

NEWSPAPER HIGHLIGHT

When Hyderabad based Skyroot Aerospace successfully test fired Dhawan1 last month, it became the country's first privately developed, fully cryogenic rocket engine running on two high performance rocket propellants — liquid natural gas (LNG) and liquid oxygen (LoX). The engine was developed using 3D printing with a superalloy. That has set the firm on a higher trajectory with an ambitious plan to launch the first private space launch vehicle using cryogenic engine Vikram2 into orbit in two years.

Sri Lanka's Malaiyaha Tamil workers, whose labour in tea plantations fetches precious foreign exchange to the country, are living in "inhumane and degrading" conditions, a UN expert has said. "Contemporary forms of slavery have an ethnic dimension. In particular, Malaiyaha Tamils —who were brought from India to work in the plantation sector 200 years ago — continue to face multiple forms of discrimination based on their origin," said Tomoya Obokata, UN Special Rapporteur on contemporary forms of slavery.

The Supreme Court approved the measures taken by the Centre's Air Quality Commission to create an 'Enforcement Task Force' and flying squads to prevent and penalise polluters in Delhi NCR. Appearing before a Bench led by Chief Justice of India N.V. Ramana, Solicitor General Tushar Mehta, for the Union government, said the task force was formed on December 2. The flying squads, which have conducted 25 surprise checks so far, would directly report to the task force, he said. "The task force has two independent members. It will meet at every day. The task force will take action on behalf of the commission against violators.

The Parliamentary Standing Committee on Home Affairs has urged the State Governments to follow the crime analytics model of Delhi Police in preventing street crimes against women through crime mapping and identification of hotspots for reinforced action. Communicating this to the Chief Secretaries of the States and Union Territories, the Union Home Ministry said the Crime Mapping Analytics and Productive System and related tools were deployed on the Crime and Criminal Tracking Network & Systems (CCTNS).

CYCLONE JAWAD

1. A deep depression in the Bay of Bengal has intensified into cyclonic storm Jawad and is likely to make landfall near Odisha and Andhra Pradesh. The name was given by? Saudi Arabia has given the cyclone its name 'Jawad'. The meaning 'Jawad' is liberal or merciful. The carries significance as this cyclonic storm will not be as severe as the previous ones.

2. **How are cyclones formed?** Cyclones are formed over the oceanic water in the tropical region. In this region, the sunlight is highest which results in warming of land and water surface. Due to warming of the surface, the warm moist air over the ocean rises upwards following which cool air rushes in to fill the void, they too get warm and rise — the cycle continues.

3. **What creates the spin?** Wind always blows from high pressure to low pressure areas. High pressure areas are created in the cold region while low is created in the warm regions. Polar regions are high pressure areas as the amount of sunlight here is less than the tropical region. So, wind blows from polar regions to tropical regions. Then comes the Earth's movement, which is west to east. The Earth's rotation on its axis causes deflection of the wind (in the tropical region as the speed of spinning of Earth is higher compared to polar sides due to its spherical shape — blowing from both the polar regions. Wind coming from the Arctic is deflected to the right while Antarctic wind deflects to the left side.

4. **What happens when a cyclone hits the land?** Cyclone dissipates when it hits the land as the warm water that rises and creates space for cool water is no longer available on land. Also, the moist air that rises up forms clouds leading to rains that accompany gusting winds during cyclones.

BILL TO AMEND PREAMBLE

1. Rajya Sabha Deputy Chairman Harivansh Narayan Singh has reserved his decision to allow the introduction of a private member's Bill to amend the Preamble to the Constitution.

2. About the Constitution (Amendment) Bill, 2021: **Introduced by Member of Parliament from Kerala K J Alphons. The Bill seeks to change the words in the Preamble "EQUALITY of status and of opportunity" to "EQUALITY of status and of opportunity to be born, to be fed, to be educated, to get a job and to be treated with dignity".** It also seeks to replace the word "socialist" with "equitable". The Bill also proposes adding "access to information technology" and "happiness" as objectives.

3. Preamble as part of the constitution: In the Berubari Union Case (1960), the Supreme Court opined that the Preamble was not part of the constitution. The above opinion was reversed in Keshavananda Bharati case in 1973; the SC held that Preamble is part of the constitution. This opinion was further clarified by the SC in LIC of India case (1995).

4. **Preamble and its amendability:** In Keshavananda Bharati case, the court held that the basic elements or the fundamental features of the constitution as contained in the preamble cannot be altered by an amendment under article 368. The preamble has been amended only once. That is- 42nd constitutional amendment act, 1976 when three new terms were added- Socialist, secular and integrity.

CSR FUNDS FOR MONUMENTS

1. A private member's Bill has been introduced in Parliament mandating that 25% of all corporate social responsibility (CSR) funds be used for restoration, management and maintenance of ancient monuments and archaeological sites. While some members supported the Companies (Amendment) Bill, 2019, few others disagreed with the mandatory provision.

2. Need for more resources: The Archaeological Survey of India (ASI), the National Monuments Authority (NMA) and other agencies tasked with looking after monuments lacked the resources needed for the upkeep of the sites.

3. What is Corporate Social Responsibility (CSR)? **It is the integration of socially beneficial programs and practices into a corporation's business model and culture. How is it**

Rescuers in Indonesia raced to find survivors in villages blanketed by molten ash after the eruption of Mount Semeru killed at least 14 persons and left dozens injured. The eruption of the biggest mountain on the island of Java caught locals by surprise, sending thousands fleeing and forcing hundreds of families into makeshift shelters.

At least 15 civilians and one soldier were killed following a botched operation by the Army in Mon district of Nagaland on Saturday evening and retaliatory violence in the ensuing 24 hours. The State Government and the Army have ordered an investigation. The Army's 3 Corps based near Dimapur town in the State admitted to an intelligence failure with a statement of regret.

The Union Government has reached out to all Naga insurgent groups, including the Isaak Muivah faction of the National Socialist Council of Nagaland (NSCNIM), following the killing of 15 civilians in an operation.

The reluctance of the United States to lift all sanctions on Iran is the main challenge to reviving a 2015 nuclear pact, a senior Iranian official said, as Western powers questioned Tehran's determination to salvage the agreement. Indirect talks between Washington and Tehran on reinstating their nuclear pact broke off, with both sides saying they would resume the following week, as Western officials voiced dismay at sweeping demands by the Islamic Republic.

Two explosions hit UN camps in the northern Mali city of Gao, causing damage but no casualties. The blasts shook the barracks of the United Nations mission in Mali, called MINUSMA, forcing the occupants to take refuge in shelters.

The Government has no plan to ban "any group named NSO Group", Minister of State of Electronics and IT Rajeev Chandrasekhar told the Rajya Sabha in a written. His reply comes in the wake of an uproar and a plea in the Supreme Court earlier this year over the alleged use of the Israeli firm NSO Group's Pegasus software to snoop on journalists, politicians and activists worldwide, including in the country. The company had stated that its product was used "exclusively by Government Intelligence and law enforcement agencies to fight crime and terror".

The United States led a group of Western nations and allies in condemnation of the Taliban over

regulated in India? India is one of the first countries in the world to make CSR mandatory for companies following an amendment to the Companies Act, 2013 (Companies Act) in 2014. Under the Companies Act, businesses can invest their profits in areas such as promoting rural development in terms of healthcare, sanitation, education including skill development, environmental sustainability, etc. Section 135(1) of the Act prescribes thresholds to identify companies which are required to constitute a CSR Committee – those, in the immediately preceding financial year of which: net worth is Rs 500 Crore or more; or. turnover is Rs 1000 Crore or more; or. net profit amounts to Rs 5 Crore or more. As per the Companies (Amendment) Act, 2019, CSR is applicable to companies before completion of 3 financial years.

4.Social responsibility has a strategic importance for two reasons: A healthy business can only succeed in a healthy society. Thus, it is in the best interest of a company to produce only goods and services which strengthen the health of society. If the company wants to succeed in the long term it needs to have the acceptance—or licence to operate—from social actors affected by the company's operations.

POSHAN TRACKER

1.The Ministry of Women and Child Development has spent over ₹1,000 crore on its Poshan or Nutrition Tracker, which records real-time data on malnourished and 'severe acute malnourished' children in each anganwadi. But four years since its launch, the Government is yet to make the data public. Concerns: Government officials have cited privacy concerns as a reason for keeping the data under lock and key but experts say it can easily be anonymised as is the case with data for several other government schemes.

2.About the Poshan Tracker: The Poshan Tracker, known as the ICDS-CAS (Integrated Child Development Services-Common Application Software) in its earlier avatar, was set up with the aim of tracking and improving various services delivered at anganwadis and to ensure nutritional management of beneficiaries. This real-time monitoring system is one of the key pillars of Poshan Abhiyan or Nutrition Mission approved by the Union Cabinet in November 2017 with a financial outlay of ₹9,000 crore for three years.

3.About Poshan Abhiyaan: The programme seeks to improve nutritional outcomes for children, pregnant women and lactating mothers. Launched in 2018 with specific targets to be achieved by 2022.

4.It aims to reduce: Stunting and wasting by 2% a year (total 6% until 2022) among children. Anaemia by 3% a year (total 9%) among children, adolescent girls and pregnant women and lactating mothers. The target of the mission is to bring down stunting among children in the age group 0-6 years from 38.4% to 25% by 2022.

HYPERSONIC WEAPONS

1.US has said that China's pursuit of hypersonic weapons "increases tensions in the region" and vowed the U.S. would maintain its capability to deter potential threats posed by China. What's the issue? China's growing military muscle and its drive to end American predominance in Asia has triggered unease in Washington. China's efforts to accelerate its military capabilities were highlighted by its July test of a hypersonic weapon capable of partially orbiting the Earth before reentering the atmosphere and gliding on a maneuverable path to its target.

2.Hypersonic speeds are 5 or more times the speed of sound.Concerns and implications for India and the world: The weapon could, in theory, fly over the South Pole. That would pose a big challenge for the US military because its missile defence systems are focused on the northern polar route. India is especially concerned with the latest developments considering relations with China in the recent past. Such capabilities highlight the threat for our space assets along with the surface assets.

3.Technology used: The exact details on technology used by China in this particular test are not known through media sources. But most of the hypersonic vehicles primarily use the scramjet technology. What is scramjet technology? **Scramjets are a category of engines designed to handle airflows of speeds in multiples of the speed of sound.** In an air-breathing scramjet engine, air from the atmosphere is rammed into the engine's combustion chamber at a supersonic speed of more

the “summary killings” of former members of the Afghan security forces reported by rights groups, demanding quick investigations. Reports of summary killings and enforced disappearances of former members of the Afghan security forces as documented by Human Rights Watch and others.

than Mach two.

4.In the chamber, the air mixes with the fuel to ignite a supersonic combustion but the cruiser’s flight will be at a hypersonic speed of Mach six to seven. So it is called supersonic combustion ramjet or Scramjet.