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JULY 2021

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— Disclaimer —

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

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SECTION: A

(MAINS)

CURRENT AFFAIRS

LIGHTNING STRIKES MANY PARTS OF NORTH INDIA

CONTEXT

Northern India has reported many lightning strikes at different part- Amer Fort, Dwarkadheesh Temple, Chambal region etc claiming many lives and inflicting damages to the structures.

⦿ BACKGROUND

- At least 70 people have died in lightning strikes in India over the past few days, a weather event that claims more lives than other natural calamities in India every year
- As many as 1,697 deaths have been attributed to lightning during 2020-21, according to a report by **Lightning Resilient India Campaign (LRIC).**
- An app named **Damini**, which means lightning in Hindi, has also been launched to issue warings about lightning strikes three hours in advance.

⦿ ANALYSIS

What is lightning?

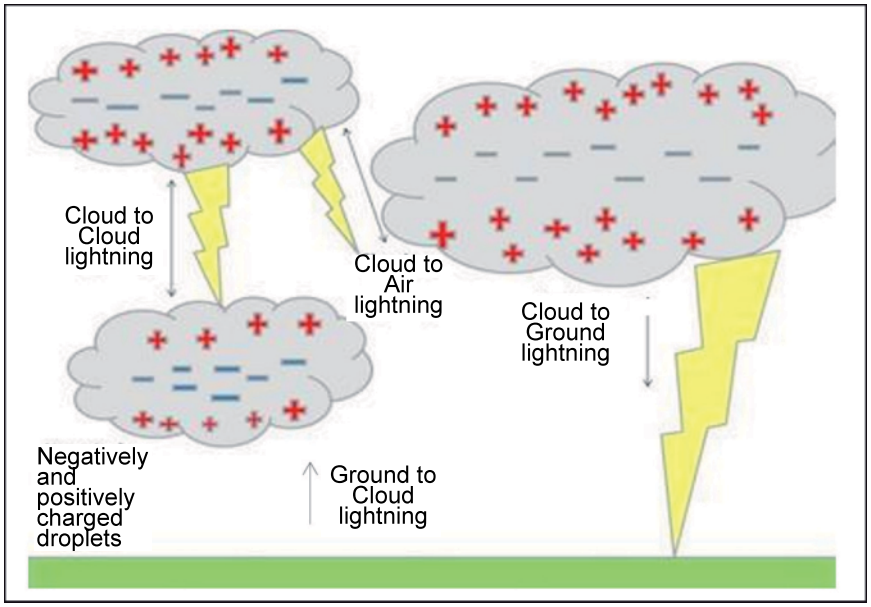
- Lightning is a giant spark of electricity in the atmosphere between clouds, the air, or the ground.
- In the early stages of development, air acts as an insulator between the positive and negative charges in the cloud and between the cloud and the ground.
- When the opposite charges build up enough, this insulating capacity of the air breaks down and there is a rapid discharge of electricity that we know as lightning.

What causes thunder?

- The bright light of the lightning flash caused by the return stroke mentioned above represents a great deal of energy.
- This energy heats the air in the channel to above 50,000° F in only a few millionths of a second.
- The air that is now heated to such a high temperature had no time to expand, so it is now at a very high pressure.
- The high pressure air then expands outward into the surrounding air compressing it and causing a disturbance that propagates in all directions away from the stroke.
- The disturbance is a shock wave for the first 10 yards, after which it becomes an ordinary sound wave, or thunder.

Types of Lightning

- **Cloud-to-Ground (CG) Flashes**
  - A channel of negative charge, called a stepped leader, will zigzag downward.
  - A **"bolt from the blue"** is a CG which starts inside a cloud, goes out the side of the storm, then travels horizontally away from the cloud before going to ground.
- **Intra-cloud Lightning**
  - The most common type of discharge - lightning inside a single storm cloud where both ends of the bidirectional leader stay entirely in the storm cloud.
- **Cloud Flashes**
  - There are many flashes which do not reach ground. Most of these remain within the cloud and are called **intra-cloud (IC)** lightning flashes.
  - Cloud flashes sometimes have visible channels



that extend out into the air around the storm (**cloud-to-air or CA**), but do not strike the ground.

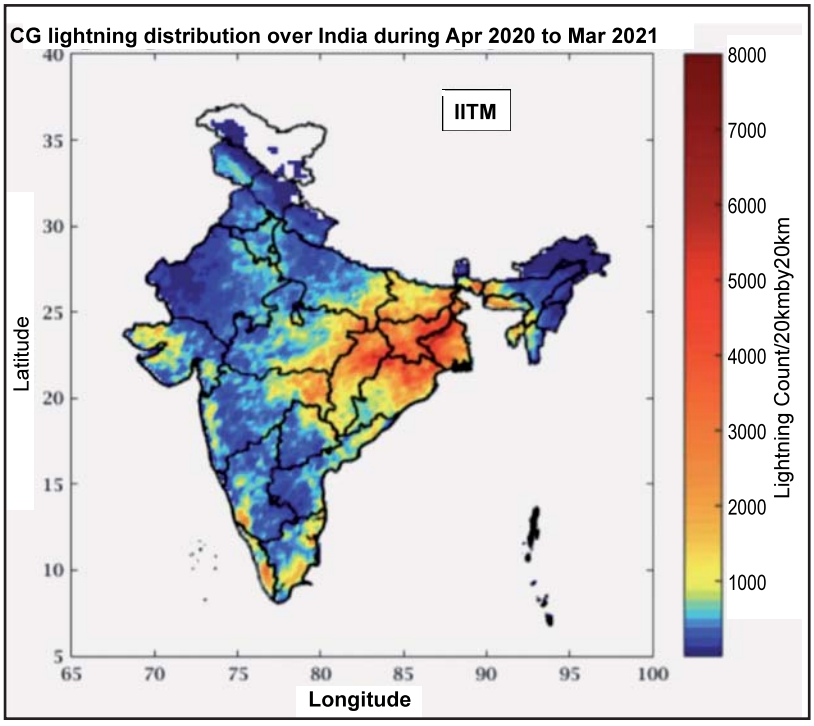
- **Heat Lightning**
  - any lightning (IC or CG) or lightning-induced illumination that is too far away for the thunder to be heard.
  - It may have reddish ("heat") color, like sunsets, because of scattering of blue light.
- **Spider Lighting**
  - It refers to long, horizontally traveling flashes often seen on the underside of stratiform clouds. Spider lightning is often linked to +CG flashes.

What happens at the ground when lightning strikes?

- **Formation of Fulgurite:**
  - When lightning strikes ground it fuses dirt and clays in to silicas.
  - The result is often a glassy rock (called a fulgurite) in the shape of a convoluted tube. Fulgurite has been found all over the world, but is relatively rare.
- **Damage to trees:**
  - Lightning traveling down a tree trunk turns water to steam.
  - If it gets under the bark into the surface moisture of the wood, the rapidly expanding steam can blast pieces of bark and branches from the tree, and the wood along the path is often killed.
- **Damage to structures**
  - The lightning current can travel even farther through water, metal fences, power lines or plumbing.
  - Lightning current may enter a building and transfer through wires or plumbing and damage everything in its path.
- **Damage in urban areas**
  - In urban areas, it may strike a pole or tree and the current then travels to several nearby houses and other structures and enter them through wiring or plumbing

Annual Lightning Report 2020-21 (in comparison with 2019-20)

- There has been 34% rise in Lightning strikes in the country
- There are states with very high rise in lightning strikes upto 331 percent rise in Punjab. Bihar 168%, Haryana 164%, Puducherry 117%, Himachal Pradesh 105% and West Bengal 100% are leading states
- Goa , Daman & Diu , Dadar & Nagar haveli received more than minus 74% lightning strikes followed by Tripura minus 70%, Nagaland minus 60% , Karnataka minus 34%, Assam minus 27%, Kerala minus 19% , Meghalaya minus 12% and Tamil Nadu minus 12%.



CONCLUSION

- Though lightning incidents are less, whenever they strike, they cause severe damages to life and properties. Casualties due to Lightning can be easily, efficiently and inexpensively avoided, and lightning safety can be achieved mainly by creating public awareness, technical education on Lightning Protections, educating people on lightning and surge protection.
- Stringent steps to ensure adherence of building standards and codes wherever necessary and promoting research and development on lightning protection are essential. There is a need to give lightning its due attention as a natural disaster and give it a priority in National Disaster Management Programmes.

US IN AFGHANISTAN

CONTEXT

Former US President George W. Bush has labelled the withdrawal of US and NATO troops from Afghanistan "a mistake", he told that he fears for the fate of women in Afghanistan after American and NATO troops leave the country.

⊙ BACKGROUND

- The United States Armed Forces are scheduled to be withdrawn from Afghanistan by 31 August 2021, concluding **Operation Freedom's Sentinel and NATO's Resolute Support Mission**
- The U.S. and allied forces invaded and occupied the country in 2001 following the 11 September attacks, with the resulting war becoming the U.S.'s longest military engagement.

⊙ ANALYSIS

Timeline of events spanning nearly two decades

Year	Event Description
2001	Al-Qaeda operatives hijack four commercial airliners, crashing them into the World Trade Centre in New York and the Pentagon in Washington, DC
2001	President George W. Bush signs into a law which was authorizing the use of force against those responsible for attacking the United States on 9/11.
2001	The U.S. military, with British support, begins a bombing campaign against Taliban forces, formally launching Operation Enduring Freedom in full swing
2001	After the fall of Kabul in November 2001, the United Nations invites major Afghan factions to sign the Bonn Agreement. The agreement had instated Karzai as interim administrative head, and creates an international peacekeeping force to support security situation in Kabul.
2002	President George W. Bush calls for the reconstruction of Afghanistan. The U.S. Congress appropriates over US$38 billion in reconstruction and humanitarian backing to Afghanistan from 2001-09.
2003	The North Atlantic Treaty Organization (NATO) assumes control of international security forces (ISAF) in Afghanistan, expanding NATO/ISAF's role across the country.
2004	An assembly of 502 Afghan delegates agrees on a constitution for Afghanistan, creating a strong presidential system intended to unite the country's various ethnic groups
2004	In historic national balloting, Karzai becomes the first democratically elected head of Afghanistan.
2005	More than six million Afghans turn out to vote for the Wolesi Jirga (Council of People), the Meshrano Jirga (Council of Elders), and local councils. Considered the most democratic elections ever in Afghanistan because nearly half voters were women
2006	Violence increases across the country during the summer months, with intense fighting erupting in the south in July. The number of suicide attacks quintuples from 27 (2005) to 139 (2006)
2008	Afghan and UN investigations find that errant fire from a U.S. gunship killed dozens of Afghan civilians, drawing condemnation and bolstering Taliban claims that coalition forces are unable to protect the population
2009	President Obama announces a new strategy for the war effort, linking success in Afghanistan to a stable Pakistan

2010	At a summit in Lisbon, NATO member countries sign a declaration agreeing to hand over full responsibility for security in Afghanistan to Afghan forces by the end of 2014.
2011	On May 1, 2011, al-Qaeda leader Osama bin Laden, responsible for the 9/11 attacks in New York and Washington, is killed by U.S. forces in Pakistan
2011	The U.S. war in Afghanistan marks its tenth anniversary, President Barack Obama plans to withdraw all combat troops by 2014.
2012	Taliban strikes a deal to open an office in Qatar. But after 2 months, the Taliban suspends preliminary talks, accusing US of reneging on prisoner swap
2013	Afghan forces take the lead in security responsibility nationwide as NATO hands over control of the remaining ninety-five districts
2014	President Barack Obama announces a timetable for withdrawing most U.S. forces from Afghanistan by the end of 2016
2017	Taliban appears to be as strong as ever, and the U.S. military describes the war as a stalemate. Kabul experiences suicide bombings on a scale never before seen, while the Taliban control or contest more than a third of the country.
2020	U.S. envoy Khalilzad and the Taliban's Baradar sign an agreement that paves the way for a significant drawdown of U.S. troops in Afghanistan and includes guarantees from the Taliban that the country will not be used for terrorist activities
2021	President Biden announces that the United States will not meet the deadline set under the U.S.-Taliban agreement to withdraw all troops by May 1 and instead releases a plan for a full withdrawal by September 11, 2021.

Implication of USA withdrawal

- **Regional Security**
  - It is assumed that after withdrawal of the coalition forces from Afghanistan, the militants would be re-organized/restructured and could threaten the peace of the entire region by drawing the neighbouring countries in the war.
  - Thus the reduction/withdrawal can endanger stability of the south and central Asia.
- **Afghan Forces**
  - The international community is prepared to help the Afghan forces by providing money, equipment and training.
  - But it is not known whether this help will be sustained over a longer period of time.
  - There is also a possibility of the ANSF disintegrating along ethnic lines, in case the Taliban, a predominantly Pashtun-majority entity.
- **Economy**
  - As the country is dependent upon aid; it has been less focused upon trade over the last decade.
  - Unstable Afghanistan will lose investment opportunities and hence economic and political crisis can make the region extremely unstable
- **Political uncertainty**
  - Government has no or very weak control beyond Kabul.
  - The Parliament is divided into disunited groups comprising of disgruntled elements, this disunity and hatred can pose a grave threat to political situation in Afghanistan.
- **Pakistan Interference**
  - Some researchers argue that the Pakistan military actively aids the insurgents through funding, the provision of weapons, strategic planning, and so on, which are bound to increase post US withdrawal.

Implication for India

- The withdrawal can lead to a surge in international and regional terrorism, re-emergence of Taliban's influence on Pakistan and the political instability it will create in the region.
- India's larger concerns are about the resurgence of Taliban, which can undoubtedly reassure and incite the extremist elements in Kashmir and other parts of India through India-focused militant groups such as Laskhar- e-Toiba and Jaish-e-Mohammed, which are believed to have relocated to Afghanistan in large numbers.

⊙ CONCLUSION

- India is wary of the future of the Afghan government without the support of the US military as it will trigger a geopolitical flux in the region and if peace talks do not fall through and there is a reneging of the terms of the Doha Accord by the Taliban then this consequence directly threatens India's political, security, and economic interests in Afghanistan.
- Therefore to safeguard its own interests, India needs to reorient its policies towards Afghanistan and deal with the changing dynamics of power shift in the region.

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EMERGING MARKET ELECTRICITY LEAPFROG

CONTEXT

Researchers say the amount of electricity generated from burning fossil fuels has likely peaked worldwide, as emerging markets invest in clean and cheap renewables over coal, oil and gas.

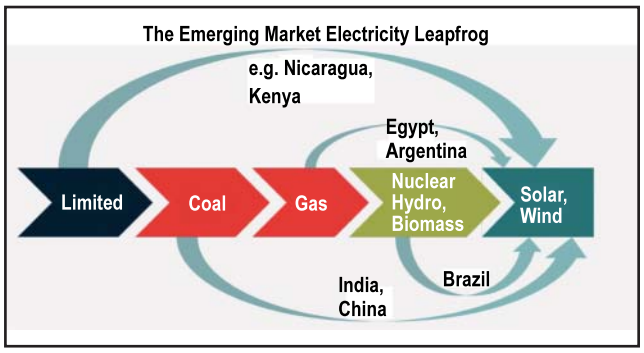
BACKGROUND

- A report titled "Reach for the Sun: The emerging market electricity leapfrog" has been published by environmental think tanks Carbon Tracker, in the UK, and the Council on Energy, Environment and Water (CEEW) in India
- The researchers say that emerging markets will provide 88% of the growth in electricity demand over the next two decades, and say these markets are increasingly leapfrogging polluting energy sources that are uncompetitive

ANALYSIS

What is the emerging market electricity leapfrog?

- Emerging markets will not follow the same path to renewables as developed markets.
- They have much lower levels of electricity consumption per capita, and 770 million people still have no access to electricity.
- Because demand for electricity is growing, countries can leapfrog the fossil fuel system by obtaining their growth in demand from renewable sources



Forces driving the leapfrog

- **Economics**
  - The cost of solar and wind has been falling for years and is below the cost of fossil fuels in most locations for new electricity generation
  - As renewables supply all the growth in supply and at ever lower costs, fossil fuel assets will be stranded because the total cost of renewables falls
- **Technology**
  - **Drivers include**: digitisation of grids; better handling of intermediate solutions; and falling battery costs
  - New business models (like aggregators) and system interconnection between for example transport, heat and electricity, is making flexibility easier.
- **Domestic politics**
  - There are many domestic factors which are likely over time to persuade politicians to overcome the vested interests that are holding up the fossil fuel system.
  - They include: jobs, votes, pollution, energy dependency, energy availability, speed to market, universal electricity access, industrial opportunities and competitive advantage.

Barriers to change

- **Intermittency**
  - plenty of countries have high levels of penetration of renewables, so intermittency is clearly a soluble problem
- **System costs**
  - Fossil fuel advocates argue that the levelized cost of energy of renewables is indeed cheaper than fossil fuels, but that system costs will be higher for renewables-based systems.
  - After all, renewables are an intermittency technology and need some backup as well as bigger grids and so on
- **Capital**
  - On the debt side, emerging markets suffer from underdeveloped domestic bond markets; hence refinancing is challenging
  - International debt markets are deeper, but they provide more expensive capital after hedging for various non-project risks, such as currency fluctuations, policy and political, off taker risk, and transmission and power evacuation risk
- **Systemic barriers**
  - Weak grid, Highly inefficient system, Weak legal system, Political risk, Currency risk, and Weak local banking markets

How to speed up the leapfrog?

- **Stop financing fossils**: it makes sense thus for developed markets policymakers to curtail the finance flowing to fossil fuel generation
- **Technology and policy transfer**: Technologies and successful policies can be transferred from the leaders to those aspiring countries in the emerging markets. It will be necessary, for example, to help build up robust local currency financial markets to help to channel domestic savings into renewable projects
- **Reduce cost of capital:** Capital needs to be made available to those who can deploy it. Development finance institutions need to de-risk projects in order to bring the cost of capital down to acceptable levels for countries that are serious about embracing renewables.

Highlights of the report

- This is the leapfrog decade. Emerging markets are about to leapfrog fossil fuels to generate all the growth in their electricity supply from renewables. That means peak global fossil fuel usage for electricity generation was probably 2018.
- Developed market demand for fossil fuels for electricity generation peaked in 2007, and is down 20% since then; 99% of developed markets have already seen a peak. Meanwhile, South African fossil fuel demand for electricity peaked in 2007, Chile in 2013, Thailand in 2015, Turkey in 2017
- India's double leapfrog — connecting nearly all households to electricity and its renewable energy rollout — is one of the most revolutionary in scale.
- Renewables are the cheapest source of new electricity in 90% of the world, and the rest will soon follow
- Leaders of the countries with over 70% of global GDP have pledged to get to net-zero by mid-century, competition between China and the US favours a rapid dissemination of renewable technologies
- Intermittency can be managed; solar and wind are still only 4% of emerging market ex-China electricity supply, far below the current feasibility ceiling

⊙ CONCLUSION

We need innovative interventions — in policy, finance, technology and cost of capital, which could be modified for countries based on their local situations. Together, they could form the bedrock of a more determined push towards a leapfrog for all emerging economies to a cleaner energy future.

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HUMAN-WILDLIFE CONFLICT

CONTEXT

The report, titled, "A future for all - the need for human-wildlife coexistence", by the World Wide Fund for Nature (WWF) and the UN Environment Programme (UNEP) has stated that conflict between humans and animals is one of the main threats to the long-term survival of some of the world's most iconic species.

⊙ BACKGROUND

- Around the world, human wildlife conflict (HWC) challenges people and wildlife, leading to a decrease in people's tolerance for conservation efforts and contributing to multiple factors that drive species to extinction
- HWC is a significant threat to conservation, livelihoods, and myriad other concerns and should be addressed at a scale equal to its importance.
- By allocating adequate resources and forming wide-ranging partnerships, we can move towards long-term coexistence that benefits both people and wildlife.

Example

- The report gave the example of **Sonitpur district in Assam**. Here, destruction of forests had forced elephants to raid crops, in turn causing deaths of both, elephants and humans.
- In response, WWF India had developed the **'Sonitpur Model'** during 2003-2004 by which community members were connected with the state forest department.
- They were given training on how to work with them to drive elephants away from crop fields safely.
- WWF India had also developed a low-cost, single strand, non-lethal electric fence to ease the guarding of crops from elephants.

⊙ ANALYSIS

Key-highlights of the Report

- The report features contributions from 155 experts from 40 organisations based in 27 countries.
- Globally, conflict-related killing affects more than 75 per cent of the world's wild cat species.
- Besides, many other terrestrial and marine carnivore species such as polar bears and Mediterranean monk seals as well as large herbivores such as elephants are affected.
- Global wildlife populations have fallen an average of 68 per cent since 1970.
- India will be most-affected by human-wildlife conflict. This was because it had the world's second-largest human population as well as large populations of tigers, Asian elephants, one-horned rhinos, Asiatic lions and other species.

Data on human-elephant conflict

- In India, data from the **Union Ministry of Environment, Forest and Climate Change** indicates that over 500 elephants were killed between 2014-2015 and 2018-2019, mostly due to human-elephant conflict.
- During the same period, 2,361 people were killed as a result of conflict with elephants.

What drives Human-Wildlife Conflict?

- HWC results from a variety of ecological and anthropogenic drivers that exert pressures on landscapes where humans and wildlife share space
  - **Ecological drivers** include seasonal changes, natural calamities, and animals' life cycles, as well as the movement patterns of animals
  - **Anthropogenic drivers,** such as habitat loss, changes in land use, livestock management, expansion of agricultural practices, climate change, resource extraction, infrastructure development, and urbanisation
- Each negative impact emerges from a complex web of interactions between drivers, making it extremely difficult, if not impossible, to view the effect of one driver in isolation
- For instance, if forests are cleared for settlements or agriculture, or roads are cut into previously inaccessible areas, habitat loss and fragmentation result, forcing wildlife and people into closer proximity to each other

Timeline of milestones in development of HWC management

The IUCN SSC Human-Wildlife Conflict Task Force

- The IUCN SSC Human-Wildlife Conflict Task Force (HWCTF) is a global advisory group and think tank.
- It aims to support professionals working on HWC by providing interdisciplinary guidance, resources, and capacity building.
- The IUCN established the HWCTF to foster connection between policymakers, scientists, and communities and to assimilate knowledge and capacity for HWC management across IUCN members and the wider conservation community.

WHC-SGD Linkages

SDG No.	Goal	Effect
1	No Poverty	HWC affects the income of farmers, herders, artisanal fishers, and Indigenous peoples, particularly those living in poverty and without resilience
2	Zero Hunger	Wildlife damages food stores, crops, and livestock and puts subsistence farmers at risk of hunger
3	Good Health & Well Being	HWC impacts people's health – both directly, when attacks lead to injury, and more indirectly, for example, when malaria rates increase as a result of farmers' need to protect their crops through the night
4	Quality Education	Children are often responsible for time-consuming crop and livestock guarding, which decreases school attendance and lowers education standards for pupils in HWC-impacted areas, creating potentially lifelong inequalities

5	Gender Equality	Women carry the highest burden of HWC due to their role in society and culturally defined tasks and responsibilities; for example, not only are they vulnerable to attack by wildlife while collecting natural resources but also, if they are widows, they may suffer high losses because it is culturally unacceptable for them to guard at night
6	Clean Water & Sanitation	In arid parts of the world, water access may be reduced and risky for people as they compete with wildlife for water sources
8	Decent Work & Economic Growth	HWC can drive the vicious circle of poverty and low livelihood diversity, resulting in the unavailability of occupational work in HWC hotspots
9	Industry, Innovation & Infra-structure	HWC can increase as a result of linear infrastructure development that fails to consider the migratory routes and spatial distribution of wildlife, resulting in vehicle collisions with wildlife or displacement of wildlife
10	Reduced Inequalities	HWC drives inequality of cost and benefit distribution if those who pay the price for living with wildlife do not receive the benefits of coexistence
11	Sustainable Cities & Communi-ties	Facing shrinking natural habitats, wildlife increasingly utilises green spaces in urban areas and pursues non-traditional food sources, which leads to urban HWC, such as human-leopard conflict in the city of Mumbai
13	Climate Action	Climate change alters habitats and drives human and wildlife behaviour changes, bringing humans and wildlife into closer proximity to each other, which can lead to HWC
14	Life Below Water	Marine HWC negatively impacts the survival of many marine species, including sharks, whales, sea turtles, seals, and polar bears
15	Life On Land	The survival of multiple terrestrial species, particularly apex predators and megaherbivores, depends on successful HWC management and coexistence
16	Peace, Justice & Strong Institutions	Carnivores and megaherbivores create immediate safety concerns. Also, HWC can lead to demoralising conflicts between groups of people and result in inequities and societal destabilisation
17	Partnership For Goals	Human-wildlife coexistence and sustainable development both require integrated decision making, participation, and good governance at international, national, and regional levels, plus the involvement of civil society

The six elements of HWC Management

- **Understanding the conflict**: Researching all aspects of the conflict profile to understand the context for conflict in any given situation (hotspot mapping, community attitudes, spatial and temporal characteristics, etc.)
- **Mitigation**: Reducing the impacts of HWC after it occurs (compensation, insurance, alternative livelihoods, etc.)

- **Response**: Addressing an ongoing HWC incident (response teams, reporting mechanisms, standard operating procedures, etc.)
- **Prevention**: Stopping or preventing HWC before it occurs (fences, early detection tools, safe working environments, etc.)
- **Policy**: Enabling HWC management through protocols, principles, provisions, and measures stipulated in legislation and undertaken by authorities (international and national law, national and local HWC management plans, spatial plans, etc.)
- **Monitoring**: Measuring the performance and effectiveness of HWC management interventions over time (data collection, information sharing, adaptive management, etc.)

CONCLUSION

The means to prevent and reduce HWC have changed relatively little over time, but the socio-cultural, economic, and physical geographies of landscapes where conflict plays out have been radically transformed by ever growing human enterprises. Considering where we are in the wider landscape of moving towards human-wildlife coexistence, global community can come together and collaborate to implement and scale up integrated and holistic approaches to HWC management, and if new policies are able to strike an appropriate balance between mechanisms that deter negative human behaviour towards wildlife and those that promote and enable tolerance, then humans and wildlife may be able to share space more harmoniously for a long time to come.

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ETHICS IN JUDICIARY

CONTEXT

A nonpartisan watchdog group 'Project on Government Oversight' (POGO) is calling for a code of ethics for US Supreme Court justices amid concerns about conflicts of interest.

⊙ BACKGROUND

- Supreme Court justices have no official code of conduct with clear ethical obligations, unlike other judges in America
- The Supreme Court is one of the most powerful and least accountable body in government in the name of independence.
- This report brings to our notice the role of ethics in judiciary.

⊙ ANALYSIS

Ethical issues in Judiciary

- **Public Speech**
  - Judges must be cautious of their role and responsibilities while engaging in public speech.
  - Judges must constantly be aware of their role and position in society and cannot be frivolous in the use of their words.
- **Public Trust**
  - A judge must respect and honour his judicial office. It is an institution of public trust and he must endeavour to leave such office with higher respect and public confidence than when he inherited it.
  - Judges are after all temporary occupants of an office that existed before us and will continue to exist after our exit.
- **Family Conduct**
  - Judges are bestowed with the responsibility of judging the conduct of fellow citizens. Therefore, it is only natural that they be expected to make truthful decisions in their own lives. If they succumb to making the wrong choices, they lose the moral authority to judge the lives of others.
- **Recusal**
  - A judge may often encounter situations where a conflict of interest arises or where there is an apparent conflict of interest which may require him to recuse himself from the matter. Bias is one of the factors that may require recusal.
  - While considering the question of bias a judge may have to evaluate not only whether he would indeed be influenced in his decision but also whether he may be perceived as being biased which may weaken public trust ultimately.
- **Compassion and Conscience**
  - A judge's metamorphosis from a student of law, to a practitioner and later as a judge often desensitizes us to the gravity and the impact of our work on litigants and the general public.
  - Thus, while upholding the rule of law if a judge can award a patient hearing to both the parties and be compassionate in his application of law, it often alleviates their suffering and certainly enhances their respect for the judiciary.
- **Avoiding Bias**
  - The strength of our judiciary also depends on their ability to treat citizens of various religious, social and economic backgrounds without bias or prejudice. A judge like any other individual must guard against succumbing to biases.

Six principles to establish ethical conduct of judges

I. **Judicial independence** is a prerequisite to the rule of law and a fundamental guarantee of a fair trial. A judge shall therefore uphold and exemplify judicial independence in both its individual and institutional aspects.

II. **Impartiality** is essential to the proper discharge of the judicial office. It applies not only to the decision itself but also to the process by which the decision is made.

III. **Integrity** is essential to the proper discharge of the judicial office.

IV. **Propriety**, and the appearance of propriety, are essential to the performance of all of the activities of the judge.

V. Ensuring **equality** of treatment to all before the courts is essential to the due performance of the judicial office

VI. **Competence** and **diligence** are prerequisites to the due performance of judicial office.

Restatement of Values of Judicial Life

In 1997 a 16 point code of conduct, for ensuring proper conduct among members of the higher judiciary was adopted by the Judges of the Supreme Court and the High Courts with the Gujarat High Court as the sole dissenter

7. Justice must not merely be done but it must also be seen as done. The behaviour and conduct of members of the higher judiciary must reaffirm the people's faith in the impartiality of the judiciary. Accordingly, any act of a Judge of the Supreme Court or a High Court, weather in official or personal capacity, which erodes the credibility of the perception has to be avoided.
8. A Judge should not contest the election of any office of a Club, society or other association; further he shall not hold such elective office except in a society or association connected with the law.
9. Close association with individual members of the Bar, particularly those who practice in the same court shall be eschewed
10. A Judge shall not permit any member of his immediate family to, such as spouse, son, or daughter, son-in-law, or daughter-in-law, or any other close relative, if as member of the Bar, to appear before him or even be associated in any manner with a case to be dealt with by him.
11. No member of his family, who is a member of the Bar, shall be permitted to use the residence in which the judge actually resides or other facilities for professional work.
12. A Judge should practise a degree of aloofness consistent with the dignity of his office.
13. A Judge shall not hear and decide a matter in which a member of his family, a close relation or a friend is concerned.
14. A Judge shall not enter into a public debate or express his views in public on political matters or on matters that are pending or are likely to arise for judicial determination.
15. A Judge is expected to let his judgement speak for themselves. He shall not give interview to the media.
16. A Judge shall not accept gifts or hospitality except from his family, close relations and friends.
17. A Judge shall not hear and decide a matter in which a company in which he holds shares is concerned unless he has disclosed his interest and no objection to his hearing and deciding the matter is raised.
18. A Judge shall not speculate in shares, stocks or the like.
19. A Judge should not engage directly or indirectly in trade or business, either by himself or in association with any other person. (publication of a legal treaties or any activity in the mature of a hobby shall not be constructed as trade business).
20. A Judge should not ask for accept contribute or otherwise actively associate himself with the raising of any fund for any purpose.
21. A Judge should not seek any financial benefit in the form of a perquisite or privilege attached to his office unless it is clearly available. Any doubt in this behalf must be got resolved and clarified through the Chief Justice.
22. Every Judge must at all times be conscious that he is under the public gaze and there should be no act or omission by him which is unbecoming of the high office he occupies and the public esteem in which the office is held.

⊙ CONCLUSION

Despite enormous changes in the country the Supreme Court's structure has not changed for nearly a half century. Addressing how judicial candidates are identified and selected, the structure of decision-making on the Court, the duration of service, and the conduct of the Court itself will help us resolve bottleneck issues and make Indian judiciary more ethical in justice delivery.

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ASHADHI BIJ, THE NEW YEAR CELEBRATION

⊙ CONTEXT:

- **The Prime Minister, ShriNarendraModi greeted the people on the auspicious occasion of AshadhiBij, the Kutchi New Year.**

About the AshadhiBij

- Ashadhi Bij is 2nd day of Shuklapaksha of **Aashaadha month**, of Hindu calendar.
- This is an auspicious day for farming communities in Northern India especially in Gujarat, Uttar Pradesh and some other places.
- This marks the beginning of the new year by the Kutchi People in Gujarat.
- AshadhiBij is celebrated to predict the monsoon. During this, lend is checked by the experts to check the moisture in the atmosphere.
- It is done to predict the suitability of the crop for the land.
- On this occasion, RathYatra is celebrated.

Major New Year celebrations from different parts of the country

Festival, State	Features
Baisakhi, Punjab	It commemorates the first day of the Vaisakh month. The Sikh community of Punjab also celebrates this day as the formation of the Sikh Khalsa. It is celebrated mainly at the birthplace of the Khalsa and the Golden Temple in Amritsar.
Jude Sheetal, Bihar, Jharkhand	Also known as Maithili New Year, it is celebrated by the Maithilis in Bihar, Jharkhand and even Nepal.
BohagBihu, North Eastern States	It is also known as RangaliBihu,BohagBihu also falls on the day of Baisakhi and Puthandu in Assam. BohagBihu is celebrated for three days straight with many different traditions. Bihu dance is a form of celebration for the people
GudiPadwa, Maharashtra	GudiPadwa is the first day of Chaitra month and marked as the New year in Maharashtra. A 'Gudi', a beautiful arrangement of silk saree or cloth tied to stick with a 'Lota' on the top and then decorated with sweets and garlands made of neem and mango. The day symbolises the victory of ChatrapatiShivajiMaharaj over his enemies and Shalivahan's victory over the Sakas.
Ugadi, Karnataka, Telangana and Andhra Pradesh	It is observed in these regions on the first day of the Hindu lunisolar calendar month of Chaitra. Traditional sweets and 'Pachadi' (sweet syrup) – made with raw mangoes and neem leaves – are served with the Ugadi meal. Ugadi is the festival of new beginnings, so people buy new clothes and eat lots of good food with friends and family.

Vishu, Kerala	Vishu festival marks the beginning of harvest in the bountiful land of Kerala. On this day, devotees also visit SabarimalaAyyappanTemple and Guruvayur Krishna temple for prayers.
PohelaBoishakh, West Bengal	The Poila or PohelaBoishakh is the first day of the Vaisakh, which is the Bengali New Year. Santiniketan is well known for its Noboborsho (New Year) festivals.
Jamshedi Navroz, Gujarat, Maharashtra	Novruz is the Iranian New Year, celebrated by many ethnolinguistic groups all over the world. In India, on the next day of Pateti, Parsis celebrate Navroz.

LORD JAGANNATHRATHYATRA COMMENCES IN GUJARAT

⊙ CONTEXT:

- The **144th annual rathyatra** of **Lord Jagannath** began in Gujarat's Ahmedabad city.

About the JagannathRathYatra

- JagannathRathYatra is one of the biggest festivals in India.
- It is held at one of the Char Dhams – Jagannath Temple in Puri, Odisha.
- **Deities:**LordJagannath, Lord Balbhadra and LordessSubhadra.

Lord Jagannath

- Jagannath is a deity worshipped in regional Hindu traditions as part of a triad along with his brother Balabhadra and sister, deviSubhadra.
- Jagannath within **Odia Hinduism** is the supreme god, **Purushottama.**
- To most Vaishnava Hindus, particularly the Krishnaites, Jagannath is an abstract representation of Krishna.
- Sometimes as the avatar of Krishna or Vishnu, to some Shaiva and Shakta Hindus, he is a symmetry-filled tantric form of Bhairava, a fierce manifestation of Shiva associated with annihilation.

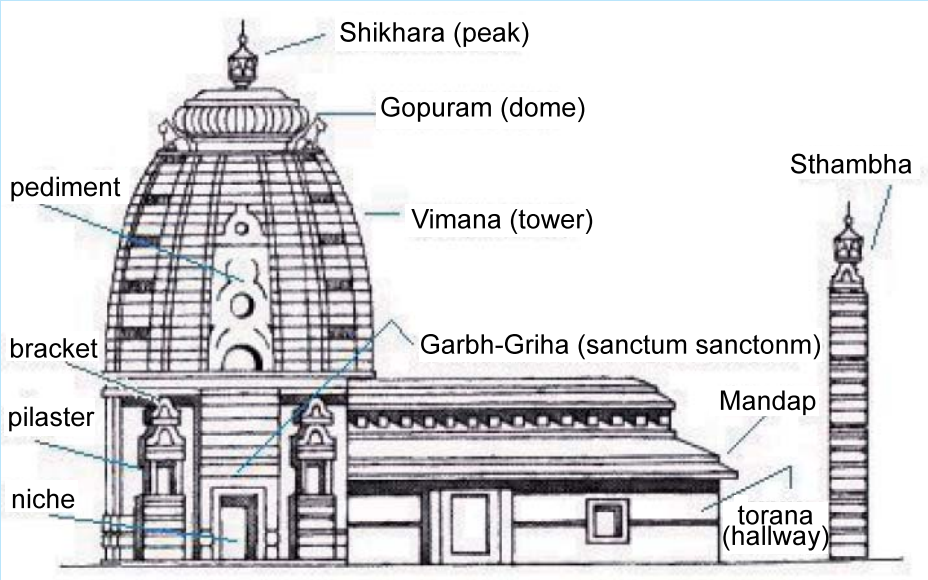
- JagannathRathYatra is celebrated by worshipping Lord Jagannath (ruler of the world), his elder brother Balbhadra (Balaram) and sister Subhadra.
- Three giant wooden chariots are made of a kind of Neem tree for the deities for the yatra.
- The journey of the chariots of Lord Jagannath, his brother Balbhadra and sister Subhadra began from the **400-year-old Jagannath temple in Jamalpur area.**
- It started with **'PahindVidhi'-** a symbolic ritual of cleaning the way for the **'raths' (chariots).**
- It is the oldest RathaYatra taking place in India and the World, whose descriptions can be found in **Brahma Purana, Padma Purana,** and **SkandaPurana** and **KapilaSamhita.**

Jagannath Temple, Puri

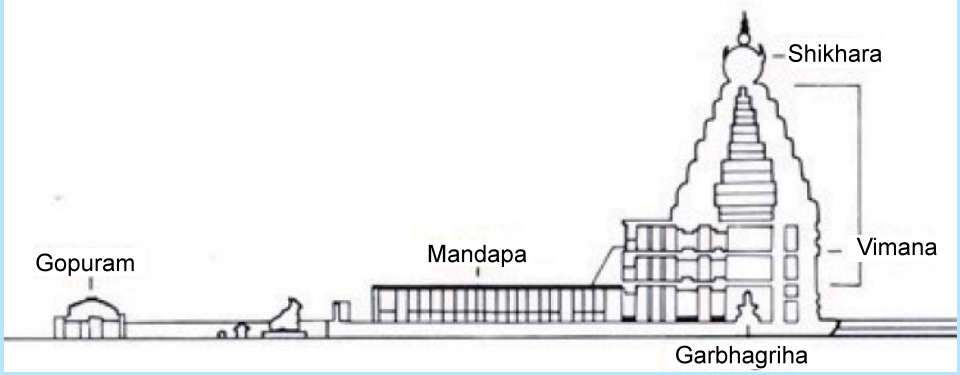
- The Jagannath Temple at Puri is among the most revered Vaishnava sites in India.
- The current temple was built by **Anantavarman** of the **Chodaganga dynasty** in the **12th century**.
- The deities in the sanctum are associated with **King Indrayumna** of the **Iksvaku dynasty**, who was the nephew of **Lord Ram.**
- The Jagannath Temple celebrates 148 festivals annually, which includes 12 yatras, 28 upayatras and 108 ritualistic festivals.
- Among these the RathaYatra festival of Jagannath deva celebrated in the month of Asadha (June-July) is the most well-known one.

Temple architectures in India

- **Nagara Style**
  - **Examples:** KandariyaMahadev Temple in Madhya Pradesh, Sun Temple at Modhera, Lakshman Temple of Khajuraho, Sun Temple at Konark, Jagannath Temple at Puri.



- **Vasara Style**
  - **Examples:** Hoysala temples at Belur, Halebidu and Somnathpura
- **Dravidian Style**
  - **Example:** Chennakesava Temple in Belur, Hoysaleswara temple in Halebidu, and the Kesava Temple in Somanathapura.



CENTRE ISSUED NEW RULES FOR DIGITAL MEDIA REGULATION

⊙ CONTEXT

- **Several lawsuits have challenged the constitutional validity of the government's Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, better known as the Digital Media Ethics Rules 2021.**

About the IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021

- The rules were notified on February 25, 2021.
- These rules seek to regulate social media intermediaries such as Google, Facebook, WhatsApp, and Twitter, as also digital media, including OTT and digital news platforms.
- The Ministry of Electronics and Information Technology (MeITY) will execute the guidelines for social media intermediaries, and the information and broadcasting ministry will oversee the code of ethics for digital media.
- These rules are intended to create a level playing field for print, television, and digital media.
- They also create a regulatory framework for digital media.
- Per the rules, all intermediaries and digital media platforms must set up a three-tier grievance redress mechanism and submit monthly compliance reports.
- Complaints must be acknowledged in 24 hours and disposed of in 15 days.
- The I&B secretary is authorized to block or take down content in the interim.

Objections to the rules

- Facebook-owned WhatsApp opposes the rule to identify the "first originator" of an "offensive" message, as it would mean breach end-to-end encryption of messages, which cannot be done for India alone.
- Twitter objected to criminal liabilities. Under the rules, compliance officers can face criminal action for content posted on their platforms.
- Digital news media opposes the regulations on grounds of not being consulted.
- OTT platforms have complied, they argue that the industry should have the freedom to decide on the composition and working of the self-regulatory mechanism.

Regulation of Media, Digital media and Social media in India

- In 1966, began to establish a self-regulatory organisation called the Press Council. In India, a statutory body, **the Press Council of India (PCI),** governs the conduct of the print media.
- The body that regulates and governs **the media and entertainment sector in India** is enshrined in the **Cable Networks Act, 1995 and the PrasarBharti Act, 1990. These** are regulated by the Ministry of Information and Broadcasting and PrasarBharti.
- Films being released on screens are already subject to the certification from **Central BoardofFilm Certification (CBFC),** a statutory body formed under the act of the Parliament, the Cinematograph Act, 1952.
- **Several OTT platforms** and operators like Hostar, Netflix are not governed till now, however they are increasingly adopting **self-regulation codes.**

- The '**Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021':** The Rules have been framed under the Information Technology Act, 2000, by the Ministry of Electronics and Information Technology (MeiTY), which administers the Act. These rules seek to regulate content in social media platforms (intermediaries) like Twitter and Facebook, a consequence of the government feeling that unbridled content on these platforms is sometimes inimical to the country's interests.

NATIONAL MARITIME SECURITY COORDINATOR APPOINTMENT

⊙ CONTEXT:

- The Indian government is planning to create and appoint a **National Maritime Security Coordinator (NMSC),** two decades after the **Kargil Group of Ministers' recommendation.**

About the National Maritime Security Coordinator (NMSC)

- NMSC will act as an interface between the civilian and military maritime domain to enhance security architecture and energy security in India.
- It will break the silos and cut across the turf of **Navy, Coast Guard, State Maritime Boards** to enhance maritime domain awareness and ensure a better response.
- The Maritime Security Coordinator will work under **Indian National Security Advisor** and be the **principal advisor** to the government on the maritime security domain.
- The appointment of NMSC fills the need of the hour as the Navy, Coast Guard and state maritime boards all tend to work in silos with overlapping jurisdictions and are constantly at odds with each other.
- **Agenda:** The Chinese forays into the Indian Ocean via Pakistan and Myanmar will be on top of the NMSC agenda.
- **Significance of the NMSC**
- 70 per cent of Indian trade including vital crude oil is transported through sea and the protection of sea shipping lanes is vital to India's security.
- With China moving towards a sea-based security doctrine and penetrating the Indian Ocean through Pakistan and Myanmar, the post of NMSC will be vital for maritime and energy security as Beijing plans to reach the eastern seaboard of Africa through the Indian maritime domain.
- The creation of NMSC is part of enhancing maritime capability through **Act East Policy, SAGAR (Security and Growth of All in the Region), Deep Ocean Mission and the Sagarmala project** to make **India's 12 major ports into the world-class standard.**

SAGAR (Security and Growth of All in the Region)

- It is India's policy or doctrine of maritime cooperation in the Indian Ocean region.
- India unveiled its strategic vision for the Indian Ocean i.e. Security and Growth for All in the Region (SAGAR), in 2015.

Deep Ocean Mission

- Deep Ocean mission is an Indian initiative to undertake deep ocean exploration focused on India's exclusive economic zones and continental shelf.

Sagarmala project

- The SagarmalaProgramme is an initiative by the government of India to enhance the performance of the country's logistics sector.
- The programme envisages unlocking the potential of waterways and the coastline to minimize infrastructural investments required to meet these targets.
- The project was launched in 2015.

GREEN HYDROGEN MOBILITY PROJECT IN INDIA

⊙ CONTEXT

- **NTPC, Maharatna PSU under Ministry of Power has signed anMoU with UT of Ladakh and LAHDC to setup the country's first Green Hydrogen Mobility project.**

About the MoU of theGreen Hydrogen Mobility Project

- It is a step to ensure a carbon-free economy based on renewable sources and green hydrogen.
- Leh is soon to become India's first city to implement a green hydrogen-based mobility project with zero-emission.
- MoU will enable NTPC to help Ladakh develop a carbon-free economy based on renewable sources and green hydrogen.
- The signing of the MoU was also marked with the inauguration of NTPC's first solar installations in Leh in form of solar trees and a solar carport.
- NTPC has planned to ply 5 hydrogen buses, to start with, in the region and the company will be setting up a solar plant and a green hydrogen generation unit in Leh towards this end.
- This would be zero-emission mobility in the true sense.

Green Hydrogen

- '**Green hydrogen**' is pure **hydrogen** produced using renewable energy sources such as wind or solar power.
- There are no natural hydrogen deposits on earth, it has to be extracted from other compounds by a chemical process.
- If renewable energy (e.g. from Solar panels) is used to generate electricity for the electrolysis of water then the green hydrogen can be generated without any harmful emissions.

NTPC role in green hydrogen project

- NTPC has been aggressively pushing for greening its portfolio and the green hydrogen project is another step towards achieving a low carbon footprint.
- NTPC has also been promoting the usage of green hydrogen-based solutions in sectors like mobility, energy, chemical, fertilizer, steel, etc.
- NTPC has recently revised its target of achieving 60GW renewables capacity by 2032, almost doubling the earlier target.

- NTPC has commissioned India's largest floating solar project of 10MW at Vishakhapatnam.
- NTPC Ltd, India's largest energy integrated company aims to build 60 GW Renewable Energy Capacity by 2032.
- Currently, the state-owned power major has an installed capacity of 66 GW across 70 power projects with an additional 18 GW under construction.

INAUGURATION OF COUNTRY'S FIRST PRIVATE LNG FACILITY PLANT AT NAGPUR

⊙ CONTEXT:

- **The Government inaugurated the country's first Liquefied Natural Gas (LNG) facility plant at Nagpur.**

About the new terminal

- The LNG facility plant aims to reduce the dependence on import of petrol diesel and petroleum products which is a big challenge.
- Furthermore, it will encourage development of imports substitute cost effective pollution free and indigenous ethanol, bio CNG, LNG and hydrogen fuels.

What is Natural Gas?

- Natural gas is the lightest hydrocarbon, with **one carbon atom** for **4 hydrogen atoms (CH4).**
- Its combustion does not emit soot, dust or fumes.
- It generates 30% less carbon dioxide (CO2) than fuel oil and 45% less than coal, with a twofold reduction in **nitrogen oxide (N0x) emissions** and very low **sulphur dioxide (SO2) emissions.**

- **Key-facts about LNG**
- Liquefied natural gas (LNG) is **natural gas** that has been **cooled to a liquid state**, at about -260° Fahrenheit, for shipping and storage.
- The volume of natural gas in its **liquid state** is about 600 times smaller than its volume in its gaseous state.
- This **liquefactionprocess** (developed in the 19th century), makes it possible to transport natural gas to places natural gas pipelines do not reach and to use natural gas as a transportation fuel.

Clean Energy status in India

- Indian renewable energy sector is the fourth most attractive renewable energy market in the world1. India was ranked fifth in wind power, fifth in solar power and fourth in renewable power installed capacity, as of 2019.
- The government is aiming to achieve 227 GW of renewable energy capacity (including 114 GW of solar capacity addition and 67 GW of wind power capacity) by 2022, more than its 175 GW target as per the Paris Agreement. The government plans to establish renewable energy capacity of 523 GW (including 73 GW from Hydro) by 2030.

TRANSITION FROM LIBOR

⊙ CONTEXT:

- **The RBI advised banks and financial institutions need to cease entering into new financial contracts that reference LIBOR as a benchmark and instead use any widely accepted alternative reference rate (ARR), as soon as practicable and in any case by December 31, 2021.**

What is LIBOR?

- The London Interbank Offered Rate (LIBOR) is a benchmark **interest rate** at which major global banks lend to one another in the international interbank market for **short-term loans.**
- LIBOR serves as a globally accepted key benchmark interest rate that indicates borrowing costs between banks.
- The rate is calculated and will continue to be published each day by the **Intercontinental Exchange (ICE)**, but due to recent scandals and questions around its validity as a benchmark rate, it is being phased out.
- According to the Federal Reserve and regulators in the UK, LIBOR will be phased out by June 30, 2023, and will be replaced by the **Secured Overnight Financing Rate (SOFR).**

What is a reference rate?

- A reference rate is a benchmark interest rate used to determine other interest rates. For example, LIBOR provides an indication of the average rates at which LIBOR panel banks could obtain wholesale, unsecured funding for set periods in particular currencies. Lenders then use this rate to determine interest rates for a variety debt instruments - such as mortgages and commercial loans - and financial products like derivatives.
- The need for benchmarks to be based on transparent, arms-length transactions has been reinforced by global regulators, including The Financial Stability Board and the International Organization of Securities Commissions.
- In response, industry has started to utilize a raft of alternative reference rates, and from the AONIA (Australian Interbank Overnight Cash Rate) to SARON (Swiss Average Rate Overnight) strategies are in place to embrace new benchmark.

A 'ROBOT ARM' TO FLY TO INTERNATIONAL SPACE STATION

⊙ CONTEXT:

- **The European Space Agency (ESA) is preparing to send a robotic arm outside the planet to the International Space Station (ISS).**
- **The European Robotic Arm (ERA) is headed towards the Russian segment of the space station, where it will remain in service.**

About the Robotic Arm

- The robotic arm is installed into the new Russian multipurpose laboratory module, also known as **'Nauka'.**
- The module will be launched from the BaikonurCosmodrome in Kazakhstan on a Proton rocket by **Roscosmos**, the Russian space agency.
- It is much like a human arm. It has an elbow, shoulders, and even wrists.

- The European Robotic Arm (ERA) is the first robot able to 'walk' around the Russian segment of the International Space Station.
- The orbital arm has the ability to anchor itself to the station and move back and forward by itself, hand-over-hand between fixed base-points.
- This space robot looks like a pair of compasses and has a length of over 11m. When stretched, it could pass a football from a penalty spot to the goalkeeper.
- The robotic arm in space will be able to handle multi-tonne payloads with a large range of motion for assembly tasks.
- 'Smart spacewalker' will serve as the "main manipulator" on the Russian segment of the International Space Station.

International Space Station

- A space station is essentially a large spacecraft which remains in low-earth orbit for extended periods of time.
- It is like a large laboratory in space, and allows astronauts to come aboard and stay for weeks or months to carry out experiments in microgravity.
- The ISS has been in space since 1998, and has been known for the exemplary cooperation between the five participating space agencies that run it: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada).

SALT-SECRETING MANGROVE SPECIES GENOME DECODED BY DBT-ILS

⊙ CONTEXT:

- **Scientists at the DBT-Institute of Life Sciences, Bhubaneswar have reported for the first time a reference-grade whole genome sequence of a highly salt-tolerantand salt-secreting true-mangrove species, Avicennia marina.**

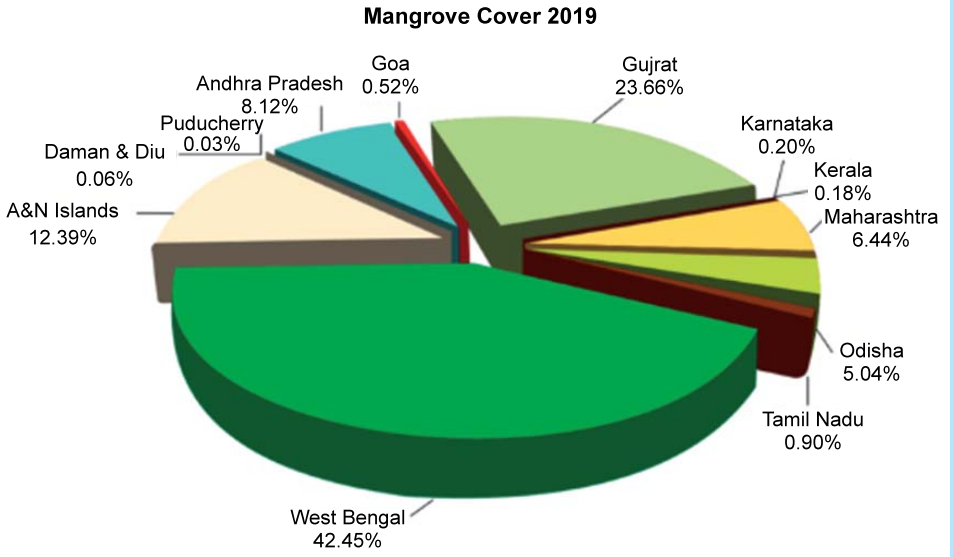
About the salt secreting Mangroves

- Mangroves are a unique group of species found in **marshy intertidal estuarine regions** and survive a **high degree of salinity** through several adaptive mechanisms.
- Mangroves are important resources for the coastal region and are of great ecological and economic value.
- They form a link between marine and terrestrial ecosystems, protect shorelines, provide habitat for a diverse array of terrestrial organisms.
- **Avicennia marina**
- **Avicennia marina** is one of the most prominent mangroves species found in all mangrove formations in India.
- It is a **salt-secreting** and extraordinarily salt-tolerant mangrove species that grows optimally in 75% seawater and tolerates >250% seawater.
- It is among the **rare plant species**, which can excrete 40% of the salt through the salt glands in the leaves, besides its extraordinary capacity to exclude salt entry to the roots.
- **The genome sequence**
- This study reports the assemblage of a 456.6 Mb of the estimated 462.7 Mb A. marina genome (98.7% genome coverage) in 31 chromosomes derived from 88 scaffolds and 252 contigs.
- The percentage of genomes in gaps was 0.26%, thereby proving it to be a high-level assembly.

- This study employed the latest genome sequencing and assembling technologies and identi?ed 31,477 protein-coding genes and a "salinome" consisting of 3246 salinity-responsive genes and homologs of 614 experimentally validated salinity tolerance genes.
- The study reported identi?cation of 614 genes, including 159 transcription factors, which are homologous to the genes that were functionally validated for salinity tolerance in transgenic systems.
- **Significance of study**
- This study assumes significance as agriculture productivity globally is affected due to abiotic stress factors such as limited water availability and salinization of soil and water.
- Availability of water is a signi?cant challenge to crop production in dryland areas.
- The genomic resources generated in the study will pave the way for researchers to study the potential of the identified genes for developing drought and salinity tolerant varieties of important crop species of the coastal region that is significant for India with 7,500m of coastline and two major island systems.

Mangroves in India

- India has about 3% of the total Mangrove cover in South Asia"
- "Mangrove cover in the country has increased by 54 sq km (1.10%) as compared to the previous assessment."
- "The current assessment shows that mangrove cover in the country is 4,975 sq km [(1.2 million acres)], which is 0.15% of the country's total geographical area."
- West Bengal has 42.45% of India's mangrove cover, followed by Gujarat 23.66% and A&N Islands 12.39%.
- Gujarat shows maximum increase of 37 sq km in mangrove cover.



RISE OF ZIKA VIRUSCASES IN KERALA

⊙ CONTEXT:

- **Health authorities in Kerala have declared a state of alert in all districts after identifying 14 cases of Zika virus.**

What is Zika?

- Zika virus is a mosquito-borne flavivirus.
- The viral infection is transmitted mostly by the bite of infected Aedes species mosquitoes (*aegypti* and *A. albopictus*).
- These mosquitoes bite during the day and night.
- These are the same mosquitoes that spread dengue and chikungunya viruses.
- Zika can be passed from a pregnant woman to her fetus. Infection during pregnancy can cause certain birth defects.
- Additionally, it can be transmitted sexually and blood transfusion (very likely but not confirmed).

History of ZikaViurs

- Zika virus was first discovered in 1947 and is named after the Zika Forest in Uganda.
- In 1952, the first human cases of Zika were detected.
- Since then, outbreaks of Zika have been reported in tropical Africa, Southeast Asia, and the Pacific Islands.
- In 2015, a major outbreak in Brazil led to the revelation that Zika can be associated with microcephaly, a condition in which babies are born with small and underdeveloped brains.
- WHO declared the Zika infection with clusters of microcephaly and other neurological disorders as a Public Health Emergency of International Concern.

Passage to India

- First recorded in 1952-53, India reported an outbreak in Gujarat in 2016-17.
- This was followed by major outbreaks in Rajasthan and Madhya Pradesh in 2018.

Zika symptoms

- Many people infected with Zika virus won't have symptoms or will only have mild symptoms.
- Zika infection during pregnancy can cause a birth defect of the brain called microcephaly and other severe brain defects.
- It is also linked to other problems, such as miscarriage, stillbirth, and other birth defects.
- There have also been increased reports of Guillain-Barré syndrome, an uncommon sickness of the nervous system, in areas affected by Zika.

Treatment

- There is no specific medicine or vaccine for Zika virus.
- But the symptoms are managed which includes rest, consumption of plenty of fluids, common pain and fever medicines, etc.

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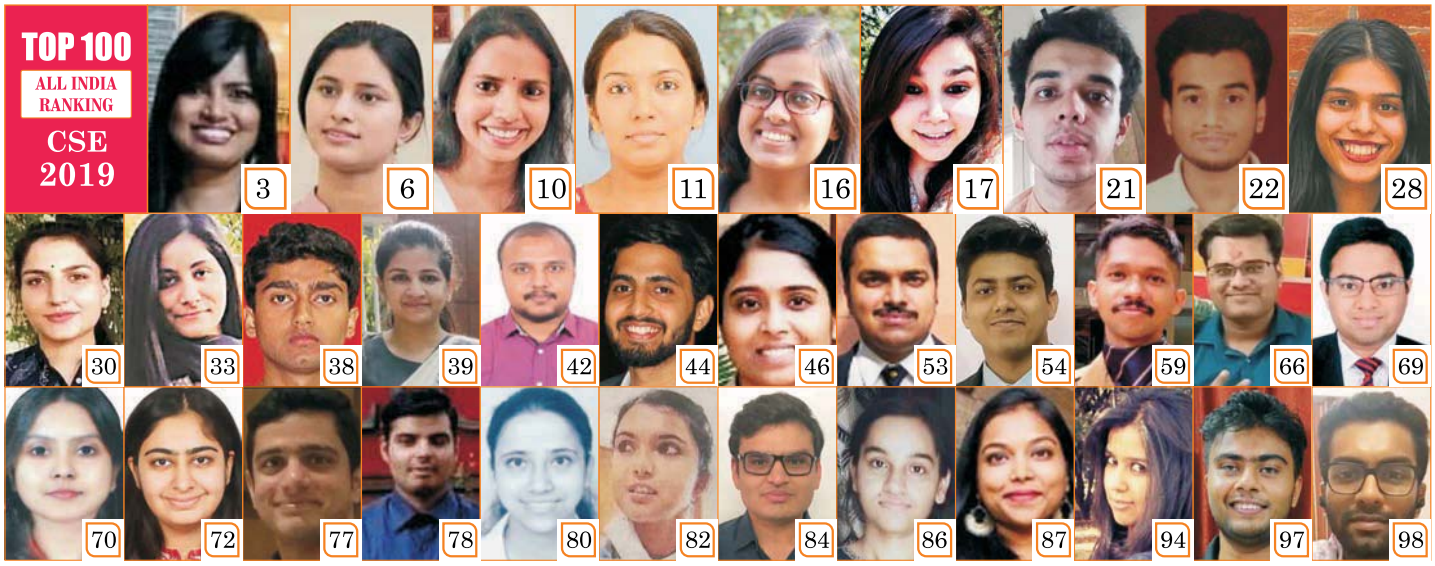
CSE RESULTS

TOP 100 ALL INDIA RANKING CSE 2019



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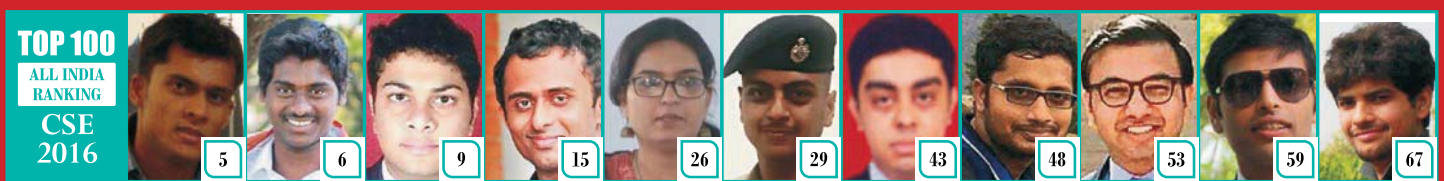

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