

### NEWSPAPER HIGHLIGHT

The COVID19 pandemic has reversed years of global progress in tackling tuberculosis and for the first time in over a decade, TB deaths have increased, according to the 2021 Global TB report released recently by the World Health Organization (WHO). Worse, India (41%) was on the list of countries that topped those which contributed most to the global reduction in TB notifications between 2019 and 2020. India, along with Indonesia (14%), the Philippines (12%), China (8%) and 12 other countries, accounted for 93% of the total global drop in notifications. The WHO estimated that some 4.1 million people currently suffer from TB but had not been diagnosed with it or had not officially reported to the national authorities. This figure is up from 2.9 million in 2019.

The Government challenged India's poor ranking in the the Global Hunger Index 2021 and the methodology used calling it "devoid of ground reality and facts". The Index launched on Thursday ranked India at 101 position of 116 countries. India is also among the 31 countries where hunger has been identified as serious. India ranked 94 among 107 countries in the Global Hunger Index (GHI) released last year. The publishing agencies of the Global Hunger Report, Concern Worldwide and Welt Hunger Hilfe have not done their due diligence before releasing the report. The methodology used by FAO is unscientific. They have based their assessment on the results of a 'four question' opinion poll, which was conducted telephonically by Gallup," the Ministry of Women and Child Development said in a statement. According to the Index, only 15 countries fare worse than India.

Former Chief Election Commissioners (CEC) have raised a range of concerns, from maintaining secrecy of ballots to bringing political parties on board, around the idea of online voting and remote voting, at a time the Telangana State Election Commission (SEC) is set to carry out an evoting experiment and the Election Commission of India (EC), too, is exploring remote voting. The Telangana SEC would be carrying out a smartphone appbased online voting experiment on October 20, the State Government had announced last week. The EC, on the other hand, had said last year that it

### LYOCELL FIBRE

1.The Lenzing Group has partnered with Italy's Orange Fiber to create the lyocell fibre made from orange peels. Lyocell Fibre is a semi-synthetic fabric that is commonly used as a substitute for cotton or silk. This fabric is a form of rayon, and it is composed primarily of cellulose derived from wood. Originally developed by American Enka in 1972, lyocell burst into popularity in the latter decades of the 20th century. Since it is primarily made from organic ingredients, this fabric is seen as a more sustainable alternative to fully synthetic fibers.

2.**Orange Fibre is a lyocell fibre that is produced from 'Pastazzo'. [Pastazzo is the by-product of the citrus processing industry.]** Orange Fibre could help to put citrus waste to use. Also, the material contains essential oils and vitamin C, is lightweight and absorbs moisture. It can be used in combination with wood pulp.

3.Refibra-Refibra technology involves upcycling cotton scraps from garment production. These cotton scraps are transformed into cotton pulp. Up to one third of the Refibra is added to wood pulp, and the combined raw material is transformed to produce new virgin Lyocell fibers to make fabrics and garments.

4.Ecovero-**Ecovero is a viscose natural fiber, which are environmentally responsible and have a low environmental impact.** They are derived from sustainable wood and pulp, coming from certified and controlled sources.

### PM GATISHAKTI

1.In a historic event for the infrastructure landscape of the country, Prime Minister launched PM GatiShakti - National Master Plan for multi-modal connectivity. PM GatiShakti will institutionalize the holistic planning for stakeholders for major infrastructure projects. Instead of planning & designing separately in silos, the projects will be designed and executed with a common vision. PM GatiShakti is the result of Prime Minister's constant endeavour to build Next Generation Infrastructure which improves Ease of Living as well as Ease of Doing Business. Coverage - PM GatiShakti will incorporate the infrastructure schemes of various Ministries and State Governments like UDAN, Bharatmala, Sagarmala, inland waterways, dry/land ports, etc.

2.Economic Zones like textile clusters, pharmaceutical clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, agri zones will also be covered. PM GatiShakti will also leverage technology extensively including spatial planning tools with ISRO imagery developed by Bhaskaracharya National Institute for Space Applications & Geoinformatics (BiSAG-N).

3.**Six pillars of PM GatiShakti:** Comprehensiveness in coverage of all the existing departments and ministries, and projects, Prioritization of projects through cross-sectoral interactions, Optimization of projects by identification of critical gap, Synchronization of the activities of each department, as well as of different layers of governance, Analytical - The plan will provide the entire data at one place with GIS based spatial planning and analytical tools having 200+ layers, enabling better visibility to the executing agency. Dynamic - All Ministries and Departments would visualize, review and monitor the progress of cross-sectoral projects, through the GIS platform.

4.**Significance** - The multi-modal connectivity will provide integrated connectivity for movement of people, goods and services from one mode of transport to another. It will facilitate the last mile connectivity of infrastructure and also reduce travel time for people.

### SC120-LOX

1.Hindustan Aeronautics Ltd (HAL) has delivered the 'heaviest' Semi-Cryogenic propellant tank (SC120-LOX) to the Indian Space Research Organisation (ISRO). In 2020, HAL had delivered the biggest ever cryogenic Liquid Hydrogen tank (C32-LH2) which is four metres in diameter and eight metres in length, much ahead of contractual schedule.

2.The semi cryo-liquid oxygen (LOX) tank - the first developmental welded hardware - is a part of the SC120 stage.

was looking at the option of remote voting for those electors unable to reach the polling stations they are registered at. However, this could entail voting from another location set up by the authorities and not Internet based voting from home.

Under the initiative of Atmanirbhar Bharat, the goal is to make India a military power globally on its own strength and also develop a modern indigenous defence industry, Prime Minister Narendra Modi said on Friday. Formally launching seven new Defence Public Sector Undertakings (DPSU), incorporated after the dissolution of the Ordnance Factory Board (OFB), he stated, "As India enters 75 years of Independence, we are completing projects that were stuck for a long time. The decision to revamp 41 Ordnance Factories, the launch of seven new companies, is a part of that journey.

In a step towards resolving their boundary disputes, Bhutan and China signed an agreement on a threestep roadmap to help speed up talks, at a meeting of Foreign Ministers held via videoconference on Thursday, a development that New Delhi said it has 'noted'. The roadmap "for Expediting the Bhutan-China Boundary Negotiations", is expected to kickstart the progress on the boundary talks process that has been delayed for five years, first due to the Doklam standoff in 2017 and then by the pandemic. The timing of the agreement is particularly significant for New Delhi, given the border talks on their 17 month old standoff at the Line of Actual Control appear to have hit an impasse this week.

There is a 70% reduction so far in instances of stubble burning in Punjab and 18% in Haryana from last year, according to a report on Friday by the Commission for Air Quality Management. Last year in Punjab, there were 4,216 instances of stubble burning from September 15 to October 14. This dropped to 1,286 in the corresponding period this year. There were 487 incidents this year compared with 596 last year, a press statement by the commission claimed.

Russian President Vladimir Putin on Friday said hundreds of fighters loyal to the Islamic State militant group were massing in northern Afghanistan with plans to move between ex-Soviet Central Asian countries disguised as refugees. "According to our intelligence, the number of (IS) members alone in northern Afghanistan is about 2,000 people," the Russian leader said during a video conference meeting

SC120 stage is intended for payload enhancement by replacing the L110 stage in the existing GSLV Mk-III launch vehicle. HAL, strategic reliable partner to ISRO, has delivered critical structures, tankages, satellite structures for the PSLV, GSLV-Mk II and GSLV-Mk III launch vehicles since the last 5 decades.

**3.SCE200 (under development) is an Indian example of Semi-Cryogenic Engine. This engine is expected to power ISRO's upcoming Unified Launch Vehicle (ULV) and Reusable Launch Vehicle (RLV).** Semi-Cryogenic Engine burns liquid oxygen (LOX) and RP-1 kerosene in an oxidizer-rich staged combustion cycle. [A cryogenic engine uses Liquid Oxygen and Liquid Hydrogen (LH2) as propellants.]

### RIGHT TO HEALTHCARE

1.The demand for the enactment of legislation on the right to healthcare has been revived in Rajasthan, as such a law would streamline medical services and guarantee the availability of essential facilities to citizens. Constitutional Provisions - Article 21 (Fundamental Right) says that a right to health is inherent to a life with dignity. Articles 38, 39, 42, 43 and 47 (DPSP) are related to the right to health.

2.India is a party to the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights. The Supreme Court (SC) of India held that Article 21 of the Indian Constitution in relation to human rights has to be interpreted in conformity with the international law.

**3.While upholding the right to health by a worker, the SC cited, Article 25 [2] of the Universal Declaration of Human Rights and Article 7** ( of the International Covenant on Economic, Social and Cultural Rights. Statutory Provisions - These covenants find statutory acceptance in the Protection of Human Rights Act, 1993.

### HENLEY PASSPORT INDEX 2021

1.Henley Passport Index 2021 was prepared and released by the Henley and Partners, a London-based global citizenship and residence advisory firm. The index ranks the passports of countries according to the number of destinations their holders can visit without a prior visa. Created in 2006, the index ranks passports based on their power and mobility based on the analysis of exclusive data from the International Air Transport Association (IATA).

2.[IATA maintains the world's largest and most accurate database of travel information.] The index is updated in real time according to countries' visa policy changes and it covers 227 destinations and 199 passports. It assumes only the passport of citizen of country and it is not for diplomatic, emergency or temporary in nature.

**3.Findings** - India's rank has slipped by 6 places from the year 2020 to 90th position on the Henley Passport Index. For the third consecutive year, Japan has secured the top position. The first position is shared by both Japan and Singapore. Meanwhile, Afghanistan, Iraq, Syria, Pakistan, and Yemen are among the least powerful.

### CENTRAL ZOO AUTHORITY

1.It is the statutory regulatory body for zoos in India. It was established in 1992. The main objective of the Authority is to complement and strengthen the national effort in conservation of the rich biodiversity of the country, particularly the fauna as per the National Zoo Policy, 1998.

**2.Important functions:** It enforces minimum standards and norms for the upkeep and healthcare of animals in Indian zoos. Every zoo in the country is required to obtain recognition from CZA for its operation. It can also de-recognise zoos.

**3.Why in the News?** Vision Plan (2021-2031) for Indian Zoos was recently released. The vision plan is aimed at upgrading Indian zoos and strengthening the Central Zoo Authority (CZA).

### SILICOSIS PREVENTION

1.Countless workers engaged in mines, construction and factories in India are silently dying of exposure to dust (Silicosis), utmost exploitation and apathy. What is silicosis? Silicosis is part of the pneumoconiosis family of diseases. It is a long-term lung disease caused by inhaling large amounts of crystalline silica dust, usually over many years. Challenges to treatment - Silicosis usually develops after being exposed to silica for 10-20 years, or can even occur after only a few months of very heavy

with leaders of other exSoviet States.

exposure.

**2.What is Rajasthan's model for Silicosis prevention?**

Rajasthan has the top-most share of over 17% in value of mineral production in India. Notified silicosis as an 'epidemic' in 2015, under the Rajasthan Epidemic Diseases Act, 1957. A formal Pneumoconiosis Policy in 2019 [only next to Haryana] 'Silicosis portal' hosted by the Department of Social Justice and Empowerment.

**3.**A system of worker self-registration and diagnosis through district-level pneumoconiosis boards Compensation from the District Mineral Foundation Trust (DMFT) funds to which mine owners contribute In just 2 years, the State has certified and compensated over 25,000 patients of silicosis, of which 5,500 have already died of the disease.