

India Energy Week

❖ Context

- In a run-up to India Energy Week 2023 (IEW 2023) to be held in Bengaluru, Union Minister of Petroleum & Natural Gas, ceremonially inaugurated the demo-run of Inland Water Vessel powered by Methanol blended Diesel (MD15).

Key Highlights:

- The boat ride was done on a 50-seater motor launch marine vessel named '**SB Gangadhar**'.
- The marine vessel is equipped with two **Ruston made diesel** engines (each engine of 105 hp).
- The boat will be run on MD-15 (15% methanol blended HSD).
- **Methanol is a low carbon hydrogen** carrier fuel produced from high ash coal, agricultural residue, CO2 from thermal power plants and natural gas.
- It is the best pathway for **meeting India's commitment to COP 21**.
- **Although slightly lower in energy** content than petrol and diesel, methanol can replace both these fuels in:-
 - The **transport sector** (road, rail and marine).
 - **Energy sector** comprising DG sets, boilers, **Process heating** modules, Tractors, and commercial vehicles
 - **Retail cooking** (replacing LPG [partially], kerosene and wood charcoal)

About India Energy Week:

- IEW 2023 is the first major event under India's G20 Presidency, which follows the Honourable Prime Minister pledge at **COP26 to cut India's emissions to net-zero by 2070**.
- Held under the patronage of the Ministry of Petroleum & Natural Gas, Government of India, India Energy Week is the only & all-encompassing international energy event.
- It is officially supported by **the Federation of Indian Petroleum Industry (FIPI)**.

Methanol Economy Programme:

- NITI Aayog's 'Methanol Economy' programme is aimed at reducing India's oil import bill, greenhouse gas (GHG) emissions, and converting coal reserves and municipal solid waste into methanol.
- Methanol is a **cost-effective alternative marine fuel**. It is less costly than other marine fuel and is economical in terms of developing the shore side storage and bunkering infrastructure.
- The cost to convert vessels to run on methanol is significantly less than **other alternative fuel conversions** with no need for expensive exhaust gas after treatment and as a liquid fuel.
- **Only minor modifications** are needed for existing storage & bunkering infrastructure to handle methanol.
- **Blending of 15% methanol** in gasoline can result in at least 15% reduction in the import of gasoline/crude oil.
- In addition, this would **bring down GHG emissions by 20%** in terms of particulate matter, NOx, and SOx, thereby improving the urban air quality.
- Methanol Economy will also **create close to 5 million jobs** through methanol production/application and distribution services.
- **Additionally, Rs 6000 crore** can be saved annually by blending 20% DME (Di-methyl Ether, a derivative of methanol) in LPG.
- This will help the consumer in saving **between Rs 50-100 per cylinder**.

Republic Day : Tableaux

❖ Context

- The Minister of Defence recently announced that 17 states and union territories, such as West Bengal, Assam, Arunachal Pradesh, Tripura, and Jammu & Kashmir, will **display their tableaux at Kartavya Path** for the **Republic Day parade**.

Key Highlights:

- **Six of the ministries and departments** will also display their tableaux.
- They will depict the nation's **rich cultural heritage, economic progress** and strong internal and external security.

The Process to Decide the Tableaux:

- The **Defence Ministry is responsible** for the Republic Day parade and the celebrations.
- Every year, around September, the ministry initiates the process to decide the tableaux.
- It asks all the states, the Union Territories, Central Government departments, and a few constitutional authorities to send their tableau proposals.

Guidelines on What can be Depicted:

- The participants have to **showcase elements relevant to their state/ UT/ department**, within the overarching theme.

- The themes given to participants this year were around **75 years of India's Independence, the International Year of Millets and 'Nari Shakti'**.
- The Defence Ministry also shares the basic guidelines about what all the tableaux can or should include.
- **The participating entities must engage-**
 - Young qualified designers from renowned institutions.
 - Electronic display walls for a bright display of images or content.
 - Moving elements using robotics or mechatronics.
 - 3D printing could be used for certain elements.
 - Use of augmented or virtual reality.
 - Special effects to improve the optics and visual effects of the tableau.
- The tableaux of two different states/ UTs **must not be similar**.
- It **cannot have any writing or use of logos**, except for the name of the state/ UT/ department.
- The name should be written in Hindi on the front, English on the back, and a regional language on the sides.

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- The Defence Ministry also asked the participants to **use eco-friendly material for the tableaux**, and avoid the use of plastic or plastic-based products.

Selection of Tableaux:

- For the selection process, **the Defence Ministry constitutes a committee** of “distinguished persons” from fields like art, culture, painting, sculpture, music, architecture, choreography, etc.
- It helps in shortlisting the tableaux from the proposals.
- First, the submitted sketches or designs of the proposals are scrutinised by this committee.

- The next stage is for the participants to come up with three-dimensional models for their proposals.
- In making the final selection the committee looks at a combination of factors, looking at the visual appeal, impact on the masses, idea/ theme of the tableaux etc.

Size of Tableaux:

- The Defence Ministry provides each participant with **one tractor and one trailer**, and the tableau should fit on that.
- However, the participant can replace their ministry-provided tractor or trailer with other vehicles, but the **total number should not be more than two vehicles**.

Eravikulam National Park (ENP)

❖ Context

- Recently, Eravikulam National Park (ENP) witnessed an **early onset of the breeding season with two tahr births**, even as the authorities are preparing to close the park on January 31 2023.

Key Highlights:

- This is the first time in the park’s history that a newborn has been reported as early as the second week of December.
- Normally, the park closes for breeding season from January 31 to March 31.
- In the annual census conducted last year, 785 tahrs were sighted inside the park, and 125 new kids were sighted inside ENP.

Nilgiri Tahr:

- About**
 - The Nilgiri tahr is an ungulate that **lives high in the mountains of southern India**.
 - Males are larger** than females & of darker color when mature.
 - It’s endemic to the Nilgiri Hills & the southern portion of the Western and Eastern Ghats.
 - It is the **state animal of Tamil Nadu**.
 - It is also known as **Nilgiri ibex**.
- Habitat**
 - It **inhabits the open montane grassland** habitat of the South Western Ghats montane rain forests ecoregion.
- Distribution**
 - The Nilgiri tahr can be **found only in India**.
- Threats:**
 - Habitat loss mainly due to **overgrazing of domestic livestock**.
 - Illegal hunting, and climate change**.
- Conservation Status**
 - IUCN Red List- **Endangered (EN)**.
 - WPA 1972- **Schedule I**.



Eravikulam National Park (ENP)

- About**
 - It is a 97 km² national park **located along the Western Ghats** in the Idukki and Ernakulam districts of **Kerala**.
 - It is the **first national park in Kerala**.
 - Anamudi**, 2,695 meters, the **highest peak** in South India is inside this park.
 - Eravikulam National Park is also the **land of “Neelakurinji”**, A flower that blooms once every twelve years.
- Legal Status**
 - Eravikulam was **declared a wildlife Sanctuary in 1975** for the protection of the indigenous population of Nilgiri Tahr.
 - In **1978, it was declared a National Park** considering its biodiversity.
- Flora**
 - Three major types of plant communities are found in the Park-
 - Grasslands.**
 - Shrublands.**
 - Forests.**
 - The terrain consists of high altitude grasslands interspersed with sholas.
- Fauna**
 - The **Nilgiri Tahr**, half the world population of the endangered Nilgiri Tahr lives in Eravikulam.
 - Lion-tailed macaques, gaur, Indian muntjac.**
 - Tiger and Leopard.**
 - Panthers** of the Park are spotted in open grasslands while **Civet cats and Jungle cats** live in the Sholas of the upper plateau.
 - Sloth Bear, Nilgiri Langur, Giant etc.**

News in Between the Lines

❖ Context

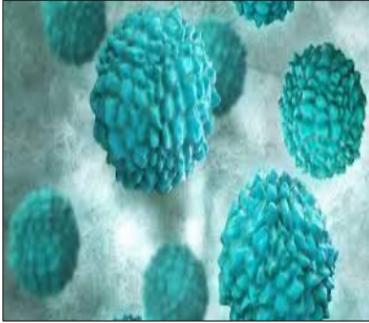
- Recently, The Kerala Health Department confirmed two cases of the gastrointestinal infection norovirus in class 1 students in Ernakulam district.

❖ Key Highlights:

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Norovirus



- Norovirus has been **circulating among humans for over 50 years** and is thought to be one of the **primary causes of gastroenteritis**.
- It is commonly referred to as **'food poisoning' or a 'stomach bug'**. Norovirus is **highly contagious**.
- The virus is **estimated to kill 200,000 persons globally every year**.
- Most deaths are occurring among those below the **age of five years** and those over the **age of 65 years**.
- The virus is capable of **surviving low temperatures**, and outbreaks tend to be more common during the winter and in colder countries — that is why it is sometimes referred to as **“winter vomiting disease”**.
- **Symptoms**
 - Norovirus leads to diarrhoea, vomiting, nausea, and abdominal pain.
 - Being a diarrhoeal disease, it can lead to dehydration, so drinking plenty of fluids is recommended.
- **Transmission**
 - Most outbreaks of this virus happen when infected people spread the virus to others through direct contact.
 - Food, water, and surfaces contaminated with norovirus can also cause outbreaks.

Green Comet



❖ Context

- Green comet' is **appearing close to Earth after 50,000 years**.

❖ Key Highlights:

- NASA said observers in the Northern Hemisphere will find the comet in the morning sky during January.
- It'll become visible in the Southern Hemisphere in early February.
- The comet termed as C/2022 E3 (ZTF).

❖ Green Comet:

- **Origin**
 - The orbit indicates **it comes from the edge of our solar system**, a distant reservoir of comets we call the Oort cloud.
 - The **Oort cloud** is thought to be a big, spherical region of outer space enveloping our sun, consisting of innumerable small objects, such as comets and asteroids.
- **Distance From Earth**
 - The green comet could be at a distance of 2.5 light minutes from Earth, meaning a “mere” 27 million miles.
- **Comet**
 - Comets are **frozen rocky or gas-filled objects** that are remnants of the formation of the solar system.
 - Due to their composition, characteristics and the path they move in, they tend to leave a light “behind them”.
 - Here, the comet itself is green (called the head of the comet) and emits a whitish light behind it (often called the tail of the comet).

Machu Picchu



❖ Context

- As protests rage in Peru, the popular tourist destination of **Machu Picchu has been indefinitely shut for visitors**.

❖ About Machu Picchu:

- Machu Picchu is an **Incan citadel** set high in the Andes Mountains in Peru, above the **Urubamba River valley**.
- It is often referred as the **"Lost City of the Incas"**.
- It was built in the 15th century and later abandoned.
- It is famous for its sophisticated dry-stone walls that fuse huge blocks without the use of mortar, and intriguing buildings that play on astronomical alignments and panoramic views.
- Machu Picchu was **declared a Peruvian Historic Sanctuary in 1981** and a **UNESCO World Heritage Site in 1983**.
- In 2007, Machu Picchu was voted one of the **New Seven Wonders of the World** in a worldwide internet poll.

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TROPEX-23



❖ Context

- Theatre Level Operational Readiness Exercise (Tropex-23) **Indian Navy's Largest War Game.**

❖ About TROPEX:

- The 2023 edition of Indian Navy's major maritime exercise TROPEX, is currently underway in the **Indian Ocean Region.**
- This operational level exercise is **conducted biennially** and witnesses participation not only by all Indian Navy units but also of Indian Army, Indian Air Force & Coast Guard assets.
- As part of the exercise, all surface combatants of the Indian Navy including **Destroyers, Frigates, Corvettes** as well as submarines and aircraft are put through complex maritime operational deployment.
- This exercise provides an opportunity **to test the combat readiness** of the combined Fleets of the Indian Navy to operate in a multi-threat environment.

BharOS



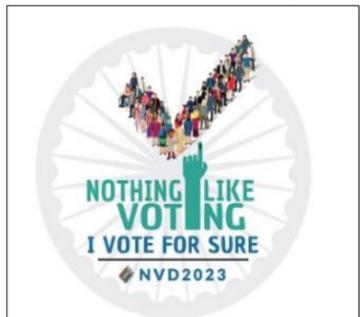
❖ Context

- 'BharOS', a Made in India mobile operating system **developed by IIT Madras** successfully tested.

❖ What is BharOS?

- It is an indigenous, or homegrown, **mobile operating system (OS)**, like Android or iOS.
- These systems help **smartphone users interact** with their device and access its features, while ensuring safety.
- BharOS, in particular, is meant to be a contribution towards the idea of a **self-reliant India or 'Atmanirbhar Bharat'** by creating a secure OS environment for India-based users.
- The OS can be installed **on commercial off-the-shelf handsets**, stated the IIT Madras.
- BharOS would offer **Native Over The Air (NOTA)** updates, meaning that security updates and bug fixes will be automatically installed rather than users having to check for updates and implementing them on their own.

National Voters' Day



❖ Context

- 13th National Voters' Day (NVD) to be celebrated on 25th January 2023. Theme for this year's NVD is '**Nothing Like Voting, I Vote for Sure**'.

❖ About National Voters' Day:

- **National Voters' Day** has been celebrated on January 25 every year, all across the country to mark the **foundation day of the Election Commission of India, i.e. 25th January 1950.**
- **The main purpose of the NVD** celebration is to create electoral awareness amongst citizens and encourage them to participate in the electoral process.
- The National Voters' Day is also used **to facilitate enrolment of voters**, especially the newly eligible young voters by handing over their Elector Photo Identity Card (EPIC) to them in the NVD functions held across the country.
- NVD is celebrated at the national, state, district, constituency and polling booth levels, which makes it **one of the largest celebrations in the country.**

National SC – ST Hub



❖ Context

- **A National SC-ST Hub Conclave** was held in Mumbai and was organized by the Union Ministry of Micro Small and Medium Enterprise.

❖ Key Highlights:

- **National SC ST Hub** is being implemented by the Union Ministry of MSME to provide professional support to SC-ST entrepreneurs and thus promote inclusive growth.
- **The Hub supports entrepreneurs of the SC and ST** communities in capacity building, market linkages, finance facilitation and tender bid participation.
- **Under the Special Credit Linked Capital Subsidy Scheme**, all the SC-ST MSEs of manufacturing as well as service sector are eligible for 25% subsidy, with a ceiling of Rs. 25 lakh, for procurement of Plant & Machinery and equipment through institutional credit.
- **Under the Special Marketing Assistance Scheme (SMAS)**, marketing support is provided to the SC/ST enterprises for enhancement of competitiveness and marketability of their products through National SC-ST Hub.