

GOVERNANCE**Drone use permission for Coalfield Survey**

Drone use permission granted to Central Mine Planning and Design Institute for coalfield survey.

Key Points

- Ministry of Civil Aviation (MoCA) and Directorate General of Civil Aviation (DGCA) have granted conditional exemption to Central Mine Planning and Design Institute (CMPDI) for surveying in coalfield areas of Coal India Ltd.
- As per the permission, the drones will be deployed for acquisition of data for monitoring of Mapping and Surveying activity using UAV Based Optical, LiDAR and Thermal Payloads, volumetric measurement, and, inspections in coalfield areas of Coal India Limited.
- It is valid till 04 April 2022 from the date of issue of the letter or until the full operationalization of Digital Sky Platform (Phase-1), whichever is earlier.
- Exemption from Ministry of Civil Aviation must be obtained from UAS Rules, 2021 before operation.

NATIONAL DEVELOPMENT**US Patrol in India's EEZ**

Recently, India protested against the US decision to conduct a patrol in the Indian Exclusive Economic Zone (EEZ) in the western Indian Ocean, rejecting the US' claim that India's domestic maritime law was in violation of international law.

Key Points

The US Seventh Fleet announced that one of its warships, USS John Paul Jones (DDG 53), had carried out a Freedom of Navigation Operation (FONOP) west of Lakshadweep Islands, inside India's EEZ, without requesting India's prior consent, consistent with international law.

Seventh Fleet: It is the largest of the US Navy's forward deployed fleets. India had a close encounter with the 7th fleet during the 1971 war with Pakistan.

Freedom of Navigation Operations (FONOP): It involves passages conducted by the US Navy through waters claimed by coastal nations as their exclusive territory.

It reaffirms the US policy of exercising and asserting its navigation and overflight rights and freedoms around the world.

US' Stand:

- India requires prior consent for military exercises or maneuvers in its EEZ or continental shelf.
- India's claim to EEZ is inconsistent with international law (United Nations Convention on the Law of the Sea 1982).
- FONOP upheld the rights, freedoms, and lawful uses of the sea recognized in international law by challenging India's excessive maritime claims.

India's Protest:

- India's stated position on the United Nations Convention on the Law of the Sea (UNCLOS) is that the Convention does not authorise other States to carry out in the EEZ and on the continental shelf, military exercises or manoeuvres, in particular those involving the use of weapons or explosives, without the consent of the coastal state.
- It is only when it is "military manoeuvres" in Indian EEZ that nations need to seek India's permission and not if they are simply transiting through.
- The term military manoeuvres is not defined anywhere.
- Seventh Fleet to carry out FON missions in Indian EEZ in violation of Indian domestic law (Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976).

INTERNATIONAL RELATION**India-Seychelles**

Indian PM and Seychelles President jointly inaugurated several Indian projects in Seychelles.

Key Points

- Seychelles is central to India's vision of 'SAGAR' – 'Security and Growth for All in the Region'.
- During times of need, India was able to supply essential medicines and 50,000 doses of Made in India vaccines to Seychelles.
- Seychelles was the First African country to receive the Made in India COVID-19 vaccines.
- India has contributed towards the construction of the new Magistrates' Court Building in Seychelles.
- For strengthening the maritime security of Seychelles, India has handed over a Made-in-India Fast Patrol Vessel to the Seychelles Coast Guard.
- India handed over a One Mega Watt solar power plant in the Seychelles built with India's assistance.

- The virtual Summit between the two sides also saw the handing over of 10 High Impact Community Development Projects (HICDPs) implemented by the High Commission of India in collaboration with local bodies, educational and vocational institutions.
- Present President of Seychelles, Wavel Ramkalawan is a Person of Indian origin (PIO) with his roots in Gopalganj, Bihar.

SCIENCE AND TECHNOLOGY

Effect of Covid-19 on Noise Pollution

There was reduced noise pollution on the surface of earth during the Covid-19 pandemic owing to lockdowns and stop of economic activities (like international trade).

In the underwater world, too, anthrophony (human-made sounds) reduced substantially for long months.

Key Points

The three broad components of oceanic acoustics are:

- **Geophony:** Sounds created by non-biological natural events like earthquakes, waves and bubbling.
- **Biophony:** Sounds created by the ocean's living creatures.
- **Anthrophony:** Sounds created by human beings (a large portion of which is shipping noise).

According to '**the Soundscape of the Anthropocene Ocean report**' published in Science Journal in 2021, geophony and biophony dominated the soundscape of oceans before the industrial era.

However, now, anthrophony interferes with and alters these natural components.

Noise Level in Modern Times:

- The oceans of the current geological era (Anthropocene era - when human-made disruptions largely influence the environment) are noisier than the pre-industrial times.
- During the first few days of the pandemic, ocean sound monitors at several places recorded a decibel (dB) drop.
- The hydrophones at the Endeavour node of Canada's Neptune Ocean Observatory showed an average decrease of 1.5 dB in year-over-year mean weekly noise power spectral density at 100 hertz.

Impact of Anthrophony: In the short term anthrophony masks the auditory signal processing by marine animals, weakening their ability to forage for food, escape a predator or attract a mate. In the long run, it can thin out the population of some underwater species.

The International Quiet Ocean Experiment (IQOE):

- It is an international scientific program to promote research, observations, and modelling to improve understanding of ocean soundscapes and effects of sound on marine organisms.
- It started in 2015 and will go on till the end of 2025. The IQOE team has gathered large quantities of data during the Covid-19 pandemic.
- The IQOE has identified a network of over 200 non-military hydrophones (underwater microphones) in oceans across the world.
- Most of the hydrophones in the network of this project are along the shores of the USA and Canada. Now the presence is increasing in several other parts of the world, especially Europe.
- These hydrophones (that pick up even faraway low-frequency signals) have recorded sounds from whales and other marine animals, as well as those emanated by human activities.

INDIAN ECONOMY

Copyright (Amendment) Rules, 2021

The Government of India has notified Copyright (Amendment) Rules, 2021.

Key Point

- In India, the copyright regime is governed by the Copyright Act, 1957 and the Copyright Rules, 2013.
- The Copyright Rules, 2013 were last amended in the year 2016.
- Objective of the amendments: To bring the existing rules in parity with other relevant legislations.
- Publication of a copyrights journal has been incorporated eliminating the requirement of publication in the Official Gazette.
- The journal would be available at the website of the Copyright Office.
- In order to encourage accountability and transparency, new provisions have been introduced to deal with the undistributed royalty amounts and use of electronic and traceable payment methods while collection and distribution of royalties.

Additional Information

- The copyright societies will be required to draw up and make public an Annual Transparency Report for each financial year.
- The Copyright Board has been merged with Appellate Board.
- The compliance requirements for registration of software works have been reduced.

- The applicant has now the liberty to file the first 10 and last 10 pages of source code, or the entire source code if less than 20 pages, with no blocked out or redacted portions.
- The time limit for the Central Government to respond to an application for registration as a copyright society is extended to 180 days

IMPORTANT FACTS FOR PRELIM

B.1.617: Indian Double Mutant Strain

The ‘double mutant’ virus that is having a bearing on the spread of the pandemic in India, has been formally classified as B.1.617.

Mutation is an alteration in the genetic material (the genome) of a cell of a living organism or of a virus that is more or less permanent and that can be transmitted to the cell’s or the virus’s descendants.

Key Points

Double Mutant (B.1.617):

- Earlier Genome sequencing of a section of virus samples by the Indian SARS-CoV-2 Consortium on Genomics (INSACOG), revealed the presence of two mutations, E484Q and L452R.
- Though these mutations have individually been found in several countries, the presence of both these mutations together have been first found in coronavirus genomes from India.
- This double mutant from India has been scientifically named as B.1.167. However, it is yet to be classified as ‘Variant of Concern’.
- Till now only three global ‘Variants of Concern’ have been identified: the U.K. variant (B.1.1.7), the South African (B.1.351) and the Brazilian (P.1) lineage.
- Spread of B.1.617: According to the INSACOG, sequencing a sample of genomes from coronavirus patients in India, B.1.617 was first detected in India in December, 2020.
- Today, nearly 70% of the genome sequences with the mutations characterising B.1.617 are from India.
- This is followed by the United Kingdom (23%), Singapore (2%) and Australia (1%).

Variant of Concern

- These are variants for which there is evidence of an increase in transmissibility, more severe disease (increased hospitalizations or deaths), significant reduction in neutralization by antibodies generated during previous infection or vaccination, reduced effectiveness of treatments or vaccines, or diagnostic detection failures.

Issues Associated with Mutants:

- Mutant virus is associated with large spikes of Covid-19 cases in some countries.
- It enables viruses to become more infectious as well as evade antibodies.
- It has also been associated with a reduction in vaccine efficacy. International studies have shown reduced efficacy of vaccines particularly those by Pfizer, Moderna and Novavax to certain variants.
- However, the vaccines continue to be significantly protective in spite of this.

Another Mutation:

- According to INSACOG, there is also a third significant mutation, P614R other than the two mutations (E484Q and L452R).
- All three concerning mutations are on the spike protein. The spike protein is the part of the virus that it uses to penetrate human cells.
- Virus' spike protein may increase the risks and allow the virus to escape the immune system.

Resistant to T cells:

- L452R could even make the coronavirus resistant to T cells, that is the class of cells necessary to target and destroy virus-infected cells.
- T cells are different from antibodies that are useful in blocking coronavirus particles and preventing it from proliferating.

DAILY ANSWER WRITING PRACTICE

Qns What is draft Migrant Labour Policy? Discuss its positive aspects and related issues. (150 words)

Ans:

Spurred by the exodus of 10 million migrants (as per government estimates) from big cities during the Covid-19 lockdown, NITI Aayog, along with a working subgroup of officials and members of civil society, has prepared a Draft National Migrant Labour policy.

Positives of Draft Policy

- **Due Recognition:** Intent to better recognise migrants’ contribution to the economy and support them in their endeavours.
- **Radical Ideas:** It puts forward several radical ideas, including the adoption of a rights-based approach and establishing an additional layer of institutions to create a more enabling policy environment for migrants.

- **Dedicated Unit:** It proposes a new National Migration Policy and the formation of a special unit within the Labour Ministry to work closely with other ministries.
- **Helps bring Convergence across departments:** The new structure would bring about much-needed convergence across line departments and would be a huge step towards a universal understanding of the causes and effects of migration as well as the interventions needed.
- **Focus on implementation:** The draft policy calls for improving the record on the implementation of the country's many labour laws that have, by and large, failed to make a difference to the lives of labour migrants.
- **Multiple laws considered:** It discusses at length the provisions under the Equal Remuneration Act, The Bonded Labour Act, the Building and Other Construction Workers Act and the Interstate Migrant Workmen Act, among others.
- **International Responsibilities addressed:** It invokes the ILO's Decent Work Agenda as well as the Sustainable Development Goals which aim to protect labour rights.
- **Significance of data realized:** It acknowledges the challenges of welfare provision to a highly fragmented migrant workforce due to recruitment patterns and the lack of data. It refers to the importance of collective action and unions and there are detailed plans for improving the data on short-term migration, especially seasonal and circular migration.

Issues

- The policy does not delve deeper into the causes underlying the poor implementation of labour laws that are linked to the political economy of recruitment and placement.
- It does not talk about gender differences in employment.
- Domestic workers are one of the most important occupations for migrant women. They have been ignored.
- Controlling tribal migration goes against the objective of recognising migrant agency to help tribal migrants to access the opportunities offered by migration.

DAILY QUIZ

- Consider the following statements:
 - The E9 Partnership was established to achieve the goal of UNESCO's Education for All (EFA).
 - India is a member of the E9 partnership.
 - The EFA initiative was first launched at the World Conference on Education for All in 1990.
 Which of the statements given above is/are correct?
 a) 1 and 2 only b) 2 only c) 1 and 3 only **d) 1, 2 and 3**
- Consider the following statements:
 - Both India and Seychelles are the members of the Indian Ocean Commission.
 - India and Seychelles are the founding members of the International Solar Alliance.
 Which of the statements given above is/are not correct?
 a) 1 only b) 2 only c) Both 1 and 2 **d) Neither 1 nor 2**
- With reference to the United Nations Convention on the Law of the Sea, 1982, consider the following statements:
 - It is signed and ratified by all the members of the United Nations (UN).
 - The Exclusive Economic Zone (EEZ) extends 200 nautical miles from the shore of the coastal state.
 - The coastal state has the responsibility to conserve and manage, both living and non-living resources of EEZ.
 Which of the statements given above is/are correct?
 a) 1 and 2 only b) 2 only **c) 2 and 3 only** d) 1, 2 and 3
- Consider the following statements:
 - The Golan Heights is a strategic plateau that Israel captured from Jordan.
 - The West Bank is sandwiched between Israel and Jordan.
 - The Gaza Strip is located between Israel and Egypt.
 Which of the statements given above is/are correct?
 a) 1 only b) 2 only **c) 2 and 3 only** d) 1, 2 and 3
- With reference to the Sustainable Development and Sustainable Development Goals (SDGs), consider the following statements:
 - The SDG-4 aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
 - The SDGs are legally binding on the member states of the United nations.
 Which of the statements given above is/are correct?
a) 1 only b) 2 only c) Both 1 and 2 d) Neither 1 nor 2