

05 June 2021: UPSC Exam Comprehensive News Analysis

TABLE OF CONTENTS

A. GS 1 Related

B. GS 2 Related

HEALTH

1. [Delta variant led to most post-vaccine infections in Delhi](#)

POLITY AND GOVERNANCE

1. [No decision on indemnity to vaccine makers yet](#)

INTERNATIONAL RELATIONS

1. [17 cases of use of chemical weapons by Syria: OPCW](#)

C. GS 3 Related

DEFENCE

1. [DAC nod for building 6 conventional submarines](#)

SCIENCE AND TECHNOLOGY

1. [HC imposes fine on Juhi Chawla in 5G case](#)

D. GS 4 Related

E. Editorials

GOVERNANCE

1. [Two cheers](#)

ENVIRONMENT AND ECOLOGY

1. [Saving biodiversity, securing earth's future](#)
2. [The time to limit global warming is melting away](#)

F. Prelims Facts

1. [Pressure swing adsorption \(PSA\)](#)
2. [INS Sandhayak decommissioned](#)

G. Tidbits

1. [RBI holds rates, cuts GDP forecast](#)
2. [RBI's view on cryptocurrency stays, have major concerns: Das](#)

H. UPSC Prelims Practice Questions

I. UPSC Mains Practice Questions

A. GS 1 Related

Nothing here for today!!!

B. GS 2 Related

Category: HEALTH

1. [Delta variant led to most post-vaccine infections in Delhi](#)

Context:

Research study by scientists in Delhi on the B.1.617.2 Coronavirus Delta variant. The study is yet to be peer-reviewed.

Details:

- The study is authored by scientists at the CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB) and the National Centre of Disease Control.
 - These are the **two key labs of the Indian Sars Cov-2 Genomic Consortium (INSACOG)** that **tracks the emergence of key variants** of the coronavirus.
- **International variant Alpha**, which in previous studies has been associated with a spike in cases in Delhi was **absent** in vaccination breakthrough-cases analysed.
- 27 instances of breakthrough infections were analysed. It was found that **two lineages dominated**.
 - **1.617.1 (Kappa)** comprised 8%, **Delta** was 76% and the remaining linked to variants that belonged to broader “**B.1 lineages**”.

Concerns:

- **1.617.2, also known as the delta variant**, is now the **most dominant one in India**.
- It has **12 mutations** in its spike proteins as compared to SARS-CoV-2.
- There appeared to be **more ACE2 enzymes aiding the entry of coronaviruses** around these mutations L452R and T478K that characterised the variant.
 - This helps the new variant better infiltrate human cells.
- The variant is characterised by **high transmissibility, an accelerated surge in infections**.

Category: POLITY AND GOVERNANCE

1. No decision on indemnity to vaccine makers yet

Context:

The Union government has still not taken a final decision on the indemnity to either foreign or local COVID-19 vaccine manufacturers.

Background:

- Pfizer and Moderna have been **demanding indemnity as a pre-condition to enter into supply contracts with India**.
- Local manufacturer Serum Institute of India (SII) is also seeking the same.
- The government said it was **considering the requests**, and is **yet to take a decision**.

What is indemnity?

- The indemnity will **protect manufacturers from any potential civil-legal liability or immunity from being sued by people for any unforeseen complications arising from their COVID-19 vaccine**.

Why are manufacturers demanding indemnity?

- The **vaccines were developed at record speed** and were **approved for emergency use**.
- As the processes were expedited, there is a possibility of **potential unknown side-effects**.
- Therefore, the vaccine makers have demanded the **governments to support them by providing them indemnity**.

Pfizer enjoys such immunity in the US, UK and most other countries where it is supplying COVID-19 vaccines.

What happens in case the Government allows indemnity?

- Indemnity is only a contractual arrangement between the vaccine manufacturer and the government will be privy.
- In case people suffer from a grave injury, disability and death linked to the vaccine, **indemnity doesn't stop people from suing the manufacturer**.
- Liability under the legislation will be intact. They can **recover the losses contractually from the government**.

Way Forward:

- There is a need to strengthen **adverse event following immunisation (AEFI) reporting and investigations**.
- Government must be more **transparent on indemnity arrangements**.
- At present, there is no compensation mechanism available for COVID-19 vaccine linked serious adverse events or for that matter any vaccine.
- Public health activists say the government should **create a compensation mechanism**.

Note:

COVAX and the WHO have crafted indemnification agreements for countries considered Advanced Marketing Commitment Participants, or those who will be receiving donated vaccines.

Category: INTERNATIONAL RELATIONS

1. 17 cases of use of chemical weapons by Syria: OPCW

Context:

The head of the **Organisation for the Prohibition of Chemical Weapons (OPCW)** told the [UN Security Council](#) that its experts have investigated 77 allegations against Syria, and concluded that in 17 cases chemical weapons were likely or definitely used.

Details:

- In **September 2013**, **Syria acceded to the convention** as part of an agreement for the destruction of Syria's chemical weapons.
- He called it a disturbing reality that eight years after Syria joined the Chemical Weapons Convention, many questions remain about its **initial declaration of its weapons, stockpiles and precursors and its ongoing programme.**

Organisation for the Prohibition of Chemical Weapons:

- Organisation for the Prohibition of Chemical Weapons (OPCW) is the **international chemical weapons watchdog.**
- It is an intergovernmental organisation and the **implementing body for the Chemical Weapons Convention**, which entered into force on [29 April 1997](#).
 - Chemical Weapons Convention is an arms control treaty.
 - It prohibits the large-scale use, development, production, stockpiling and transfer of chemical weapons and their precursors, except for very limited purposes.
- The organisation **promotes and verifies the adherence to the Chemical Weapons Convention**, which **prohibits the use of chemical weapons and requires their destruction.**
 - Verification consists both of evaluation of declarations by member states and onsite inspections.
- The main office of OPCW is in **The Hague, Netherlands.**
- In 2013, OPCW was awarded the **Nobel Peace Prize.**
- It has the **power to report on whether chemical weapons were used in an attack** it has investigated.
- It has the **power to send inspectors to any signatory country to search for evidence of production of banned chemicals.**
- It also can **send experts to help countries to investigate crime scenes where chemical agents may have been used.**

Note:

India established the **National Authority for Chemical Weapons Convention (NACWC)** under the Chemical Weapons Convention Act, 2000 for implementing the provisions of the Chemical Weapons Convention

C. GS 3 Related

Category: DEFENCE

1. DAC nod for building 6 conventional submarines

Context:

The **Defence Acquisition Council (DAC)**, headed by Defence Minister has **approved** the issuance of a Request For Proposal (RFP) for the **construction of six conventional submarines** under **Project-75I** at an **estimated cost of ₹43,000 crore.**

Significance:

- This is a landmark approval. It is the **first case processed under the Strategic Partnership (SP) model**.
 - The SP model of the Defence Procurement Procedure (DPP) aims to **promote the role of Indian industry in manufacturing and build a domestic defence industrial ecosystem**.
- It would be one of the largest '[Make in India](#)' projects and it will **create a tiered industrial ecosystem for submarine construction in India**.
- India would be enabled to achieve its **30-year submarine construction programme** envisioned by the government to **acquire national competence in their building and for Indian industry to independently design and construct them**.
- As per the Navy's requirements, the submarines, all of which will be built in India, should be **equipped with Air Independent Propulsion (AIP) modules** and be able to **fire land-attack cruise missiles**.

Note:

- It also approved the **procurement of air defence guns and ammunition for the Army** at an approximate cost of ₹6,000 crore.

Category: SCIENCE AND TECHNOLOGY

1. HC imposes fine on Juhi Chawla in 5G case

Context:

The Delhi High Court rejected actor Juhi Chawla's suit against the rollout of 5G technology in India, terming it a publicity stunt done without any personal knowledge of the issue.

This issue has been comprehensively covered in [UPSC Exam Comprehensive News Analysis, June 3rd, 2021](#).

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: GOVERNANCE

1. Two cheers

Context:

NITI Aayog has launched the **third edition of the Sustainable Development Goals (SDG) India Index 2020**.

Read more on this topic covered in [UPSC Exam Comprehensive News Analysis. June 4th, 2021.](#)

Issues:

- While India has scored better in the latest SDG Index, the **methodological changes** in the latest edition make a **comparison between some SDGs over previous years difficult**.
- The 2020-21 Index **drops several economic indicators and gives greater weightage to social equality indicators**.
- Methodological issues on measuring other SDGs have been flagged before, but the **lack of adequate measurement of economic inequality seems to be a glaring miss**.
- **Stark differences between the southern and western States on the one hand and the north-central and eastern States on the other** in their performance on the SDGs, point to **persisting socio-economic and governance disparities**.
 - These differences if left unaddressed, will **aggravate federal challenges and outcomes**, as seen in the public health challenges during the second wave across some of the worse-off States.

Way Forward:

While the better score for India in its endeavour to achieve SDGs brings cheer, governments must work on addressing pressing issues such as increased inequality and economic despair.

Category: ENVIRONMENT AND ECOLOGY

1. Saving biodiversity, securing earth's future

India's vast and rich biodiversity gives the nation a unique identity. The country has varied ecosystems across land, rivers, and oceans. The country is home to nearly **8% of global biodiversity on just 2.3% of global land area**, and containing sections of **four of the 36 global biodiversity hotspots**. The editorial talks about the need for **rebuilding the relationship with nature, saving biodiversity with a view to securing Earth's future**.

Value of forests:

- While it is not possible to arrive at the precise economic value of all ecosystem services provided by biodiversity, according to estimates, **forests alone yield services worth more than a trillion rupees per year**.
- The **value would be much greater** with grasslands, wetlands, freshwater, and marine added.

Concerns:

- Present times are witnessing **worldwide declines in biodiversity**.
- Globally, **7% of intact forests have been lost since 2000**.

- Recent assessments indicate that over a **million species might be lost forever** during the next several decades.
- **Climate change and the pandemic** add to the existing stresses on the natural ecosystems.
- The pandemic has exposed the **dysfunctional relationship between humanity and nature**.
- Some of the issues that have come to the fore are:
 - the emergence of infectious diseases
 - lack of food and nutritional security
 - rural unemployment
 - climate change, with all its stresses on nature, rural landscapes, and public health.

National Mission on Biodiversity and Human Well-Being (NMBHWB):

- In 2018, the **Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC)** in consultation with the Ministry of Environment, Forest, and Climate Change and other Ministries approved an ambitious **National Mission on Biodiversity and Human Well-Being (NMBHWB)**.
- A Bengaluru-based Biodiversity Collaborative is **working with the National Biodiversity Authority** to hold consultations and prepare road maps of the Mission.
- The mission will be steered by a core of the country's leading biodiversity science and conservation organisations, from public, academic, and civil society sectors.

Significance of the Mission:

- Mission programmes offer **nature-based solutions to numerous environmental challenges**, including degradation of rivers, forests, and soils, and ongoing threats from climate change, with the goal of creating climate-resilient communities.
- **Scientific inputs**, especially related to geospatial informatics and policy, **can guide the development of strategies** for conservation and ecosystem management.
- The Mission will:
 - strengthen **the science of restoring, conserving, and sustainably utilising** India's natural heritage
 - **embed biodiversity as a key consideration** in all developmental programmes, particularly in agriculture, ecosystem services, health, bio-economy, and climate change mitigation
 - establish a **citizen and policy-oriented biodiversity information system**
 - enhance capacity across all sectors for the **realisation of India's national biodiversity targets** and United Nations Sustainable Development Goals (**UN SDGs**).
- It will allow India to emerge as a **leader in demonstrating the linkage between the conservation of natural assets and societal well-being**.
- The Mission's comprehensive efforts will empower India to restore, and even increase natural assets by millions of crores of rupees.
- Mitigation programmes will lessen the impacts of climate change and other natural disasters, such as pandemics and floods.

Way Forward:

- One of the ways to mitigate climate change and curtail future outbreaks of infectious diseases is to **repair the dysfunctional relationship with nature**.
- The concept of **One Health for all living organisms**, including the invisible biota in soils that sustain the agricultural systems must be rethought and reimaged.

- **Integrating human health with animal, plant, soil and environmental health** has both the preventive potential to curtail future pandemics along with the interventional capability for unexpected public health challenges.
- India can **rejuvenate agricultural production systems** and **increase rural incomes** from **biodiversity-based agriculture**.
 - It will also help create millions of green jobs in restoration and nature tourism.
- There is a need for an **extensive cadre of human resources** required to meet the enormous and complex environmental challenges.
 - This will require **training professionals in sustainability and biodiversity science**, along with an **investment in civil society outreach**.
- **Preserving biodiversity** is directly relevant to the social, economic, and environmental well-being of people.

2. The time to limit global warming is melting away

Context:

The world is facing two momentous challenges: COVID-19 and climate change. Both these challenges require all the countries to come together to find a way forward. In 2015, the world signed the Paris Agreement, to **limit global temperature rises to well below 2°C, aiming for 1.5°C**, as it is expected to avoid the worst effects of climate change. The article talks about the need for strong action to avert the harmful effects of climate change.

India's response:

- India has a strong record of tackling climate change.
- It has set impressive **domestic targets to have 450GW of renewable energy by 2030**.
- It was instrumental in initiating the **International Solar Alliance** and the [Coalition for Disaster Resilient Infrastructure \(CDRI\)](#).
- India played a critical role in delivering the landmark **Paris Agreement**.
- India has **quadrupled wind and solar capacity** in the last decade.

COP26:

- The 2021 United Nations Climate Change Conference, also known as COP26, is the **26th United Nations Climate Change Conference**.
- It is scheduled to be held in the **city of Glasgow from 1 to 12 November 2021** under the **presidency of the United Kingdom**.
- This provides a platform to get the world on track to address the enormous threat of climate change and build a cleaner, brighter future for everyone.

What is the way forward?

- In terms of limiting warming, every fraction of a degree makes a difference.
- The **Climate Action Tracker** estimates that countries' current emissions reduction targets would still **result in average temperature rises of 2.4°C**.

- To limit warming to 1.5°C, **global emissions must be halved by 2030**. This is what makes COP26 so critical.
- To keep 1.5°C within reach, globally, **net zero must be reached by the middle of this century**. Strong action must be taken over the next decade.
- Another major goal is to **protect people and nature from the worst effects of climate change**.
 - The two cyclones, [Tauktae](#) and Yaas, that hit India show that the country must work on the real need for **flood defences, warning systems and other vital efforts** to minimise, avert and address the loss and damage caused by climate change.
- **Developed countries must deliver the \$100 billion** they promised **annually to support developing countries**.
- **The entire globe must come together to deliver on these goals**.
 - That includes **building consensus among governments** for an ambitious, balanced and inclusive outcome.
 - There is a need for **bringing businesses and civil society on board** and building up **international collaboration in critical sectors**.

COP26 provides a strong platform for keeping alive hopes of limiting global warming to 1.5°C. It is a great chance to act towards building a brighter future with green jobs and cleaner air.

F. Prelims Facts

1. Pressure swing adsorption (PSA)

- Pressure swing adsorption (PSA) is a technology **used to separate some gas species from a mixture of gases under pressure**.
- PSA operates at **near-ambient temperatures** (temperature relating to the immediate surroundings) and **differs significantly from cryogenic distillation** techniques of gas separation.
- **Cryogenic separation** is a commercial process that takes place at **very low temperature**.

Read more on [Pressure Swing Adsorption \(PSA\)](#).

2. INS Sandhayak decommissioned

What's in News?

Indian Navy's oldest **Hydrographic Survey Ship INS Sandhayak** has been decommissioned.

This topic has been covered in [PIB Summary & Analysis for 4th June 2021](#).

G. Tidbits

1. RBI holds rates, cuts GDP forecast

What's in News?

The Reserve Bank of India (RBI) has left the benchmark interest rates unchanged.

- The **policy repo rate** remains unchanged at **4%**.
- It has reiterated that it would **retain its accommodative stance** for as long as necessary to revive and sustain growth on a durable basis.
- Also, it **cut its GDP growth forecast** for the fiscal year 2021-22 by **100 basis points to 9.5%**.
- It **marginally raised its projection for CPI inflation** during 2021-22 to **5.1%**.

2. RBI's view on cryptocurrency stays, have major concerns: Das

What's in News?

The Reserve Bank of India Governor's comments on cryptocurrencies.

- RBI Governor made it clear that the RBI's view on cryptocurrencies such as Bitcoin remains unchanged and it continues to have **'major concerns' on the volatile instruments**.
- In 2018, the RBI had first come out with a circular, cautioning people against investing in **cryptocurrencies, that do not have sovereign character**.
 - It had barred entities regulated by it from dealing in such instruments.
- However, in 2020, the Supreme Court struck down the circular.

Issue:

Some of the cryptocurrencies have seen a massive dip in their per-unit trading prices lately, leading to erosion of investor wealth.

H. UPSC Prelims Practice Questions

Q.1 Recently, WHO came up with a naming system for virus variants based on -

- a. Country of origin
- b. Greek alphabets
- c. Mythological figures
- d. Roman numerals

Answer: b

Explanation:

- The World Health Organization (WHO) has announced a naming system for variants of the coronavirus that uses letters of the Greek alphabet.

- These Greek-letter labels will only be given to “variants of concern” and “variants of interest” as defined by the WHO.
- Under the new scheme, the B.1.1.7 variant first identified in the UK, is labelled “alpha”.
- The B.1.351 variant identified in South Africa is “beta”, the P.1 variant that originated in Brazil is “gamma” and the B.1.617.2 variant first detected in India is “delta”.

Q.2 Project 75-I, recently seen in news, is related to -

- a. Construction of nuclear-powered submarines for the Indian Navy
- b. Procurement of Rafale fighter jets from France
- c. Export of Brahmos cruise missiles to Vietnam
- d. None of the above

Answer: d

Explanation:

- Recently, the Defence Acquisition Council (DAC), headed by Defence Minister has approved the issuance of a Request For Proposal (RFP) for the construction of six conventional submarines under Project-75I.
- The Project 75I-class submarine is a follow-on of the Project 75 Kalvari-class submarine for the Indian Navy.
- Under this project, the Indian Navy intends to acquire six diesel-electric submarines, which will also feature advanced air-independent propulsion systems to enable them to stay submerged for a longer duration and substantially increase their operational range.
- All six submarines are expected to be constructed in Indian shipyards.

Q.3 Which of the following statements is/are correct?

1. Hydrographic survey is the science of measurement and description of marine topographic features which affect maritime navigation and other sea-based activities.
2. India lacks this technology and relies upon the USA for hydrographic surveys in the Indian Ocean region.

Options:

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

Answer: a

Explanation:

- Hydrographic survey is the science of measurement and description of marine topographic features which affect maritime navigation and other sea-based activities.
- India is one of the pioneers in hydrographic surveys. Indian navy and other scientific institutions possess this technology.

- India offers this technology free of cost to some of the countries such as Myanmar, Maldives, Mauritius, etc.

Q.4 Which of the following statements is/are correct?

1. Cancer immunotherapy is a new approach that exploits the body's immune system to put up a fight against cancer.
2. India's first indigenous tumour antigen SPAG9 was discovered in 1998.
3. This antigen has received the trademark 'ASPAGNII' and is being used in dendritic cell (DC) based immunotherapy in treating cervical, ovarian cancer and breast cancer.

Options:

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

Answer: d

Explanation:

- Cancer immunotherapy exploits the body's immune system to put up a fight against cancer.
- With this approach, either the immune system is given a boost, or the T cells are "trained" to identify recalcitrant cancer cells and kill them.
- India's first indigenous tumour antigen SPAG9 was discovered in 1998.
- This antigen has received the trademark 'ASPAGNII' and is being used in dendritic cell (DC) based immunotherapy in treating cervical, ovarian cancer and breast cancer.

Read more on this topic covered in [PIB Summary & Analysis for 4th June 2021.](#)

Q.5 Consider the following statements: (UPSC 2018)

1. Most of the world's coral reefs are in tropical waters.
2. More than one-third of the world's coral reefs are located in the territories of Australia, Indonesia and the Philippines.
3. Coral reefs host far more number of animal phyla than those hosted by tropical rainforests.

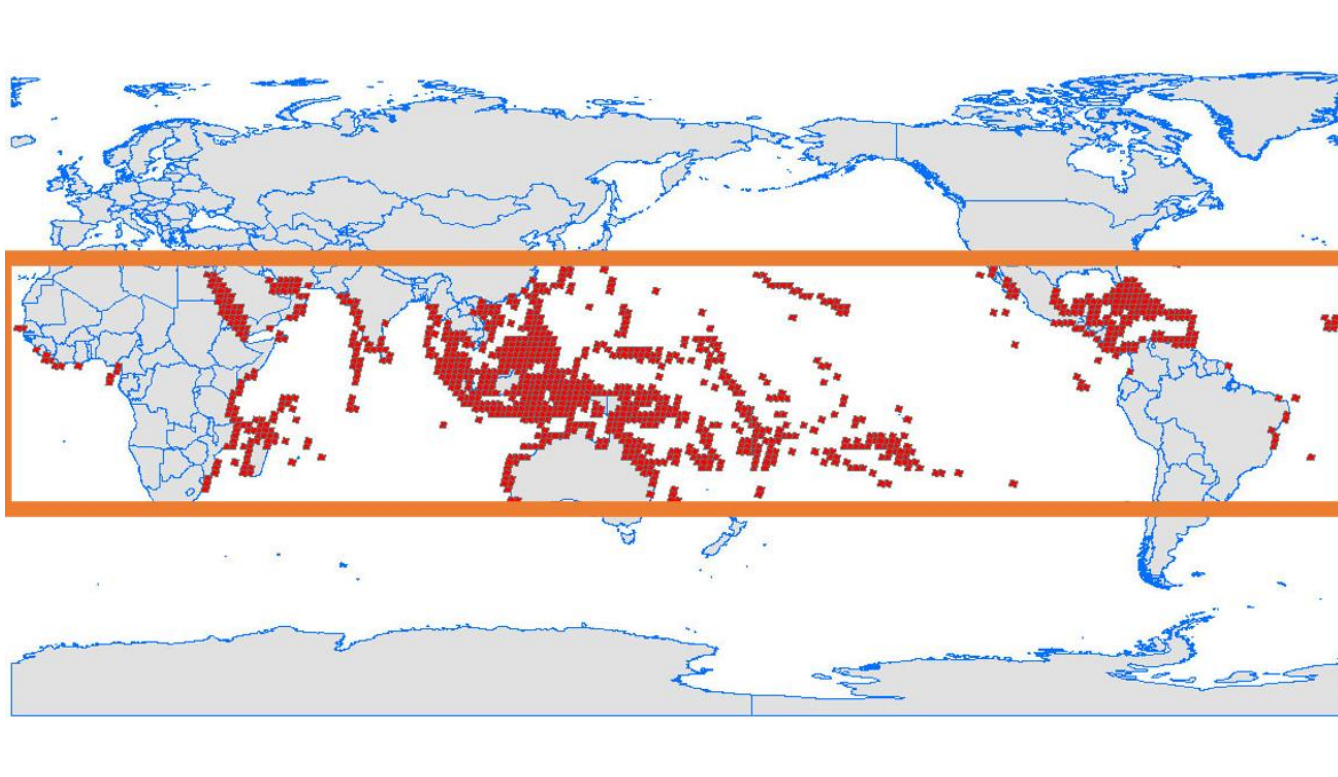
Which of the statements given above is/are correct?

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

Answer: d

Explanation:

- Most of the world's coral reefs are in tropical waters. Coral reefs thrive in a temperature range of 22 °C to 29 °C – usually found in tropical waters.
- More than one-third of the world's coral reefs are located in the territories of Australia, Indonesia and the Philippines.
- Coral reefs host far more number of animal phyla than those hosted by tropical rainforests. They are believed to have about 4 times more animal phyla as compared to tropical rainforests.
- Coral reefs are also referred to as the 'tropical rainforests of the sea'.



Map by NASA showing Coral Distribution around the world.

I. UPSC Mains Practice Questions

1. The National Biodiversity Mission can help mend the dysfunctional relationship between humanity and nature. Examine the statement. (250 words; 15 marks) [GS-3, Environment and Ecology].
2. The time to limit global warming is melting away. So what can nations do at the upcoming COP26 to address the enormous threat of climate change? (250 words; 15 marks) [GS-3, Environment and Ecology].