

G20-CHIEF SCIENCE ADVISERS ROUNDTABLE

Recently, the planning meeting of the G20-Chief Science Advisers Roundtable (G20-CSAR) was held online mode, to discuss the agenda topics and planning for the proposed high-level roundtables.



About the G20-Chief Science Advisers Roundtable

- It is a **government-to-government** level initiative conceptualised through India's G20-Presidency.
- It will be an effective platform to discuss and achieve solutions to some of the long pending as well as anticipated issues related to **scientific research, technology development and deployment**.
- Under this initiative, the Chief Science Advisers and their equivalents of G20 member countries, as well as the invited countries will discuss and develop collaborative frameworks for all involved countries.
- This initiative will also help in establishing an effective and coherent global science advice mechanism.
- The two high-level G20-CSAR meetings will be organised – the 1st G20-CSAR during 26-28 March 2023 at Hyderabad and the 2nd G20-CSAR during 27-29 Aug 2023 at Bengaluru.

WHAT IS TRANS FAT?

According to a recent report by the World Health Organization (WHO), five billion people globally are exposed to harmful trans fat, which is increasing their heart disease and death



risk.

About Trans fat

- Trans fat, or trans-fatty acids, are **unsaturated fatty acids** that come from either natural or industrial sources.

- **Naturally-occurring trans-fat** comes from ruminants (cows and sheep).
- **Industrially-produced trans-fat** is formed in an industrial process that adds hydrogen to vegetable oil converting the liquid into a solid, resulting in “partially hydrogenated” oil (PHO).
- Partially hydrogenated oils (PHO) are solid at room temperature and prolong the shelf life of products. They are primarily used for deep frying and as an ingredient in **baked goods**.

What are the Initiatives taken to reduce trans-fat intake?

- **National Level:** Foods Standards and Safety Authority of India (FSSAI) launched a “**Trans Fat-Free**” logo for voluntary labelling to promote TFA-free products.
- **Global Level:** World Health Organisation launched a **REPLACE campaign** in 2018 for global-level elimination of trans-fats in industrially produced edible oils by 2023.

WHAT IS THE SAFAR SYSTEM?

The Air Quality Index (AQI) in the national capital was recorded 381 recently, as per the System of Air Quality and Weather Forecasting and Research (SAFAR) and the air quality remained in the 'very poor category'.



About SAFAR system:

- It stands for **System of Air Quality Forecasting and Research**.
- SAFAR is an **air quality monitoring system**. It was introduced by the **Ministry of Earth Sciences (MoES)** to provide **location specific information on air quality in near real time and its forecast up to 3 days in India**.
- It is developed by **Indian Institute of Tropical Meteorology (IITM), Pune**, along with India Meteorological Department (IMD) and National Centre for Medium Range Weather Forecasting (NCMRWF).
- **Objective:** To increase awareness among the general public regarding the **air quality** changes in their city well in advance so that appropriate mitigation measures and systematic action can be taken up for betterment of air quality and related health issues.
- The **World Meteorological Organization** has recognised SAFAR as a **prototype activity** on the basis of the high quality control and standards maintained in its implementation.

How is the Air Quality Index (AQI) calculated in India?

- AQI is calculated based on the average concentration of a particular pollutant measured over a standard time interval (24 hours for most pollutants, 8 hours for carbon monoxide and ozone).
- Eight individual pollutants are monitored for the calculation of AQI in India. These are PM10, PM2.5, nitrogen dioxide, sulphur dioxide, carbon monoxide, ground-level ozone, ammonia, and lead.
- To calculate AQI, data for a minimum of three pollutants must be present, of which one should be either PM10 or PM2.5.

ERAVIKULAM NATIONAL PARK

Eravikulam National Park (ENP), a natural habitat for the endangered Nilgiri tahr, reported two tahr births recently.



About Eravikulam National Park:

- Location: Idukki District, Kerala
- Area: 97 sq. Km
- It was declared as a National Park in 1978.
- This is also the land of “Neelakurinji”, the flower that blooms once in twelve years.
- The highest peak south of the Himalayas – The Anamudi (2695 meters) is situated in this park.
- Topography: The major part of the park is covered with rolling grasslands, but several patches of shola forests are also found in the upper part of the valley.
- Flora:
 - Important flora includes Actinodaphne bourdilloni, Microtropis ramiflora, Pittosporum tetraspermium, Eupatorium adenophorum, Strobilanthus Kunthianus (Neela Kurinji)

- The shola grasslands are exceptionally rich in **balsams and orchids** including the long thought extinct variety *Brachycorythis wightii*.
- **Fauna:**
- **29 Species of mammals** are found here of which **5 are endemic to the Western Ghats**.
- The **Nilgiri Tahr, Gaur, Sloth Bear, Nilgiri Langur, Tiger, Leopard, Giant Squirrel and wild dog** are common.
- **Half the world population of the endangered Nilgiri Tahr** lives here.
- 140 species of birds of which 10 are unique to the Western Ghats.
- The **Atlas moth, the largest of its kind in the world** is seen in this Park.
- More than **100 varieties of butterflies and 20 species of amphibians** are also seen here.

Nilgiri Tahr:

- It is a **sure-footed ungulate that is endemic to the southern part of Western Ghats**.
- **Scientific name:** *Nilgiritragus hylocrius*
- It is also the **state animal of Tamil Nadu**.
- **Conservation Status:**
 - **IUCN:** “Endangered”
 - **Wildlife (Protection) Act of India, 1972 :** Schedule 1

WHAT IS PARAM VIR CHAKRA?

The Prime Minister recently named the 21 largest unnamed islands of the Andaman & Nicobar Islands after 21 Param Vir Chakra awardees.



About Param Vir Chakra:

- It is **India's highest military decoration** awarded for the **highest degree of valour or self-sacrifice in the presence of the enemy**.
- The Param Vir Chakra was **introduced on January 26,**

1950, on the first Republic Day with **retrospective effect from 15 August 1947.**

- Literally, Param Vir Chakra means 'Wheel (or Cross) of the Ultimate Brave'.
- It can be awarded **posthumously.**
- It is similar to the British Victoria Cross, US Medal of Honor, or French Legion of Honor or Russian Cross of St. George.
- **Design:**
- The medal was **designed by Mrs. Savitri Khanolkar.**
- The medal is **cast in bronze and circular in shape.**
- In the centre, on a raised circle, is the **state emblem, surrounded by four replicas of Indra's Vajra, flanked by the sword of Shivaji.**
- **On its reverse, it shall have embossed Param Vir Chakra both in Hindi and English with two lotus flowers between Hindi and English. The fitting will be swivel mounting.**
- The decoration is suspended from a straight swiveling suspension bar, and is held by a **32 mm purple ribbon.**
- **First winner: Major Somanth Sharma, from the Kumaon regiment.**
- Till now, **only 21 people had been given the Param Vir Chakra award of which 14 are posthumous.**

Gallantry Awards:

- They have been instituted by the Government of India **to honour the acts of bravery and sacrifice** of the officers/personnel of the Armed Forces, other lawfully constituted Forces and civilians.
- They are **announced twice in a year** - first on the occasion of the **Republic Day** and then on the occasion of the **Independence Day.**
- India's Gallantry Awards in the **order of precedence:**
- **Param Vir Chakra**
- **Ashoka Chakra**
- **Mahavir Chakra**
- **Kirti Chakra**

- Vir Chakra
 - Shaurya Chakra.
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THE IT RULES 2021: HOW DOES THE GOVERNMENT USE ITS 'EMERGENCY POWERS' FOR ONLINE CONTENT

What's in News?

- Recently, the Ministry of Information and Broadcasting (MIB) directed YouTube and Twitter to take down links sharing the BBC documentary titled 'India: The Modi Question.'
- The order was passed under the emergency provisions of the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021.**

What are the Emergency Provisions?

- Under the IT Rules 2021, the MIB has powers to issue content takedown notices to social media intermediaries like YouTube, Twitter and Facebook in emergency situations **for which no delay is acceptable.**
- These emergency notices can be issued **if the MIB believes that the content can impact the sovereignty, integrity, defence** or security of India, friendly relations with foreign states or public order, or to prevent incitement to any cognisable offence.
- Since 2021, **the MIB has used the emergency provisions at least seven times** (known because the Ministry communicated in press releases), most prominently for YouTube.
- However, in the case of the BBC documentary, the Ministry has not yet issued any release through its official channel - the Press Information Bureau.

What Actions can Users Take if their Content has been Impacted?

- Although the IT Rules 2021 outline user recourse options, these are **only applicable to actions taken by social media companies.**
- For instance, if a platform has on its own taken down some content, **the user can approach the grievance officer of the platform to raise a dispute**, which they are to redress within 15 days.

- However, if a platform has taken down content on the basis of the **emergency provisions** in the Rules, **the legislation does not offer any direct recourse.**
- The only option users have in this case is **to approach courts.** However, by their very nature, the blocking orders are confidential, which means that **users do not know the provisions under which their content was flagged.**
- Also, how the government decided that a particular piece of content should be taken down is **not known to citizens.**
- Platforms like Twitter voluntarily inform users that they have taken down their content based on the government's request.

News Summary with respect to Taking Down of BBC Documentary:

- **What has the government said about the documentary?**
 - The MIB has rejected the documentary produced by BBC as a “**propaganda piece**” that lacks objectivity and reflects a **colonial mindset.**
 - The senior officials of ministries including the MEA, Home, and I&B have examined the documentary and found it to be an attempt to -
 - Allegedly undermine the Supreme Court of India's authority and credibility,
 - Cause strife between different communities, and
 - Make unproven claims about the actions of foreign governments in India.
 - The documentary was **accordingly found to be undermining sovereignty and integrity** of India and having the potential to adversely impact India's friendly relations with foreign states as also public order within the country.
- **Opposition, experts say censorship:**
 - When the IT Rules 2021 were first notified, experts had already noted that it would **increase political control** (state surveillance) **in the online space** and censorship and hate speech would balloon at the same time.
 - **Opposition parties** said the decision to block links to the documentary on YouTube and Twitter amounted to “censorship”.

INS VAGIR COMMISSIONED INTO INDIAN NAVY

Why in news?

- INS Vagir, the **fifth stealth Scorpene-class Submarine**, was commissioned into the Navy.
- Vagir was launched in November 2020, under Project 75 (P-75) and was delivered to Navy in December, 2022 after completion of sea trials.

P-75 project

- In June 1999, the Cabinet Committee on Security had approved a plan for the Indian Navy to induct indigenously build submarines by 2030.
- It was broken down in two phases — P-75 and P-75I.

First Phase: P-75

- Under the first phase of P-75, signed in 2005, India and France signed a \$3.75 billion contract for building **six Scorpene** class submarines.
- The executing company on the Indian side was Mazgaon Docks Ltd, and on the French side, it was DCNS, which is now called Naval Group.
- Under this project, the **first** submarine was commissioned in December 2017.

Second Phase: P-75I

- The P-75I phase envisages the **construction of six conventional submarines** with better sensors and weapons and the Air Independent Propulsion System (AIP).
- Defence Acquisition Council cleared the project in 2019 **under the strategic partnership (SP) model**.
 - The Ministry of Defence (MoD) announced in 2017 the much-anticipated SP model for the Indian private sector.
 - This was announced to promote Make in India in defence manufacturing
 - SP model seeks to identify a few Indian private companies as Strategic Partners who would initially tie up with a few shortlisted foreign Original Equipment Manufacturers (OEMs) to manufacture big-ticket military platforms.

News Summary: INS Vagir commissioned into Indian Navy

- The Indian Navy commissioned the **fifth diesel-electric Kalvari-class** submarine Vagir.
 - The design of the Kalvari-class of submarines is based on the Scorpene class of submarines designed.
- INS Vagir would form part of the Western Naval Command's Submarine fleet.

Features

- **Belongs to Kalvari-class**
 - Vagir is a Kalvari-class submarine, which includes vessels, such as the INS Kalvari, INS Khanderi, INS Karanj, INS Vela, INS Vagir and INS Vagsheer.
 - In April, 2022 INS Vagsheer was launched and would be commissioned by 2023.
 - In maritime parlance, a class of ships is a group of vessels which have the same make, purpose and displacement.
 - The class is generally named after the first vessel in the category.
 - This class of submarines have Diesel Electric transmission systems and these are primarily attack submarines or 'hunter-killer' types.
 - This means they are designed to target and sink adversary naval vessels.
 - These submarines are around 220 feet long and have a height of 40 feet.
 - It can reach the highest speeds of 11 knots (20 km/h) when surfaced and 20 knots (37 km/h) when submerged.
- **Technical features**
 - Vagir is capable of undertaking diverse missions including anti-surface warfare, anti-submarine warfare, intelligence gathering, mine laying and surveillance missions.
 - It has advanced stealth features and is also equipped with both long-range guided torpedoes and anti-ship missiles.

Strategic importance

- India currently operates group of **nuclear-powered submarines** and **diesel-electric submarines**.
- As per naval warfare principles, for India to create a strategic deterrence, there is a specific number of submarines of both types that India needs to have in active service.



CROSS & CLIMB ROHTAK



- These submarines have their designated roles in the **Carrier Battle Groups**, which are formations of ships and submarines with Aircraft Carriers in the lead role.
 - However, currently, India has a less-than-ideal number of submarines, with many new ones being at various stages of construction.
 - With the latest induction, India now has **16 conventional submarines** and a **nuclear submarine** in service.
 - Induction of INS Vagir also reflects major milestone for **Indian Navy's Project 75 and Make in India initiative**.
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