

25 July 2021: UPSC Exam Comprehensive News Analysis

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Category: ENVIRONMENT AND ECOLOGY

1. 'Mid-century target for net zero inadequate'

Context:

- **G20 climate summit** in Naples, Italy.
 - Energy and environment ministers from the Group of 20 nations participated in the summit.

Background:

Impact of climate change:

- Average global temperatures have already risen by more than 1 degree compared to the pre-industrial baseline used by scientists and are **on track to exceed the 1.5-2 degree ceiling**.
- Countries around the world are feeling the effects of climate change.
 - There have been **deadly floods in Europe and China, fires in the United States and sweltering temperatures in Siberia**.

Ineffectiveness of the NDC framework:

- As per the **National Determined Contributions (NDC)** submitted to the **UNFCCC** under the **Paris Agreement**, the pledge of countries like the United States and the U.K. fall short of the fair share of emission reduction by relatively larger margins than developing countries like India.
 - The fair share represents the reductions countries must achieve to ensure that the greenhouse gas levels are below that to prevent a 1.5 average temperature rise over the globe by the turn of the century.

Carbon neutrality/net zero emissions:

- The net zero emissions refer to a situation where **a country is able to remove at least as much carbon dioxide from the atmosphere as it is emitting**.
- This can be done by **increasing forest cover** or through technologies such as **carbon capture**.
- There have been major net-zero commitments from the world's largest polluters in the past 12 months.
- However, some developing countries have resisted any such deadlines for themselves through global agreements on carbon neutrality. Reaching a global consensus on the issue of carbon neutrality would be extremely difficult to reach given the scale of the differences between the different countries.

For more information on the topic of carbon neutrality refer to the following article:

UPSC Comprehensive News Analysis of 08th Apr 2021

Details:

- The key topics of discussion at the summit included: combating climate change, accelerating the ecological transition, making financial flows consistent with the Paris Agreement objectives, opportunities for sustainable and inclusive recovery enabled by innovative technological solutions of the energy sector, and building smart, resilient and sustainable cities.
- The parties **haven't been able to agree on specific actions and firm timetables needed to reach net-zero global emissions by 2050** and keep global warming at 1.5 degrees Celsius.

India's stand:

- India has stated that the pledges by some countries to achieve net zero GHG emissions or 'carbon neutrality' by mid-century were inadequate, in view of the **fast depleting available carbon space**.
- India has urged G20 countries to commit to bringing down per capita emissions to Global average by 2030 considering the **rights of developing countries to economic growth**.
- Unlike some countries which have set carbon neutrality targets by 2050 or 2060, India has resisted committing to any such hard deadlines given its developmental needs and the need for climate justice.
 - **Despite being the third largest greenhouse gas emitter in the world, India has one of the lowest per capita emissions.**

Concerns:

- The environmental activists had hoped that the G20 gathering would lead to a strengthening of climate targets, new commitments on climate financing, and an increase in countries committing to net zero emissions by 2050. However, the failure to reach an understanding on several issues related to climate change in the G20 climate summit marks another **setback in the fight against rising temperatures**. This is being viewed as a setback to hopes of securing a meaningful accord in COP26 Scotland.
- COP26 marks the last chance to keep alive the chance of limiting temperature rise to 1.5 degrees Celsius.

Significance:

- Despite several points of difference, the G20 has put together a 58-point communique and that all the countries agreed that **decarbonisation was a necessary goal**. This is also the first time that the G20 has accepted that **climate and energy policies are closely interconnected**.

Additional information:

- 2021 is a crucial year for ecological transition and climate, with a number of global events taking place in the coming months: the **Conference of the Parties (COP) of the three Rio Conventions on Climate Change, Biodiversity and Desertification (UNFCCC COP26, CBD COP 15 and UNCCD COP 15)**, the launch of the **UN Decade on Ecosystem Restoration**, the **United Nations Food Systems Summit** and the **United Nations Ocean Conference**.

Category: SCIENCE AND TECHNOLOGY

1. Moon-forming region seen around exoplanet for the first time

Context:

- Scientists for the first time have **spotted a moon-forming region around an exoplanet**.

Background:

Exoplanet:

- An exoplanet is any planet beyond our solar system.** More than 4,400 planets have been discovered outside our solar system.
- Most orbit other stars, but free-floating exoplanets, called rogue planets, orbit the galactic center and are untethered to any star.

Details:

- The scientists have observed an **exoplanet surrounded by a disc of gas and dust**.
- The researchers used the **ALMA observatory in Chile's Atacama desert** to detect this disc of swirling material accumulating around one of two newborn planets (PDS 70c) seen orbiting a young star called PDS 70, located 370 light years from Earth.
- No circumplanetary discs had been found until now because all the known exoplanets resided in "mature" – fully developed – solar systems, except the newly identified infant gas planets orbiting PDS 70.

Formation of planets and Moons:

- The dominant mechanism thought to underpin planet formation is called "**core accretion**".
- As per this mechanism, material spinning around a newly formed star coalesces into planets. The small dust grains, coated in ice, gradually grow to larger and larger sizes through successive collisions with other grains. This continues until the grains have grown to a size of a planetary core, at which point the young planet has a strong enough gravitational potential to accrete gas which will form its atmosphere.
- The **circumplanetary discs surrounding some planets similarly yield moons**.
 - The rings of Saturn represent a relic of a primordial moon-forming disc. Saturn has more than 80 moons orbiting it.

Category: DEFENCE AND INTERNAL SECURITY

1. No imminent threat of Taliban influx in Kashmir, says official

Background:

- With the withdrawal of foreign troops from Afghanistan, the **Taliban have made major advances in the past few weeks and gained new ground**.
- This has led to raising apprehensions of the impact this would have on **India's security concerns**.

Details:

Indian consulates in Afghanistan:

- In the backdrop of the rapid advances made by the Taliban in Afghanistan, the **intelligence inputs had warned of increased threat to Indian consulates** and India-aided infrastructure projects in the country.
- With intense fighting taking place around Kandahar, India evacuated all Indian staff from its consulate and has also closed some of its consulates in other Afghanistan cities.

Threat for Kashmir:

- Though the defence experts have stated that there is **no immediate threat of the Taliban moving towards Kashmir**, there is apprehension that the **Afghan situation could embolden Pakistan-based terror groups operating in Kashmir**.
- India's position along the Line of Control (LoC) continues to be strong given the robust counter insurgency mechanism in place. **India has a significant troop presence which is complemented by sensors and drone surveillance along the LoC.**

Defence co-operation between India and Afghanistan:

- In the past few years, India has gifted four **Mi-24 attack helicopters** and three **Cheetah utility helicopters** to Afghanistan, apart from **training Afghan officers** in its training academies.
- Given the rapid advances being made by the Taliban in Afghanistan, the Afghan Army chief is scheduled to visit India soon. This is being viewed as an attempt by the Afghanistan government to expedite its **long standing request for offensive military hardware like tanks and artillery guns from India**

Category: DISASTER MANAGEMENT

1. HAM radios to aid in cyclone relief

Context:

- Training of local youth from the Sunderbans in operating Ham Radio sets.

Background:

- West Bengal in the past three years has faced **four tropical cyclones, Fani (May 2019), Bulbul (November 2019), Amphan (May 2020) and Yaas (May 2021).**
- **Communication turns out to be a major challenge during the cyclones** and particularly for areas with limited accessibility like the Sunderbans. They remain cut off often for days. On some occasions, the administration has had to wait for connectivity to be restored to assess damage and send relief to those affected.

Significance:

- The district administration's move to train local youth from the Sunderbans in operating Ham Radio sets is a welcome move in this regard.

- This will help establish a **dedicated wireless communication system** for uninterrupted **communication** even during cyclones.
- Uninterrupted communication will come handy in rescuing people in times of cyclone.
- The empowerment of local youth to operate the technology will help **augment the community-based disaster preparedness and management**.

Ham Radio:

- Amateur radio, also known as ham radio, is the **use of radio frequency spectrum for purposes of non-commercial exchange of messages**, wireless experimentation, self-training, private recreation, radiosport, contesting, and emergency communication.
- The HAM operators **employ high frequency signals** to connect with other operators. The technology comes handy when mobile connectivity is down.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: POLITY AND GOVERNANCE

1. What are the surveillance laws in India?

Context:

- ‘**Pegasus Project**’ report has brought to light the possible misuse of the Pegasus spyware for surveillance of politicians, journalists, and activists

Pegasus spyware:

- Pegasus is a **spyware tool from Israeli firm NSO Group**.
- After infecting the device, Pegasus seeks “**root privileges**”. After establishing communications with its controllers, Pegasus spyware starts transmitting data stored on the phone to its command-and-control centres.
 - Root privileges is a level of control over the phone that is beyond what a regular user has.
- It is **graded as a cyberweapon** and can be sold only to authorized government entities as per Israeli law.

For more information on the modus operandi of the Pegasus spyware refer to the following article:

[UPSC Comprehensive News Analysis of 08th July 2021](#)

Concerns:

- As per the report, over 300 verified Indian mobile telephone numbers, including those used by ministers, opposition leaders, journalists, the legal community, businessmen, government officials, scientists, rights activists and others were targeted using the spyware.

- If true this points to the **violation of the fundamental right of citizens to the exercise personal liberty and privacy** under Articles 21 of the Constitution through the **gross misuse of surveillance powers of the government**

Indian laws dealing with surveillance powers:

- Section 5(2) of **The Indian Telegraph Act, 1885**, allows for interception of message by the government subject to the condition that such an act is inevitable for the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign states or public order or for preventing incitement to the commission of an offence.
- Rule 419A of the Indian Telegraph Rules, 1951 specifies **the operational process and procedures for such surveillance activities**. Under Rule 419A, surveillance needs the sanction of the Home Secretary at the Central or State level.
- Section 69 of the **Information Technology Act, 2000 deals with electronic surveillance**. It allows for government interception or monitoring or decryption of any information through any computer resource if it is in the interest of the sovereignty or integrity of India, defence of India, security of the State, friendly relations with foreign States or public order or for preventing or investigating any cognizable offence.

For information on concerns associated with surveillance activities in India and the need for surveillance reforms refer to the following articles:

[UPSC Comprehensive News Analysis of 20th July 2021](#)

[UPSC Comprehensive News Analysis of 21st July 2021](#)

2. Where did the Centre go wrong on cooperatives?

Context:

- The **Supreme Court** recently struck down certain provisions of the 97th Constitutional Amendment Act, 2011.
- The **Ministry of Co-operation** has been newly formed under the Government of India in July 2021.

Both these topics have been previously covered in the following articles.

For information on the provisions of the 97th Constitutional amendment and the Supreme Court's reasoning for the annulment of certain provisions of it refer to the following article:

[UPSC Comprehensive News Analysis of 21st July 2021](#)

For information on the challenges in the Co-operative sector in India and the central government's initiative to introduce a new Ministry of Cooperation refer to the following article:

[UPSC Comprehensive News Analysis of 23rd July 2021](#)

Category: INTERNATIONAL RELATIONS

1. Brexit in troubles

Context:

- In the light of business disruption in the province of Northern Ireland and fears of a repeat of the violence observed in North Ireland during The Troubles, the U.K. has demanded the European Union to renegotiate the Northern Ireland Protocol of the Brexit agreement.
- The Troubles were an ethno-nationalist conflict in Northern Ireland that lasted about 30 years from the late 1960s to 1998.
- The conflict began in the late 1960s and is usually deemed to have ended with the Good Friday Agreement of 1998.
- The EU has rejected any such renegotiation and has instead offered to seek solutions, within the framework of the Protocol.

This issue has been covered in the following articles:

[U.K. wants new trade deal for N. Ireland](#)

[Five years later, Brexit continues to divide](#)

F. Prelims Facts

1. Villagers clash with police in eastern Assam

Maguri Motapung wetland:

- Maguri Motapung Beel is a wetland and lake located near **Dibru-Saikhowa National Park** and Motapung Village of Tinsukia district in Assam.

Context:

- People from Baghjan village in Tinsukia district of eastern Assam demanded compensation for damage caused to the Maguri Motapung wetland by a recent natural gas well blowout.
- Maguri Motapung Beel serves as a **natural home to wildlife** and provides a **source of livelihood to the local communities**.

2. China braces for Typhoon In-fa

- **Typhoon In-fa** has been moving toward **mainland China** after dumping rain on Taiwan.
- In-fa is likely to hit the coast of Zhejiang province, south of Shanghai.
- Airline flights were cancelled in eastern China and cargo ships were ordered out of the area.

G. Tidbits

1. Open schooling: children of Odisha village cross State border chasing Internet

- The [COVID-19 pandemic](#) induced lockdowns leading to the **shutdown of schools has had a major impact on the learning process of millions of children in India**. Despite some degree of continuity offered by the digital mode of education, millions of students continue to face major impediments to education access because of the **lack of access to the Internet**.
- The report of a teacher from Odisha leading a small group of primary school children of her village everyday across the Odisha-Jharkhand border following the mobile signal to access online classes

is an example of the challenges posed by complete dependency on digital mode of education in a country like India and more so in a state like **Odisha wherein the tele-density and Internet penetration is lower than the national average.**

- There have been innumerable instances of hardship in rural Odisha, especially in tribal pockets.
- As per Odisha's School and Mass Education Secretary, **only 40% of students in the State were able to access online classes.**
- The lack of connectivity has not only limited access to education, it has also **rendered children vulnerable to being forced to work from a very early age.**

2. Another elephant electrocuted in Odisha

Elephant deaths in Odisha:

- As many as **60 elephants have died accidentally by contact with live wires in Odisha alone since 2016-17.** Since April 2021 alone, five elephants have died of electrocution.
- While earlier mostly **sagging overhead transmission lines** were responsible for electrocution deaths of elephants, more recently, **traps to kill wild animals** have claimed an increasing number of elephant lives.
- Despite a large number of elephant deaths in the State due to electrocution, which is **completely preventable**, no visible step is being taken to prevent them.

Context:

- An elephant was killed in Odisha's Dhenkanal district after coming into contact with live electric wire.

H. UPSC Prelims Practice Questions

Q1. The term "core accretion" seen in News relates to:

- a. Mechanism relating to the formation of a planet
- b. Tectonic earthquake
- c. Inflation trends in the economy
- d. Formation of tropical cyclones

Answer: a

Explanation:

- The dominant mechanism thought to underpin planet formation is called "core accretion".
 - As per this mechanism, material spinning around a newly formed star coalesces into planets. The small dust grains, coated in ice, gradually grow to larger and larger sizes through successive collisions with other grains. This continues until the grains have grown to a size of a planetary core, at which point the young planet has a strong enough gravitational potential to accrete gas which will form its atmosphere.
- The circumplanetary discs surrounding some planets similarly yield moons.

Context:

- Scientists for the first time have spotted a moon-forming region around an exoplanet.

Q2. In which of these sites can the sculpture of the Reclining Buddha be found?

1. Ajanta caves
2. Sittanavasal caves
3. Kushinagar
4. Mahabodhi Temple

Choose the correct option:

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

Answer: c

Explanation:

- Sittanavasal Cave is a 2nd-century Tamil Śramaṇa complex of caves in Sittanavasal village in Pudukottai district of Tamil Nadu, India. It is dedicated mainly to Jainism.
- The Mahabodhi Temple, a UNESCO World Heritage Site, is a buddhist temple in Bodh Gaya, marking the location where the Buddha is said to have attained enlightenment. It has no such sculpture of the reclining Buddha.
- Ajantha caves and Kushinagar have the reclining Buddha sculptures.

Q3. Which of these countries border Peru?

1. Brazil
2. Ecuador
3. Chile
4. Bolivia
5. Colombia

Options:

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

Answer: d

Explanation:



Q4. Consider the following statements with respect to Maguri-Motapung wetland:

1. It is a wetland of international importance under the Ramsar Convention.
2. It is located close to the Keibul Lamjao National Park.

Which of the given statements is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2

d. Neither 1 nor 2

Answer: d

Explanation:

- Maguri Motapung Beel is a wetland and lake located near Dibru-Saikhowa National Park and Motapung Village of Tinsukia district in Assam.
- It is not a wetland of international importance under the Ramsar Convention.
- Keibul Lamjao National Park is located in the state of Manipur.

Q5. With reference to the cultural history of India, the term 'Panchayatan' refers to

- a. an assembly of village elders
- b. a religious sect
- c. a style of temple construction
- d. an administrative functionary

Answer: c

Explanation:

- Hindu temples are built in the Panchayatana layout wherein the main shrine is surrounded by four subsidiary shrines.
- Generally, Hindu temples are built along a west-east axis. So the four subsidiary shrines are at the north-east, south-east, south-west, north-west.

I. UPSC Mains Practice Questions

1. Despite space tourism assuring technological innovation and growth of space sector, the environmental consequences far outweigh the benefits. Do you agree? Justify. (15 Marks, 250 Words)[GS-3, Science and Technology]
2. Surveillance laws in India are a threat to Privacy. Critically Examine. (15 Marks, 250 Words)[GS-2, Polity and Governance]