

### NEWSPAPER HIGHLIGHT

Swiss gold exports rose last year to their highest since 2018 as demand for bullion in China and India, the biggest consumer markets, recovered from a collapse early in the COVID19 pandemic, Swiss customs data showed. The coronavirus crisis upended the bullion market in 2020, hammering jewellery sales while triggering a rush among investors to stockpile gold, which is traditionally seen as a safe place to store wealth. Switzerland is the world's largest gold refining centre and transit hub. Its trade data showed a 2020 plunge in exports to Asia, where most gold is sold as jewellery, and huge shipments to the U.S. and Britain, where investors cluster. In 2021, exports to India surged to 507 tonnes, up from 148 tonnes in 2020 and the most since 2015.

The European Union angered China on Thursday by launching a case against Beijing at the World Trade Organization (WTO) for targeting Lithuania over its stance on Taiwan. The move by Brussels was a further deterioration in ties between China and the bloc, with a long negotiated investment deal already on the rocks after both sides exchanged tit-for-tat sanctions. The latest spat is over Lithuania, one of the smallest countries in the European Union, which made waves in July when it allowed Taiwan to open a diplomatic outpost in Vilnius. The move outraged Beijing, which does not recognise Taiwan as a state and considers the self ruled democratic island a rebellious territory of the mainland.

Overcoming the lack of land connectivity between India and Central Asia's landlocked countries was one of the "main issues of discussion" during the first India Central Asia Summit hosted by Prime Minister Narendra Modi with the Presidents of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, officials said. The leaders also spoke at length about concerns over Afghanistan, sharing the "same concerns and same objectives" in broader terms and agreed to setting up a Joint Working Group (JWG).

The Union government transferred its shares in Air India, along with control and management, to the Tata Sons subsidiary Talace, ending a disinvestment process that started

### QUICK REACTION TO NEGATIVE HILLS

1. Researchers have found that negative smells associated with unpleasantness or unease are processed earlier than positive smells and trigger a physical avoidance response. This cognitive process is not only unconscious but is also extremely rapid.
2. This goes against the conventional wisdom that unpleasant smells associated with danger is a conscious cognitive process. The olfactory organ takes up about 5% of the human brain and enables us to distinguish between different smells. In humans, the olfactory sense is important for detecting and reacting to potentially harmful stimuli.
3. For the first time, the researchers have identified neural mechanisms that are involved in the conversion of an unpleasant smell into avoidance behaviour in humans. This conversion is done by the olfactory bulb.
4. **Olfactory bulb is the first part of the rhinencephalon (literally "nose brain"). It has direct connections to the important central parts of the nervous system that helps us detect and remember threatening and dangerous situations and substances.**
5. It processes smells and in turn can transmit signals to parts of the brain that control movement and avoidance behaviour. In the study, the researchers have found that the bulb reacts specifically and rapidly to negative smells and sends a direct signal to the motor cortex within 300 milliseconds.

### BASAL STEM ROT DISEASE

1. Researchers from Kerala have identified two new fungi species from the genus Ganoderma - G. keralense and G. pseudoapplanatum - that are associated with coconut stem rot. By making the DNA barcodes of these two fungi species publicly available, they have enabled future studies can use it for early detection of the pathogen.
2. **Butt rot or Basal Stem Rot (BSR) disease is one of the major obstacles in oil palm cultivation. The BSR disease of coconut is known by several names in different parts of India - Ganoderma wilt (Andhra Pradesh), Anaberoga (Karnataka) and Thanjavur wilt (Tamil Nadu), to mention a few.** Symptoms - The infection begins at the roots, but symptoms include discoloration and rotting of stem and leaves.
3. In the later stages, flowering and nut set decreases and finally the coconut palm (Cocos nucifera) dies. A reddish brown oozing has been reported only in India. Once infected, recovery of the plants is not likely.
4. Basal Stem Rot causes a huge loss: By some estimates made in 2017, in India, around 12 million people are said to depend on coconut farming. Another sign of infection is presence of shelf-like "basidiomata" - the fruiting or reproductive structures of the fungus, on the tree trunks.
5. The basidiomata of Ganoderma bear reproductive propagules (spores) which are dispersed through wind and sometimes with the help of insects. Since the fungus is microscopic, it is only detected after the symptoms start manifesting or when the reproductive structures are borne, which can be too late.

### SELA TUNNEL PROJECT

1. The Border Roads Organisation (BRO) conducts final blast concluding all excavation on Sela Tunnel Project. Started in 2019, the Sela Tunnel Project is located in the West Kameng District of Arunachal Pradesh. The Sela tunnel is a part of the Balipara-Charduar-Tawang (BCT) Road, one of the key strategic projects near the Chinese border.
2. Once completed, it will become the world's longest bi-lane road tunnel. It will be a lifeline as it will provide all weather connectivity to Tawang. The project comprises of, Tunnel 1, which is a 980 m long single tube tunnel and Tunnel 2, which is a 1555 m long twin tube tunnel.
3. The project also includes construction of an approach road of 7 kms to Tunnel 1, which takes off from BCT Road and a link road of 1.3 kms, which connects Tunnel 1 to Tunnel 2.

### BRIDGMANITE

five years ago and saw a failed attempt. The airline has been a public sector undertaking from 1953. The transaction covers Air India, Air India Express and the government's entire 50% stake in a ground handling company AI SATS.

China's military said it was "opposed to thirdparty involvement" in the India China border dispute, as it hit out at comments from Washington about Beijing "intimidating" its neighbours. "The China India border issue is a matter between China and India, and both sides have expressed their opposition to third party involvement," People's Liberation Army (PLA) Senior Colonel Wu Qian, spokesperson for the Ministry of Defence, said in Beijing.

A Central Water Commission status report in the Supreme Court said the "overall condition of the Mullaperiyar dam and its appurtenant structure" is satisfactory based on visual inspections conducted by the court-appointed Supervisory Committee. The Commission (CWC) said the Supervisory Committee had visited the dam during its annual meetings held at the project site.

Russia said the U.S. had shown it was not willing to address Moscow's main security concerns, set out during their standoff over Ukraine, but that both sides had an interest in continuing dialogue. Kremlin spokesman Dmitry Peskov said Moscow, which has massed troops near Ukraine, would not rush to draw conclusions after Washington formally responded to Russian proposals for are drawing of postCold War security arrangements in Europe.

India plans to raise spending on infrastructure in its annual budget next week to set the economy on a firmer footing, but fiscal constraints leave little chance of concessions for households hurting from the pandemic, officials said. Asia's third-largest economy is estimated to expand 9.2% in the fiscal year that ends in March, following a contraction of 7.3% in the previous fiscal year. Yet private consumption, which makes up almost 55% of GDP, is below pre-pandemic levels amid rising household debt, while retail prices have swelled almost a tenth since the COVID19 outbreak in early 2020.

Indian bond yields spiked while the rupee struck a one month low on Thursday on concerns of potential outflows after the Federal Reserve delivered a more hawkish than-expected update, saying a U.S. interest rate increase was likely in

1.By studying a mineral named bridgmanite, researchers have suspected that Earth's inner heat is dissipating sooner, making it cool faster than expected. Bridgmanite is the most volumetrically abundant mineral commonly found between Earth's core and mantle. Also known as Silicate perovskite, it makes up 70% of lower mantle.

**2.Bridgmanite consists of magnesium, iron, calcium aluminum oxide and has a perovskite structure. Structure - The perovskite structure of the Bridgmanite usually occurs in ABX3.**

Study - About 4.5 billion years ago, the surface of Earth was covered by magma and over the years, its surface has cooled to form the outer crust.

3.However, there's still enormous thermal energy in Earth's core and mantle which governs plate tectonics, earthquakes, and volcanism. Radiative thermal conductivity - one of the fundamental heat conduction mechanisms - is strongly dependent on the colour (opaqueness). So, optical absorption measurement of the bridgmanite was applied under high-pressure and high-temperature conditions that prevail in the Earth's core-mantle boundary region.

4.The results showed that the thermal conductivity of bridgmanite was about 1.5 times higher than assumed. Inference - These findings also suggest that other rocky planets may be cooling and becoming inactive faster than expected. On Earth, this cooling will lead to lesser tectonic activities (earthquakes, volcanism, and plate tectonics) in the future. However, it is challenging to track how long it will take for the cooling.

### NGO FUNDUNG

1.FCRA regulates foreign donations and ensures that such contributions do not adversely affect the internal security of the country. The Act, first enacted in 1976 was amended in the year 2010 and then 2020. Section 5 of the Foreign Contribution (Regulation) Act, 2010 gives the Union government "unchecked and unbridled powers" to declare an organisation as being one of political nature and deny it access to funds from sources abroad.

2.FCRA is implemented by the Ministry of Home Affairs. Applicability: The provisions of the Act apply to the territory of India, to citizens of India who may be outside India and to companies or their branches outside India that are registered or incorporated in India. The entities covered by the Act include an individual, a Hindu undivided family, an association, or a registered company.

3.For how long is approval granted-**Once granted, FCRA registration is valid for five years. NGOs are expected to apply for renewal within six months of the date of expiry of registration.** In case of failure to apply for renewal, the registration is deemed to have expired, and the NGO is no longer entitled to receive foreign funds or utilise its existing funds without permission from the ministry.

4.Prior Reference Category under the Act: It implies that to donate to such an NGO, a foreign donor has to take prior clearance from the Ministry of Home Affairs. Latest 2020 amendments and criticisms associated: The amendments mandated that registered NGOs open a designated account in the main branch of the State Bank of India in the Capital in which the foreign contributions to their various causes would exclusively land. The petitioners have argued that this measure would be cumbersome for NGOs operating in rural India and far away from the Capital.

5.Foreign Contribution Under FCRA-**"Foreign contribution" under FCRA covers any "donation, delivery or transfer made by any foreign source of any article" as long as it is not given as a gift for personal use,** or if its market value in India at the time it was made is "not more than such sum as may be specified from time to time by the Central government".

### LITHIUM MINING

1.Serbians have been taking to the streets, blocking main roads and bridges and halting traffic, to protest against Rio Tinto's plans to mine lithium in the Jadar valley near Lozinca town in the country.

2.Potential: As reported by Reuters, the mine would have produced enough lithium to operate one million electric vehicles along with boric acid and sodium sulphate. When fully functional, the mine would have created "58,000 tonnes of refined battery-grade lithium carbonate" every year, which would

**March. The Fed also reaffirmed plans to end its bond purchases around the same time, calling time on a long phase of easy money. India's benchmark 10year bond yield rose 7 basis points to 6.73%, its highest since December 19, 2019. Bond yields rise when prices fall.**

have made it Europe's most lithium-producing mine.

**3.Concern-While the country has already been ridden with industrial pollution, a new mine would only make it worse, polluting the land and water in the area. Serbia has ranked as Europe's fifth and the world's 32nd most polluted country in a list of 98 countries.** According to a 2019 report by Global Alliance on Health and Pollution, Serbia is one of the top ten countries with the most deaths due to pollution — 175 deaths per 100,000.