease of Doing Business: Facilitates innovation and ease of conducting business.
- Transfer of Technology: Facilitates technology transfer through FDI, joint ventures, and licensing.

Issues related to IPR Regime:

- Patent-Friendliness Over Public Health: Concerns over prioritizing patent interests over public health in the pharmaceutical sector.
- Data Exclusivity: Demands for data exclusivity laws to protect against unfair commercial use of test data by foreign investors.
- Resulting in Anti-Competitive Market: Need for balanced enforcement that benefits all stakeholders and avoids anti-competitive outcomes.

Treaties and Conventions related to IPR:

- Global: India is a member of the WTO and committed to the Agreement on TRIPS. It is also a member of WIPO, and various international treaties related to IPR, including the Paris Convention, Berne Convention, and Patent Cooperation Treaty.
- National: The Indian Patent Act 1970 is the principal law governing the patenting system in India, amended in 2005 to extend product patents to various fields.



Way Forward:

- India must strike a balance between innovation and access to essential goods like medicines.
- The IPR laws need regular review and updates to address emerging challenges posed by digital technologies.
- Flexibility in the IPR regime is necessary to adapt to evolving technology and business models.

Q.1 With reference to the 'National Intellectual Property Rights Policy', consider the following statements:

1. It reiterates India's commitment to the Doha Development Agenda and the TRIPS Agreement.
2. Department of Industrial Policy and Promotion is the nodal agency for regulating intellectual property rights in India.

Which of the above statements is/are correct?

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

Answer: (c)

Q2. Consider the following statements:

1. According to the Indian Patents Act, a biological process to create a seed can be patented in India.
2. In India, there is no Intellectual Property Appellate Board.
3. Plant varieties are not eligible to be patented in India.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Answer: (c)

Q.3 In a globalized world, Intellectual Property Rights assume significance and are a source of litigation. Broadly distinguish between the terms—Copyrights, Patents and Trade Secrets.

WATER MANAGEMENT

This article covers "Daily Current Affairs" and the topic details "Water Management". The topic "Water Management" has relevance in the Resource Management section of the UPSC CSE exam.

For Prelims:

About Quick-Fix Water Solutions?

Quick-Fix Water Solutions Initiatives?

For Mains:

GS 3: Resource Management

Challenges in Quick-Fix Solutions in Water Management?

Government Initiatives to Tackle India's Water Crisis?

Way Forward?

Why in the news?

Non-profits and civil society organisations are increasingly opting for quick-fix solutions to all issues, a tendency that needs to be moderated

About Quick-Fix Water Solutions:

- **River Widening, Deepening, and Straightening:** Modifying natural watercourses to increase their capacity to carry water.
- **Water Harvesting Competitions:** Encouraging communities to harvest rainwater and adopt water-saving practices.
- **Tree Planting Along Riverbanks:** Stabilizing soil and preventing erosion by planting trees along riverbanks.
- **Quick Infrastructure Development:** Rapid construction of water facilities like sewage treatment plants and water grids.
- **Artificial Recharge of Aquifers:** Injecting water into underground aquifers to replenish groundwater levels.
- **Desalination Plants:** Converting seawater into freshwater to meet coastal water needs.

Quick-Fix Water Solutions Initiatives:

Jalyukt Shivar Abhiyan:

- Maharashtra government initiative (2014) aimed to make the state drought-free through river widening, deepening, and straightening, check dams, and desilting.
- Criticized by experts for being unscientific, ecologically damaging, leading to erosion, biodiversity loss, and increased flood risk.

Water Cups:

- A competition initiated by a non-profit organization in 2016 incentivized Maharashtra villages to harvest water for drought-proofing.
- Criticized for overlooking water quality, groundwater impact, social equity, and maintenance mechanisms.

While quick-fix solutions can provide short-term relief, they often have limitations and may not fully address the underlying complexities of water management. To achieve sustainable water solutions, comprehensive and well-thought-out strategies are essential, considering ecological, social, and long-term impacts.

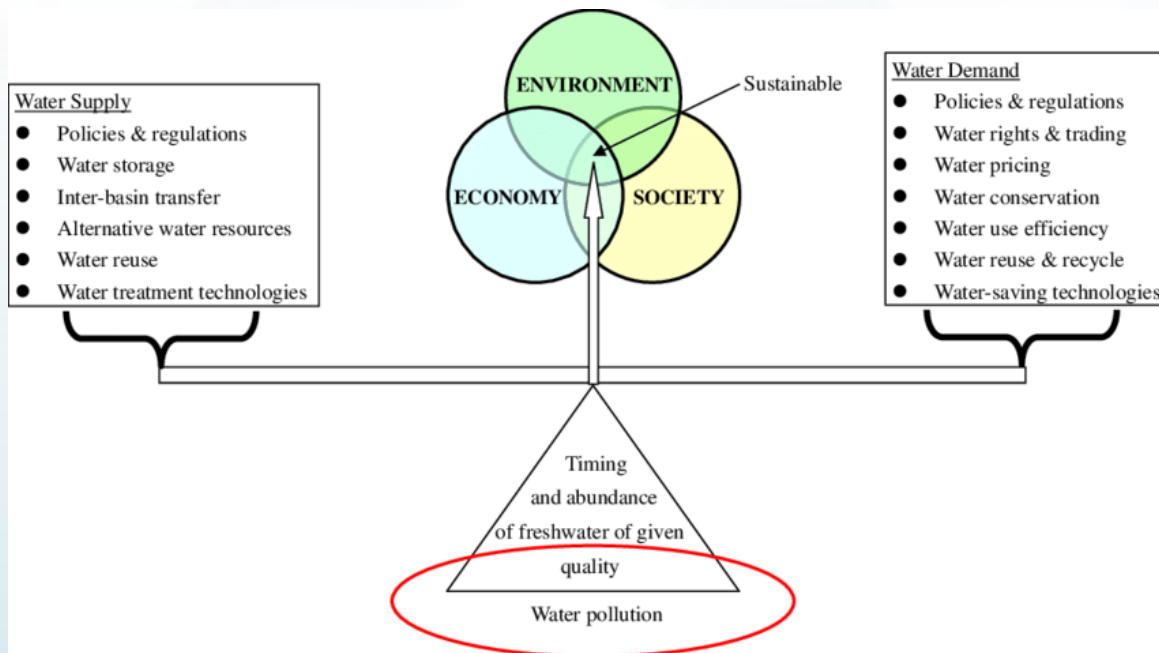
Challenges in Quick-Fix Solutions in Water Management:

- **Environmental Impacts:** Rapid interventions can lead to ecological damage, such as river widening and deepening causing erosion and loss of biodiversity.
- **Limited Community Engagement:** Quick-fix approaches may lack adequate participation and consultation with stakeholders, leading to resistance and conflicts.
- **Funding Dependency:** Relying on corporate social responsibility (CSR) funding can limit decision-making freedom and prioritize projects influenced by donor interests rather than community needs.
- **Neglecting Groundwater Management:** Quick-fix solutions may focus on surface water, overlooking the critical role of groundwater, which is crucial for sustainable water supply.
- **Conflicting Programs:** Some state projects may not align with community and environmental interests, such as riverfront development or massive water grids.
- **Shift from Critical Engagement:** Overemphasis on technical knowledge and problem-solving

may overlook important socio-economic and ecological aspects related to water management.

Government Initiatives to Tackle India's Water Crisis:

- **Amrit Sarovar Mission:** Develop and rejuvenate 75 water bodies in each district to improve water storage and quality.
- **Atal Bhujal Yojana:** Targeting water-stressed areas in certain states to manage groundwater demand through scientific means and community involvement.
- **Central Ground Water Authority (CGWA):** Regulates and controls groundwater usage by industries and infrastructure projects, issuing NOCs for responsible water usage.
- **National Aquifer Mapping Program (NAQUIM):** Maps aquifers in the country to facilitate informed interventions and management plans.
- **Master Plan for Artificial Recharge to Groundwater – 2020:** Outlines the construction of Rain Water Harvesting and artificial recharge structures to promote water conservation and recharge.



Way Forward:

- Comprehensive and Sustainable Water Management:
- Embrace holistic strategies that address both immediate needs and long-term challenges.
- Community Engagement:
- Foster meaningful involvement of local communities in water management decisions.
- Investments in Infrastructure and Capacity-Building:
- Prioritize funding for water infrastructure and capacity-building programs to enhance resilience.
- Monitoring and Evaluation:
- Establish robust frameworks to assess the effectiveness and impact of water management initiatives.
- Responsible Groundwater Management:
- Promote conservation practices to ensure water availability for future generations.

SOURCE:

<https://www.downtoearth.org.in/news/water/can-quick-fix-solutions-address-india-s-growing-water-woes-90732>

Q.1 Which one of the following ancient towns is well known for its elaborate system of water harvesting and management by building a series of dams and channelizing water into connected reservoirs?

- (a) Dholavira
- (b) Kalibangan
- (c) Rakhigarhi
- (d) Ropar

Answer: (a)

Q.2 With reference to 'Water Credit', consider the following statements:

1. It puts microfinance tools to work in the water and sanitation sector.
2. It is a global initiative launched under the aegis of the World Health Organization and the World Bank.
3. It aims to enable the poor people to meet their water needs without depending on subsidies.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (c)

Q.3 What are the salient features of the Jal Shakti Abhiyan launched by the Government of India for water conservation and water security?

ETHANOL BLENDING

This article covers "Daily Current Affairs" and the topic details "Ethanol Blending". The topic "Ethanol Blending" has relevance in the Energy Security section of the UPSC CSE exam.

For Prelims:

About Ethanol?

Applications of Ethanol as Fuel?

For Mains:

GS 3: Energy Security

Benefits of blending ethanol in fuel?

Feedstock Diversification in India?

Government Initiatives to Promote Ethanol Blending in India?

Why in the news?

The Prime Minister announced that India has commenced the rollout of 20% ethanol-blended petrol this year and the country's aim is to cover the entire nation by 2025.

About Ethanol:

- Ethanol, also referred to as ethyl alcohol, is a renewable biofuel derived from diverse sources such

as sugarcane, corn, rice, wheat, and biomass.

- It is 99.9% pure alcohol and can be blended with petrol to create a cleaner fuel alternative.
- Byproducts of ethanol production include Distillers' Dried Grain with Solubles (DDGS), used as animal feed, and Potash from Incineration Boiler Ash, used as fertilizer.

Applications of Ethanol as Fuel:

- Ethanol is used as a renewable biofuel alternative to gasoline in the transportation sector.
- It can be blended with petrol in various proportions, such as E10 and E20, to reduce greenhouse gas emissions and air pollutants.
- India has implemented the Ethanol Blending Programme to promote the use of ethanol and reduce dependence on imported crude oil.

Benefits of blending ethanol in fuel?

- **Renewable Energy Source:** Ethanol is produced from renewable plant-based sources, such as sugarcane and corn, making it a sustainable alternative to fossil fuels.
- **Reduced Greenhouse Gas Emissions:** Ethanol has a lower carbon footprint compared to conventional gasoline. When blended with petrol, it helps reduce greenhouse gas emissions, mitigating the impact of climate change.
- **Improved Air Quality:** Ethanol-blended fuels produce fewer harmful pollutants, such as carbon monoxide and volatile organic compounds, which contribute to air pollution and smog.
- **Energy Security:** Ethanol production reduces dependence on imported fossil fuels, enhancing a country's energy security and reducing exposure to volatile global oil prices.
- **Economic Benefits:** Ethanol production supports rural economies by creating jobs in agriculture and biofuel industries. It also helps diversify income streams for farmers.
- **Engine Performance and Octane Rating:** Ethanol has a high octane rating, which improves engine performance and efficiency. It can help reduce engine knocking and prolong the life of engines.
- **Cleaner Fuel:** Ethanol-blended fuels burn more cleanly, leading to less engine deposits and maintenance requirements, contributing to cleaner engines and reduced maintenance costs.
- **Encouraging Agriculture:** Ethanol production promotes the growth of crops used for feedstock, stimulating agricultural activities and providing additional income for farmers.
- **Utilization of Byproducts:** Ethanol production generates valuable byproducts like Distillers' Dried Grain with Solubles (DDGS), which is used as animal feed, and potash, which serves as a fertilizer.
- **Energy Independence:** By utilizing domestic feedstocks for ethanol production, countries can reduce their reliance on foreign oil and achieve greater energy independence.

Feedstock Diversification in India:

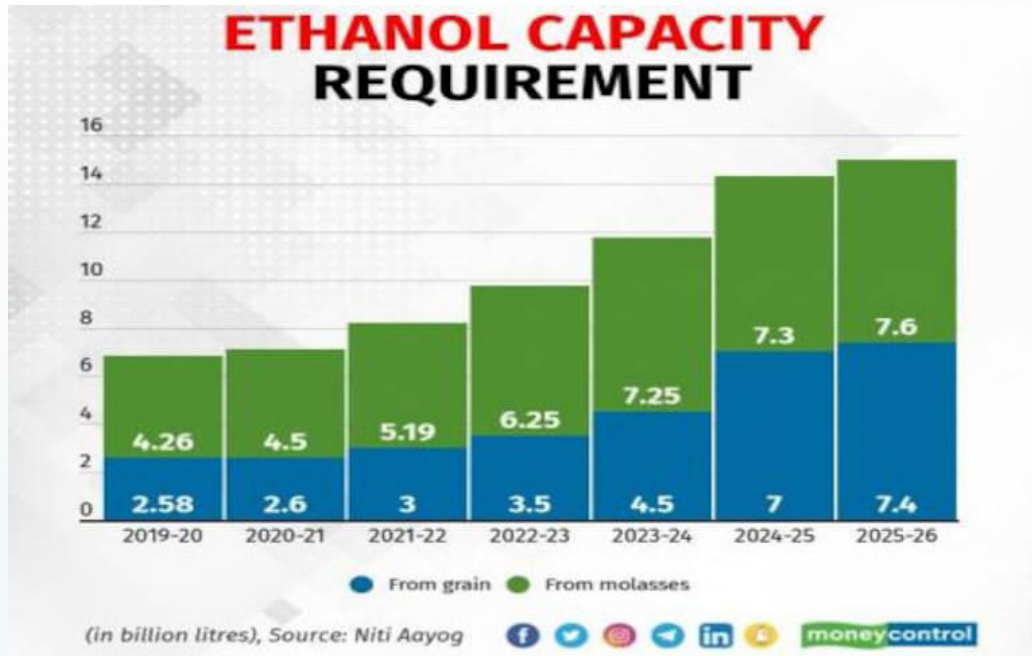
- India diversified its ethanol feedstocks by including rice, damaged grains, maize, jowar, bajra, and millets.
- The government's differential pricing policy incentivized the use of alternative feedstocks by fixing higher prices for ethanol produced from certain sources.
- Sugar mills installed distilleries that can operate on multiple feedstocks throughout the year.

Challenges in Feedstock Diversification:

- Processing grains for ethanol production is time-consuming compared to molasses.
- Quality variability of feedstocks can affect production.
- Environmental concerns may arise with the use of non-traditional feedstocks.

Benefits of Feedstock Diversification:

- Diversification of feedstocks minimizes supply fluctuations and price volatility.
- New demand for grains is created with the incorporation of new feedstocks.



Government Initiatives to Promote Ethanol Blending in India:

- **National Policy on Biofuels 2018:** Provides a framework for the promotion of biofuels, including ethanol, to enhance energy security and sustainability.
- **E100 Pilot Project:** A pilot project to test the use of 100% ethanol as a fuel in selected regions.
- **Pradhan Mantri JI-VAN Yojana 2019:** A scheme aimed at boosting the availability of ethanol and biofuels from various feedstocks.
- **Repurpose Used Cooking Oil (RUCO):** An initiative to collect used cooking oil to convert it into biodiesel and promote its blending with diesel.

SOURCE:

<https://indianexpress.com/article/explained/explained-economics/the-ethanol-impetus-8856449/>

Q.1 According to India's National Policy on Biofuels, which of the following can be used as raw materials for the production of biofuels?

1. Cassava
2. Damaged wheat grains
3. Groundnut seeds
4. Horse gram
5. Rotten potatoes
6. Sugar beet

Select the correct answer using the code given below:

- (a) 1, 2, 5 and 6 only
- (b) 1, 3, 4 and 6 only
- (c) 2, 3, 4 and 5 only
- (d) 1, 2, 3, 4, 5 and 6

Answer: (a)

Q.2 Which of the following are benefits of using ethanol blending in fuel?

1. Reduced greenhouse gas emissions
2. Lower engine performance and efficiency
3. Promotion of rural economies through job creation

Select the correct option(s) from the choices given below:

- (a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Answer: (d)

Q.3 Discuss the challenges faced in promoting ethanol blending in fuel and suggest strategies to overcome these obstacles. Evaluate the potential impact of increased ethanol blending on energy security, environment, and rural economies in India.

RESTORATION OF SEAGRASSES

This article covers "Daily Current Affairs" and the topic details "Restoration of Seagrasses". The topic "Restoration of Seagrasses" has relevance in the "Ecology and Environment" section of the UPSC CSE exam.

For Prelims:

What are seagrasses?

For Mains:

GS3: Biodiversity Conservation

Why in the news?

Citizen divers in Germany are restoring seagrass meadows in the Baltic Sea.

SeaStore joint project

The SeaStore joint project aims to provide comprehensive guidelines for protecting and reintroducing seagrass meadows in the southern Baltic. These guidelines will assist government authorities and other stakeholders in assessing, planning, and successfully implementing reintroduction projects. The approach is unique for several reasons:

- Thorough Research
- Investigation of Overlooked Factors such as the diversity of microorganisms on seagrasses and the seafloor.
- Growing Aid to help newly planted grasses withstand currents and wave action. This support allows small seedlings to grow rapidly into large, healthy seagrass meadows.

What is seagrass?

- Seagrasses, which originated from land plants, are submerged plants resembling their terrestrial counterparts.
- They possess leaves, flowers, seeds, roots, and connective tissues, and they carry out photosynthesis to produce their own food.
- Unlike land plants, seagrasses lack strong stems for support, relying instead on the buoyancy of

water around them.

- Seagrasses are not true grasses. They are more closely related to terrestrial lilies and gingers than grasses.
- They are found on all continents except Antarctica.
- Seagrasses thrive along the coast in clear and shallow waters where sunlight can penetrate for photosynthesis.
- Under favourable conditions, seagrasses form dense underwater meadows, some of which are so vast that they can even be seen from space.

Significance of Seagrass	Threats to Seagrass Meadows
<ul style="list-style-type: none">• Diverse Habitat for Marine Wildlife• "Lungs of the Sea"• Abundant Biomass Accumulation• Filtration of Pollutants and Pathogens• Impact on Global Warming• Increasing Importance for Climate and Biodiversity Crisis	<ul style="list-style-type: none">• Pollution• Eutrophication• Sedimentation• Dredging• Overfishing• Cyclones• Fungal Infestations• Marine Heatwaves

Significance of Seagrass

- **Diverse Habitat for Marine Wildlife**
 - Seagrass meadows serve as vital habitats and food sources for a wide range of marine organisms.
 - Various species, including fish, octopuses, sea turtles, shrimp, blue crabs, oysters, sponges, sea urchins, anemones, clams, and squid, thrive in these underwater ecosystems.
- **"Lungs of the Sea"**
 - A crucial aspect of seagrass meadows is their role as "the lungs of the sea." Through photosynthesis, they release oxygen into the water, contributing significantly to the overall health of marine ecosystems.
- **Abundant Biomass Accumulation**
 - Seagrass meadows exhibit extensive rhizome and root systems, leaf growth, and epiphytic growth, resulting in the accumulation of substantial biomass.
- **Filtration of Pollutants and Pathogens**
 - Seagrass meadows, along with their associated microbiomes, act as natural filters for pollutants and pathogens present in seawater.
- **Impact on Global Warming**
 - These meadows play a crucial role in mitigating global warming.
 - By fixing large amounts of carbon dioxide, primarily in their roots, they make a significant contribution to reducing greenhouse gas levels.
- **Increasing Importance for Climate and Biodiversity Crisis**
 - Given the ongoing climate and biodiversity crisis on our planet, the health and preservation of seagrass meadows are becoming increasingly crucial for environmental well-being.

Threats to Seagrass Meadows

- **Human Activities**
 - **Pollutants**, such as **chemicals** and **excessive nutrients from fertilizers**, flow off the coast and

accumulate in seagrass beds.

- This leads to **harmful algal blooms** that block sunlight and disrupt the delicate balance within the ecosystem.
- **Sediments and dredging** can physically damage and fragment seagrass meadows.
- **Boat anchors and large marine debris** can also inflict harm.
- **Overfishing**
- Overfishing sets off a chain reaction that **disturbs the seagrass food web**. The absence of certain fish, like sharks, causes an increase in intermediate predators that feed on invertebrates.
- This, in turn, reduces populations of helpful pollinators and other small creatures.
- An abundance of herbivorous fish can also lead to overgrazing of seagrass meadows.
- **Natural Causes**
- **Cyclones, intensive grazing, fungal infestations, and diseases** impact seagrass populations.
- Intertidal seagrasses are especially vulnerable to **drying out**, while estuaries can suffer from **increased freshwater incursion and siltation**.
- **Marine Heatwaves**
- These **sudden spikes in sea temperature** have been increasing in frequency and intensity. Such events can be devastating to seagrass meadows, especially since they **cannot easily move to escape the extreme heat**.
- Studies show that increased marine heatwaves are linked to **reduced seagrass density**.

Baltic Sea

- The Baltic Sea is a sea located in northern Europe, connecting with the North Sea and forming an arm of the Atlantic Ocean.
- It receives the flow of various rivers, including the Vistula and Oder.
- The Baltic Sea is surrounded by several countries, including **Denmark, Sweden, Finland, Estonia, Latvia, Lithuania, Poland, Germany, and Russia**.
- It features two prominent arms known as the Gulf of Bothnia and the Gulf of Finland.
- Unlike some other seas, the Baltic Sea is not significantly influenced by the North Atlantic Current, leading to lower salinity levels, containing only about one-fourth as much salt as the oceans.
- Additionally, due to its lower salinity and cold temperatures, the sea tends to freeze relatively easily.



Sources:

In Baltic Sea, citizen divers restore seagrass to fight climate

Q1. With reference Seagrasses, consider the following statements:

1. Seagrasses possess leaves, flowers, and fruits, but they lack roots and connective tissues.
2. Seagrasses rely on the buoyancy of water around them since they lack strong stems for support like land plants.
3. Seagrasses thrive along the coast in clear and shallow waters where sunlight can penetrate for photosynthesis.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None

Answer: (c)

Q2. The Baltic Sea is surrounded by how many of the following countries?

- Norway
- Denmark
- Sweden
- Finland
- Poland
- France

Select the correct code from the codes given below:

- (a) Only three
- (b) Only four
- (c) Only five
- (d) All six

Answer: (b)

Q3. What are seagrasses? Discuss the ecological significance of seagrass meadows and their role in supporting marine biodiversity.

CYBER CRIME

This article covers "Daily Current Affairs" and the topic details "Cyber Crime". The topic "Cyber Crime" has relevance in the Security section of the UPSC CSE exam.

For Prelims:

What is Cyber Crime?

Types of Cyber Crime?

For Mains:

GS 3: Security

Challenges Related to Cyber Security in India?

Measures to Tackle Cyber Crimes in India?

Government Initiatives to Deal with Cyber Crimes in India?

Why in the news?

Over the past six months, the world has experienced the immense potential of AI, along with the concerning challenges it poses, including misinformation, deepfakes, and the impact on job displacement.

What is Cyber Crime?

Cybercrime is a form of criminal activity in which computers or digital devices are either the target or the means used to commit offenses. It encompasses a wide range of illegal or unauthorized activities that exploit technology to perpetrate various forms of crimes.

Types of Cyber Crime:

- **Distributed Denial-of-Service (DDoS) Attacks:** Overwhelming an online service by flooding it with traffic from multiple sources, causing the website or network to become unavailable.
- **Botnets:** Networks of compromised computers controlled by remote hackers to conduct spamming or launch attacks on other computers.
- **Identity Theft:** Criminals gain access to personal or confidential information to tarnish a person's reputation or demand a ransom.
- **Cyberstalking:** Using online platforms, social media, websites, and search engines to harass and intimidate an individual.
- **Phishing:** Deceptive techniques to trick individuals into revealing sensitive information like login credentials and credit card details.



Challenges Related to Cyber Security in India:

- **Profit-Focused Infrastructure Mindset:** Private sector investments in IT, electricity, and telecom sectors often prioritize profitable infrastructure over cyber-attack preparedness.
- **Non Availability of Separate Procedural Code:** Currently, India lacks a specific procedural code dedicated to the investigation of cyber or computer-related offenses.
- **Trans-National Nature of Cyber Attacks:** Cybercrimes often transcend international borders, making evidence collection from foreign territories complex and time-consuming.
- **Expanding Digital Ecosystem:** The digitalization of various economic factors in India increases the risk of cyber threats, especially with technologies like 5G and the Internet of Things (IoT).
- **Limited Expertise and Authority:** Offenses related to cryptocurrency are under-reported due to limited capacity to investigate such crimes. Cyber labs need recognition as 'Examiners of Electronic Evidence' by the central government.

Measures to Tackle Cyber Crimes in India:

- **Cybersecurity Awareness Campaign:** Conduct extensive awareness campaigns to educate the public about cyber frauds, strong passwords, safe use of public Wi-Fi, etc.
- **Cyber Insurance:** Develop tailored cyber insurance policies for different businesses and industries to mitigate financial losses from cyber incidents.
- **Data Protection Law:** Implement stringent data protection regulations, inspired by global frameworks like the EU's General Data Protection Regulation and India's Personal Data Protection Bill.
- **Collaborative Trigger Mechanism:** Establish a collaborative approach to quickly respond to cyber threats, involving all stakeholders, law enforcement agencies, and private companies.

Government Initiatives to Deal with Cyber Crimes in India:

- **Indian Cyber Crime Coordination Centre (I4C):** Coordinates efforts to combat all types of cybercrimes nationwide.
- **National Cyber Forensic Laboratory:** Provides early-stage cyber forensic assistance to investigating officers of all State/UT Police.
- **CyTrain Portal:** Offers online courses for capacity building of police officers, judicial officers, and prosecutors on cyber-crime investigation and forensics.
- **National Cyber Crime Reporting Portal:** Allows the public to report cybercrimes, with a focus on crimes against women and children.
- **Citizen Financial Cyber Fraud Reporting and Management System:** Assists in lodging online cyber complaints and reporting financial frauds through a toll-free helpline.
- **Cybercrime Prevention against Women and Children (CCPWC) Scheme:** Provides financial assistance to states for developing capabilities of law enforcement agencies in investigating cybercrimes.
- **Joint Cyber Coordination Teams:** to improve coordination among law enforcement agencies across different states and union territories, especially when dealing with cyber issues that involve multiple jurisdictions.
- **Central Assistance for Modernization of Police:** provides financial assistance to states and union territories to acquire modern weaponry, advanced communication, forensic equipment, and cyber policing tools.

Conclusion:

Global cooperation, information sharing, and joint efforts in cybersecurity research and development are crucial in combating cybercrime, which often originates beyond national borders. Corporates and government departments must identify gaps in their cybersecurity strategies and implement a layered security system with intelligence sharing among different layers to effectively tackle cyber threats.

SOURCE:

<https://indianexpress.com/article/technology/artificial-intelligence/what-is-fraudgpt-dark-webs-dangerous-ai-for-cybercrime-8866138/>
Infographics Credit: Shutterstock

Q.1 Which of the following statements is/are false regarding the Indian Cyber Crime Coordination Centre (I4C)?

1. I4C is a government initiative under the Ministry of Electronics and Information Technology (MeitY) to combat cybercrimes in India.
2. The center facilitates the reporting of cybercrimes through the National Cyber Crime Reporting Portal, with a special focus on crimes against women and children.
3. I4C provides financial assistance to victims of cybercrimes for their recovery and rehabilitation.

Select the correct option using the codes below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

ANSWER: C

Q.2 What is the “CyTrain Portal” in the context of cybercrime management in India?

- (a) A government initiative to provide cybersecurity training to school students.
- (b) An online platform for reporting cybercrimes and seeking immediate assistance.
- (c) A portal offering specialized online courses for capacity building in cybercrime investigation.
- (d) A collaborative platform for international cooperation in combating cyber threats.

ANSWER: C

Q.3 Discuss the challenges posed by cybercrime in the modern digital era and examine the measures that governments and organizations can adopt to enhance cybersecurity and combat cyber threats effectively.

LEFT WING EXTREMISM (LWE)

This article covers “Daily Current Affairs” and the topic details “Left Wing Extremism (LWE)”. The topic “Left Wing Extremism (LWE)” has relevance in the Internal Security section of the UPSC CSE exam.

For Prelims:

Definition of Left Wing Extremism (LWE)?

Most affected areas?

Objectives of Sacred Portal?

For Mains:

GS 3: Internal Security

Factors Responsible for LWE?

Government Initiatives?

Way Forward?

Why in the news?

In a recent announcement, the Ministry for Home Affairs disclosed its decision to maintain distinct data for incidents related to Left Wing Extremists (LWE) in India, beginning from the year 2022.

Definition and Nature:

- Left Wing Extremism, also known as left-wing terrorism or radical left-wing movements, is a form of political extremism rooted in leftist ideologies.
- LWE groups seek significant social, economic, and political changes, often advocating for a classless society or socialist/communist principles.
- They believe in achieving their goals through revolutionary means, including armed struggle and violence.

Origin in India:

- The LWE movement in India originated in the late 1960s with the Naxalbari uprising in Naxalbari, West Bengal.
- Inspired by Maoist ideologies, the movement sought to address issues of landlessness, exploitation of peasants, and socioeconomic disparities.

Activities and Targets:

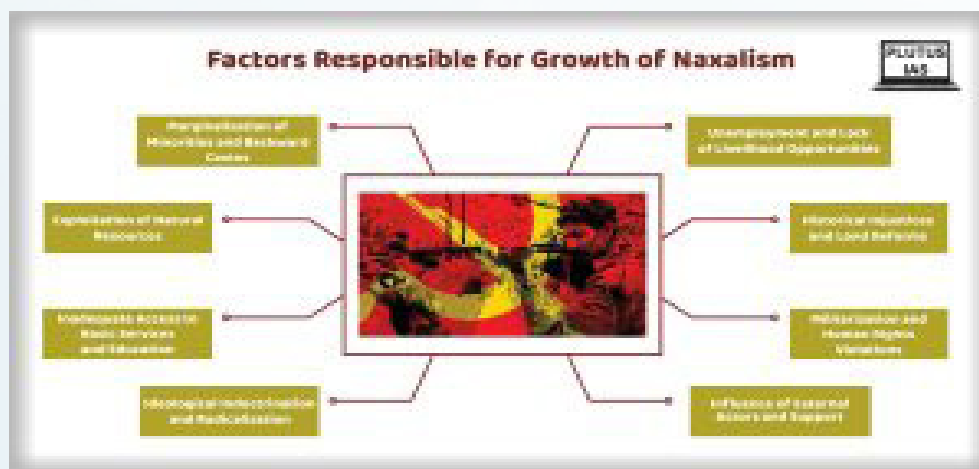
- LWE groups engage in various activities, including armed attacks, bombings, assassinations, and sabotage.
- They target government institutions, law enforcement agencies, infrastructure, private property, and individuals they perceive as oppressors or impediments to their goals.

The most affected areas include:

- **Chhattisgarh:** LWE has a significant presence in the southern and eastern parts of Chhattisgarh, particularly in districts like Bastar, Sukma, Bijapur, and Dantewada.
- **Jharkhand:** The state has been grappling with LWE in various districts, including Latehar, Palamu, Gumla, and Simdega.
- **Odisha:** LWE activities have been reported in some districts of Odisha, especially in areas bordering Chhattisgarh and Andhra Pradesh.
- **Bihar:** Certain districts in Bihar, like Gaya, Aurangabad, and Jamui, have witnessed LWE-related incidents.
- **Andhra Pradesh and Telangana:** While the movement has seen a decline in these states, some areas on their border with Chhattisgarh still face LWE challenges.
- **Maharashtra:** Gadchiroli district in Maharashtra has been affected by LWE activities.
- **West Bengal:** Although the Naxalite movement had its origin in Naxalbari, West Bengal, the state has seen a decline in LWE activities in recent years.

Responsible Factors for LWE:

- **Socio-economic Disparities:** Large sections of the population living in poverty, lack of access to basic amenities, and unemployment contribute to grievances exploited by LWE groups.
- **Land Alienation and Displacement:** Land rights and acquisition issues, particularly in tribal areas, have led to displacement and resentment, providing a breeding ground for LWE.
- **Lack of Adivasi Rights:** Exploitation of natural resources in tribal regions and marginalization of Adivasis have been focal points of LWE agitation.
- **Governance Gaps:** Inadequate governance, corruption, and lack of effective administration in affected regions have facilitated LWE growth.



Government Initiatives:

- **National Policy and Action Plan to Address LWE 2015:**
- A comprehensive approach involving governance, security, and development to counter LWE.
- Focused on improving security measures, safeguarding rights of local communities, and promoting socio-economic development.
- **Integrated Action Plan (IAP):**
- Introduced in 2010 to accelerate development in 82 LWE-affected districts.
- Aimed at bridging development gaps and addressing grievances.
- **Security Operations:** Security forces undertake operations to neutralize LWE groups and leaders, ensuring law and order.
- **Surrender and Rehabilitation Policy:**
- Encourages LWE cadres to surrender and integrate into mainstream society.
- Provides rehabilitation and skill development opportunities.

Way Forward:

- Strengthening governance and administration in affected areas.
- Implementing sustainable development projects and land reforms.
- Addressing socio-economic disparities and ensuring inclusive growth.
- Fostering dialogue and reconciliation with disaffected groups.
- Combining security measures with development initiatives to root out extremism.

Q.1 Which of the following states in India have been affected by Left Wing Extremism (LWE) activities?

1. Karnataka
2. Jharkhand
3. Maharashtra
4. Punjab

Select the correct option(s) from the choices given below:

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

Answer: (c)

Q.2 Which of the following statements about Left Wing Extremism (LWE) in India is/are correct?

1. LWE is a form of political extremism rooted in right-wing ideologies, seeking significant social and political changes through revolutionary means.
2. The LWE movement in India originated in the late 1960s with the Naxalbari uprising in Naxalbari, West Bengal.
3. LWE groups in India primarily target government institutions, law enforcement agencies, and individuals perceived as oppressors.

Select the correct option:

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Answer: (c)



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