KSG:NEWSPAPER CRUX

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NEWSPAPER HIGHLIGHT

Renowned social worker Sindhutai Sapkal, fondly known as 'orphan children's mother', died following a heart attack at a private hospital in Pune, doctors said. She has sheer willpower and started working for orphans. Having raised over 1,050 orphan children, she could boast of having 207 sons-in-law and 36 daughters-in-law.

India splurged a record $55.7 billion on gold imports in 2021, buying more than double the previous year's tonnage as a price drop favoured retail buyers and pent up demand emerged for weddings that were delayed when the pandemic first hit. The 2021 gold import bill easily doubled the $22 billion spent in 2020, and surpassed the previous high, set in 2011, of $53.9 billion, according to the offi□cial, who tracks broad import trends. In volume, India imported 1,050 tonnes in 2021, the most in a decade, and far more than the 430 tonnes imported in 2020, the official said.

The former Chargé d'Affaires at the U.S. Embassy in New Delhi, Atul Keshap, has been appointed president of the U.S. India Business Council (USIBC), an industry body, according to a statement from the U.S. Chamber of Commerce.

Sri Lanka's Cabinet has given its nod for a new deal announced by the Energy Minister last week to jointly develop the Trincomalee oil tank farm with India. According to a press statement issued by the Department on Government Information on decisions taken at the first Cabinet meeting of the year held on Monday, India and Sri Lanka "have reached an agreement to implement a joint development project" through diplomatic talks. "Accordingly, the Cabinet of Ministers approved a proposal presented by Minister of Power to allocate 24 oil tanks for the business activities of the Ceylon Petroleum Corporation.

Health rights groups in Rajasthan on Tuesday expressed concern over the NITI Aayog giving low ranking in the health index round IV report with the fi□ndings that health status had stagnated and health services were deteriorating in most parts of the State. The ranking was given recently on the basis of 24 indicators related to health outcomes and on key inputs and processes. The report 'Healthy States, Progressive India', prepared

BIOENERGY CROPS

1.According to a new study, converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated. Bioenergy crops include specific plants that are grown and maintained at lower costs for biofuel production. Biofuel generation using fast growing and photosynthetically efficient bioenergy crops is emerging as a reliable alternative to fossil fuels. Bioenergy crops are one such energy source that could positively impact the environment to reduce the level of carbon dioxide, emission of greenhouse gases and soil erosion.

2.These crops increase soil carbon and fix atmospheric carbon. They could be used for the phyto-remediation of heavy metal-contaminated soils. Bioenergy crops are classified into five types namely, First-generation bioenergy crops - Corn, sorghum, rapeseed and sugarcane Second-generation bioenergy crops - Switchgrass, miscanthus, alfalfa, reed canary grass, Napier grass and other plants.

3.Third-generation bioenergy crops - Boreal plants, crassulacean acid metabolism (CAM) plants, eucalyptus and microalgae. Bioenergy halophytes - Genera Acacia, Eucalyptus, Casuarina, Melaleuca, Prosopis, Rhizophora and Tamarix. Dedicated energy crops - Perennial herbaceous and woody plant species as giant miscanthus, switchgrass, jatropha and algae. Cultivation area under bioenergy crops occupies 3.8% ±0.5% of the global total land area. But they exert strong regional biophysical effects, leading to a global net change in air temperature of −0.08 ~ +0.05 degrees Celsius.

4.Biophysical cooling or warming effects of these crops can strengthen or weaken the effectiveness of bioenergy crop cultivation with carbon capture and storage (BECCS) in limiting the temperature increments.

5.This depends on the cultivation map and the bioenergy crop type. Compared to the herbaceous crops, changes in the energy fluxes induced by woody crops in the cultivation regions are larger, and the cooling effect is stronger and healthier across different cultivation maps.

CARBON CAPTURE AND STORAGE

1.Carbon capture and storage (CCS) or carbon capture and sequestration is the process of capturing carbon dioxide before it enters the atmosphere, transporting it, and storing it (carbon sequestration). By capturing the emitted carbon dioxide, the gas doesn't rise up in the atmosphere and cause (further) global warming.

2.Working - There are three steps to the CCS process: Capture - CO2 is separated from other gases produced in industries like coal and natural-gas-fired power generation plants or steel or cement factories. Transport - CO2 is compressed and transported via pipelines, road transport or ships to a site for storage. Storage - CO2 is injected into rock formations deep underground for permanent storage - in pores of sedimentary rock formations, or in dead oilfields (that once held oil or gas), or in underground coal seams.

3.Ways - There are essentially two ways of approaching CCS. Technology-based solutions and Nature-based solutions. Technology solutions use machinery to capture fumes and remove carbon dioxide from them. The most basic way to dispose them is to bury the gas underground. The captured carbon dioxide could also be injected into living oil and gas wells so as to push out the hydrocarbons. Scientists have also suggested that the carbon dioxide could also be injected into gas hydrates (frozen gas-water mixture), whereupon the carbon dioxide will push out the gas in the hydrate and take its place.

4.Nature-based solutions do not 'capture' carbon dioxide but offset the emissions by sucking up the gas from the atmosphere. These solutions essentially involve growing trees. Mangroves are said to have an enormous potential to suck up carbon dioxide. Efficiency - If done on the scale required, the CCS would definitely help reduce global warming. In 2019, the world emitted 36.7 billion tons of carbon dioxide. Today, CCS projects are negligible in comparison with the

by the NITI Aayog, the World Bank and the Union Ministry of Health & Family Welfare, has placed Rajasthan at the 16th position among 19 big States. Moreover, the State has shown a decline between the base year 2018-19 and the reference year 2019-20.

A U.S.incorporated organisation, Global Peace Initiative, and its founder, evangelist K.A. Paul, have approached the Supreme Court challenging the refusal of the government to renew the registration of Mother Teresa's Missionaries of Charity under the Foreign Contribution Regulation Act (FCRA).

China's President Xi Jinping signed an annual mobilisation order to mark the start of this year's training for the Chinese military, with an emphasis on "combining training with combat operations". The training mobilisation orders are issued by Mr. Xi, who also heads the Central Military Commission (CMC), usually in January and the mobilisation orders have in the past impacted how the People's Liberation Army (PLA) carries out its exercises that often begin in the subsequent weeks following the order.

China said it will continue to "modernise" its nuclear arsenal and called upon the U.S. and Russia to reduce their own stockpiles a day after global powers pledged to prevent such weapons from spreading. In a rare joint statement setting aside rising West-East tensions, the U.S., China, Russia, Britain and France reaffirmed their goal of creating a world free of atomic weapons and avoiding a nuclear conflict.

To encourage customers to adopt digital banking, State Bank of India (SBI) has decided to not levy any service charges on IMPS transactions of up to ₹□5 lakh, done through Internet and mobile banking. "In case of branch channels, there has been no change in the service charges for IMPS done through the branch channel in the existing slabs.

High cotton prices this season has become a subject of concern to the domestic textile industry as the units are facing not only spike in raw material prices but also shortage in availability.

Insurance regulator IRDAI has issued guidelines on surety insurance business, which will come into force on April 1 and permit general

emissions. Cons - CCS is costly.

5.Typically, if you want to do CCS in a thermal power project, the process would take away between 6 and 10% of the power generation for itself. Then, there are capital and maintenance costs. India's plan - The Indian government's plans are more in the realm of 'nature-based solutions'. It is very difficult to see technology CCS coming up in India, unless financially supported by the developed countries.

PANGONG LAKE

1.China is constructing a bridge in Ladakh connecting the north and south banks of Pangong Tso (lake), which will significantly bring down the time for the Chinese Army to move troops and equipment between the two sectors.

2.Pangong Tso, which means 'high grassland lake', is an endorheic lake spanning eastern Ladakh and West Tibet. This boomerang-shaped lake is situated at a height of more than 14,000 ft in the Ladakh, Himalayas. This landlocked lake is the world's highest saltwater lake. More than two-thirds is under Chinese control, while the remaining one-third of the Lake lies in India. Khurnak Fort, close to where China is building the new bridge, is near the halfway mark of the lake. It is also under the Chinese control.

3.Endorheic Lake An endorheic lake (or a sink lake or terminal lake) is a collection of water within an endorheic basin, or sink, with no evident outlet. The largest endorheic lake is the Caspian Sea. It also happens to be the largest overall lake in the world. The two main ways that endorheic lakes accumulate water are through river flow into the lake (discharge) and precipitation falling into the lake.

4.The collected water of the lake, instead of discharging, can only be lost due to either evapotranspiration or percolation. Endorheic lakes are generally saline as a result of being unable to get rid of solutes left in the lake by evaporation. These lakes can be used as indicators of anthropogenic change, such as irrigation or climate change, in the areas surrounding them. Lakes with subsurface drainage are considered cryptorheic.

CHALK STREAMS

1.'Chalk Streams' are pure, clear, constant water streams from the underground chalk aquifers and springs, flowing across flinty gravel beds. This makes them perfect sources of clean water. These streams occur only where chalk bedrock meets the Earth's surface, making them globally rare. The world has fewer than 300 chalk streams, and England has most of them. Their stable, cool, nutrient-rich waters allow chalk streams to support an exceptionally high number of species - so much so that these habitats are sometimes described as "England's rainforests".

2.Shared Habitat - In their headwaters, these streams can naturally disappear during the summer, leaving their channels dry. Their waters reappear in winter and so the streams are known locally as winterbournes. As these streams naturally shift between wet and dry conditions, they allow aquatic and terrestrial species to share one habitat at different times. Beneath the chalk stream itself, in the underlying aquifers, blind, colourless crustaceans live, contributing to the ecosystem's biodiversity.

3.Filtered by the chalk, the groundwater springs forth in clear, nutrient-rich streams which support photosynthetic plants and microorganisms - the fuel for food webs that feed everything.

4.Threats - **Wide range of human activities, pollution, etc Many chalk aquifers - the source of chalk streams - are sadly polluted by nitrogen and phosphorus from fertilisers spread on farmland.** As they flow downstream, water running off urban and rural areas adds other pollutants, including fine sediments and pesticides. Sewage also affects the quality of water in many chalk streams.

5.The natural courses of many chalk streams have been straightened and rerouted to make space for agricultural, urban and industrial land uses. Many are dwindling to a trickle as water companies take water from both streams and the aquifers beneath them.

INDO-LANKA ACCORD

1.It is popularly referred to as the Rajiv-Jayewardene Accord. It was signed in 1987 on the pretext of the Civil War in Sri Lanka (between Tamils and Sinhala community).

2.The accord sought to balance India's strategic interests, interest of people of Indian origin in Sri Lanka and Tamil

insurers to pursue the new line of business. In doing so, the insurers would be required to comply with certain requirements, including maintaining a solvency margin of not less than 1.25 times of the control level of solvency specified by the regulator.

minority rights in Sri Lanka.

3.The accord saw the placement of the Indian Peace Keeping Force (IPKF) in Sri Lanka to resolve the Sri Lankan Civil War. The accord also resulted in enactment of the thirteenth Amendment to the Constitution of Sri Lanka and the Provincial Councils Act of 1987.