

NEWSPAPER HIGHLIGHT

34 tonnes, the amount of waste collected from four mountains, including the world's highest peak Mount Everest, in Nepal as part of a cleaning campaign that concluded on World Environment Day, according to the Nepal Army. This year, the army collected 33.8 tonnes of garbage since April 5. This year's waste collection remains the highest. Around 10 tonnes were amassed in 2019 and over 27 tonnes last year, the army here said in a statement. The campaign was not conducted in 2020 due to the COVID19 pandemic.

117 million, the global tourist arrivals in the first quarter of 2022, compared to 41 million in the same period in 2021, with Europe leading the rebound as COVID restrictions were eased, according to the Madrid based UN World Tourism Organization. The number of international tourist arrivals tripled in the first three months of 2022, with an increase of 182% when compared to the last year. Although the figure remained 61% lower than the first quarter of 2019, it showed that tourism was recovering "at a strong pace".

The Defence Acquisition Council (DAC), chaired by Defence Minister Rajnath Singh, on Monday accorded preliminary approval, the Acceptance of Necessity (AoN), for capital acquisition proposals of the armed forces amounting to ₹76,390 crore. "This will provide substantial boost to the Indian defence industry and reduce foreign spending significantly," a Defence Ministry statement said.

780 number of laboratory confirmed cases of monkeypox reported or identified from May 13 till June 2 from 27 countries across four WHO regions that are not endemic for the monkeypox virus, according to the World Health Organization. The UN's health agency said that while epidemiological investigations are ongoing, most reported cases so far have been presented through sexual health or other health services in primary or secondary health care facilities.

Prime Minister Narendra Modi on Monday urged bank chiefs to make it easier for people to get loans through the new Jan Samarth portal, a repository of a dozen credit linked

SOFT ROBOTS

1. Researchers have now developed soft robots that are capable of navigating complex environments, such as mazes, without input from humans or computer software. Soft robots are flexible robots that can be programmed to execute specific tasks. Unlike their hard-edged cousins, they can be used to perform more delicate manoeuvres, such as reaching into difficult crevices or holding onto delicate objects.

2. They are usually made of liquid crystal elastomers, which are polymers having viscosity and elasticity. The latest designs have them shaped like twisted ribbon, resembling translucent rotini.

3. **These soft robots demonstrate a concept called 'physical intelligence,' as opposed to computational intelligence. [Structural design and smart materials are what allow the soft robot to navigate various situations by drawing energy from its environment. This is called Physical intelligence.]**

4. Working - Twisted ribbon is placed on a surface that is at least 55 degrees Celsius hotter than the ambient air. This causes the portion of the ribbon touching the surface to contract, while the portion of the ribbon exposed to the air does not. This induces a rolling motion in the ribbon and the warmer the surface, the faster it rolls.

5. Navigation - The ribbon robot navigates in two ways. First, if one end of the ribbon encounters an object, the ribbon rotates slightly to get around the obstacle. Second, if the central part of the robot encounters an object, it "snaps." The snap is a rapid release of stored deformation energy that causes the ribbon to jump slightly and reorient itself before landing.

6. Many soft robots are made to resemble living organisms, such as octopus, and are manufactured using 3-D printers. Popular uses of these robots are in surgeries or making specialised exosuits that can help in rehabilitating patients. Drawback - The soft materials reduce their durability as well make them harder to control.

STOCKHOLM+50

1. Since the United Nations Conference on the Environment is head towards its 50th anniversary, the Stockholm+50 meeting has been convened. **Stockholm+50 is an international meeting convened by the UN General Assembly to be held in Stockholm, Sweden in June 2022. Sweden will host Stockholm+50, with the support of Kenya.**

2. It will be held during the same week as World Environment Day, which is held on 5 June each year and is also a result of the 1972 event. This is being held at a time when the world is facing a triple planetary crisis of climate change, pollution and waste, nature and biodiversity loss. Stockholm+50 will be collaborative and multi-stakeholder in nature.

3. It is open to all participants who will be invited to share experiences and initiatives to protect the planet and contribute to sustainable and inclusive development, including recovery from COVID-19 pandemic. Vision - (Stockholm+50) A healthy planet for the prosperity of all - our responsibility, our opportunity Principles of engagement Intergenerational responsibility Interconnectivity Implementing opportunity.

STOCKHOLM CONFERENCE 1972

1. The United Nations Conference on the Environment 1972 is also known as the Stockholm Conference. It was the first world conference to make the environment a major issue. As the idea of the Stockholm Conference was first proposed by Sweden, it's also termed the "Swedish Initiative".

2. The conference aimed at creating a common governance framework for the planetary environment and natural resources. The countries agreed to not harm each other's environment or the areas beyond national jurisdiction.

3. One of the major results of the Stockholm conference was the creation of the United Nations Environment Programme (UNEP).

4. The participants adopted a series of principles for sound management of the environment including the Stockholm Declaration and Action Plan for the Human Environment and

government schemes. At the launch of the Iconic Week celebrations of the Finance and Corporate Affairs Ministries, he said it was imperative to focus on making Indian banks and the rupee an integral part of global trade and supply chains.

Chief Economic Advisor (CEA) V. Anantha Nageswaran on Monday said policy stability and transparency were critical to ensuring the success of the government's asset monetisation effort. He separately flagged the hurdles to making a switch away from fossil fuels and highlighted the constraints, both fiscal and in terms of supply of raw materials like metals and minerals, to meeting this key global challenge.

The National Asset Reconstruction Company Ltd. (NARCL), set up to take over large bad loans of more than ₹500 crore from banks, will pick up the first set of such non-performing assets (NPAs) in July, the Finance Ministry said on Monday. The NARCL, which will acquire the bad loans from banks, and the India Debt Resolution Company Ltd. — which will then manage these assets and seek to enhance their value — have secured necessary approvals and permissions.

Power shortages are likely to continue in the short to medium term on rising demand in the peak season and the persisting supply-demand mismatch, according to a foreign brokerage, which attributed the recurring annual crisis to the slower thermal capacity addition in the past few years. Thermal capacity addition has lagged power demand that grew steadily at 4% annually between FY10 and FY19 as against thermal capacity addition which rose only 9% in this period.

Tata Motors said it had signed an agreement with BluSmart Electric Mobility for delivering 10,000 XPREST EV cabs to the company. "This deployment of 10,000 units makes it the biggest ever EV fleet order in India," the automaker said in a statement.

Kazakh President Kassym Jomart Tokayev will be hoping the approval in a referendum of constitutional amendments he championed will help him move out of his predecessor's shadow and cement his role as a long-awaited reformer.

Australia's new Prime Minister and Indonesia's President rode bamboo bicycles together on Monday as they held talks to boost ties, with Canberra embarking on a diplomatic charm offensive aimed at countering China's growing assertiveness in the region.

several resolutions.

ANTARCTICA TREATY SYSTEM

1. Antarctica is defined as all land and ice shelf south of 60°S, but not the surrounding waters. It is regulated by the Antarctica Treaty System (ATS) ratified by 12 countries in Washington in 1959. [12 countries are Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Union of Soviet Socialist Republics, the UK and the US.]

2. The Antarctic Treaty System is the whole complex of arrangements made for the purpose of regulating relations among states in the Antarctic. The treaty aims for peaceful exploration of the continent for science and prohibits military activity other than as support for research; Free exchange of information and personnel with the UN and other international agencies; prohibits new territorial claims; Disallows nuclear explosions or disposal of radioactive wastes; and Gives treaty-state observers free access to all stations, premises and equipment.

3. Working - The Treaty is augmented by recommendations adopted at Consultative Meetings, by The Protocol on Environmental Protection to the Antarctic Treaty (Madrid, 1991), Convention on the Conservation of Antarctic Seals (London 1972), Convention on the Conservation of Antarctic Marine Living Resources (Canberra 1980). Members - Before this treaty was ratified, the UK, Norway, New Zealand, Chile, Argentina, Australia, and France had made territorial claims in Antarctica.

4. Australia's claim is the largest; almost half of the entire continent. ATS has been signed by 53 countries, including India (1983). By not signing the treaty, the United States, Russia, South Africa, Peru, and Brazil reserve the right to make territorial claims.

5. The "no new territorial claims" rule means earlier claims by the rich nations must be respected by the signatories. In a way, ATS is similar to the Nuclear Non-Proliferation Treaty: Both endorse privileges to "wealthy imperialists" in the field and can be termed vestiges of colonialism.

INDIAN ANTARCTIC PROGRAMME

1. The Indian Antarctic program, which began in 1981, is a scientific research and exploration program. The National Centre for Polar and Ocean Research (NCPOR), Goa - an autonomous institute under the Ministry of Earth Sciences - manages the entire Indian Antarctic program.

2. It has taken scientific expeditions, and has built three permanent research base stations in Antarctica.

REASONS FOR STAGFLATION

1. Authorities worldwide are trying to formulate the appropriate set of policies to ensure that stagflation; currently running at multi-decade highs in some advanced economies is cooled without triggering a recession. The slowdown in economic activity, in turn, leads businesses to shed jobs and the resultant situation is termed as 'stagflation'.

2. **Reasons for latest concerns about stagflation - The outbreak of the COVID-19 pandemic and the curbs imposed to contain the spread of the virus caused the first major recent economic slowdown worldwide. But, the subsequent fiscal and monetary measures taken to address the downturn,** including substantial increases in liquidity in most of the advanced economies, fuelled a sharp upsurge in inflation.

3. The US Fed and the Bank of England are among central banks that have started raising interest rates to cool soaring prices. But, the ongoing war in Ukraine following Russia's invasion of its southern neighbour and the consequent Western sanctions on Moscow has caused a fresh and as yet hard-to-quantify 'supply shock'.

4. There is a sharp surge in prices of commodities ranging from oil and gas to foodgrains, edible oils and fertilizers due to the wake of the conflict. Authorities face an uphill battle to contain inflation that is now less a function of demand (and so can be controlled by regulating credit) and almost entirely caused by supply factors that are far harder to manage.

GAIT ANALYSIS

1. Context: 'gait test' helped establish the identity of the accused in the Mumbai rape-murder Gait is defined as a manner of walking or moving on foot.

2. **Gait analysis is a technique in podiatry medical care and**

Following an uproar over the proposed amendments to the Information Technology (IT) Rules, the government on Monday said that the recommendations placed the interests of “Digital Indians” first, and sought to ensure that the constitutional rights of citizens were not contravened by “bigtech platforms”.

India on Monday successfully tested the Intermediate Range Ballistic Missile (IRBM) Agni4, which met all parameters.

the treatment of the foot, which is used to evaluate and diagnose conditions that affect walking and posture. Gait analysis techniques have now been borrowed by forensic sciences experts to identify suspects in criminal cases.