

### DOLO, DOCS & PHARMA

#### Context

- The article discusses the relationship between the medical profession and pharmaceutical industry that has provoked intense scrutiny and attempted regulation in India.
- The Central Board of Direct Taxes (CBDT) has accused the makers of a popular medicine tablet, Dolo-650 of indulging in “unethical practices” and giving away freebies of around Rs 1,000 crore to medical professionals and doctors in order to get them to promote the products made by the pharmaceutical group.

#### Background

- In 2018 when speaking in London about the high cost of drugs, PM Modi hinted to pharma-sponsored trips by doctors to foreign countries as an obstacle to them prescribing cheaper generic medicines.
- Though this remark by PM drew the ire of doctors but Civil society activists in India have for long fought a battle to bring this area under a legal framework and accountability.

#### The Dolo scandal that refuses to die

- **Dolo scam:** Dolo-650 manufacturer Micro Labs Ltd came under the income tax scanner for suspected tax evasion as the company saw a rise in sales of Dolo-650 during Covid-19 pandemic.
- **Evidence:** The raids on Micro Labs for tax evasion reportedly led to uncovering evidence of large sums of money being used for freebies to doctors to prescribe Dolo.
- **Statistics:** The revenue generated by Dolo-650 increased by 6% between the second quarter of 2020 and the second quarter of 2021.
  - In the same time, revenue generated by two popular brands of paracetamol by GlaxoSmithKline, **Crocin** and **Calpol** increased by 53% and 158.9%, respectively.
- **Company claims:** Though news items mentioned the amount as Rs 1,000 crore, the company’s executive VP in an interview stated that this amount would be around Rs 5-6 crore.

- He also mentioned that apart from normal samples, pens, writing pads, small printed books, hand sanitisers and masks, no major so-called freebies or big gifts were given to doctors for the anti-fever drug.
- **Plea in Apex court:** The **Federation of Medical and Sales Representatives Association of India (FMRAI)** whose members are directly involved in drug promotion to doctors, moved the Supreme Court with the following claims:
  - Since the market price of paracetamol up to 500 mg was regulated, the company moved to higher doses.
  - And in a bid to increase sales, freebies were given to doctors to incentivise them to prescribe Dolo 650 mg, the higher dose.
- The PIL by FMRAI has also alleged the **unethical marketing practices** by pharmaceutical companies in their dealings with healthcare professionals.
  - As per the trade union body, **Indian Medical Council (Professional conduct, Etiquette and Ethics) Regulations of 2002**, prescribes a code of conduct for doctors in their relationship with pharmaceutical and allied health sector industry, and prohibit acceptance of freebies by medical practitioners from pharma companies.
  - But it is **enforceable against doctors only** and does **not apply to drug companies**.
  - This leads to anomalous situations where doctor's licenses are cancelled for misconduct and the pharma companies go scotfree.

### **Failure of Voluntary ethics codes**

- **Fine distinction:** Pharma companies need to inform and update doctors about their products. But the rather thin dividing line between **legitimate promotional activities and illegitimate incentivisation** has been a much contested one.
- **India code:** In an attempt to draw this line, many countries have developed codes of conduct including India.
  - The previous Medical Council of India (MCI) **code** and the upcoming ethics code of the **National Medical Commission** label gifting and hospitality as unethical conduct.

- **Internal codes:** MNC pharma companies are supposed to be bound by internal codes, but they are ignored with impunity and regularity, owing to vested mutual interests of both pharma companies and medical professionals.
    - For pharma it is a way to **push** new products including **irrational combinations**.
    - For the medical profession it is a bonanza of **individual gifts and trips** and for medical associations to earn **money through conferences**.
  - **Moral collapse:** The pharma-doctor relationship is thus fertile territory for unreasonable incentivisation.
    - Though many doctors believe they can stay neutral after accepting freebies, evidence clearly points otherwise. Appealing to the **good sense of both parties** through the lens of moral ethics has largely failed.
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## INDIA-CHINA DISPUTE CASTS GLOOM OVER SPACE PROJECT

### **In News:**

- Tension between India and China is causing concern among Indian scientists from Bengaluru-based **Indian Institute of Astrophysics**.
- The Indian astrophysicists are part of an ambitious United Nations-led project - Spectrographic Investigation of Nebular Gas (**SING**).
  - SING aims to install a spectroscope aboard the developing Chinese space station - Tiangong.

### **The Indian Institute of Astrophysics (IIA):**

- The IIA is a premier institute devoted to research in astronomy, astrophysics and related physics.
- It traces its origins back to an observatory set up in 1786 at Madras, which was later moved to Kodaikanal in 1899.
- In the year **1971**, the Kodaikanal Observatory became **an autonomous society - IIA**, whose headquarters shifted to Bengaluru in 1975.
- Today, it works under the Department of Science and Technology, Ministry of Science and technology.

- The institute has a network of laboratories and observatories in India, located at Kodaikanal, Kavalur, Gauribidanur and Hanle.
- The institute contributed to **Astrosat** - India's first dedicated multi-wavelength space observatory (launched in 2015) and led the development of Ultraviolet Imaging Telescope (UVIT).

### **The Tiangong space station:**

- Tiangong (or Heavenly Palace) is a T-shaped **space station** being constructed by **China** in **low Earth orbit** between 340 and 450 km above the surface.
- The construction of the station is based on the experience gained from its precursors, Tiangong-1 and Tiangong-2.
- Once completed, Tiangong will have a mass roughly one-fifth the mass of the International Space Station and about the size of the decommissioned Russian Mir space station.
- It will be only the second such station after the International Space Station in orbit.

### **The Spectrographic Investigation of Nebular Gas (SING):**

#### **Background:**

- The UN Office for Outer Space Affairs (UNOOSA) and the China Manned Space Agency (Tiangong is managed by the CMSA) announced (in 2019) the winners of their collaborative opportunity to conduct experiments on board the Tiangong.
- Six winning projects were selected (SING was one among them) and three were conditionally selected.

#### **About SING:**

- This astronomy experiment will be implemented by two institutions from two countries - The **Indian** Institute of Astrophysics and the Institute of Astronomy of the **Russian** Academy of Sciences.
- The SING project would be the first space-collaboration involving India and China, and primarily deals with sending and positioning a spectrograph.
- A **spectrograph** is an instrument that splits light into constituent frequencies and wavelengths, to study ultraviolet radiation.

- Earlier, both India and China have collaborated for the Giant Metre Wave Radio Telescope, a Pune-based observatory that is employed to observe and analyse stars and galaxies.
- This will aid in the investigation of the sources of interstellar gas in the region swept by the space station as it orbits the Earth.
- The **spectrograph** is scheduled to be delivered to the Chinese team in November 2022 and installed as a payload on the Chinese space station (CSS).

### **Future of the SING project against the backdrop of India-China tension**

- Chinese and Indian troops have been engaged in a prolonged stand-off in eastern Ladakh, which erupted in 2020, following a violent clash in the Pangong lake area.
- According to the MEA, the India-China relationship is currently at an exceptionally challenging phase as a result of what China did at the border.
- Though the project is on track, scientists at the IIA are now discussing with the ISRO and the Ministry of External Affairs (MEA) to make sure that the project can proceed.
- However, according to the SING project coordinator, this device (spectrograph) could undoubtedly be deployed on other space missions, including ISRO missions.

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### **THREE AIR FORCE OFFICERS DISMISSED OVER ACCIDENTAL FIRING OF BRAHMOS MISSILE**

#### **In News:**

- The government has terminated the services of three Indian Air Force (IAF) officers for lapses that led to the firing of a Brahmos missile in March 2022.
- The accidentally fired missile had landed in Pakistan near the town of Mian Channu.

#### **BrahMos Missile**

- It is a universal long range supersonic cruise missile system that can be launched from land, sea and air.
- It has been jointly developed by DRDO, India, and NPOM, Russia.

#### **Features**

- It is a two-stage missile with ranges 290 kilometres in the earliest versions to around 400 kilometres with the newer versions.
- The first stage is a solid propellant booster while the second is a liquid ramjet.
- It operates on ‘**Fire and Forget**’ Principle and its destructive power is enhanced due to large kinetic energy on impact.
- Its cruising altitude could be up to 15 km and terminal altitude is as low as 10 meters.

### Recent development

- A new manufacturing unit for the BrahMos missile is set to come up in the Uttar Pradesh Defence Corridor.
- The BrahMos Aerospace JV is also developing a next-gen hypersonic version, BrahMos-II.
- This missile will reportedly have a speed in excess of Mach 7–8 along with extended range.

### BrahMos Variants

- **Surface-to-surface variants** – can be launched from ground.
- **Naval Variant** – can be launched from Ship
- **Submarine-launched variant** – Missile can be launched from a submerged platform.
- **Air-launched variant** - The BrahMos-A is a modified air-launched variant of the missile which can be launched from a Sukhoi Su-30MKI as a standoff weapon.



### Protocol for Missile tests

- **Normal protocol to be followed by countries:**
  - Before the test, the country must issue **Notice to Air Missions (NOTAM)** or **Navigational Warning (NAVAREA)** to alert aviation pilots and seafarers, respectively.
- Also, the testing country must ensure that the launch site is not within 40 km, and the planned impact area is not within 75 km of either the International Boundary (IB) or the Line of Control (LoC).
- The planned trajectory should not cross the IB or the LoC and must maintain a horizontal distance of at least 40 km from the border.

- The testing country must notify the other nation no less than three days in advance of the commencement of a five-day launch window.
- **Specific protocol between India and Pakistan**
- Each country must provide the other an advance notification on flight test it intends to take for any land or sea launched, surface-to-surface ballistic missile.
- This is under the pre-notification of flight testing of **ballistic missiles agreement signed in 2005**.

### **Background:**

- On March 9, 2022 Pakistan announced that a high-speed flying object originating from the northern Indian city of Sirsa, Haryana, had crashed in eastern Pakistan.
- It said that the object, flying at 40,000 feet and three times the speed of sound, had flown 124 km (77 miles) in Pakistani airspace.
- The missile was unarmed and had crashed near the Pakistan's eastern city of Mian Channu. No loss of lives was reported after the incident.
- Later, on March 11, India admitted the supersonic missile that landed in Pakistan on March 9 was accidentally fired from one of its bases.
- Immediately after the incident, India ordered a high-level Court of Enquiry.

### **News Summary**

- The commanding officer (CO) of a BrahMos unit and two other officers have been summarily sacked by the government.
- An enquiry committee, formed after the incident, found that deviations from **Standard Operating Procedures** had led to the firing of the missile.
- The committee held these three officers responsible for it.

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## [LANCET WARNS ABOUT 'TOMATO FLU' IN INDIA AMONG CHILDREN](#)

### **In News:**

- In the recent Lancet Respiratory Journal, doctors have sounded an alarm over the emergence of new non-life-threatening virus called tomato flu among the children below five years of age.

## **Tomato flu**

- Tomato flu' or Tomato Fever is a new type of hand, foot and mouth disease that commonly affects children below the age of 5.
  - Hand-foot-and-mouth-disease (HFMD) is a frequent febrile (Feverish) rash illness.
  - It is caused by enteroviruses (EV): Coxsackie A16 (CA16), EV A71, Coxsackie A6, Coxsackie B and Echo viruses
- This flu is caused by Coxsackie virus A 16 which belongs to Enterovirus family.
- This disease causes red and painful blisters all over the body that gradually enlarge to big size. These blisters are similar to those seen in monkeypox cases.

## **Symptoms**

- As per the Lancet study, the primary symptoms of Tomato Flu are like those of Chikungunya, which include high fever, rashes and intense pain in joints.
- Further symptoms include fatigue, nausea, vomiting, diarrhoea, dehydration, swelling of joints, body aches, and common influenza-like symptoms that are found in dengue.

## **Who are at risk?**

- Young children are especially prone to this infection through the use of nappies, touching unclean surfaces, as well as putting things directly into the mouth.
- The viral infection commonly spreads through close contact.

## **Treatment**

- Because tomato flu is similar to chikungunya and dengue as well as hand, foot, and mouth disease, the treatment is also similar — isolation, rest, plenty of fluids, and hot water sponge for the relief of irritation and rashes.
- Supportive therapy of paracetamol for fever and body ache and other symptomatic treatments are required.
- Follow-up treatment and monitoring of patients with serious symptoms are being done by medical teams to prevent a fatality.



## Regions most affected in India

- Tomato Flu was first identified in the Kollam district of Kerala in May, 2022.
- More than 82 children below 5 years of age have been infected so far.
- In Kerala, it was declared an **endemic viral illness** and the local health authorities triggered an alert to the neighbouring states of Tamil Nadu and Karnataka.
- Additionally, 26 children (aged 1–9 years) were also infected in Odisha.
- Apart from Kerala, Tamil Nadu, Odisha & Haryana, no other states have reported Tomato Flu infections. Haryana is the recent addition in this list.

## VIZHINJAM INTERNATIONAL TRANSHIPMENT DEEPWATER MULTIPURPOSE SEAPORT

The ongoing protests against the construction of the Adani Group's Vizhinjam International Transhipment Deepwater Multipurpose Seaport in Kerala's capital Thiruvananthapuram intensified on August 22, with fisherfolk laying siege to the port from the sea and land.



### About:

- The biggest demand of the protesters is that the construction of the Rs 7,525-crore deepwater port and container transhipment terminal at Vizhinjam on the outskirts of Thiruvananthapuram should be stopped.
- The government has conceded all demands except providing a kerosene subsidy, and halting the construction of the port.

## JAMES WEBB SPACE TELESCOPE

The James Webb Space Telescope, NASA's latest and most powerful telescope, has captured new images of our solar system's largest planet, Jupiter, presenting it in a never before seen light.



## About:

- The photographs published have captured a new view of the planet, presenting in detail its massive storms, colourful auroras, faint rings and two small moons — Amalthea and Adrastea.
- Jupiter’s famous Great Red Spot, a storm so big that it could swallow Earth, appeared bright white in the image, since it was reflecting a lot of sunlight, the space agency stated.
- NASA’s \$10 billion James Webb Telescope was developed with the assistance of the European Space Agency and the Canadian Space Agency.
- It was launched to space on December 25, 2021 and is currently observing from Lagrange point 2, approximately 1.5 million km beyond Earth’s orbit around the Sun. The telescope released its first image on July 11 2022.

## BENAMI LAW

The Supreme Court declared as “unconstitutional and manifestly arbitrary” the amendments introduced to the Benami law in 2016, which apply retrospectively and can send a person to prison for three years even as it empowers the Centre to confiscate “any property” subject to a benami transaction.



## About:

- In a decision much awaited by businesses, a three-judge Bench, led by Chief Justice of India N.V. Ramana, declared as unconstitutional Sections 3(2) and 5 introduced through the Benami Transactions (Prohibition) Amendment Act, 2016. The 2016 law amended the original Benami Act of 1988, expanding it to 72 Sections from a mere nine.
- Section 3(2) mandates three years of imprisonment for those who had entered into benami transactions between September 5, 1988 and October 25, 2016. That is, a person can be sent behind bars for a benami transaction entered into 28 years before the Section even came into existence.



# CROSS & CLIMB ROHTAK



- Justice Ramana, who wrote the 96-page judgment, held that the provision violated Article 20(1) of the Constitution. Article 20(1) mandates that no person should be convicted of an offence, which was not in force “at the time of the commission of the act charged as an offence”.
  - Section 5 of the 2016 Amendment Act said that “any property, which is subject matter of benami transaction, shall be liable to be confiscated by the Central Government”. The court held that this provision cannot be applied retrospectively.
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