Bharat NCAP

Context: Shri Nitin Gadkari, the Union Minister of Road Transport and Highways, will launch Bharat NCAP on August 22, 2023.

- The Bharat New Car Assessment Programme (Bharat NCAP) marks a significant stride in the Indian government's commitment to enhancing road safety for vehicles up to 3.5 tonnes.
- The primary objective of this program is to elevate the safety standards of motor vehicles, ensuring safer roads in India.
- Bharat NCAP offers car buyers a tool for assessing and comparing the crash safety of various motor vehicles available in the market.
- Car manufacturers have the option to voluntarily subject their vehicles to testing according to Automotive Industry Standard (AIS) 197.
- Based on the performance of vehicles in these tests, they receive star ratings for Adult Occupants (AOP) and Child Occupants (COP) safety.
- These star ratings provide potential buyers with a reliable way to evaluate and compare safety standards, aiding their purchasing decisions.
- The program is expected to stimulate a growing demand for safer cars, prompting manufacturers to align with customer preferences.
- Elevated safety standards can enhance the competitiveness of Indian cars globally, potentially boosting the export capabilities of Indian manufacturers.
- Bharat NCAP's implementation is likely to cultivate a safety-conscious car market within India.

Other Initiatives for Road Safety

- The Ministry of Road Transport and Highways (MoRTH) represented India in the Third High-Level Global Conference on Road Safety for Achieving Global Goals 2030 in Sweden in 2020.
- During the conference, the ambitious goal of achieving zero road fatalities in India by 2030 was conceptualized.
- India endorsed the Brasilia Declaration, a commitment to reducing road fatalities, which was signed during the Second Global High-Level conference on Road Safety in Brazil.
- The Motor Vehicles (MV) (Amendment) Act of 2019 introduced increased penalties for various traffic violations, including those related to defective vehicles and juvenile driving.
- The MV (Amendment) Act also established the Motor Vehicle Accident Fund, designed to offer mandatory insurance coverage to all road users in India for specific types of accidents.

Luna-25

Context: Roscosmos declared that the Luna-25 mission concluded with a crash landing on the lunar surface, marking a disappointing outcome for the endeavour.

- Luna 25, a Russian lunar lander mission by Roscosmos, was launched in August 2023.
- The mission aimed to land near the lunar south pole at the crater Boguslawsky.
- Initially named Luna-Glob, it was later renamed Luna 25 to connect with the Soviet Luna program.
- This was Russia's first lunar probe sent by Roscosmos (excluding those by the Soviet program).
- The mission launched on August 10, 2023, from Vostochny Cosmodrome on a Soyuz-2.1b rocket.
- Unfortunately, on August 19, 2023, the lander crashed into the Moon due to a mistaken orbital manoeuvre.

Scientific Payloads

- Luna 25's science payload consisted of eight Russian instruments and a Swedish payload.
  - **ADRON-LR**: Analyzed regolith using neutron and gamma-ray analysis.
  - **ARIES-L**: Measured exospheric plasma.
  - **LASMA-LR**: Employed laser mass-spectrometry.
  - **LIS-TV-RPM**: Conducted infrared spectrometry of minerals and imaging.
  - **PmL**: Measured dust and micro-meteorites.
  - **THERMO-L**: Assessed thermal properties of regolith.
  - **STS-L**: Provided panoramic and local imaging.
  - **Laser retroreflector**: Conducted Moon libration and ranging experiments.
  - **LINA-XSAN**, a Swedish payload, was intended for Luna 25, but was moved to Chang'e 4 due to launch delays.
- **ESA's PILOT-D** navigation camera was planned for Luna 25, but changed to a commercial provider due to uncertainties caused by the 2022 Russian invasion of Ukraine and subsequent sanctions. This instrument aimed to collect data for future mission landings and was not integral to the probe's system.

Definition of Green Hydrogen in India

Context: As a significant step in progressing the National Green Hydrogen Mission, the Indian government has formally launched the Green Hydrogen Standard.

- The Ministry of New and Renewable Energy (MNRE) has formulated the Green Hydrogen Standard to establish emission benchmarks for hydrogen production, verifying its renewable source.
- This standard encompasses hydrogen generated through electrolysis and biomass-based methods.
- **After consultations with stakeholders, Green Hydrogen is defined as having well-to-gate emissions not exceeding 2 kg CO2 equivalent per kg H2.**
- The MNRE will develop a comprehensive framework for assessing, reporting, authenticating, and certifying green hydrogen and its derivatives.
- The Bureau of Energy Efficiency (BEE) under the Ministry of Power is responsible for accrediting agencies overseeing Green Hydrogen projects.
- The Green Hydrogen Standard provides clarity to India's Green Hydrogen community, meeting anticipated expectations.
- India's adoption of this standard positions it as a pioneer in defining Green Hydrogen and reaffirms its commitment to sustainable hydrogen production.

Colour-coded Hydrogen

- **Green Hydrogen**: Made from renewable energy via electrolysis, emitting no CO2 during production.
- **Blue Hydrogen**: Produced from natural gas with carbon capture, reducing CO2 emissions.
- **Grey Hydrogen**: Commonly made from natural gas, lacks CO2 capture.
- **Black/Brown Hydrogen**: Created from coal, highly environmentally harmful.
- **Pink/Purple/Red Hydrogen**: Generated by nuclear-powered electrolysis, expanding hydrogen options.
- **Turquoise Hydrogen**: Emerging method using methane pyrolysis, reliant on renewable energy and carbon storage.
- **Yellow Hydrogen**: Derived from solar-powered electrolysis.
- **White Hydrogen**: Natural hydrogen from underground deposits, not yet utilized.

Onion Buffer enhanced

Context: In an exceptional decision, the Government has elevated the onion buffer quantity to 500,000 metric tonnes this year, surpassing the initial procurement goal of 300,000 metric tonnes.

- The Department of Consumer Affairs has instructed NCCF and NAFED to each procure 100,000 tonnes of onions to achieve additional procurement targets.
- The focus is on both purchasing and strategically distributing procured stocks in major consumption areas.
- Onions are being released from the buffer to markets where prices exceed national averages or have risen significantly from the previous month.
- Approximately 1,400 MT of buffer onions have been dispatched to targeted markets, with continuous releases ongoing.
- Buffer onions will also be sold at a subsidized rate of Rs. 25 per kg through NCCF's retail outlets and mobile vans starting from August 21, 2023.
- Future retail sales will involve more agencies and e-commerce platforms.
- Government measures, including buffer procurement, targeted stock release, and export duty imposition, aim to ensure fair prices for farmers and affordable availability for consumers.

NAFED (National Agricultural Cooperative Marketing Federation of India Ltd)

- Established on October 2, 1958, to boost agricultural and forest trade in India.
- Registered under the Multi-State Co-operative Societies Act.
- Promotes marketing and trading for agricultural products and more.
- One of India's largest procurement and marketing agencies.
- Headquarters in New Delhi, with regional and zonal offices across the country.
- **Functions of NAFED include:**
  - Facilitating, coordinating, and promoting marketing and trading activities of cooperative institutions for agricultural and other commodities.
  - Undertaking the purchase, sale, and supply of agricultural requisites like seeds, fertilizer, machinery, and implements.
  - Acting as a warehouse operator under the Warehousing Act, owning and constructing storage facilities.
  - Serving as an agent for government agencies or cooperatives in purchasing, selling, and distributing various agricultural and consumer goods.
  - Acting as an insurance agent and conducting related activities.
  - Collaborating with international agencies for cooperative development in India and abroad, mutually benefiting marketing and processing.

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NEWS IN BETWEEN THE LINES

The National Cooperative Consumers' Federation of India Limited (NCCF)

About:

- NCCF is a cooperative federation established in India.
- It focuses on serving consumers by ensuring the availability of essential commodities at reasonable prices.
- NCCF operates on the cooperative principle, involving the participation of various cooperative societies and institutions.
- It serves as a link between producers, consumers and distribution channels.
- NCCF plays a crucial role in distributing essential commod ities, including food items, at affordable rates.
- It contributes to stabilizing prices in the market, particularly during periods of price volatility.
- One of NCCF's key functions is to regulate and maintain stable prices of essential commodities.
- It often sells goods at subsidized rates to ensure accessibility for consumers.
- In the case of commodities like onions, NCCF might be involved in managing buffer stocks to stabilize prices and ensure consistent supply.
- NCCF's operations can contribute to supporting farmers by providing them with a steady market for their produce.
- It bridges the gap between agricultural producers and consumers.

White-Bellied Sea Eagle

What is White-Bellied Sea Eagle?

Indian white-bellied sea eagles adopting nesting on power towers like in Australia and Thailand. It is a large diurnal bird of prey.

Scientific Name: Haliaeetus leucogaster.

Distribution Range:

- Found throughout Southeast Asia.
- Spanning from southern China to Australia, India to New Guin ea.
- Also observed in island nations such as Singapore, Indonesia, Philippines.

Preferred Habitats:

- Habitat near ocean coasts, islands, estuaries.
- Also seen in forested areas with access to smaller water bodies.

Distinctive Features:

- Notable white head, neck, belly, and thighs; dark-gray to black back and wings.
- Dark-brown to black eyes, blue-grey hooked bill, scaled featherless legs.

Predominant Diet:

- Mainly piscivorous, primarily feeding on fish.
- Also preys on water birds, small mammals and carrion.

Conservation Status:

IUCN Status: Least Concern.

Ashokan-era Edicts

Ashokan Rock Edict in South Delhi:

- Located near Kalkaji temple in East of Kailash, South Delhi.
- Depicts Emperor Ashoka's policy of Dhamma after his conversion to Buddhism post the Kalinga battle.
- Historical importance pre-dates the Chahamanas, Lodhis, and Khiljis.

Historical Context and Placement:

- Engravings nearly illegible; preserved inside an iron enclosure.
- Associated with an older shrine, perhaps for legitimacy.
- Positioned on an arterial trade route connecting Northwest to Gangetic plains.

Ashokan Pillars in Delhi:

- Two Ashokan edicts present in Delhi on pillars.
- One near Hindu Rao Hospital and the other at Feroz Shah Kotla.

Origin and Migration of Pillars:

- Original pillars not established in Delhi; brought by Feroz Shah Tughlaq (14th Century ruler).
- One pillar from Topra (near Haryana) and the other from Meerut.
- Emperor fascinated by the pillars during military campaigns.

Pillars' Transformations:

- Pillars changed hands and ownership over time.
- Inscriptions from different centuries, including rulers and people.

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Miniature Replicas in China

Emergence of Miniature Replicas:
- Miniature replicas of homes gaining popularity in China.
- Reflect the rapid modernization and changes in society.

Preservation of Memories:
- Miniatures crafted to preserve memories of demolished or altered homes.
- Respond to the disappearing structures due to urbanization and redevelopment.

Artistic Response to Change:
- Miniature artists address the cultural and emotional impact of urbanization.
- Express the sentimentality and nostalgia associated with childhood homes.

Symbolism of Miniatures:
- Miniature replicas symbolize a connection to the past and cultural heritage.
- Hold emotional value beyond aesthetic appreciation.

Niche Craft and Online Impact:
- A small but growing community of miniature artists.
- Gain substantial followings on social media platforms like Douyin.

Cultural Transformation:
- China's journey from poverty to a major global economy in a short span.
- Urbanization leads to the transformation of landscapes and neighborhoods.

Artemis 2 Mission

What is Artemis 2 Mission?

Artemis 2 Mission is the second crewed flight within NASA's Artemis program. Its primary aim is to transport astronauts to the moon's vicinity, a historic milestone not achieved since 1 972.

Mission Details: Four astronauts will orbit the moon before returning using Space Launch System (SLS) and Orion spacecraft.

Participants: Includes NASA and Canadian Space Agency astronauts.

Assessment: Crew and controllers will evaluate Orion's performance and readiness for lunar missions.

Artemis Program Overview:

NASA's Mission: Aims to return astronauts to the Moon as a precursor to Mars missions.

Inclusion: Seeks to land the first woman and first person of color on the lunar surface.

Lunar Gateway: Involves constructing the Lunar Gateway space station orbiting the Moon.

Artemis I: Successful uncrewed test flight of Orion spacecraft on SLS rocket on November 16, 2022.

Places in News

San Diego County

Recently, Hurricane Hilary has been predicted to make landfall in San Diego County between 3 pm and 6 pm PDT on Sunday.

Geographical Location:
- Located in the southern part of California, USA.
- Borders the Pacific Ocean to the west and Mexico to the south.

County Seat: San Diego is the county seat of San Diego County.

Major Cities: San Diego, Chula Vista and Oceanside.

Mexico Border: Proximity to the US-Mexico border, with Tijuana, Mexico, being a neighboring city.

Tourist Attractions: Home to various attractions such as Balboa Park, San Diego Zoo, USS Midway Museum, and SeaWorld.

What is Hurricane Hilary?
- Hurricane Hilary emerged as a recent tropical cyclone, affecting San Diego county.
- It gained significance for being the first tropical storm to strike Southern California in more than 80 years, showcasing its uncommon occurrence in the area.

POINTS TO PONDER

- **What is the function of SHAPE Module in the Chandrayaan-3?** – To help identify habitable exoplanets
- **What is MERCOSUR, also known as the Common Market of the South?** – Economic and Political agreement of South American States
- **What is the app developed by NCPCR for real-time monitoring of Child Care Homes?** – MASI
- **Which cell line is known as the "immortal cell line," widely used in scientific research?** – HeLa
- **Which country launched the 'Sponge City Initiative' in 2015?** – China