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Daily current affairs

25 April 2022

Draft Protection and Enforcement of Interests in Aircraft Objects Bill, 2022:

Context:

Recently, the Ministry of Civil Aviation has sought stakeholders' comments on the draft Protection and Enforcement of Interests in Aircraft Objects Bill, 2022.

Highlights of the Bill:

- The Bill implements the provisions of the Convention on International Interests in Mobile Equipment and Protocol on Matters Specific to Aircraft Equipment which was adopted at a conference in Cape Town in 2001.
- India acceded to the two instruments in 2008.
- These provide default remedies for the creditor and create a legal regime for disputes.
- Once passed, the law will help international aircraft leasing companies to repossess and transfer planes out of India in case of a financial dispute with an Indian airline at a time many regional airlines have been refused planes on rent.
- The proposed law provides remedies such as repossession of an aircraft object, or its sale or lease or collection of income from its use as well as de-registration and export of planes.
- It also suggests remedies pending final adjudication of a claim as well as safeguards a debtor's claim during insolvency proceedings against its Indian buyer.

Need for:

As per the ministry, the draft legislation is necessary because several Indian laws such as the Companies Act, 2013 and the Insolvency and Bankruptcy Code, 2016 are in conflict with the Cape Town Convention and Protocol.

- It says that Indian entities have also suffered as international financial institutions demand an implementing legislation.

Convention on International Interests in Mobile Equipment (Cape Town Convention):

- It is an international treaty intended to standardize transactions involving movable property.
- 83 countries, including India, have signed and ratified the Convention & the Protocol.
- The treaty creates international standards for registration of contracts of sale (including dedicated registration agencies), security interests, leases and conditional sales contracts, and various legal remedies for default in financing agreements, including repossession and the effect of particular states' bankruptcy laws.

Four protocols to the convention are specific to four types of movable equipment:

1. Aircraft Equipment (aircraft and aircraft engines; signed in 2001).
2. Railway rolling stock (signed in 2007).
3. Space assets (signed in 2012).
4. Mining Agricultural and Construction Equipment (signed in 2019).

Sources: the Hindu.

Dengue fever:

Context:

Rajasthan has reported 467 cases of dengue from January 1 to April 12 even before the arrival of the monsoon.

- In 2018, dengue was declared a perennial infection in the state.
- It is also a notifiable disease.

- Doctors and diagnostic centers have to report each dengue case to the health department.

What's the concern?

It is a concern for the health department that *Aedes aegypti* mosquitoes are transmitting dengue even in winters and before the rains have started. However, the situation is not alarming.


What is the major reason for the outbreak of dengue in the state?

1. Inadequate source reduction of mosquito breeding sites and adult control measures.
2. Measures to control in that area are ignored.
3. Unprecedented human population growth.
4. Unplanned and rapid urbanisation.
5. Inadequate waste management.
6. Increased distribution and densities of vector mosquitoes due to man-made, ecological and lifestyle changes.

About Dengue:

- Dengue virus is transmitted through the bite of a female *Aedes* (Ae.) mosquito.
- *Aedes* is a day time feeder and can fly up to a limited distance of 400 meters.
- Although it usually results in mild illness, severe dengue infections can sometimes prove fatal.
- World Health Organization (WHO) estimates suggest an annual incidence of 100-400 million dengue infections every year, with its global incidence growing dramatically "in recent decades".

Protect yourself from dengue





What is dengue?

Dengue is a mosquito-borne viral disease. It is spread by the bite of an infected mosquito called *Aedes aegypti*. Dengue does not spread from human to human.


Dengue mosquitoes bite during the day. The highest biting intensity is about two hours after sunrise and before sunset.

There is no vaccine or cure for dengue.






Protect yourself from mosquito bites
Use mosquito nets while sleeping, even during the day
Wear full-sleeves clothes
Use mosquito repellants



Prevent mosquitoes from breeding
Drain out stored water regularly



Control by fogging (during outbreaks)

World Health Organization
Regional Office for South-East Asia

Sources: Indian Express.

China-Pakistan Economic Corridor (CPEC)

Context:

Pakistan's new government has initiated a process to abolish the **China-Pakistan Economic Corridor** Authority, with the planning minister saying it was a "redundant organisation" that wasted resources and thwarted speedy implementation of the ambitious regional connectivity programme.

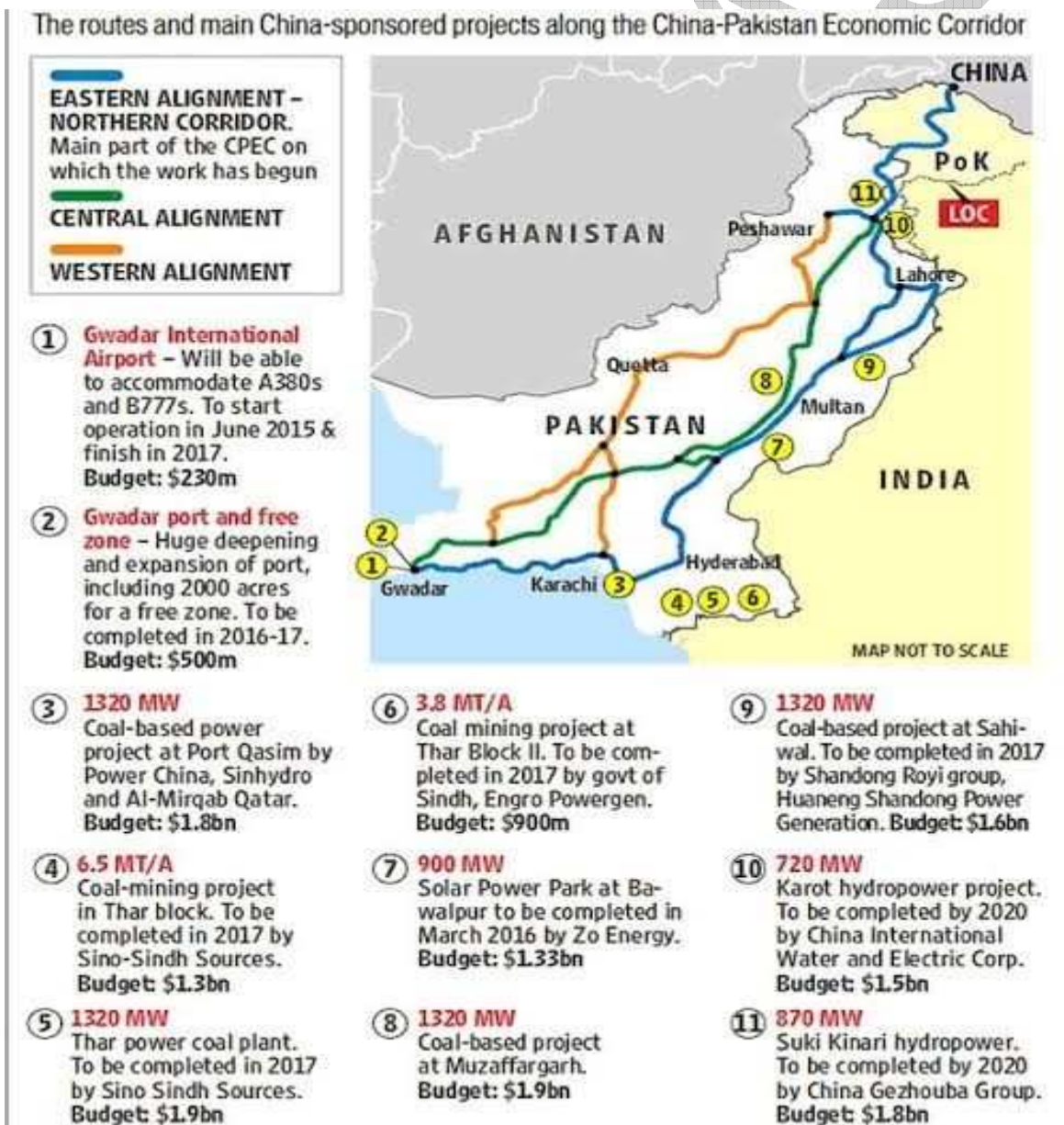
Background:

CPEC Authority established through an ordinance in 2019 was aimed at accelerating the pace of CPEC-related activities, finding new drivers of growth, unlocking the potential of interlinked production networks and global value chains through regional and global connectivity.

About CPEC:

Launched in 2015, the CPEC is the flagship project of the multi-billion-dollar Belt and Road Initiative (BRI), a pet project of Chinese President Xi Jinping, aimed at enhancing Beijing's influence around the world through China-funded infrastructure projects.

- The 3,000 km-long China-Pakistan Economic Corridor (CPEC) consists of highways, railways, and pipelines.
- CPEC eventually aims at linking the city of Gwadar in South Western Pakistan to China's North Western region Xinjiang through a vast network of highways and railways.
- The proposed project will be financed by heavily-subsidised loans, that will be disbursed to the Government of Pakistan by Chinese banks.



But, why is India concerned?

It passes through PoK.

- CPEC rests on a Chinese plan to secure and shorten its supply lines through Gwadar with an enhanced presence in the Indian Ocean. Hence, it is widely believed that upon CPEC's fruition, an extensive Chinese presence will undermine India's influence in the Indian Ocean.
- It is also being contended that if CPEC were to successfully transform the Pakistan economy that could be a "red rag" for India which will remain at the receiving end of a wealthier and stronger Pakistan.
- Besides, India shares a great deal of trust deficit with China and Pakistan and has a history of conflict with both. As a result, even though suggestions to re-approach the project pragmatically have been made, no advocate has overruled the principle strands of contention that continue to mar India's equations with China and Pakistan.

Sources: the Hindu.

International Atomic Energy Agency (IAEA):

Context:

Rafael Grossi, Director-General of the **International Atomic Energy Agency** (IAEA), will head an assistance mission to the now-defunct Chernobyl nuclear power plant in Ukraine aimed at stepping up efforts to help prevent the danger of a nuclear accident in the wake of the ongoing Moscow-Kiev war.

Background:

Since the withdrawal of the Russian military from the Chernobyl plant, Ukraine has taken significant steps for the safe and secure operation of the site of world's worst nuclear accident, where various radioactive waste management facilities are now located.

- But the general situation in the area around the site known as the Exclusion Zone remains difficult, in part due to damaged bridges and de-mining activities.

About IAEA:

- Set up as the world's "Atoms for Peace" organization in 1957 within the United Nations family.
- Reports to both the United Nations General Assembly and Security Council.
- Headquarters in Vienna, Austria.

Functions:

- Works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.
- Seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.

Programs:

1. Program of Action for Cancer Therapy (PACT).
2. Human Health Program.
3. Water Availability Enhancement Project.
4. International Project on Innovative Nuclear Reactors and Fuel Cycles, 2000.

Sources: the Hindu.

What is Meteor Shower?

Context:

Lyric **Meteor showers** peaked in Indian skies on April 22nd and will continuously pass through till April 29 at nearly 10-15 meteors every hour.

- Lyrids are debris of Comet Thatcher, which is currently traveling at a distance of 1,60,00,00,000 kilometers from the planet.
- Currently traveling away from the Sun, Comet Thatcher will begin its return trajectory in another 45 years.

Meteor Shower vs Storm:

Every 33 years, a Leonid shower turns into a meteor storm, which is when hundreds to thousands of meteors can be seen every hour.

- A meteor storm should have at least 1,000 meteors per hour. In 1966, a Leonid storm offered views of thousands of meteors that fell through the Earth's atmosphere per minute during a period of 15 minutes.
- The last such storm took place in 2002.

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METEORS!

Meteors can appear both day and night, but the daytime ones are harder to see unless they are exceptionally bright. The "meteor" itself is the trail of incandescent air caused by a piece of space debris streaking through the atmosphere:

ABOVE: COMPOSITE PHOTO OF 2001 LEONID METEOR SHOWER (CREDIT: KOEN MISKOTTE)

DOWN-TO-EARTH JOURNEY OF A METEOR

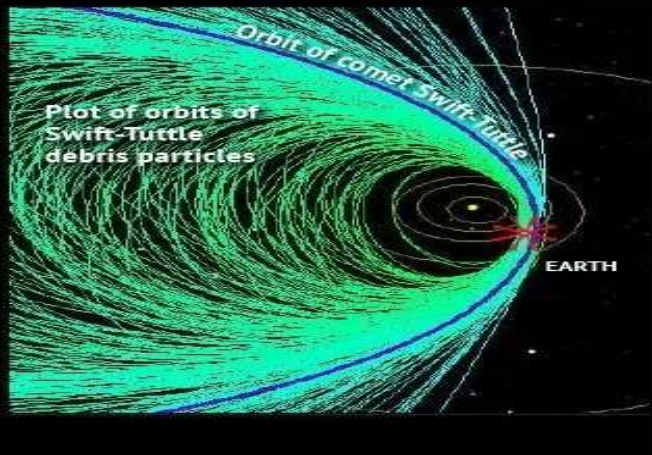


THE COMET CONNECTION

A comet is a solid body, or nucleus, composed of ice, rock, dust and frozen gases. When a comet approaches the sun, glowing tails of vapor may appear as the nucleus heats up. Comets may leave a trail of debris as they fracture and disintegrate.

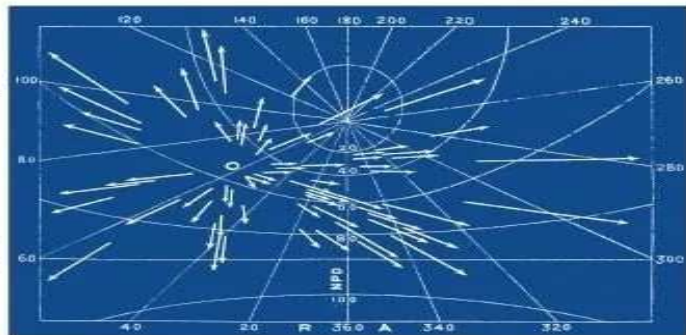
If the Earth orbits through the debris trail of a comet, a *meteor shower* results as the particles enter our atmosphere. Here are some annual meteor showers and the parent bodies that they are associated with:

| | | |
|-----------------------|-------------|---|
| Quadrantids | Jan. 2-4 | Asteroid 2003 EH1 |
| Lyrids | April 21-23 | Comet Thatcher |
| Eta Aquarids | May 4-6 | Comet Halley |
| June Lyrids | June 15-16 | unknown |
| Delta Aquarids | July 27-29 | parent of comets Macholtz, Marsden and Kracht |
| Capricornids | July 29-30 | Comet 169P/NEAT |
| Perseids | Aug. 11-14 | Comet Swift-Tuttle |
| Draconids | Oct. 8-9 | Comet Giacobini-Zinner |
| Orionids | Oct. 20-22 | Comet Halley |
| Taurids | Nov. 5-12 | Comet Encke |
| Leonids | Nov. 16-18 | Comet Tempel-Tuttle |
| Geminids | Dec. 12-14 | Asteroid 3200 Phaethon |



RADIANT: HOW A SHOWER GETS NAMED

Due to perspective, individual meteors in a shower will appear to emerge from a single point in the sky, called the *radiant*. The Perseid meteors, for example, appear to radiate from the Perseus constellation (diagram at right).



LEFT: Time-lapse wide-angle photo of the entire sky, showing the Perseid meteor shower (CREDIT: JURAJ TOOTH / MODRA OBSERVATORY, COMENIUS UNIVERSITY, BRATISLAVA)

SOURCES: NASA, AMERICAN METEOR SOCIETY

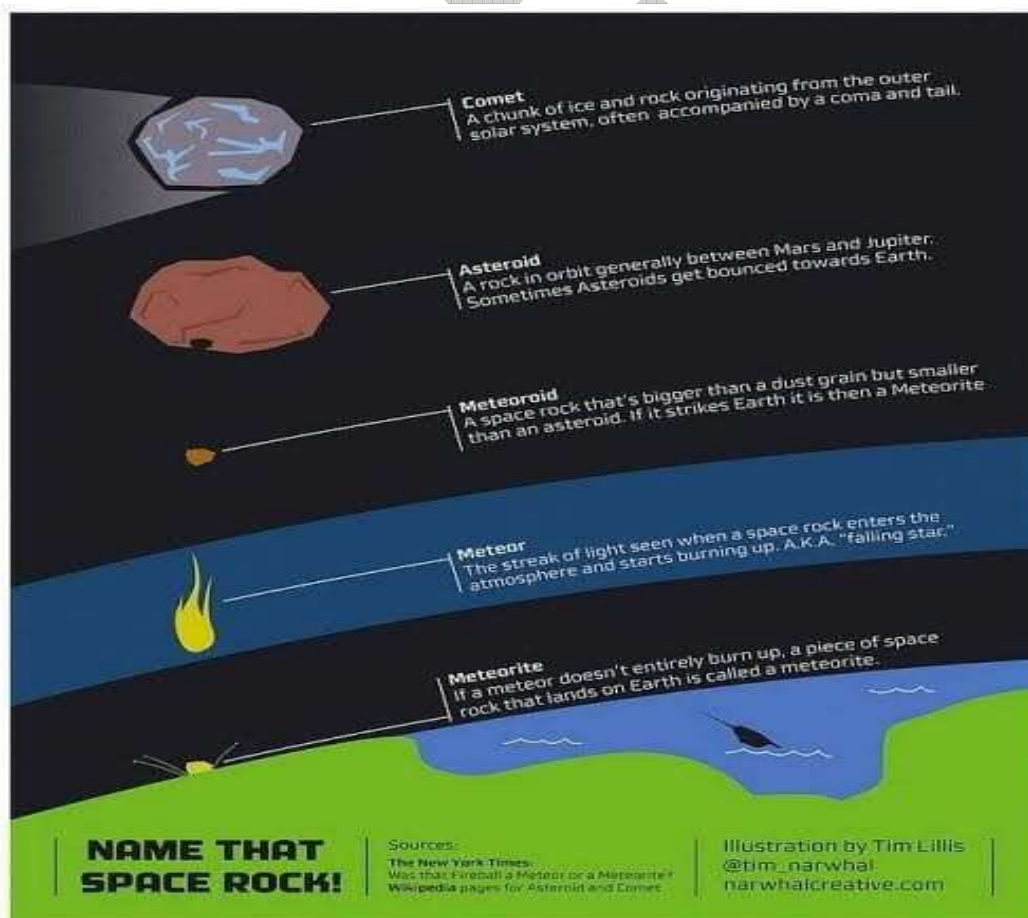
KARL TATE / © SPACE.com

What are meteor showers?

- Meteors are bits of rock and ice that are ejected from comets as they manoeuvre around their orbits around the sun.
- Meteor showers are witnessed when Earth passes through the trail of debris left behind by a comet or an asteroid.

What Are the Differences Between An Asteroid, Comet, Meteoroid, Meteor and Meteorite?

1. Asteroid: A relatively small, inactive, rocky body orbiting the Sun.
2. Comet: A relatively small, at times active, object whose ices can vaporize in sunlight forming an atmosphere (coma) of dust and gas and, sometimes, a tail of dust and/or gas.
3. Meteoroid: A small particle from a comet or asteroid orbiting the Sun.
4. Meteor: The light phenomena which results when a meteoroid enters the Earth's atmosphere and vaporizes; a shooting star.
5. Meteorite: A meteoroid that survives its passage through the Earth's atmosphere and lands upon the Earth's surface.



Sources: Indian Express.

Paris Book Festival 2022:

- India is designated as the Guest of Honour Country at the Paris Book Festival 2022.
- Some 80,000 visitors, 1,000 authors and 350 publishers are expected at the three-day festival, which will run from 22 to 24 April.
- The last time India was invited to the event was in 2007.
- France will be the guest of honour at the New Delhi World Book Fair postponed to May 2022.

What is GO 111?

- The GO 111 order, issued by the government of erstwhile (undivided) Andhra Pradesh on March 8, 1996, prohibited the setting up of industries, residential colonies, hotels, etc in the catchment area of the Osman Sagar and Himayat Sagar lakes up to a radius of 10 km.
- The reservoirs were created by building dams on the Musi (also known as Moosa or Muchkunda) river, a major tributary of the Krishna, to protect Hyderabad from floods.
- The lakes came into being during the reign of the last nizam, Osman Ali Khan (1911-48).

Why in the News?

Environmentalists and activists are criticising the Telangana government for withdrawing this order. They say this will destroy the fragile surrounding ecosystem.

Indian SARS-CoV-2 Consortium on Genomics (INSACOG):

- The Indian SARS-CoV-2 Genomics Consortium (INSACOG) is jointly initiated by the Union Ministry of Health and Family Welfare, and Department of Biotechnology (DBT) with Council for Scientific & Industrial Research (CSIR) and Indian Council of Medical Research (ICMR).
- It is a consortium of 28 National Laboratories to monitor the genomic variations in the SARS-CoV-2.

- It carries out whole genome sequencing of SARS-CoV-2 virus across the nation, aiding in understanding the spread and evolution of the virus.
- INSACOG also aims to focus on sequencing of clinical samples to understand the disease dynamics and severity.

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