



Yojna IAS

योजना है तो सफलता है

MAY 2024

WEEKLY CURRENT AFFAIRS

YOJNA IAS WEEKLY CURRENT AFFAIRS

06/05/2024 TO 12/05/2024

Delhi Office

706 Ground Floor Dr. Mukherjee Nagar
Near Batra Cinema Delhi – 110009

Contact No. : +91 8595390705

Noida Office

Basement C-32 Noida Sector-2
Uttar Pradesh 201301

website : www.yojnaias.com



WEEKLY CURRENT AFFAIRS CONTENTS

S.No.	Topics	Page No.
1.	INDIA-NEPAL TERRITORIAL DISPUTE	1- 4
2.	WORLD PRESS FREEDOM INDEX-2024	4 - 7
3.	ANNUAL REVIEW OF STATE LAWS 2023	8 - 12
4.	DRIP PRICING	12 - 15
5.	MARINE HEATWAVES	15 - 19
6.	GST APPELLATE TRIBUNAL	19 - 22
7.	TREATING INHERITED BLINDNESS USING CRISPR-CAS9	22 - 26
8.	INDIA'S REMITTANCES	26 - 29
9.	RBI STERN ACTION ON KOTAK	29 - 32
10.	GLOBAL ELECTRICITY REVIEW 2024	32 - 34
11.	WEST NILE FEVER	35 - 38

CURRENT AFFAIRS

MAY 2024

INDIA-NEPAL TERRITORIAL DISPUTE

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "INDIA-NEPAL TERRITORIAL DISPUTE". THIS TOPIC IS RELEVANT IN THE "INTERNATIONAL RELATION" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

- Nepal has announced printing a new Rs 100 currency note with a map showing the controversial territories of Lipulekh, Limpiyadhura and Kalapani, already termed as "artificial enlargement" and "untenable" by India. The cabinet approved the re-design of the banknote of Rs 100 and replaced the old map printed in the background of the bank note during the cabinet meetings.
- The India-Nepal border dispute is a longstanding issue concerning the demarcation of the border between the two countries. The main areas of contention include Kalapani, Limpiyadhura, and Lipulekh, situated in northwestern Nepal, near the border with the Indian state of Uttarakhand.



BACKGROUNDS OF THE BORDER DISPUTES BETWEEN INDIA AND NEPAL:

- The root cause of the dispute can be traced back to historical treaties and agreements, notably the Sugauli Treaty of 1815 between Nepal and the British East India Company, which defined the borders between Nepal and British India. However, there have been differing interpretations and claims regarding the border's location in certain areas. The Nepal-India border stretches for more than 1,700 kilometres. Its establishment primarily stems from the Sugauli Treaty of 1816, which ended the Anglo-Nepal War.
- The Kali River inspires the name of the Kalapani region. In Nepal, this river is named Mahakali and is as revered in Nepal as the Ganga River is in India. Serving as a natural boundary between India and Nepal, the river's origins have been a point of contention between the two countries.
- Nepal and India have shared strong ties since the latter's independence. A 1950 bilateral treaty made Nepal India's protectorate and made India responsible for its defence. Nepal, a landlocked country, has always depended on India for imports. Hence, India's economic blockade of 2015 has been a rude awakening for the Himalayan country.
- In May 2020, the Government of Nepal released an updated political map of the country, which included Kalapani, Limpiyadhura, and Lipulekh as part of Nepal's territory. This move was in response to longstanding territorial disputes between Nepal and India, particularly regarding the demarcation of the border in these areas.
- Currently, Kalapani, Limpiyadhura, and Lipulekh on the India-Nepal border are included in the official maps of both countries. These areas are under India's administration.

ABOUT THE TREATY OF SUGAULI:

- The Treaty of Sugauli was signed on December 2, 1815, between the British East India Company and the Kingdom of Nepal. It was signed on 4th March 1816 between the East India Company and Guru Gajraj Mishra. This treaty marked the end of the Anglo-Nepalese War (1814-1816) and established the terms for peace and territorial agreements between the two parties.
- Key provisions of the Treaty of Sugauli include:
- Nepal ceded significant territories to the British, including present-day Uttarakhand, Himachal Pradesh, Uttar Pradesh, and Sikkim.
- The treaty delineated the border between Nepal and British India. In the west, it established the Mahakali River as the boundary; in the east, the Mechi River was designated as the boundary.
- In exchange for the territories ceded to the British, Nepal received an annual compensation (or "khillat") of 200,000 rupees.
- Nepal agreed to acknowledge British suzerainty and accept British mediation in its external affairs. This effectively made Nepal a British protectorate in terms of foreign relations.

- Article 5 of the Sugauli Treaty mentions the Mahakali River (or River Kalee, as it is known in the Treaty) as Nepal's western boundary.
- The Treaty does not specify the source of the Mahakali River. The origin of a river is critical when it serves as the boundary between countries. During the signing of the Sugauli Treaty, neither the representatives from Nepal nor those from the British East India Company affixed their signatures to any maps.

KALAPANI-LIMPIYADHURA-LIPULEKH TRI-JUNCTION:

- **Kalapani area:** "Kalapani" typically refers to a region in the Himalayas, specifically in the border areas of India, Nepal, and China (Tibet). The Kalapani border dispute is centred around the Kalapani River region in the Indian-administered state of Uttarakhand and the adjoining areas Nepal claims as part of its territory. The Kalapani area is strategically significant in South Asian diplomacy as it is at the tri-junction between India, Chinese-occupied Tibet and Nepal.
- **Limpiyadhura Pass area:** Limpiyadhura Pass is a strategic mountain pass located in the far western region of Nepal, near the tri-junction point between Nepal, India, and China (Tibet). It's situated in the Himalayas at an altitude of around 5,400 meters (17,717 feet) above sea level.
- Nepal's claim to the Limpiyadhura Pass area arises from its claim over Kalapani as it lies adjacent to it in India across Tibet's Ngari border.
- **Lipulekh Pass:** Lipulekh Pass is a mountain in the Himalayas at the tri-junction of India, Nepal, and China (Tibet). It lies near the India-China border and has been a subject of territorial disputes between India and Nepal. The pass holds strategic significance due to its location and role in facilitating trade and pilgrimage routes between India and Tibet.
- The three disputed areas cover about 370 sq km (140 square miles). The entire Limpiyadhura-Kalapani-Lipulekh area is under Indian administration and is part of the Pithoragarh district in the Kumaon Division of Uttarakhand state.

WAY FORWARD:

- **Diplomatic Dialogue:** Initiate high-level diplomatic talks between India and Nepal to discuss the border issue. Both sides should approach negotiations with an open mind and a willingness to compromise.
- **Survey and Mapping:** Conduct a joint survey of the border region using modern technology and mapping techniques to demarcate the boundary line accurately. Both countries should agree to accept the survey findings as the basis for resolving the dispute.
- **Mediation:** If necessary, seek mediation from a neutral third party or international organisation with expertise in border disputes, such as the United Nations or the International Court of Justice. The mediator's role would be to facilitate negotiations and help the parties reach a mutually acceptable solution.

- **Bilateral Agreement:** Once an agreement is reached, formalise it through a bilateral treaty or agreement that clearly defines the border between India and Nepal. Both countries should commit to respecting and upholding the terms of the agreement.
- **Cross-Border Cooperation:** Foster greater cooperation and collaboration between India and Nepal on various fronts, including trade, tourism, and infrastructure development, to build trust and strengthen bilateral ties.

PRELIMS PRACTICE QUESTION:

Q. Which of the following Indian states does NOT share a border with Nepal?

- A. West Bengal
- B. Sikkim
- C. Bihar
- D. Arunachal Pradesh

ANSWER: D

MAINS PRACTICE QUESTION:

Q. How are both India and Nepal working collaboratively to address and find a mutually beneficial resolution to the ongoing border disputes, ensuring that the deep-rooted historical, cultural, and friendly ties between the two nations are upheld?

WORLD PRESS FREEDOM INDEX-2024

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "World Press Freedom Index-2024". THIS TOPIC IS RELEVANT IN THE "Economy" SECTION OF THE UPSC CSE EXAM.

Why in the News?

In the most recent release of the World Press Freedom Index, **a yearly publication by Reporters Without Borders (RSF)**, India is positioned at a worrying spot, **standing 159th out of 180 countries**. While this represents a minor advancement from its previous ranking of 161, it highlights enduring challenges faced by journalists within the nation.

MORE ON THE REPORT

- India's ranking saw an improvement from 161 in 2023 to 159 in 2024. However, this ascent was mainly propelled by the decline in rankings of other countries. India experienced a decrease in scores across all categories except for the security indicator in the press freedom questionnaire, encompassing political, legal,

economic, sociocultural contexts, and security.

- **Among India's neighbours**, Pakistan ranked 152nd, Sri Lanka 151st, Nepal 74th, and the Maldives 106th. Afghanistan was positioned at 178th, Bangladesh at 165th, and Myanmar at 171st.
- **The Asia-Pacific region** remains the world's second most challenging region for journalism, with five countries among the ten most perilous for journalists: Myanmar (171st), China (172nd), North Korea (177th), Vietnam (174th), and Afghanistan (178th).
- In the **Middle East and North Africa**, the situation is deemed "**very serious**" in nearly half of the countries. The United Arab Emirates joins eight other countries in the red zone, including Yemen, Saudi Arabia, Iran, Palestine, Iraq, Bahrain, Syria, and Egypt. Palestine, suffering from occupation and bombardment by the Israeli army, is ranked at the bottom of the Index as the deadliest country for journalists.
- Countries in Europe, particularly within the European Union, demonstrate good press freedom, propelled by the adoption of the European Media Freedom Act (EMFA). **Norway leads the ranking at 1st, followed by Denmark (2nd) and Sweden (3rd).**

ABOUT REPORTER WITHOUT BORDERS

Reporters Without Borders (RSF) is a **non-profit organization** advocating for press freedom and the protection of journalists worldwide. RSF conducts research, monitors media freedom violations, and campaigns for the rights of journalists, working to safeguard freedom of expression and information across the globe.

Established in 1985

Headquarter- Paris

CONCERNS RAISED BY THE REPORT ABOUT INDIA

Press freedom faces a severe crisis:

Reporters Without Borders (RSF) declared that press freedom is in severe crisis even in the world's largest democracy. As of now, nine journalists and one media worker have been detained in India, although no journalist or media worker has been killed in the country since January 2024.

Oppressive laws:

- The government has enacted several new laws granting it extraordinary authority to regulate the media, censor news, and stifle dissent. These include the **Telecommunications Act 2023**, the proposed **Broadcasting Services (Regulation) Bill 2023**, and the **Digital Personal Data Protection Act 2023**.
- Unofficial declaration of a state of emergency:
- RSF's analysis suggests that the government has orchestrated a notable alignment between the ruling party and major media conglomerates. For instance, the **Reliance group owns over 70 media outlets**, collectively reaching at least 800 million Indians.
- Targeting of journalists:

- According to the report, journalists who criticise the government routinely face online harassment, intimidation, threats, and physical assaults, as well as legal prosecutions and arbitrary detentions.
- The situation remains particularly alarming in Kashmir, where reporters frequently encounter harassment from police and paramilitary forces.

Why is Press freedom important to protect Democracy?

Press freedom plays a fundamental role in safeguarding democracy by ensuring transparency, accountability, and the protection of citizens' rights.

Informed Citizens:

- Press freedom facilitates the dissemination of diverse viewpoints, information, and analysis, empowering citizens to make informed decisions about their government, society, and daily lives. A free press serves as a vital source of information, offering citizens access to a wide range of perspectives and enabling them to critically evaluate government policies, actions, and decisions.

Accountability and Transparency:

- A free press acts as a watchdog, holding governments and public officials accountable for their actions, exposing corruption, abuses of power, and violations of human rights. By scrutinizing government activities and providing investigative journalism, the press serves as a check on the abuse of authority, ensuring transparency and integrity in governance.

Protection of Fundamental Rights:

- A free press plays a crucial role in protecting and advocating for fundamental rights, including freedom of expression, assembly, and association.
- Journalists serve as defenders of human rights, amplifying the voices of the oppressed, marginalized, and vulnerable, and exposing injustices and abuses.

Promotes Pluralism:

- Press freedom fosters a diverse media landscape where multiple voices, opinions, and ideologies can thrive. A pluralistic media environment allows for the representation of marginalised communities, minority viewpoints, and dissenting voices, enriching public discourse and promoting social inclusion and cohesion.

Way forward

Independent Regulatory Mechanisms:

- Institute autonomous media regulatory bodies devoid of governmental manipulation and partisan influence.
- Ensure that the composition of such bodies reflects a diverse array of societal perspectives to uphold neutrality.

Protect Journalists and Whistleblowers:

- Introduce and enforce legislation aimed at shielding journalists from intimidation, physical harm, and online harassment.
- Institute measures to protect whistleblowers who disclose information in the public interest from reprisals.

Enhanced Transparency:

- Implement robust freedom of information statutes to bolster transparency and facilitate journalists' access to governmental data.
- Enforce transparency in media ownership structures to mitigate concentration and potential conflicts of interest.

Legal Safeguards:

- Revise legislation such as defamation and sedition laws that may be prone to misuse in curtailing press freedoms.
- Ensure the expeditious and equitable adjudication of cases related to infringements on press freedom.

Public Broadcasting Autonomy:

- Preserve the autonomy of public broadcasting entities by insulating them from governmental interference.
- Nominate impartial boards to oversee public broadcasters and secure funding free from partisan influence.

Prelims based Question

Q1. Consider the following statements:

1. World Press Freedom Index is an annual report published by Reporter with Borders.
2. India improved its ranking from 2023 and ranked most free among the South Asian countries.

Choose the correct answer using the codes given below:

- (a) 1 Only
- (b) 2 Only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: A

Mains Based Question

Q1. What measures can be taken to address the challenges faced by journalists and uphold press freedom in India?

ANNUAL REVIEW OF STATE LAWS 2023

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "ANNUAL REVIEW OF STATE LAWS 2023". THIS TOPIC IS RELEVANT IN THE "POLITY AND GOVERNANCE" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

PRS Legislative Research has recently published its "Annual Review of State Laws 2023" which delves into a comprehensive examination of the operations of State legislatures throughout India. The report offers insights into several critical facets of their effectiveness and functioning.

KEY HIGHLIGHTS OF THE REPORT

FUNCTIONING OF STATE LEGISLATURES

- **Less discussion for passing the law:** State legislatures in India have been meeting for fewer days and passing bills and budgets with less scrutiny in recent years. In 2023, state legislatures met for an average of 22 days, with each sitting lasting about 5 hours on average. During this time, they passed over 500 bills and approved state budgets worth over ₹53 lakh crore.
- **Uneven distribution of sitting days:**
 - The number of sitting days varied significantly across states. Maharashtra had the highest number of sitting days at 41, followed by West Bengal (40) and Karnataka (39). However, 13 states, including Andhra Pradesh, Haryana, Madhya Pradesh, Punjab, and Telangana, met for less than 20 days. Arunachal Pradesh, Nagaland, and Uttarakhand met for less than 10 days.
 - The **six states with bicameral legislatures** (Andhra Pradesh, Bihar, Karnataka, Maharashtra, Telangana, and Uttar Pradesh) saw their Legislative Councils meet for an average of 26 days in 2023.
- **Focus on Budget session only:** 62% of the legislative sittings occurred during the budget session, which is typically held between January and March each year. Gujarat and Punjab held over 80% of their sittings during the budget session, while Tamil Nadu saw a decrease from 91% in 2022 to 72% in 2023.
- **Conflict between Governors and state governments:** There have been tensions between some state governments and Governors, with matters reaching the Supreme Court. Some states have continued legislative sessions for months without the Governor's summons, and bills passed by legislatures have remained pending with Governors for over a year in some cases. Several states have also amended university laws to remove the Governor from the position of Chancellor.

OVERVIEW OF LAWMAKING

Less deliberation before passing the bills: State legislatures passed over 500 bills in 2023 covering a variety of subjects like education, land, taxation, and health. On average, states passed 18 bills, with Maharashtra passing the highest at 49, followed by Andhra Pradesh (42) and Goa (34). Delhi and Puducherry passed the fewest at 2 each.

In 13 states, all bills were passed within 5 days of introduction. Kerala and Meghalaya took more than 5 days to pass over 90% of their bills. Rajasthan took more than 5 days for 55% of its bills in 2023, compared to 73% in 2022. The legislative activity tends to be concentrated in a few days due to the short sessions.

59% of bills received the Governor's assent within a month, with 7 states, including Bihar, Gujarat, Haryana, and Uttar Pradesh, having all their bills assented to within a month. However, some states have seen delays, leading to legal challenges.

LEGISLATION BY SUBJECTS

Education

- **Several states passed bills to set up new universities**, including Assam, Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Sikkim, Tamil Nadu, and Uttar Pradesh. Some states also established institutes for health sciences, like Jharkhand and Telangana.
- **Many states amended their private university laws**, including Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Madhya Pradesh, and Uttar Pradesh. The Andhra Pradesh amendment requires greenfield universities to tie up with top-ranked institutions.

Health

- Rajasthan passed a bill to prohibit violence against medical service personnel and damage to property in medical institutions. Offences are punishable with up to 2 years imprisonment and a fine of up to ₹50,000.
- The bill also requires medical institutions to take safety measures. Karnataka and Rajasthan passed bills to prohibit violence and criminal intimidation against advocates.

Finance

- Andhra Pradesh passed a law to provide a guaranteed pension scheme. Chhattisgarh, Jharkhand, and Uttarakhand passed bills to levy new taxes or increase existing ones, such as on liquor, entertainment, and stamp duty.

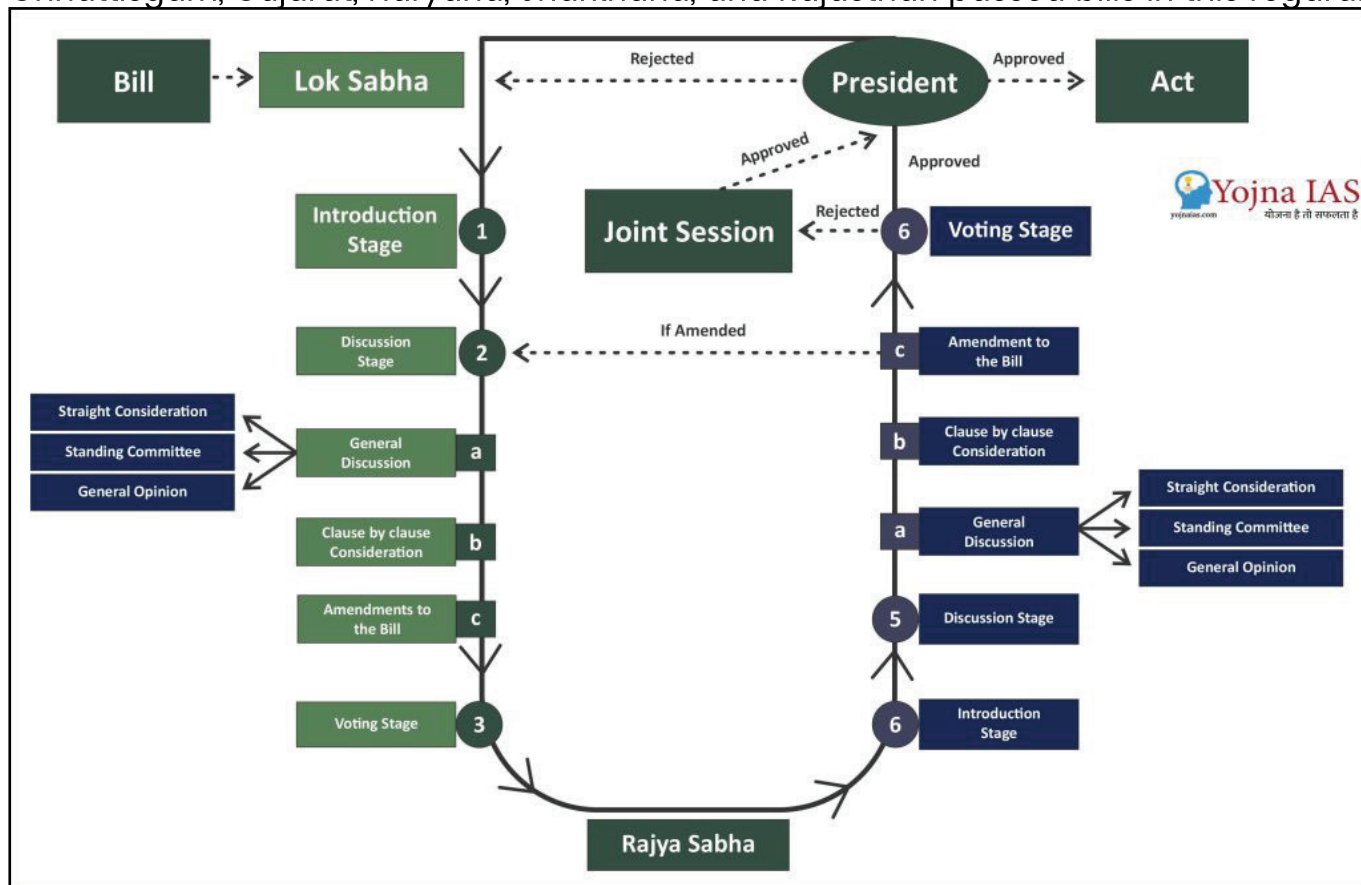
Land and Agriculture

- Several states passed laws related to land acquisition, land records, and land use. Chhattisgarh, Gujarat, Haryana, Jharkhand, and Rajasthan passed bills to amend their respective land revenue codes. Madhya Pradesh and Rajasthan passed bills to regulate real estate development and construction.

- In the agriculture sector, Chhattisgarh, Gujarat, Haryana, Jharkhand, and Rajasthan passed laws related to agricultural produce marketing, contract farming, and agricultural land leasing.

Law and Order

Many states passed laws to strengthen law and order, including bills to regulate the sale of liquor, prohibit illegal mining, and prevent crimes against women and children. Chhattisgarh, Gujarat, Haryana, Jharkhand, and Rajasthan passed bills in this regard.



ISSUES ARISING DUE TO POOR LEGISLATION

- **Lack of Transparency and Accountability:** Laws that are poorly written or lack clarity can be open to misinterpretation and abuse. This can create uncertainty for citizens and businesses, and make it difficult to hold governments accountable for their actions.
- **Unintended Consequences:** Sometimes, legislation has unintended consequences that cause more harm than good. This can happen if the lawmakers fail to consider all the potential impacts of a new law, or if they are not well-informed about the issue they are trying to address.
- **Ineffectiveness:** Poorly designed laws may simply not be effective in achieving their intended goals. This can be due to a lack of enforcement mechanisms or because the law itself is flawed.
- **Wasted Resources:** Ineffective or poorly written laws can lead to wasted resources,

as both the government and private sector may have to spend time and money complying with or trying to fix the legislation.

- **Social Injustice:** Legislation can exacerbate existing social inequalities or create new ones if it is not carefully designed to be fair and equitable.
- **Erosion of Public Trust:** When citizens see that laws are not being properly enforced, or that they are not effective in solving problems, it can erode their trust in government and the legal system.

WAY FORWARD

Enhancing Time for Deliberation

- **Increase Sitting Days:** The average of 22 sitting days per year is insufficient for thorough debate and committee review of bills. States should aim for a minimum number of sitting days to ensure adequate time for legislative business.
- **Focus Beyond Budget Session:** Overdependence on the budget session for legislative activity can lead to neglect of other important bills. A more balanced distribution of legislative work throughout the year is crucial.

Promoting Transparency and Accountability:

- **Public Availability of Information:** Making legislative agendas, committee reports, and voting records easily accessible to the public fosters transparency and allows for informed public engagement.
- **Strengthening Public Accounts Committees (PACs):** The vast disparity in PAC activity across states highlights the need for consistent and effective oversight of government spending.

Addressing Tensions Between Governors and Legislatures:

- **Clearer Guidelines for Governor's Assent:** Establishing a defined timeframe for Governors to grant or withhold assent to bills passed by legislatures can help minimise delays and legal disputes.
- **Open Communication Channels:** Regular communication and cooperation between Governors and state governments can help prevent conflicts and ensure the smooth functioning of the legislative process.

Enhancing Legislative Capacity:

- **Investing in Research and Support Staff:** Well-equipped research teams and support staff can assist lawmakers in effectively analysing proposed bills and their potential consequences.
- **Training for Legislators:** Providing training programs on legislative procedures, drafting techniques, and best practices can improve the overall quality of lawmaking.

Citizen Participation:

- **Public Hearings and Consultations:** Encouraging public participation through hearings and consultations on proposed bills allows citizens to voice their concerns and contribute to a more inclusive legislative process.

PRELIMS PRACTISE QUESTION

Q1. Consider the following statements regarding the discretionary powers given to the Governor of a State:

1. Submitting a report to the President of India to recommend the imposition of President's rule
2. Reserving specific bills passed by the State Legislature for the President of India's consideration
3. Formulating regulations for governing the operations of the State Government
4. Appointing Ministers

How many of the above statements are correct?

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

Answer: B

MAINS PRACTISE QUESTION

Q1. What measures can be taken to address the challenges faced by Indian state legislatures and improve their effectiveness and functioning?

DRIP PRICING

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "Drip Pricing". THIS TOPIC IS RELEVANT IN THE "Economy" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

- The Department of Consumer Affairs recently warned consumers about 'drip pricing', in which only a portion of the price is advertised initially, and additional charges are levied later during the purchase process.
- The Centre government said that the drip pricing could surprise consumers with hidden charges and asked them to contact the National Consumer Helpline (NCH) number 1915 or WhatsApp 8800001915 for assistance.

WHAT IS DRIP PRICING?

- Drip pricing is a strategy businesses use where additional fees or charges are gradually revealed to consumers during purchasing rather than being disclosed upfront. This can lead consumers to underestimate the total cost of a product or

service until they reach the final stages of the transaction.

- Drip pricing involves initially showing only part of the cost of a product or service, with additional fees revealed as the customer moves through the purchase process. This can include booking and service fees, resort and credit card fees, local taxes, and internet or necessary amenities costs.



- This tactic is often used in travel, hospitality, telecommunications, and e-commerce industries. **Here's how it typically works:**
 - **Initial Price:** The seller advertises a product or service at a base price, which may seem attractive to consumers.
 - **Additional Charges:** As the buyer progresses through the purchasing process, additional fees or charges are incrementally disclosed. These could include taxes, service fees, handling, resort, booking, or other surcharges.
 - **Total Cost:** The final price that the buyer pays is significantly higher than the initially advertised price due to the accumulation of these additional charges.For example, when booking a hotel room online, you might initially see a base price, but as you proceed through the booking process, additional charges like resort fees, taxes, or service fees may be added. These additional fees might not be displayed until the final stages of the transaction, leading consumers to feel misled

or frustrated.

Drip pricing impacts multiple stakeholders and market aspects in diverse ways. These are:

- Drip pricing can lead to consumer confusion and frustration as they may not anticipate the full cost of a product or service until later in the purchasing process.
- Consumers may perceive drip pricing as deceptive or misleading, which can erode trust in businesses and the market as a whole.
- Businesses engaging in drip pricing may face regulatory scrutiny or legal consequences in jurisdictions where such practices are deemed deceptive or unfair.
- Drip pricing could impact consumer spending patterns, as consumers may become more cautious or selective in their purchases, affecting overall market demand.
- While drip pricing tactics may initially attract customers with lower base prices, businesses risk losing revenue if consumers perceive the final cost as unfair and choose not to make repeat purchases.
- In December 2023, the Central Consumer Protection Authority (CCPA) issued 'Guidelines for Prevention and Regulation of Dark Patterns, 2023' to prevent and regulate dark patterns such as drip pricing, bait-and-switch, disguised advertising, and false urgency.
- Dark patterns undermine consumer autonomy, decision-making, and choice, potentially constituting misleading advertising, unfair trade practices, or violations of consumer rights.

ABOUT THE DEPARTMENT OF CONSUMER AFFAIRS:

The Department of Consumer Affairs (DCA) is a government agency in India that protects consumer rights and interests. It operates under the Ministry of Consumer Affairs, Food and Public Distribution. **Its main functions include:**

- **Consumer Protection:** The primary role of the Department of Consumer Affairs is to protect consumer interests by enforcing laws, regulations, and policies against unfair practices, deceptive advertising, and poor-quality goods and services. It upholds the Consumer Protection Act of 2019, aiming to secure consumer rights and resolve disputes.
- **Policy Formulation:** The DCA is responsible for formulating policies and guidelines related to consumer protection, including those aimed at promoting fair pricing practices and ensuring pricing transparency in the market.
- **Regulatory Oversight:** The department oversees businesses and industries to ensure compliance with consumer protection laws and regulations. This includes monitoring pricing practices to prevent deceptive tactics like drip pricing.
- **Complaint Resolution:** The department provides mechanisms for consumers to lodge complaints against businesses engaging in unfair or deceptive practices, including drip pricing. It investigates consumer complaints and takes appropriate enforcement actions against violators.
- **Legal metrology:** The department upholds the Act of 2009, guaranteeing the precision of weights and measures in business and trading activities.

- **Bureau of Indian Standards (BIS):** The Department of Consumer Affairs oversees the Bureau of Indian Standards (BIS), tasked with developing and implementing quality standards for products and services.

CONCLUSION:

Drip pricing can have wide-ranging effects on consumers, businesses, market dynamics, regulatory environments, and the economy as a whole. The extent of these impacts depends on factors such as consumer perceptions, regulatory responses, and competitive pressures within specific industries. However, promoting transparency and fairness in pricing practices is generally beneficial for fostering a healthy and trustworthy market system.

MAINS PRACTICE QUESTION:

- Q. How does Drip's pricing compare to that of its competitors in the market? Are there any testimonials or case studies highlighting the effectiveness of Drip relative to its cost?
- Q. "Is it ethical for companies to use drip pricing tactics, where additional fees are added incrementally throughout the purchasing process, potentially leading to a lack of transparency and informed consent from consumers?"

MARINE HEATWAVES

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "**Marine Heatwaves**". THIS TOPIC IS RELEVANT IN THE "**GEOGRAPHY**" SECTION OF THE UPSC CSE EXAM.

Why in the News?

Scientists from the ICAR-Central Marine Fisheries Research Institute (CMFRI) have documented an extensive bleaching phenomenon affecting the coral reefs in the Lakshadweep Sea due to marine heat waves. Surveys conducted across different Lakshadweep Islands indicate a significant portion of hard coral species experiencing severe bleaching, mainly caused by prolonged marine heatwaves impacting the area since late October 2023.

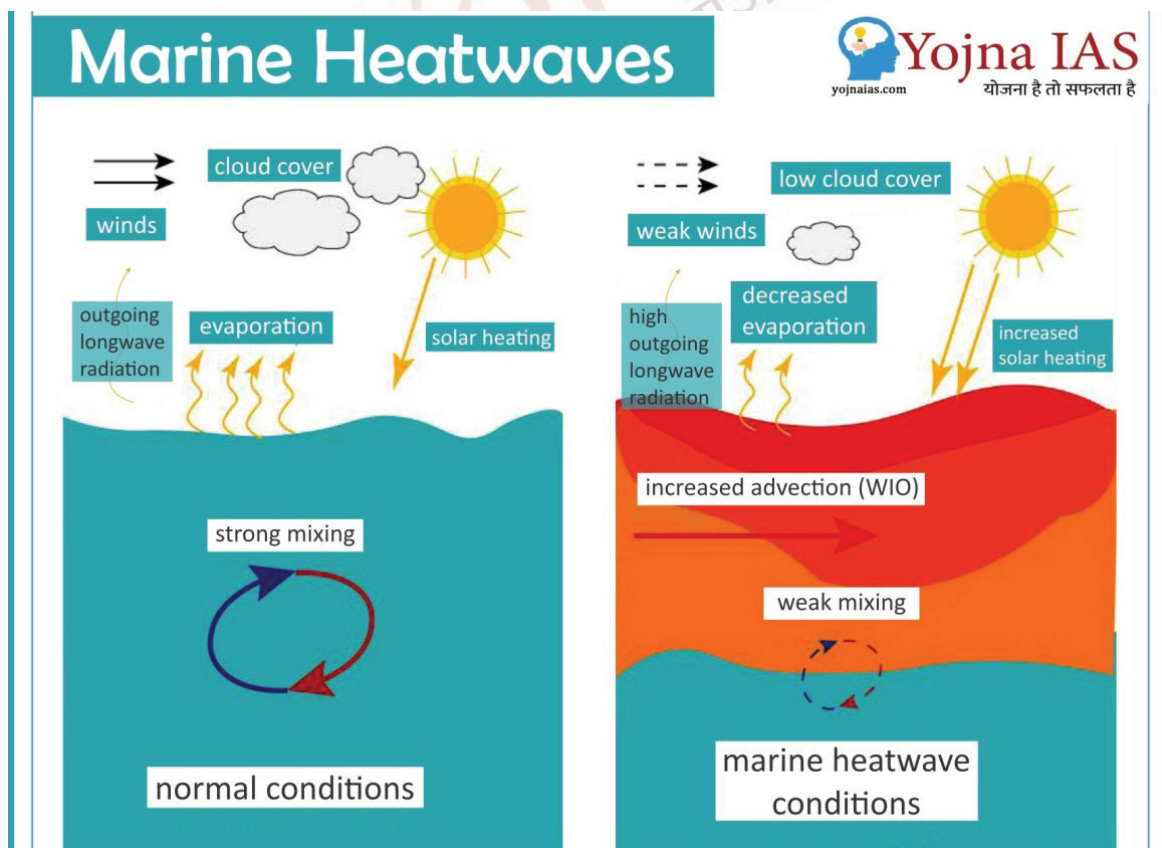
ABOUT MARINE HEATWAVES

Marine heatwaves refer to prolonged periods of unusually warm sea surface temperatures in oceanic regions. These events can have significant ecological impacts on marine ecosystems, including coral reefs, fisheries, and marine life.

It happens when the surface temperature of a specific area of the ocean **increases by 3 or 4 degrees Celsius above the usual temperature for a minimum of five consecutive days.**

WHY ARE MARINE HEATWAVE INCIDENTS ON THE RISE IN THE INDIAN OCEAN?

- The Indian Ocean has experienced a rapid increase in temperature, rising by 1.2°C per century from 1950 to 2020, with projections indicating even swifter **warming at a rate of 1.7–3.8°C per century from 2020 to 2100.** This heightened warming has resulted in a notable surge in marine heat waves across the region.
- Various climate phenomena, such as **strong El Niño events and positive phases of the Indian Ocean Dipole (IOD)** have played a role in initiating and amplifying marine heatwaves in the Indian Ocean. These climate modes can disrupt ocean-atmosphere interactions, leading to unusually high ocean temperatures.
- The broader context of climate change, marked by escalating greenhouse gas emissions and global warming, has exacerbated the frequency, severity, and duration of marine heat waves globally, including in the Indian Ocean. Projections from climate models suggest that without significant emission reductions, the Indian Ocean could experience prolonged marine heatwave conditions by the century's end.
- Following a marine heatwave in May 2020, an underwater investigation revealed that **85% of the coral reefs in the Gulf of Mannar near the Tamil Nadu coast experienced bleaching.**



ADVERSE IMPACT OF MARINE HEATWAVES

- **Coral Bleaching:** One of the most immediate and severe consequences is coral bleaching, where corals expel the algae living in their tissues, leading to loss of color and vital nutrients. This phenomenon weakens the corals and makes them more susceptible to disease, ultimately resulting in widespread coral mortality and degradation of coral reef ecosystems.
- **Distribution of Marine Species:** Marine heatwaves can disrupt the distribution and abundance of marine species, leading to shifts in species composition and ecosystem dynamics. Some species may thrive in warmer conditions, while others may struggle to survive or migrate to cooler waters, causing disruptions in food webs and biodiversity.
- **Harmful Impact on Marine Ecosystem:** Marine heatwaves can trigger harmful algal blooms (HABs), which produce toxins that can harm marine life and pose risks to human health through the consumption of contaminated seafood. These blooms can lead to mass mortalities of fish, shellfish, and other marine organisms, as well as economic losses for fisheries and coastal communities.
- **Economic Impact:** Marine heatwaves can lead to economic setbacks due to their repercussions on fisheries and aquaculture. For instance, the abalone harvest in Northern Western Australia suffered damage during a marine heatwave in 2011, resulting in financial losses.
- **Marine food chain:** Marine heatwaves exert a significant influence on the oceanic food chain by disrupting its foundation, impacting ecosystems, and potentially affecting global food resources. Studies suggest that these heat waves modify microorganisms, notably phytoplankton, which play a vital role at the bottom of the marine food chain.

ABOUT CORAL BLEACHING

- Coral bleaching is a phenomenon in which coral reefs lose their vibrant colors and turn white due to the expulsion of symbiotic algae called zooxanthellae from their tissues. These algae provide corals with essential nutrients through photosynthesis and contribute to their coloration.
- Factors such as increased water temperatures, pollution, and environmental stress can cause corals to expel these algae, leaving them bleached and vulnerable to disease and death.
- Coral bleaching is a sign of coral stress and can result in widespread damage to coral reef ecosystems, disrupting marine biodiversity and impacting coastal communities that rely on reefs for food, tourism, and coastal protection.

WHY IS CORAL BLEACHING IN LAKSHADWEEP?

- **Temperature Increase:** The **Degree Heating Week (DHW)** in Lakshadweep has surpassed a critical threshold, with the Lakshadweep Sea consistently experiencing

temperatures one degree Celsius above the average since October 27, 2023. Apart from elevated atmospheric temperatures due to global warming, changes in ocean currents also contribute to unusually high water temperatures.

- **Marine Heat Waves:** Lakshadweep has been experiencing marine heatwaves since October 2023. If the water temperatures do not decrease, the coral bleaching could lead to the demise of Lakshadweep's coral reefs. **While coral bleaching events have occurred in the Lakshadweep Sea in 1998, 2010, and 2015, the current event's scale is unprecedented.**

About Degree Heating Week (DHW)

Degree Heating Week (DHW) is a metric employed to assess the cumulative heat stress experienced in a particular region over the preceding 12 weeks. It involves aggregating all instances where the temperature surpasses the threshold for coral bleaching within this timeframe.

MEASURES TO TACKLE THE PROBLEM OF MARINE HEATWAVES

- **Sustainable Fisheries Management:** Implementing sustainable fishing practices to reduce stress on marine ecosystems and prevent overexploitation of fish stocks. This includes establishing marine protected areas and implementing quotas and regulations to ensure the long-term health of fisheries.
- **Coastal Adaptation and Resilience:** Investing in coastal infrastructure and habitat restoration projects to enhance the resilience of coastal communities to the impacts of marine heatwaves and sea-level rise. This can include building seawalls, restoring mangrove forests, and implementing green infrastructure solutions to mitigate flooding and erosion.
- **Climate Change Mitigation:** Taking action to reduce greenhouse gas emissions and mitigate the drivers of climate change, such as transitioning to renewable energy sources and implementing energy efficiency measures.
- **Fostering Stakeholder Participation and Resilience:** Raising awareness among policymakers, researchers, industries, and local communities is essential for building resilience to marine heat waves. Coordinated responses and collaborative efforts can facilitate the implementation of measures to protect coastal communities and ecosystems. Additionally, diversifying livelihoods and adapting economic activities can help mitigate the adverse impacts of heat waves.
- **Advance Early Warning Systems:** Implementing monitoring programs to track sea surface temperatures and detect the onset of marine heatwaves. Early warning systems can alert coastal communities and resource managers to take proactive measures in response to rising sea temperatures.

PRELIMS BASED QUESTION

Q1. Consider the following statements regarding Corals:

1. Corals survive well in pollution-free and clear water.

2. Corals can withstand high-temperature ranges.

Choose the correct answer using the codes given below:

- (a) 1 Only
- (b) 2 Only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

ANSWER: A

MAINS BASED QUESTION

Q1. Discuss the factors contributing to the rise of marine heatwaves in the Indian Ocean and their implications on marine ecosystems. How can these heatwaves be effectively monitored and managed to mitigate their impacts?

GST APPELLATE TRIBUNAL

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "GST Appellate Tribunal". THIS TOPIC IS RELEVANT IN THE "Economy" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

Union Minister for Finance and Corporate Affairs Smt. Nirmala Sitharaman administered the oath of integrity and secrecy to Justice (Retd.) Sanjaya Kumar Mishra is the President of the GST Appellate Tribunal (GSTAT). Mr Mishra was a former Chief Justice of the Jharkhand High Court and was selected by a Search-cum-Selection Committee headed by the Chief Justice of India.



WHAT IS THE GOODS AND SERVICES TAX APPELLATE TRIBUNAL?

- The GSTAT is the quasi-judicial body established under Section 109 of the Central Goods and Services Tax Act, 2017, to hear various appeals under the said Act and the respective State/Union Territories GST Acts against the orders of the first appellate authority. It represents a specialised authority formed to resolve GST-

related disputes at the appellate level.

- As per the approval of the GST Council, the government has notified the Principal Bench, which is to be located in New Delhi, and 31 State Benches at various locations across the country.
- The tribunal composition includes a head known as the President, a Judicial Member, and two Technical Members, one representing the state and the other from the central Government. The eligibility criteria of the members are:
- The tribunal president must be a Supreme Court judge or have served the High Court as the Chief Justice.
- The Judicial member must have served as a High Court or an Additional/District Judge for 10 years.
- The Technical Member (Centre) should be a Group A Indian Revenue Service or All India Service member with three years of GST administration experience in the Central Government and must have 25 years of service in Group A.
- The Technical Member (State) should be a state officer or All India Service officer above the Additional Commissioner of VAT and First Appellate Authority rank, with at least 25 years in Group A or equivalent services and three years in GST, finance, or taxation administration.
- The president and members of GSTAT serve for four years or until they reach 70 (president) or 67 years of age. GSTAT is equivalent to a Civil Court for trying a case. It can pass orders, hear cases, impose penalties, and revoke or cancel registrations.

Some of the key functions of the tribunal include:

- **Hearing Appeals:** GSTAT primarily hears appeals against decisions made by the lower authorities under the GST law. This includes appeals against orders issued by the Appellate Authority for Advance Ruling (AAAR) and decisions made by the Revisional Authority.
- **Dispute Resolution:** One of GSTAT's primary functions is to provide an independent and efficient mechanism for resolving disputes related to GST. Taxpayers can approach the tribunal to challenge decisions they believe are incorrect or unjust.
- **Interpretation of Law:** It plays a crucial role in interpreting various provisions of the GST law. Its decisions help clarify legal issues and establish precedents that guide taxpayers and tax authorities in compliance with GST regulations.
- **Appellate Authority:** It acts as the final appellate authority in GST matters, providing a platform for taxpayers to seek redressal beyond the initial stages of adjudication. Its decisions are binding on taxpayers and tax authorities, subject to any further appeal to higher courts.
- **Speedy Disposal:** The tribunal is tasked with ensuring the speedy disposal of appeals, thereby reducing the backlog of cases and providing timely resolution to taxpayers. This helps in maintaining the efficiency and effectiveness of the GST system.

- **Technical Expertise:** GSTAT comprises judicial and technical members, ensuring it has the expertise to adjudicate complex GST matters. The technical members often possess specialised knowledge in accounting, taxation, and commerce, enabling them to make informed decisions.

GSTAT's proceedings and decisions will soon be transparent and publicly available. This transparency will foster trust in the tax administration system and allow stakeholders to understand the rationale behind tribunal rulings. GSTAT's rulings establish legal precedents that guide future interpretations of GST laws. These precedents will help taxpayers and tax authorities anticipate how similar cases may be decided, thereby promoting consistency and predictability in tax compliance.

ABOUT THE GOODS AND SERVICES TAX ACT, 2017:

- The Goods and Services Tax Act, 2017 (GST Act) is a comprehensive legislation enacted by the Government of India to overhaul the country's indirect tax system. It came into effect on July 1, 2017.
- The GST Act introduces a unified tax structure to create a single, nationwide market by subsuming various indirect taxes levied by the central and state governments. Under the GST Act, the central and state governments have the authority to levy and collect GST on the supply of goods and services. This dual GST model consists of Central Goods and Services Tax (CGST) levied by the central government and State Goods and Services Tax (SGST) levied by the state governments.
- GST operates on the destination-based consumption taxation model, differing from the current origin-based tax system. The rates for CGST, SGST, and IGST are determined through mutual agreement between the Central and State governments based on recommendations from the GST Council. Initially, GST was levied at four rates: 5%, 12%, 16%, and 28%. The GST Council has worked out the schedule or list of items that would fall under these multiple slabs.
- Article 279A establishes the GST Council, chaired by the Union Finance Minister and including state-nominated ministers. The central government holds 1/3 of the voting power, while states hold 2/3. Decisions require a 3/4 majority.

PRELIMS PRACTICE QUESTION:

Q. WITH REFERENCE TO THE GST APPELLATE TRIBUNAL, CONSIDER THE FOLLOWING STATEMENTS:

1. The GST Appellate Tribunal is a quasi-judicial body to resolve disputes related to GST laws at the appellate level.
2. The president of the Tribunal must be a Supreme Court judge or have served as the chief justice of the High Court.
3. The tribunal is equivalent to a Civil Court for trying a case.

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

- A. Only one
- B. Only two
- C. All three

D. None

ANSWER: C

MAINS PRACTICE QUESTION:

Q. What is the importance of the GST Appellate Tribunal in the context of tax dispute resolution in India? How does the GST Appellate Tribunal ensure impartiality and fairness in its decision-making process?

TREATING INHERITED BLINDNESS USING CRISPR-CAS9

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "TREATING INHERITED BLINDNESS USING CRISPR-CAS9". THIS TOPIC IS RELEVANT IN THE "SCIENCE AND TECHNOLOGY" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

A collaborative clinical study, including experts from the Children's Hospital of Philadelphia (CHOP) and the Scheie Eye Institute at the University of Pennsylvania, determined that administering CRISPR-Cas9 gene editing to fourteen individuals afflicted with a type of inherited blindness was both safe and resulted in noticeable enhancements in vision for nearly half of the individuals who underwent treatment. The results were published in the New England Journal of Medicine.

ABOUT LEBER CONGENITAL AMAUROSIS

- Leber Congenital Amaurosis (LCA) is a **rare genetic disorder** characterised by severe vision impairment that is present from birth. This condition **primarily affects the retina**, the specialised tissue at the back of the eye responsible for sensing light and transmitting visual information to the brain. **Individuals with LCA often experience profound vision loss or blindness** due to abnormalities in the development or functioning of the retina.
- LCA is typically **inherited in an autosomal recessive pattern**, meaning that a child must inherit **two copies of the defective gene – one from each parent – to develop the disorder**. The genetic mutations associated with LCA can occur in several different genes, each of which plays a crucial role in the normal function of the retina. These mutations disrupt the production of proteins necessary for maintaining the health and function of retinal cells, leading to impaired vision.
- **Symptoms of LCA:** It vary widely among affected individuals, but commonly include poor visual acuity, sensitivity to light (photophobia), involuntary eye movements (nystagmus), and reduced or absent pupillary responses. In some cases, individuals

with LCA may also exhibit other ocular abnormalities such as cataracts or retinal degeneration.

MORE ABOUT THE CLINICAL STUDY

The clinical trial, named BRILLIANCE, involved 14 participants, comprising 12 adults and two children, all afflicted with a rare inherited blindness condition known as Leber congenital amaurosis (LCA). This trial marks the pioneering use of gene therapy to address blindness in children from birth.

Treatment and testing:

- The study assessed the participants' visual capabilities post-treatment through tasks such as discerning coloured lights, navigating through a maze under varying light conditions, and reading from a chart.
- Each participant received a single administration of a CRISPR gene therapy called EDIT-101. This therapy aims to rectify mutations in the CEP290 gene by replacing them with healthy DNA strands, thereby restoring the proper functioning of the CEP290 protein crucial for light detection in the retina.
- **Findings:** Of the 14 participants, 11 demonstrated overall improvements in vision, with six experiencing significant enhancements, enabling them to recognise objects and letters on a chart. Notably, EDIT-101 exhibited a favourable safety profile, with no severe adverse effects observed among participants. Some individuals reported mild adverse reactions, which were promptly resolved.

INHERITED BLINDNESS AND ITS TYPES

Inherited blindness refers to vision loss that is passed down through families due to genetic mutations or abnormalities. It encompasses a spectrum of conditions that affect the eye's structure or function, leading to varying degrees of visual impairment. These conditions are typically present from birth or develop early in life and may progress over time.

Several types of inherited blindness exist, each characterised by specific genetic mutations and associated symptoms:

- **Leber Congenital Amaurosis (LCA):** LCA is a rare genetic disorder that affects the retina, causing severe vision impairment from infancy. It is typically inherited in an autosomal recessive pattern and can result from mutations in various genes involved in retinal function. Individuals with LCA may experience poor visual acuity, sensitivity to light, and involuntary eye movements.
- **Retinitis Pigmentosa (RP):** RP is a progressive disorder that affects the retina's photoreceptor cells, leading to gradual vision loss. It is often inherited in an autosomal dominant or autosomal recessive pattern, although sporadic cases can occur. Symptoms of RP may include night blindness, tunnel vision, and difficulty seeing in low-light conditions.
- **Congenital Stationary Night Blindness (CSNB):** CSNB is a non-progressive condition characterised by difficulty seeing in low-light environments, particularly at night. It is caused by abnormalities in the transmission of visual signals between the retina

and the brain. CSNB can be inherited in an autosomal recessive or X-linked pattern.

- **Achromatopsia:** Achromatopsia, also known as complete colour blindness, is a rare genetic disorder characterised by the inability to perceive colour and extreme sensitivity to light. It is typically inherited in an autosomal recessive pattern and results from mutations in genes involved in cone photoreceptor function.
- **Usher Syndrome:** Usher syndrome is a genetic disorder characterised by hearing loss and progressive vision loss due to retinal degeneration. It is inherited in an autosomal recessive pattern and is caused by mutations in genes essential for both auditory and visual function.
- **Stargardt Disease:** Stargardt disease is a form of macular degeneration that affects central vision. It is typically inherited in an autosomal recessive pattern and is caused by mutations in the ABCA4 gene, which leads to the buildup of lipofuscin in the retina's cells.

ABOUT CRISPR-CAS9

- CRISPR-Cas9 is a **revolutionary gene-editing technology** that has transformed the field of molecular biology and holds significant potential for various applications in medicine, agriculture, and biotechnology.
- CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) **refers to a natural defence mechanism found in bacteria and archaea**, which they use to fend off viral attacks. **Cas9** (CRISPR-associated protein 9) **is an enzyme that plays a key role in this system by acting as molecular scissors** to precisely cut DNA at specific locations.
- The CRISPR-Cas9 system has been **adapted for use as a powerful tool for editing the genetic code of living organisms, including humans**. It allows researchers to make targeted modifications to the DNA sequence by guiding the Cas9 enzyme to the desired location in the genome using a **short RNA molecule known as a guide RNA (gRNA)**.
- Once at the target site, **Cas9 induces a double-strand break in the DNA, which triggers the cell's natural repair mechanisms**. These mechanisms can then be harnessed to introduce desired changes, such as inserting, deleting, or modifying specific genes.

OTHER DIFFERENT GENE EDITING TECHNOLOGIES

- **Transcription Activator-Like Effector Nucleases (TALENs):** TALENs are engineered proteins that can be designed to bind to specific DNA sequences and induce double-strand breaks, similar to CRISPR-Cas9. TALENs consist of a DNA-binding domain derived from transcription activator-like effectors (TALEs) fused to a nuclease domain. They offer high specificity and have been used for targeted gene editing in a variety of organisms, including plants, animals, and human cells.
- **Zinc Finger Nucleases (ZFNs):** ZFNs are another class of engineered proteins

designed to target specific DNA sequences and induce double-strand breaks. They consist of zinc finger domains, which bind to DNA sequences and are fused to a nuclease domain. ZFNs were one of the first gene editing technologies developed and have been used for genome editing in various organisms, including plants, animals, and human cells.

- **Meganucleases:** Meganucleases, also known as homing endonucleases, are naturally occurring enzymes that recognise and cleave specific DNA sequences. Like CRISPR-Cas9, they can be engineered to target desired genomic sites and induce double-strand breaks. Meganucleases offer high specificity but are less commonly used than other gene editing technologies due to their large size and limited availability of target sites.
- **Base Editing:** Base editing is a relatively new gene editing approach that enables precise modification of single DNA bases without inducing double-strand breaks. Base editors consist of a catalytically inactive Cas9 enzyme fused to a deaminase enzyme capable of converting one DNA base to another. This technology allows for the targeted conversion of cytosine (C) to thymine (T) or adenine (A) to guanine (G), enabling the correction of specific point mutations associated with genetic diseases.
- **Prime Editing:** Prime editing is an advanced gene editing technique that combines CRISPR-Cas9 with a reverse transcriptase enzyme to precisely edit DNA sequences without requiring double-strand breaks. Prime editors are programmed with a guide RNA that directs the Cas9 enzyme to a specific genomic site, where it introduces a single-strand DNA nick. The reverse transcriptase then uses an engineered prime editing guide RNA (pegRNA) to copy and paste the desired edit into the genome, resulting in precise modifications with minimal disruption to the DNA.

PRELIMS PRACTISE QUESTIONS

Q1. Consider the following statements:

1. Prime Editing has the ability to edit larger DNA sequences.
2. Base Editing allows for targeted conversion of cytosine to thymine or adenine to guanine.

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 What is the function of the guide RNA (gRNA) in CRISPR-Cas9 gene editing?

- (a) To induce double-strand breaks in DNA
- (b) To bind to specific DNA sequences
- (c) To copy and paste desired edits into the genome
- (d) To act as molecular scissors

ANSWER: B

MAINS PRACTISE QUESTION

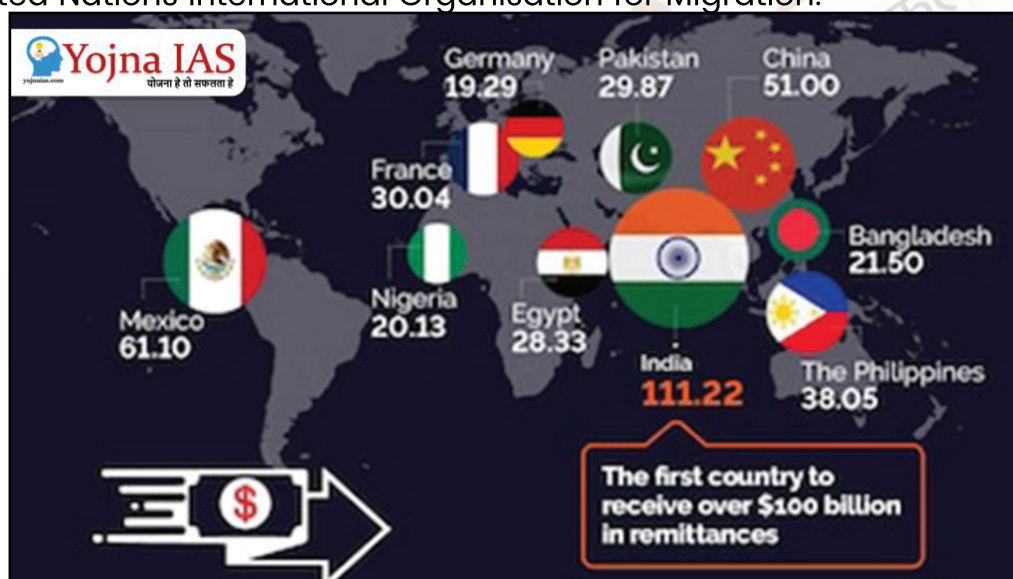
Q1. Discuss the ethical considerations surrounding the use of gene editing technologies, such as CRISPR-Cas9, in human embryos for the purpose of preventing genetic diseases. What are the potential benefits and risks associated with this approach?

INDIA'S REMITTANCES

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "India's Remittances". THIS TOPIC IS RELEVANT IN THE "Economy" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

In 2022, India topped the list of countries receiving the highest remittances, with over \$111 billion, surpassing the \$100 billion mark. Mexico, China, the Philippines, and France followed India. This achievement was noted in the World Migration Report 2024, unveiled by the United Nations International Organisation for Migration.



- The report highlights that international migration drives human development and economic growth. This is highlighted by a **more than 650 per cent increase in international remittances from 2000 to 2022**, rising from USD 128 billion to USD 831 billion. The growth continued despite predictions from many analysts that remittances would decrease substantially because of COVID-19.
- The report states that the **US has consistently been the top remittance-sending country**, with total outflows of \$68bn in 2020, followed by **the UAE (\$43bn), Saudi Arabia (\$34.6bn), Switzerland (\$28bn), and Germany (\$22bn)**.
- The report reveals that challenges persist while international migration drives human

development. With an estimated 281 million international migrants worldwide, the number of displaced individuals due to conflict, violence, disaster, and other reasons has surged to the highest levels in modern-day records, reaching 117 million, underscoring the urgency of addressing displacement crises.

- The report added that nearly 18 million, or 1.3 per cent of the total population, are from India, the origin of the largest number of international migrants in the world. Large diasporas live in countries such as the United Arab Emirates, the United States, and Saudi Arabia. India came in 13th as the destination country for immigrants, with 4.48 million.

SIGNIFICANCE OF REMITTANCES INFLOW:

The inflow of remittances is the aggregate sum of funds sent into a country from abroad by citizens residing and employed in foreign nations. These remittances are financial contributions that migrants make to their home countries, often aimed at supporting their families or investing.

Remittances play a crucial role in bolstering the economy of the recipient nation by enhancing consumer spending, elevating the quality of life, and fostering overall economic development. Multiple avenues exist for sending remittances, including wire transfers, remittance services, and electronic payment systems. **Remittances significantly impact both sending and receiving countries' economies. These are:**

- **Economic Support:** In many countries, remittances represent a consistent source of income from abroad, aiding in stabilising the balance of payments. This steadiness plays a critical role in offsetting the effects of economic disturbances, such as commodity price volatility. It serves as a safeguard against inflation and exchange rate variations. These significant amounts of money play a crucial role in the GDP of these countries, forming an essential source of revenue that fosters economic development.
- **Poverty Alleviation:** Remittances often serve as a lifeline for families in developing countries, helping them meet basic needs such as food, shelter, and education. By providing a stable source of income, they can significantly reduce poverty.
- **Financial Inclusion:** Remittance recipients often gain access to formal financial services such as banks, microfinance institutions, and digital payment platforms. This promotes financial inclusion, helps individuals build assets, and encourages saving and investment for the future.
- **Diaspora Engagement:** Remittances significantly enhance diaspora engagement, as they create a bridge connecting migrants with their countries of origin. This financial support fosters a sense of belonging and involvement and contributes to social unity, cultural exchanges, and the strengthening of diaspora communities.
- **Forex Reserves:** Remittances involve transferring foreign currency into a destination country. Migrants often send remittances back to their home countries. This process converts their earnings into their home country's currency, directly boosting foreign exchange reserves. The increased foreign currency supply in the local market can help stabilize or improve the home country's currency value, strengthening its Forex reserves.

REMITTANCES IN INDIA:

- The Indian diaspora, spread across different countries, is significant in sending remittances back to India. This includes individuals of Indian origin living and working abroad, including skilled professionals, workers, students, and entrepreneurs.
- The primary sources of remittances to India include Indian expatriates working in countries like the United States, the United Arab Emirates, Saudi Arabia, and other Gulf nations. India came in 13th as the destination country for immigrants, with 4.48 million.
- The Organisation for Economic Co-operation and Development (OECD) comprises 38 countries with high-income democracies. These nations are key destinations for highly skilled and high-tech migrants from India, making up nearly 36% of India's remittance income. According to the World Bank, the economic growth of these countries is anticipated to decrease from 3.1% in 2022 to 2.1% in 2023, with a slight increase to 2.4% in 2024.
- UPI allows instant fund transfers and remittances, cutting down the long processing times of traditional methods and giving recipients faster access to funds. In January 2023, National Payments Corporation of India (NPCI) enabled NRIs in 10 countries to use UPI with their international numbers. These countries are Singapore, Australia, Canada, Hong Kong, Oman, Qatar, USA, Saudi Arabia, UAE, and the UK.

CONCLUSION:

Remittances are pivotal in enhancing a nation's foreign exchange reserves, ensuring economic stability, promoting international trade and investment, and protecting against external shocks. They serve as a dependable source of foreign currency inflows, bolstering the financial resilience and sustainability of the recipient country. In India, remittances come from a wide array of sources, showcasing the varied contributions of the Indian diaspora, including skilled professionals, workers, students, entrepreneurs, and different organizations, all aiming to support families, invest in prospects, and aid in the nation's economic growth.

PRELIMS PRACTICE QUESTION:

Q. Which of the following Gulf Countries sent the highest remittances to India?

- A. Saudi Arabia
- B. UAE
- C. Kuwait
- D. Qatar

ANSWER: B

MAINS PRACTICE QUESTION:

Q. How do remittances affect the relationship between migrant workers and their home countries? How have digital payment platforms influenced remittance in

RBI STERN ACTION ON KOTAK

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "RBI STERN ACTION ON KOTAK". THIS TOPIC IS RELEVANT IN THE "ECONOMICS" SECTION OF THE UPSC CSE EXAM.

Why in the News?

In a significant regulatory decision, the Reserve Bank of India (RBI) implemented measures to prevent Kotak Mahindra Bank (KMB) from enrolling new customers via its online and mobile banking platforms, as well as from issuing new credit cards. This action was taken due to supervisory apprehensions regarding the bank's technology infrastructure. These steps were initiated subsequent to an examination conducted by the RBI on the bank's IT systems during the preceding two years and due to what the RBI termed as the bank's persistent shortcomings.

WHY HAS THE RBI TAKEN SUCH A STRICT MEASURE ON KOTAK?

- **User Access Management:** The bank's controls over user access were considered insufficient, raising the possibility of unauthorized entry into sensitive data and systems.
- **Vendor Risk Management:** The RBI observed that KMB's oversight of third-party vendors and their access to the bank's systems lacked robustness, potentially compromising the security of the bank's operations.
- **Data Security:** The bank's measures to safeguard data were found lacking, exposing it to potential breaches of sensitive information.
- **Business Continuity and Disaster Recovery Protocols:** Concerns were raised by the RBI regarding the bank's capability to sustain business operations and recover from disasters or system malfunctions, posing potential disruptions to both its services and customer support.
- **IT Risk and Information Security Governance:** KMB was identified by the RBI as deficient in its governance over IT risks and information security for two consecutive years, failing to fulfill regulatory standards.

HOW RBI MEASURES CAN IMPACT THE BANK FUNCTIONING?

- The regulatory measures could potentially impede KMB's expansion in credit and profitability, particularly since credit cards represent a lucrative growth area for the bank.
- Addressing the RBI's primary concerns may require KMB up to a year, considering

the time required for implementing necessary alterations and undergoing external audits.

- The prohibition is likely to obstruct the upward trajectory of KMB's retail offerings, resulting in adverse effects on margins and overall profitability.

IMPACT ON THE CUSTOMERS:

- The recent regulatory measures enforced by the Reserve Bank of India (RBI) on Kotak Mahindra Bank (KMB) are anticipated to have a notable effect on the bank's customers.
- Although existing customers won't experience direct repercussions from the restrictions, as KMB will continue servicing them, the limitations on enrolling new customers via online and mobile banking platforms and issuing fresh credit cards are likely to impact the bank's strategies for customer acquisition.
- This may pose challenges in expanding the customer base and securing new accounts, particularly since a significant portion of new account openings typically occur through digital channels.
- Moreover, the constraints on issuing new credit cards could affect the availability of this financial product to prospective customers, potentially influencing their banking experience and access to credit services provided by KMB.

RBI ROLE AS A REGULATOR

- **Banking Regulation Act of 1949:** The RBI plays a critical role in ensuring the stability and security of India's banking sector. The Banking Regulation Act of 1949 empowers the RBI to regulate and supervise banks. This act grants the RBI broad authority to:
- Issue licenses to banks and revoke them if necessary, ensuring only qualified institutions operate within the system.
- Control the behavior of banks through regulations, promoting safe and sound banking practices that protect depositors and the financial system as a whole.
- Oversee bank operations, including shareholding, board appointments, and audits, fostering good governance and mitigating potential risks.

PROMPT CORRECTIVE ACTION (PCA) FRAMEWORK

The PCA Framework hinges on monitoring key financial health indicators of banks. These indicators typically include:

- **Capital Adequacy Ratio (CAR):** This ratio measures a bank's ability to absorb financial losses by comparing its capital reserves to its risk-weighted assets. A low CAR signifies a bank's vulnerability to financial shocks.
- **Non-Performing Assets (NPAs):** These are loans that are unlikely to be repaid by borrowers. A high level of NPAs indicates potential credit quality issues within a bank.

- **Leverage Ratio:** This ratio assesses a bank's debt burden relative to its capital. A high leverage ratio suggests the bank might be excessively reliant on borrowed funds, increasing its financial risk.
- If a bank breaches pre-determined thresholds for these key indicators, the RBI can trigger the PCA Framework. This framework empowers the RBI to implement various measures such as:
- **Restrictions on dividend payouts:** This incentivizes the bank to conserve capital for strengthening its financial position.
- **Limits on branch expansion:** This discourages aggressive growth strategies that could further strain the bank's resources.
- **Scrutiny of management compensation:** This ensures that management incentives are aligned with long-term financial stability goals.

PREVIOUS ACTIONS BY RBI

- In December 2020, HDFC Bank faced restrictions on introducing new digital offerings and acquiring fresh credit card clientele as a consequence of persistent disruptions in its internet and mobile banking services.
- Similarly, in October 2023, the Bank of Baroda received instructions to halt the enrollment of new customers on its 'Bob World' mobile application due to identified supervisory issues.
- By taking these steps, the RBI aims to maintain a robust and secure banking environment that protects customer interests and promotes financial stability in India. The restrictions placed on KMB serve as a reminder of the importance of prioritizing cybersecurity and operational resilience within the banking sector. These measures not only protect individual banks from potential threats but also contribute to the overall health and stability of the financial system.

PRELIMS BASED QUESTION

Q1. Consider the following statements regarding the objectives of PCA Framework:

1. To encourage the bank to conserve capital for strengthening its financial position.
2. To attract new investors to the bank.

Choose the correct answer using the codes given below:

- (a). 1 Only
- (b). 2 Only
- (c). Both 1 and 2
- (d). Neither 1 nor 2

ANSWER: A

MAINS BASED QUESTION

Q1. How does the Reserve Bank of India's role as a regulator, as outlined in the

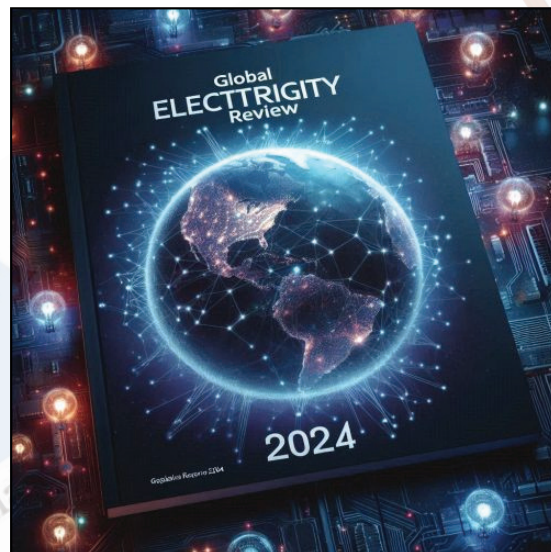
Banking Regulation Act of 1949, contribute to maintaining stability and security in India's banking sector?

GLOBAL ELECTRICITY REVIEW 2024

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "GLOBAL ELECTRICITY REVIEW 2024". THIS TOPIC IS RELEVANT IN THE "ENVIRONMENT" SECTION OF THE UPSC CSE EXAM.

WHY IS THE NEWS?

Ember has published its fifth annual Global Electricity Review 2024 report, which provides the first comprehensive overview of changes in global electricity generation in 2023. The report provides an in-depth analysis of the global energy scenario 2023, utilising data from various countries. It scrutinises information from 80 countries, which account for 92% of the world's total electricity consumption, and also considers historical data from 215 countries.



ABOUT THE GLOBAL ELECTRICITY REVIEW 2024:

- The Global Electricity Review 2024 was published by global energy think tank Ember.
- It was found that renewable energy generated a record 30 per cent of global electricity in 2023, driven by solar and wind growth.
- The report finds that solar is the main supplier of renewable energy growth, and solar energy produced a record 5.5 per cent of global electricity in 2023.
- An increase in coal generation met the shortfall in hydropower, leading to a 1 per cent increase in global power sector emissions.
- The report highlighted that fossil fuel generation will drop in 2024, and the trend will

continue in other years.

- According to the report, China was the main contributor in 2023, accounting for 51% of the additional global solar generation and 60% of new global wind generation.
- India surpassed Japan to become the world's third-largest solar power producer in 2023.
- China and the USA were the top two producers, with India following behind.
- India ranks fifth globally in installed solar power capacity at 73 GW, while Japan is third with 83 GW.
- India generated 5.8 per cent of its electricity from solar energy in 2023.
- In 2023, India saw the fourth-largest increase in solar power behind China, the US, and Brazil, with these countries making up 75% of the year's global solar expansion.
- India stands among the select few nations committed to tripling renewable capacity by 2030. The report suggests India must significantly ramp up annual capacity additions to meet this ambitious target.
- Renewable electricity generation refers to producing electricity from naturally replenishing energy sources that are abundant and sustainable over the long term. Renewable electricity generation sources, such as solar, wind, and Hydro, emit little to no greenhouse gases, reducing air pollution and improving public health by replacing fossil fuels. Solar energy is vital to transitioning to a sustainable, low-carbon energy system, offering multiple benefits for the environment, economy, society, and energy sector.
- Renewable electricity generation offers numerous benefits, including reduced greenhouse gas emissions, improved air quality, energy security, job creation, and economic development. As renewable energy technologies advance and become more cost-competitive, they become increasingly significant in transitioning to a sustainable, low-carbon energy future.
- India ranks as the world's third-largest energy consumer. Globally, it holds the fourth position in Renewable Energy Installed Capacity (counting large hydro), the fourth in Wind Power capacity, and the fifth in Solar Power capacity, according to the REN21 Renewables 2023 Global Status Report. At COP26, India committed to achieving 500 GW of non-fossil fuel-based energy capacity by 2030.
- NITI Aayog reports that by May 2024, although solar energy constituted 18% of India's overall installed electrical capacity of 442 gigawatts (GW), it accounted for just 6.66% of the electricity generated. This discrepancy highlights the difference between potential output and actual production, which can shift annually based on changes in national power needs and specific regional conditions.

WAY FORWARD:

- **Investment in Research and Development:** To address climate change and ensure sustainable energy futures, governments, private sector companies, and research bodies must invest in research and development to enhance renewable energy

technologies. Key focus areas should include boosting efficiency, cutting expenses, improving storage solutions, and solving integration hurdles with current systems.

- **Policy Support and Incentives:** Governments can implement supportive policies and financial incentives to accelerate renewable energy deployment. This includes feed-in tariffs, tax credits, renewable portfolio standards, net metering programs, and subsidies for renewable energy projects. Clear and stable policy frameworks can provide market certainty and encourage investment in renewable energy development.
- **Infrastructure Investment:** Upgrading and expanding renewable energy infrastructure requires significant investments in transmission networks, storage, and grid technologies to enhance flexibility and integrate variable sources like solar and wind.
- **Public Awareness and Education:** Campaigns, community events, and demonstrations can educate the public on renewable energy's benefits and the need for clean energy transition, enhancing support for renewable energy policies and initiatives.
- **Public-Private Partnerships:** Collaboration among government, private sector, academia, and civil society can drive renewable energy progress through public-private partnerships, facilitating technology transfer, investment, and large-scale project deployment.

PRELIMS PRACTICE QUESTION:

Q. Consider the following statements about the Global Electricity Review 2024:

1. According to the report, solar energy set a new record by generating 5.5% of global electricity, leading to the growth in renewable energy sources in 2023.
2. India surpassed Japan to become the world's third-largest solar power producer in 2023.
3. India generated 5.8 per cent of its electricity from solar energy in last year.

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

- A. Only one
- B. Only two
- C. All three
- D. None

ANSWER: C

MAINS PRACTICE QUESTION:

Q. Is it feasible for India to source half of its energy requirements from renewable sources by 2030? Provide reasoning for your stance. Additionally, explain how reallocating subsidies from fossil fuels to renewable energy forms can contribute to accomplishing this goal. Explain.

WEST NILE FEVER

THIS ARTICLE COVERS 'DAILY CURRENT AFFAIRS' AND THE TOPIC DETAILS OF "WEST NILE FEVER". THIS TOPIC IS RELEVANT IN THE "SCIENCE AND TECHNOLOGY" SECTION OF THE UPSC CSE EXAM.

WHY IN THE NEWS?

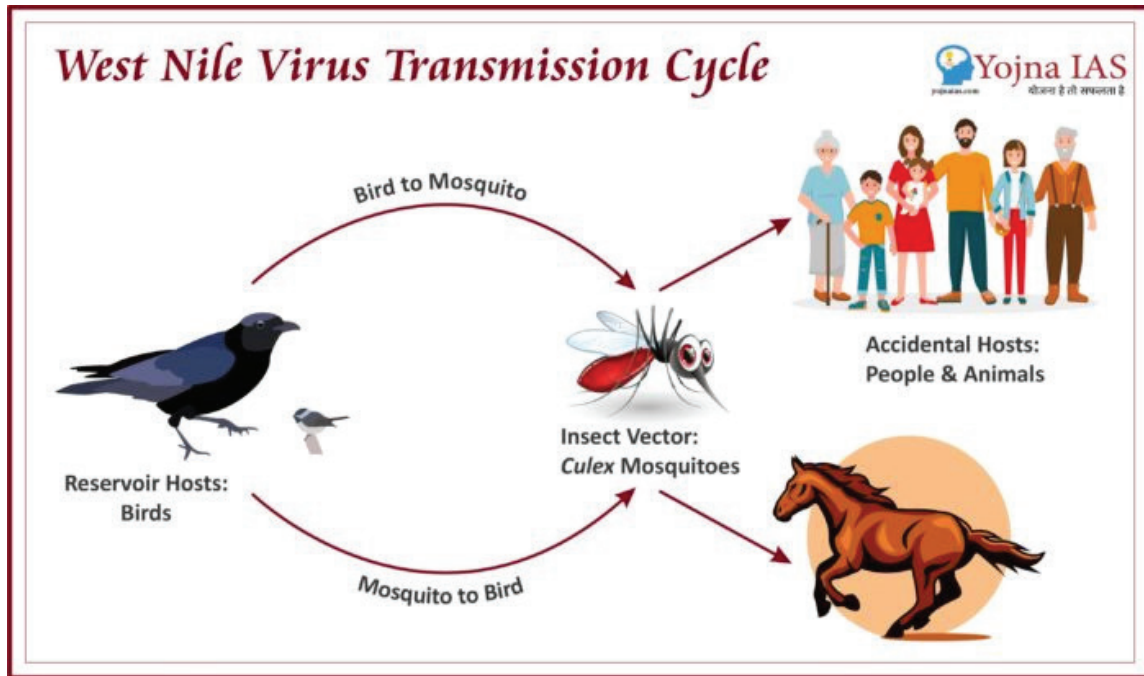
The Kerala government has revealed that cases of West Nile fever have resurfaced in the districts of Thrissur, Malappuram, and Kozhikode. This disease was initially identified in Kerala in 2011.

ABOUT WEST NILE FEVER

- West Nile Fever is **caused by the West Nile virus (WNV)**, an RNA virus that is transmitted to humans via the bite of an infected mosquito.
- **Mosquitoes** belonging to the **Culex genus** are typically recognised as the **primary carriers of WNV**, while birds act as reservoir hosts. This virus is categorised within the Flaviviridae family and the flavivirus genus. It is prevalent across several regions, including Africa, Europe, the Middle East, North America, and West Asia.
- The initial isolation of the virus occurred in a woman from the West Nile district of Uganda in 1937. Subsequently, in 1953, the virus was detected in birds in the Nile Delta region, as reported by the World Health Organization.

TRANSMISSION

- The primary mode of transmission of the West Nile virus to humans is through the bite of Culex genus mosquitoes that are infected with the virus.
- These mosquitoes become carriers of the virus when they feed on infected birds, which are the primary reservoirs for the virus. Once infected, mosquitoes can then pass on the virus to humans and other animals when they bite and feed on blood.
- It's crucial to understand that West Nile Fever is typically not transmitted directly from one person to another. However, in rare instances, transmission can occur through avenues like organ transplantation, blood transfusion, or from mother to child during pregnancy or breastfeeding.



SYMPTOMS OF WEST NILE FEVER

The vast majority of individuals infected with West Nile virus (around 80%) experience no symptoms at all. However, for those who do develop symptoms, they can range from mild and flu-like to severe and debilitating.

Common symptoms of West Nile fever include:

- Fever
- Headache
- Body aches
- Joint pain
- Fatigue
- Nausea
- Vomiting

Symptoms of severe cases:

- neck stiffness
- disorientation
- Tremors
- Seizures

- Paralysis
- Vision loss

TREATMENT AND PREVENTION OF WEST NILE FEVER

- Currently, there is no specific antiviral treatment available for West Nile Fever. Treatment is primarily supportive and focuses on managing symptoms to help the body fight off the infection.
- In mild cases, rest, hydration, and over-the-counter pain relievers may be sufficient to alleviate symptoms. In more severe cases, hospitalisation may be necessary to provide intravenous fluids, pain management, and respiratory support if needed.
- Patients with severe neurological complications may require intensive care and monitoring to prevent further complications. Physical therapy and rehabilitation may also be necessary for individuals who experience long-term neurological effects of the infection.
- Prevention is key in managing West Nile Fever, and efforts to control mosquito populations, avoid mosquito bites, and reduce exposure to infected mosquitoes are crucial in preventing the spread of the virus.

PREVENTION

- Preventing West Nile Fever relies heavily on controlling mosquito populations and minimising human-mosquito contact. This includes implementing mosquito control measures such as larval control, adult mosquito control through insecticides, and environmental management to reduce mosquito breeding sites.
- Public health awareness campaigns play a crucial role in educating the public about the risks associated with West Nile Fever and promoting preventive measures such as using mosquito repellents, wearing long sleeves and pants, and installing screens on windows and doors to keep mosquitoes out.

DIAGNOSIS

The detection of West Nile virus infection can be accomplished through various testing methods:

- Measurement of IgG antibody seroconversion (or a significant increase in antibody titers) in two consecutive specimens collected one week apart using enzyme-linked immunosorbent assay (ELISA).
- Utilisation of IgM antibody capture enzyme-linked immunosorbent assay (ELISA).

- Application of neutralisation assays.
- Viral detection using reverse transcription polymerase chain reaction (RT-PCR) assay.
- Isolation of the virus through cell culture techniques.

In West Nile virus-infected patients, IgM antibodies can typically be identified in nearly all cerebrospinal fluid (CSF) and serum specimens obtained at the time of their clinical presentation. Furthermore, serum IgM antibody levels may persist for more than a year following infection.

PRELIMS PRACTISE QUESTION

Q1. Consider the following statements:

1. In tropical areas, the transmission of Zika virus disease occurs through the same mosquito responsible for spreading dengue fever.
2. Zika virus disease can also be transmitted through sexual contact.

Which of the statements given above is/are correct?

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

Answer: C

MAINS PRACTISE QUESTIONS

Q1. What collaborative efforts are underway between scientists, policymakers, and local communities to address the challenges posed by the thawing of permafrost and the emergence of new viruses?