

GEOGRAPHY

Impact of Climate Change on El Nino and La Nina

According to recent research, climate change can cause extreme and more frequent El Niño and La Niña events. The findings have been obtained using one of South Korea's fastest supercomputers, Aleph.

Key Points

About the Recent Findings:

- Increasing atmospheric carbon dioxide can cause a weakening of future simulated El Niño-Southern Oscillation (ENSO) sea surface temperature variability.
- Future El Niño events will lose heat to the atmosphere more quickly due to the evaporation of water vapour. Also, in the future there will be a reduced temperature difference between the eastern and western tropical Pacific, inhibiting the development of temperature extremes during the ENSO cycle.
- There can be a weakening of Tropical Instability Waves (TIWs) in the projected future which can cause a disruption of the La Niña event. TIWs are a dominant feature of monthly variability in the equatorial Pacific and Atlantic Ocean.

ENSO:

- El Niño and the Southern Oscillation, also known as ENSO is a periodic fluctuation in sea surface temperature (El Niño) and the air pressure of the overlying atmosphere (Southern Oscillation) across the equatorial Pacific Ocean.
- El Niño and La Niña are complex weather patterns resulting from variations in ocean temperatures in the Equatorial Pacific Region. They are opposite phases of what is known as the ENSO cycle.
- El Niño and La Niña episodes typically last nine to 12 months, but some prolonged events may last for years.

El Niño:

- **About:** El Niño is a climate pattern that describes the unusual warming of surface waters in the eastern tropical Pacific Ocean.
 1. It is the "warm phase" of ENSO.
 2. It occurs more frequently than La Niña.
- **Impact:**
 1. The warmer waters cause the Pacific jet stream to move south of its neutral position. With this shift, areas in the northern US and Canada are dryer and warmer than usual. But in the US Gulf Coast and Southeast, these periods are wetter than usual and have increased flooding.
 2. As El Niño brings rain to South America, it brings droughts to Indonesia and Australia.
 3. El Niño also has a strong effect on marine life off the Pacific coast.
 - ✓ During normal conditions, upwelling brings water from the depths to the surface; this water is cold and nutrient rich.
 - ✓ During El Niño, upwelling weakens or stops altogether. Without the nutrients from the deep, there are fewer phytoplankton off the coast. This affects fish that eat phytoplankton and, in turn, affects everything that eats fish.
 - ✓ The warmer waters can also bring tropical species, like yellowtail and albacore tuna, into areas that are normally too cold.

La Niña:

About:

- La Niña, the "cool phase" of ENSO, is a pattern that describes the unusual cooling of the tropical eastern Pacific.
 1. La Niña events may last between one and three years, unlike El Niño, which usually lasts no more than a year.
 2. Both phenomena tend to peak during the Northern Hemisphere winter.

Impact:

- Off the west coast of the Americas, upwelling increases, bringing cold, nutrient-rich water to the surface.
- It usually has a positive impact on the fishing industry of western South America.
- It can also lead to a more severe hurricane season.
- Causes the jet stream to move northward and to weaken over the eastern Pacific.

- Causes drought in the South American countries of Peru and Ecuador. There are increased temperatures in Western Pacific, Indian Ocean and off the Somalian coast. It also leads to heavy floods in Australia.

INTER NATIONAL RELATION

India-Croatia Relations

Recently, Foreign Ministers of India and Croatia held a meeting. Both countries asserted that they share a lot of common positions on issues like the Indo-Pacific, the situation in Afghanistan, combating terrorism and shared economic interests.

Key Points

Highlights of the Meeting:

- Tourism is a very important area and both shall strive to expand air connectivity.
- There are a lot of opportunities in the pharmaceuticals, digital and infrastructure sectors like railways.
- Several topics of mutual interest, including EU-India relations, the situation in Afghanistan, economic and cultural cooperation and post-Covid recovery, were also discussed.

About India-Croatia Relations:

- Croatia is an important Central European country from the point of view of its geo-strategic location, membership of the European Union and NATO, as well as being a significant Gateway to Europe through the Adriatic coastline.
- Relations between India and Croatia have been friendly since the days of the former Yugoslavia.
- 1. The Breakup of Yugoslavia occurred as a result of a series of political upheavals and conflicts during the early 1990s.
- 2. Disintegration gave birth to six new countries namely: Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Slovenia.
- Indian PM Jawaharlal Nehru and Yugoslavia's President Josip Broz Tito were also pioneers of the Non-Aligned Movement.
- Croatian people have a deep interest in India. The Indology department in the University of Zagreb has existed for over six decades and an Indian Council for Cultural Relations (ICCR) Hindi chair was set up there a decade ago.

GOVERNANCE

Karbi Anglong Agreement

Recently, a tripartite agreement among five insurgent groups of Assam, the Centre and the state government was signed. This agreement is in synergy with the vision of Insurgency free prosperous North East, that envisages all-round development of northeast, peace and prosperity.

Key Points

About the Karbi Anglong Crisis

- Located in central Assam, Karbi Anglong is the state's largest district and a melting pot of ethnicities and tribal groups — Karbi, Dimasas, Bodo, Kuki, Hmar, Tiwa, Garo, Man (Tai speakers), Rengma Naga. Its diversity also generated different outfits and fuelled an insurgency that did not allow the region to develop.
- The Karbis are a major ethnic group of Assam, dotted by several factions and splinters. The history of the Karbi group has been marked by killings, ethnic violence, abductions and taxation since the late 1980s.
- Insurgent groups of Karbi Anglong district like People's Democratic Council of Karbi Longri (PDCK), Karbi Longri NC Hills Liberation Front (KLNLFF), etc. originated from the core demand of forming a separate state.
- Some of the other demands of the militant groups are:
 1. Inclusion of some areas into Karbi Anglong Autonomous Council (KAAC),
 2. Reservation of seats for Scheduled Tribes,
 3. More powers to the council,
 4. Inclusion of Karbi language in the Eighth Schedule,
 5. Financial package of Rs 1,500 crore.

Highlights of the Karbi-Anglong Peace Agreement:

- **Karbi Outfits Surrendered:** 5 militant organizations (KLNLFF, PDCK, UPLA, KPLT and KLF) laid down arms and more than 1000 of their armed cadres have given up violence and joined the mainstream of society.

- **Special Development Package:** A special development package of Rs. 1000 crore will be allocated over five years by the Central Government and the Assam Government to take up special projects for the development of Karbi areas.
 - **More Autonomy to KAAC:** This agreement will transfer as much autonomy as possible in exercising their rights to the Karbi Anglong Autonomous Council, without affecting the territorial and administrative integrity of Assam. Overall, the present agreement proposes to give more legislative, executive, administrative and financial powers to the KAAC.
 - **Rehabilitation:** A provision has been made in this agreement to rehabilitate the cadres of armed groups.
 - **Development of Local People:** The Government of Assam will set up a Karbi Welfare Council to focus on the development of the Karbi people living outside the KAAC area.
1. This agreement will also ensure the protection of the culture, identity, language, etc. of the Karbi people and all-round development of the region.
 2. The Consolidated Fund of the State will be amended to meet the resources of the KAAC.

Other Recent Peace Agreements of the Northeast:

- **NLFT Tripura Agreement, 2019:** National Liberation Front of Tripura (NLFT) has been banned under the Unlawful Activities (Prevention) Act, 1967 since 1997 and has been involved in violence, operating from their camps across the international border.
1. NLFT signed a Memorandum of Settlement on 10th of August, 2019 with the Government of India and Tripura.
 2. Under this, a Special Economic Development Package (SEDP) of Rs.100 crore has been offered by the Government of India for a period of five years.
- **Bru Accord, 2020:** Bru or Reang is a community indigenous to Northeast India, living mostly in Tripura, Mizoram and Assam. In Tripura, they are recognised as a Particularly Vulnerable Tribal Group.
1. In Mizoram, they have been targeted by groups that do not consider them indigenous to the state.
 2. In 1997, following ethnic clashes, nearly 37,000 Brus fled Mizoram and were accommodated in relief camps in Tripura.
 3. Under the Bru accord, the permanent settlement of 6959 Bru families in Tripura with a financial package has been agreed between the Government of India, Tripura and Mizoram with representatives of Bru migrants.

Bodo Peace Accord: Bodos are the single largest community among the notified Scheduled Tribes in Assam. They have been demanding a Bodo state since 1967-68.

1. In 2020, the Government of India, Government of Assam and representatives of Bodo groups signed an agreement, wherein the Bodoland Territorial Area District (BTAD) was redrawn and renamed as the Bodoland Territorial Region (BTR), in Assam.

ENVIRONMENT & BIODIVERSITY

Raptor Species under Threat

According to recent research, around 30% of the 557 raptor species around the world are threatened by extinction to some degree. It is an analysis by the International Union for the Conservation of Nature (IUCN) and BirdLife International (a global partnership of conservation organisations (NGOs)).

Key Points

Raptor Species:

- **About:** A raptor is a bird of prey. A bird of prey is a carnivore (meat eater) that kills and eats mammals, reptiles, amphibians, insects, rodents as well as other birds. All raptors have a hooked beak, strong feet with sharp talons, keen eyesight, and a carnivorous diet.
 - **Significance:**
2. Raptors prey on a wide range of vertebrates and thus, facilitate long-distance seed dispersal. This indirectly increases seed production and pest control.
 3. Birds of prey are predators at the top of the food chain; because threats like pesticides, habitat loss, and climate change have the most dramatic impact on top predators, these are referred to as indicator species.
- **Population:** Indonesia has the most raptor species, followed by Colombia, Ecuador and Peru.
 - **Examples:** Owls, vultures, hawks, falcons, eagles, kites, buteos, accipiters, harriers, and osprey.

Cause of Threat:

- **Use of Diclofenac:** Some vulture populations have declined by over 95% in Asian countries such as India because of the widespread use of diclofenac. Diclofenac is a non-steroidal anti-inflammatory drug.
- **Deforestation:** The population of Philippine eagles, the largest variety of eagles in the world, decreased rapidly in the last decades due to extensive deforestation. The Philippine Eagle is Critically Endangered under IUCN Red List.
- **Shooting and Poisoning:** In Africa, vulture populations have decreased by an average of 95% in rural areas over the last 30 years as the result of shooting and poisoning through feeding on carcasses of livestock treated with diclofenac.
- **Habitat Loss and Degradation:** The Annobon scops-owl, restricted to Annobon Island off West Africa, was recently classified as 'critically endangered' under the IUCN Red List because of rapid habitat loss and degradation.

Conservation Efforts:

- **Raptors MoU (Global):** The Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia is also known as Raptors MoU.
- 1. It is an agreement under Convention on the Conservation of Migratory Species of Wild Animals (CMS). CMS or Bonn Convention provides a global platform for the conservation and sustainable use of migratory animals and their habitats.
- 2. It is not legally binding.
- **India's Conservation Efforts:**
- 1. India is a signatory to Raptors MoU.
- 2. For the conservation of vultures, India has launched a Vulture Action Plan 2020-25.
- ✓ India is also a part of the SAVE (Saving Asia's Vultures from Extinction) consortium.
- ✓ The Jatayu Conservation Breeding Centre in Pinjore (Haryana) is the world's largest facility within the state's Bir Shikargah Wildlife Sanctuary for the breeding and conservation of Indian vulture species.

IMPORTANT FACTS FOR PRELIM

Eat Right Station Certification

Recently, Chandigarh Railway Station has been awarded a 5- star Eat Right Station certification. It is the fifth station in India to get this recognition. The other four stations are Anand Vihar Terminal Railway Station (Delhi), Chhatrapati Shivaji Terminus (Mumbai), Mumbai Central Railway Station (Mumbai) and Vadodara Railway Station. The certification is part of the 'Eat Right India' movement.

Key Points

About:

- The 'Eat Right Station' certification is awarded by Food Safety and Standards Authority of India (FSSAI) to railway stations that set benchmarks (As per the Food Safety and Standards Act, 2006) in providing safe and wholesome food to passengers. FSSAI is an autonomous statutory body established under the Food Safety and Standards Act, 2006.
- The station is awarded a certificate upon a conclusion of an FSSAI-empanelled third-party audit agency with ratings from 1 to 5.

Eat Right Movement:

- An initiative of FSSAI to transform the country's food system in order to ensure safe, healthy and sustainable food for all Indians. Its tagline is 'Sahi Bhojan, Behtar Jeevan'.
- It is aligned to the National Health Policy 2017 with its focus on preventive and promotive healthcare and flagship programmes like Ayushman Bharat, POSHAN Abhiyaan, Anaemia Mukta Bharat and Swachh Bharat Mission.
- It adopts a judicious mix of regulatory, capacity building, collaborative, and empowerment approaches to ensure food safety.

Related Initiatives:

- **State Food Safety Index:** FSSAI has developed it to measure the performance of States on five parameters of food safety - Human Resources and Institutional Data, Compliance, Food Testing - Infrastructure and Surveillance, Training & Capacity Building and Consumer Empowerment.
- **Eat Right Awards:** Instituted by FSSAI to recognize the contribution of food companies and individuals to empower citizens to choose safe and healthy food options.

- **Eat Right Mela:** Organised by FSSAI, it is an outreach activity for citizens to nudge them towards eating right.

2. SIMBEX 2021

Recently, India and Singapore have carried out 28th edition of the Singapore-India Maritime Bilateral Exercise (SIMBEX).

Key Points

About:

- Initiated in 1994, SIMBEX is the Indian Navy's longest uninterrupted bilateral maritime exercise with any foreign navy.
- 28th edition of SIMBEX was a mega naval wargame in the southern fringes of the South China Sea, in reflection of their growing congruence of interests in the strategically key region.

Other Defence Cooperation:

- Both navies have a representation in each other's Maritime Information Fusion Centres and have also recently signed an agreement on mutual submarine rescue support and coordination.
- Singapore participates in Indian Ocean Naval Symposium (IONS) and multilateral exercise MILAN hosted by the Indian Navy.
- Singapore's membership of Indian Ocean Rim Association (IORA) and India's membership of ADDM+ (ASEAN Defence Ministers' Meeting - Plus) provides a platform for both countries to coordinate positions on regional issues of mutual concern.

Other Exercises:

1. Bold Kurukshetra (Army)
2. Joint Military Training (Air Force)
3. Trilateral Maritime Exercise SIMTEX (with Thailand).

3. World University Rankings 2022

The Times Higher Education (THE) recently released its World University Rankings 2022 edition. THE, formerly known as The Times Higher Education Supplement (THES), is a magazine reporting specifically on news and issues related to higher education. Earlier, Quacquarelli Symonds (QS) released the QS World University Rankings 2022.

Key Points

About:

- The rankings cover the four main areas of university activity: teaching, research, knowledge transfer and international outlook and THE has been releasing data since 2004.

India's Ranking:

- Overall, India is home to 35 of the world's top 1,000 universities, its second-highest total ever in the rankings. Last year, it was 36.
- Top Performer was Indian Institute of Science (IISc) followed by IIT Ropar and JSS Academy of Higher Education and Research.

Global Ranking:

- Globally, the University of Oxford tops the ranking for the sixth consecutive year, while mainland China's Tsinghua University becomes the first Asian university to break into the top 20 under the current methodology (launched in 2011).
- Country-wise, the US is the most-represented country overall with 183 institutions.

Related Indian Initiatives:

- **Institutions of Eminence (IoE) Scheme:** To provide the regulatory architecture for setting up or upgrading of 20 Institutions (10 from public sector and 10 from the private sector) as world-class teaching and research institutions called 'Institutions of Eminence'.
- **National Education Policy, 2020:** To introduce several changes in the Indian education system - from the school to college level and make India a global knowledge superpower.
- **Impacting Research Innovation and Technology (IMPRINT):** A first-of-its-kind Pan-IIT and IISc joint initiative to develop a new engineering education policy and a roadmap for research to solve major engineering and technology challenges.
- **Uchhatar Avishkar Yojana (UAY):** To spur innovative mindset in the students and faculty in premier technological institutes.

DAILY ANSWER WRITING PRACTICE

Qns. Digitisation of the judiciary must be done in a graded, streamlined and in an integrated manner so as to not hamper the delivery of justice. Comment in regard to the e-Courts project of the Supreme Court of India. (250 words)

Ans:

Introduction

The Covid-19 pandemic continues to challenge traditional services' delivery, including access to justice and effective justice delivery. Given the worrying situation in terms of pendency and time taken for resolution of disputes, the pandemic has led to introspection and an immediate pivot to fast-tracking innovation led by technology. Despite some hiccups, the Supreme Court and High Courts have been able to function online. This was made possible by the e-Courts project, monitored by the e-Committee of Honourable Supreme Court.

Body:

Advantages of online dispute resolution to the Indian judiciary:

- The key advantages of establishment of Electronic Courts in India is bringing in a justice serving mechanism that is transparent, efficient, affordable, time saving, protects the interests of witnesses, reduces the backlog of pending cases and most importantly reduces the number of unscrupulous activities.
- Entire information related to a particular case would be available online. It would be available to the attorneys, parties and the general public through the help of internet.
- Registered attorneys can file their case document directly from their home or office. They do not have to worry about postage, traffic congestion or messenger services. They can create a docket sheet and update it immediately, when the documents are filed.
- With the help of internet, the documents of a case can be accessed easily from anywhere at any time.
- E-courts would help in the computerization of work flow management in courts. Thus, it would help to create a better court and case management.
- Video conferencing facilities would be installed in every court complex. Evidence of eyewitness, who are unable to attend the court can be recorded through this method.
- The information would not be misplaced as all the information regarding the case would be carefully recorded and stored. Data keeping would include maintaining the records of e-file minute entries, bail orders, warrants etc.
- In many cases, the witnesses are not able to come to the court and make their statement as the other party is too strong and scares them of the consequences. e-Courts can help in dealing with such cases.

Challenges posed by Phase-III of e-Courts project:

- This 360-degree approach is the main objective of Phase III.
- E-courts in India is an endless and complicating process. The process of e-filing a document is a difficult process. All the evidence cannot be produced in a digital format.
- Hackers are getting stronger with every passing day. The possibility of e-Courts getting hacked in such a case cannot be denied.
- Several individuals and organisations have warned against the zeal of the data collection exercises contemplated by the draft proposal. The "seamless exchange of information" relies on large-scale gathering and sharing of data.
- Targeted Surveillance: there has been a dangerous trend towards creating a 360-degree profile of each person by integrating all of their interactions with government agencies into a unified database.
- No clear explanation has been offered for why the Home Ministry needs access to court data that may have absolutely no relation to criminal law. This process serves no purpose other than profiling and surveillance.

Measures needed:

- It is critical to draw up a well-defined and pre-decided framework as it can help in laying a concrete roadmap and direction to the e-courts scheme of India.
- To achieve this, the government must establish an effective task force consisting of judges, technologists, court administrators, skill developers and system analysts to draw up a blueprint for institutionalizing online access to justice.

- Such a task force must be charged with the responsibility of establishing hardware, software and IT systems for courts; examining application of artificial intelligence benefiting from the data base generated through e-courts projects; establishing appropriate e-filing systems and procedures.
- Creating skill training and recognition for paralegals to understand and to help advocates and others to access the system to file their cases and add to their pleadings and documents as the case moves along.
- Once the blueprint is ready, the High Courts across the country may refer the same to the Rule Committee of the High Court to frame appropriate rules to operationalise the e-court system.
- One aspect that needs to be focused on is the deployment of a robust security system that provides secure access to case information for appropriate parties. The security of e-courts infrastructure and system is of paramount importance.
- Also, user friendly e-courts mechanism, which is simple and easily accessible by the common public will encourage litigants to use such facilities in India.
- The government must also make dedicated efforts in the training of personnel to maintain all the e-data.
- Also, conducting training sessions to familiarize the Judges with the e-courts framework and procedure can give a huge impetus to the successful running of e-courts.

Way forward for Indian litigation and arbitration:

- In India, a significant amount of time is spent in resolving disputes which has been the real bane of the Indian judiciary system.
- The e-courts project, if implemented, would go a long way in saving costs and time for the litigants.
- The present government is taking active steps to establish e-courts all over India. All these government efforts will result in providing quick and cost effective solutions to the litigants.
- The judiciary system in India with the help of e-courts can overcome the challenges and make the service delivery mechanism transparent and cost efficient.
- Further, the e-court project also requires the executive and the judiciary to reaffirm their resolve to support a speedy, efficient and quality justice delivery in the country.
- It is also important to discuss steps required to surmount the various challenges facing the justice system.

Value Addition:

- The Supreme Court passed directions for all courts across the country to extensively use video-conferencing for judicial proceedings saying congregation of lawyers and litigants must be suspended to maintain social distancing amid the coronavirus pandemic. According to data released by the Supreme Court in the June 2020 newsletter of the e-Committee, 3.27 crore cases are pending before Indian courts, of which 85,000 have been pending for over 30 years.”
- e-Courts project as part of virtual judiciary was conceptualized on the basis of the “National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary – 2005” submitted by eCommittee, Supreme Court of India with a vision to transform the Indian Judiciary by ICT enablement of Courts. The e-Committee of the Supreme Court of India recently released its draft vision document for Phase III of the e-Courts project. Phases I and II had dealt with digitisation of the judiciary, i.e., e-filing, tracking cases online, uploading judgments online, etc.
- The latest Vision Document for Phase III of the e-Courts Project seeks to address the judiciary’s digital deprivation. It envisages an infrastructure for the judicial system that is ‘natively digital’ and reflects the effect that the pandemic has had on India’s judicial timeline and thinking.

DAILY QUIZ

Q1. Consider the following statements about the India e-Visa system:

1. It is a regular visa issued electronically.
2. The eligibility criteria for obtaining the e-visa require the applicant to have at least six-month passport validity at the time of applying.
3. The Ministry of External Affairs is the nodal ministry that issues visas to foreigners.

Which of the given above statements is/are correct?

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

Q2. Consider the following statements about the Central Bureau of Investigation (CBI):

- 1. It is operating under the jurisdiction of the Ministry of Home Affairs (MHA), Government of India.
- 2. It derives power to investigate from the Delhi Special Police Establishment Act, 1946.
- 3. It is exempted from the provisions of the Right to Information Act.

Which of the given above statements is/are correct?

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

Q3. "It is a tropical, perennial grass that forms lateral shoots at the base to produce multiple stems, typically 3 to 4 m high and about 5 cm in diameter. The stems grow into cane stalk, which when mature, constitutes around 75% of the entire plant; the plant is also grown for biofuel production, especially in Brazil." Which one of the following is that crop?

- a. Beetroot
- b. Jute
- c. Jatropha
- d. Sugarcane**

Q4. Consider the following statements regarding 'SUJALAM' Campaign:

- 1. It is a flagship initiative set up by the NITI Aayog.
- 2. It aims to create more open defecation-free (ODF) villages across the country.

Which of the given above statements is/are correct?

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

Q5. Which of the following statements is/are true about Aranmula Boat Race?

- a. It is the oldest river boat festival in Kerala.
- b. Only men of the village are allowed to be in the boat.
- c. It is mainly conducted during the season of the harvest festival Onam in spring.
- d. All of the above statements are true.**