

NEWSPAPER HIGHLIGHT

The rich cultural history of the Tamils will be featured in a project relating to the new Parliament being constructed by the Union government in New Delhi. Soil samples from five ecological regions mentioned in ancient Tamil Sangam literature — Kurinji, Mullai, Marutham, Neithal and Paalai — have been collected and sent to the capital recently. On a request from Delhi, multiple State government departments coordinated to collect the soil samples and sent them to the capital late last month.

A ban on the use of single use plastics that was notified by the Union Environment Ministry on August 2021 came into effect on July 1 this year. A single use plastic is an object made of plastic that is intended to be used “only once” before being disposed off or recycled. B So far 32 States/UTs have reportedly constituted a dedicated Task Force to eliminate the use of single use plastics. The All India Plastic Manufacturers Association said that the ban would shutter 88,000 units in the plastic manufacturing business. These employ close to a million people and contribute to exports worth ₹25,000 crore.

The UPI was launched in 2016 and is operated by the National Payments Corporation of India (NPCI). It operates on top of the Immediate Payment Service (IMPS) which was created by the NPCI for immediate fund transfers. B The primary reason for the popularity of UPI is that it accepts transactions as small as one rupee and for merchants, the absence of MDR that they have to pay to their banks. B The ecosystem in which UPI thrives is not to be missed: the presence of highspeed internet in many parts of the country, technologies that power a smartphone, cloud computing and modern software engineering technologies that fulfil a transaction in a few seconds.

As the outer space is considered a shared natural resource, the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) in 2019 adopted a set of 21 voluntary, nonbinding guidelines to ensure the long term sustainability of outer space activities. The ISRO has initiated ‘Project NETRA’ to monitor space debris. The domestic surveillance system would provide first hand information on the status of debris, which would aid further

ACUTE DIARRHOEAL DISEASES

1.The Health Department of the Union Territory of Puducherry has declared a ‘Public Health Emergency’ in Karaikal following the outbreak of Acute Diarrhoeal Diseases (ADDs) and deterioration of water quality in the region. Diarrhoea is defined as the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual).

2.There are 3 clinical types of diarrhoea: Acute watery diarrhoea - lasts several hours or days, and includes cholera; Acute bloody diarrhoea - also called dysentery; and Persistent diarrhoea - lasts 14 days or longer. Acute Diarrhoeal Diseases (ADDs) can be caused by a number of different agents. Common infective causative agents include Bacteria such as Salmonella and Vibrio parahaemolyticus, and Viruses such as norovirus, rotavirus, sapovirus and astrovirus.

3.Less common causative agents include the bacteria causing bacillary dysentery, cholera and Shiga toxin-producing E. coli infection, etc. Acute diarrhoeal diseases may occur in all ages, with children being more commonly affected. Symptoms - Patients with ADDs present with sudden onset of frequent loose or watery stools, often accompanied by vomiting and fever.

4.The disease is usually mild with spontaneous recovery. In severe cases, dehydration and shock may occur. Transmission - ADDs are usually transmitted by contaminated hands or ingestion of contaminated food or drinks. Occasionally, the disease is spread by aerosol spread with contaminated droplets of splashed vomitus.

5.Incubation period For bacterial diarrhea - Few hours to 5 days after exposure, For viral diarrhea - 1 to 3 days after exposure. ADDs are usually managed by fluid and electrolyte replacement. In severe cases, self-medication is not advisable. It can be prevented by maintaining good personal hygiene, food hygiene and environmental hygiene.

STEALTH WING FLYING TESTBED

1.India conducted the flight test of a sub-scale flying model of the ‘Stealth Wing Flying Testbed’. The mockup of the Stealth Wing Flying Testbed (SWiFT) is an Autonomous Flying Wing Technology Demonstrator. **It can be operated in a completely autonomous mode. The Autonomous Flying Wing Technology Demonstrator is precursor to an autonomous stealth Unmanned Combat Air Vehicle (UCAV) being developed by the DRDO for the Indian Air Force.**

2.It was developed by the Aeronautical Development Establishment (ADE), a facility of the Defence Research and Development Organisation (DRDO).The specialty of the technology demonstrator is its flying wing structure, which refers to a tailless fixed-wing aircraft. This aircraft houses its payload and fuel in its main wings and does not have a defined fuselage-like structure found in the conventional aircraft.

3.The flying wing type of aircraft has a key operational advantage like high fuel efficiency and stealth, as it has low reflective cross sections resulting in low radar signature, making it a stealth machine. Because of the shape, the aircraft also has very low drag or air resistance. However, this unique design also comes with its issues related to stability and thus requires additional systems.

4.The Airframe is the basic mechanical structure of the aircraft. The undercarriage is the landing gear used for take-off and landing. The airframe, the undercarriage and the entire flight control along with avionics systems used for the demonstrator have been developed indigenously. The vehicle is powered by a small turbofan engine, which is an air-breathing type jet engine. The engine is Russian TRDD-50MT originally designed for cruise missiles. Drones developed by the DRDO include Nishant, Rustom, Tapas and Lakshya among others.

EXCHANGE-TRADED COMMODITY DERIVATIVES

1.The Securities and Exchange Board of India’s (SEBI’s) board allowed the Foreign Portfolio Investors (FPIs) to trade in

planning on protecting space assets.

\$ 7 billion, the highest ever revenue earned by Egypt's Suez Canal Authority (SCA). The income is over a fifth higher than the previous fiscal year's \$5.8 billion in transit fees. Connecting the Red Sea and the Mediterranean, the canal accounts for roughly 10% of global maritime trade. It is also a source of foreign currency for Egypt, which is battling crippling inflation and a currency devaluation triggered by Russia's invasion of Ukraine. Earlier this year, the SCA reported the canal's highest annual revenue for a calendar year, netting \$6.3 billion in 2021.

78.6 percentage, the inflation in Turkey in June, the highest in 24 years, according to official data released on Monday. But independent estimates published by Turkish economists showed prices rising at more than double that figure. The inflation rate reported by Turkey's state statistics agency was the highest since the currency meltdown in 1998. According to official data, the surge in inflation in June was driven by a jump of 123.4% in the cost of transportation and a 94% increase in nonalcoholic drinks.

Myanmar's military government hosted the first high-level regional meeting since the Army took power last year with China's Foreign Minister Wang Yi and counterparts from Mekong Delta nations. Mr. Wang met with his colleagues from Myanmar, Laos, Thailand, Cambodia and Vietnam at the Lancang Mekong Cooperation group meeting held under the theme "Solidarity for Peace and Prosperity" in the central city of Bagan, a UNESCO World Heritage site.

The Central Consumer Protection Authority (CCPA) issued guidelines here on Monday asking hotels and restaurants not to collect service charge from customers. These establishments should not add service charge automatically or by default to the food bill, the guidelines say. The guidelines, issued by Nidhi Khare, Chief Commissioner, CCPA, adds that if any consumer finds that a hotel or restaurant is violating the guidelines, he or she may make a request to remove the service charge from the bill amount or lodge a complaint with the National Consumer Helpline. Complaints can be filled with the Consumer Commission too or with the District Collector.

Several hundred protesters marched on Sunday in Akron, Ohio after the release of body camera footage that showed police fatally shooting a Black man with several dozen

exchange-traded commodity derivatives. The move will enhance liquidity and market depth, as well as promote efficient price discovery.

2. Derivative Contracts are financial instruments whose value is based upon the value of an underlying asset like equities, currency or other financial assets or commodities. Commodity derivatives contract is a derivative contract, which has a commodity as its underlying asset. In India, commodity derivative contract is decided under the Securities Contracts (Regulation) Act, 1956 (SCRA).

3. The players in the commodity derivatives market are risk givers (hedgers) and risk takers (investors and arbitrageurs). Exchange-traded Commodity Derivatives are financial contract that is listed and traded on a regulated exchange.

4. These are derivatives that are traded in a regulated environment. Generally, the commodities traded in commodity derivatives market are, Agricultural Commodities (perishables and processed) and Non-Agricultural Commodities (natural resources that are mined or processed) - Bullion and Gems, Energy commodities, and Metal commodities.

ANTHRAX

1. After finding several carcasses of wild boar, Kerala health officials confirmed the presence of anthrax in Athirappilly forest region, Kerala. Anthrax has usually been found in India's southern states and is less frequently found in the northern states. Anthrax is a rare but serious infectious disease caused by the rod-shaped spore-forming bacteria known as *Bacillus anthracis*. It is also known as malignant pustule or woolsorter's disease.

2. Anthrax occurs naturally in soil, plants or water. It is primarily a disease of herbivores (both domestic and wild animals), which is infected when they breathe in or ingest spores. Herbivorous animals can get the disease through contaminated soil and feed, while omnivorous and carnivorous animals get infected through contaminated meat, bones and other feeds. Host animals shed the bacteria into the ground, which sporulates when exposed to the air.

3. These spores, which can persist in the soil for decades, wait to be taken up by another host, subsequently germinating and multiplying. Anthrax is a zoonotic disease, meaning that it is naturally transmissible from animals (usually vertebrates) to humans. People can get the disease through direct contact with the infected animals or indirect contact with the animal products that are contaminated with bacteria. Even though Anthrax is generally regarded as non-contagious, there are some extremely rare instances of person-to-person transmission.

4. Symptoms - In livestock species, the first sign is usually the sudden death of one or two animals within the herd. In wildlife, sudden death is also a usual indicator, often accompanied by bloody discharge from natural orifices (mouth, nose, ear, anus), bloating, incomplete rigor mortis and the absence of clotting of the blood. In humans, the symptoms differ based on the type of anthrax (discussed below).

5. Treatment - Antibiotic therapy (Penicillin, ciprofloxacin and doxycycline) administered early in the course of the infection. Prevention - One way to prevent the disease is by vaccination of livestock so that the disease cannot spread. There are also vaccines for humans, but their availability is usually restricted to at-risk individuals, such as lab workers and people who handle animals (farmers, veterinarians, livestock handlers, wool sorters.)

TYPES OF ANTHRAX

1. Cutaneous anthrax develops when anthrax spores get into the skin, usually through a cut or scrape. Symptoms include groups of small blisters that may itch, painless skin sores with a black centre, with the possibility of swelling around them.

2. This is the most common route of the disease and is seldom fatal. Inhalation anthrax develops when a person breathes in anthrax spores. People who work in places such as wool mills, slaughterhouses, and tanneries may breathe in the spores when working with infected animals or contaminated animal products from infected animals.

3. It is the most deadly form of anthrax and leads to death within 2-3 days. Gastrointestinal anthrax develops when a person eats raw or undercooked meat from an animal infected with anthrax. Its symptoms can include nausea and vomiting (with blood),

rounds of bullets.

swelling of the neck, stomach pain and diarrhoea.

The proposed Eastern Rajasthan Canal Project (ERCP), set to benefit 13 districts of Rajasthan through interlinking of three rivers, has taken a political twist following the Centre's directive to stop the work in view of "lack of consent" by other States.