

### NEWSPAPER HIGHLIGHT

In a historic move, the World Health Organization (WHO) endorsed the first anti-malarial vaccine, as mankind enters a key turning point in a battle waged relentlessly over decades between man and mosquito, the vector. WHO Director General Tedros Adhanom Ghebreyesus said: "The long awaited malaria vaccine for children is a breakthrough for science, child health and malaria control... Using this vaccine on top of existing tools to prevent malaria could save tens of thousands of young lives each year." The WHO said that it was recommending the use of the RTS,S/AS01 (RTS,S) malaria vaccine among children in sub-Saharan Africa and in other regions with moderate to high *P. falciparum* malaria transmission.

Germany's Benjamin List and U.S.-based David MacMillan won the Nobel Chemistry Prize for developing a tool to build molecules which has helped make chemistry more environmentally friendly. Their tool can be used to control chemical reactions, exerting a big impact on drugs research.

Uttar Pradesh is the largest emitter of PM<sub>2.5</sub>, the class of particulate matter considered most harmful to health, according to an analysis by the Council on Energy, Environment and Water (CEEW). The council, a research body, looked at five of the most reliable data sources — international and national — that have tracked and measured the quantum and sources of air pollution in India. Maharashtra, Gujarat, Odisha, West Bengal, Madhya Pradesh, Bihar, Tamil Nadu, and Rajasthan too feature in the list of top polluters but are differently ranked by the five sources. Because of the extent of variation, the Council said India ought to "develop and maintain a comprehensive inventory of baseline emissions". India has a National Clean Air Campaign (NCAP) that aims to reduce pollution in 122 of the most polluted cities by 2024. "To meet the NCAP target of 2030% reduction in particulate concentration by 2024.

More civilians than security forces have been killed this year in Jammu and Kashmir (J&K) in various terrorism related incidents. The targeted killing of civilians, including prominent citizens and non locals in the Valley, reverses the trend of the past six years, data show. Till October 5 this year, as

### HIGH FAT DIET AND CANCER

1. A new study shows that a high-fat diet increases the incidence of colorectal cancer, which starts in the colon or the rectum and grows to other parts of the body. It found that the fat disrupts the relationship between intestinal cells and the immune cells that watch them for emerging tumors. When a cell is infected, immune cells detect the foreign particle by watching over the MHC-II molecules. MHC-II tags are the molecules that distinguish between normal and abnormal cells. They encode a protein that presents foreign substances to the immune system.

2. **MHC cells activate the immune system to destroy bad cells - in case they are wearing out or about to become cancerous. But the study found that a high-fat diet suppressed MHC-II levels in intestinal cells.** Hence, cells with reduced levels of these tags could not be identified as abnormal and hence, could grow into tumors.

3. The crosstalk between stem cells, microbes and immune cells is critical for eliminating tumor-initiating cells. But this crosstalk can fail in response to a high-fat diet. Application - If the level of the immune recognition molecules is altered positively, tumor will more likely be recognized by the immune cell. This can be coupled with the existing strategies to eradicate tumors.

### STATE OF THE WORLD CHILDREN REPORT

1. The UNICEF released its global flagship report titled, 'The State of the World's Children 2021'. This UNICEF report is the most comprehensive analysis of global trends affecting children. Purpose - The 2021 report details the impact of COVID-19 pandemic on the mental health of children, adolescents and caregivers.

2. It examines how risk and protective factors in the home, school and community shape mental health outcomes. It urges global commitment, communication and action to promote good mental health for every child and young people. Findings - Globally, 1 in 5 young people of 15 to 24-years of age are feeling depressed or having little interest in doing things.

3. **In India, 1 in 7 young people (14% of 15 to 24-years of age) are reported often feeling depressed or having little interest in doing things.** Children have not only been living an emotional tragedy, many are also at a higher risk of neglect and abuse.

### INDUSTRIAL PARK RATING SYSTEM REPORT 2.0

1. Industrial Park Rating System 2.0 (IPRS 2.0) Report was released by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry. IPRS Report aims to provide important information regarding all Special Economic Zones, Industrial Clusters and Parks. It will enhance India's industrial competitiveness and attract investment. It categorizes into 3 categories - Leaders, Challengers and Aspirers.

2. These ratings are assigned on the basis of 4 pillars - internal infrastructure, external infrastructure, business support services, and environment and safety management. The Report is an extension of the India Industrial Land Bank which features more than 4,400 industrial parks in a GIS-enabled database to help investors identify their preferred location for investment.

3. India Industrial Land Bank (IILB) is a Geographic Information System (GIS)-based portal that was developed by the DPIIT. The system was developed by integrating the Industrial Information System (IIS) with state GIS.

4. **It serves as a one-stop repository of all industrial infrastructure-related information such as connectivity, infra, natural resources and terrain, plot-level information, etc.** It has GIS-enabled database of industrial areas or clusters across the country, which will help investors to get free real-time information about the availability of industrial land and resources.

### OUTAGE OF FACEBOOK

1. Facebook Inc.'s services suffered a massive outage for as long as six hours. Facebook said that the configuration changes on

many as 22 civilians were killed in the Valley as against 20 security personnel in the same period. In 2020, the number of civilians who were killed stood at 33, while the number of security forces who were killed was 46 and in the year 2019, it was 36 civilians and 78 security personnel, respectively.

India and the U.S. are on the same page on Afghanistan and the threat to the region from terrorism, said visiting American Deputy Secretary of State Wendy Sherman, calling the partnership “indispensable” for both countries and the world. Striking a discordant note on the impending delivery of the Russian S400 missile systems to India, however, Ms. Sherman, who described the deal as “dangerous”, expressed the hope that the two sides could “solve” the issue arising from possible U.S. sanctions over the defence purchase.

Telangana on October 6 withdrew its plea in the Supreme Court for “equitable apportionment” of the Krishna River water on the basis of an assurance given by the Centre that it will “consider” constituting a tribunal to resolve the issue. The Union Minister, in a meeting, stated that if the State withdrew its case from the Supreme Court, the Centre would “positively” consider forming a tribunal under Inter State River Water Disputes Act of 1956 after taking necessary legal opinion. Taking “legal opinion” before forming a new tribunal on the issue of Krishna River water sharing was necessary as the Krishna Water Disputes Tribunal (KWDT II) was already seized of the inter States’ issue. Telangana had come to the Supreme Court complaining that it had been “unjustly denied” an equitable allocation of the water.

Seventy five years of Independence have not been able to bring members of the Scheduled Castes and Scheduled Tribes on a par with the forward classes of society, the Government said in the Supreme Court on Wednesday. Appearing before a Bench led by Justice L. Nageswara Rao, Attorney General K.K. Venugopal said it was tough for a member of the SC/ST to reach the ‘Group A’ category jobs. Mr. Venugopal said the time had come for the top court to firm up and draw the basis for reservation in promotions for SC/ST candidates to fill up vacancies in top jobs.

Nearly a month after the tenure of the parliamentary standing committees ended on September 12, there is no word on reconstitution of these panels, with sources pointing it to bureaucratic delays. Opposition leaders stated that the delay was yet another way to subvert an important

the backbone routers that coordinate network traffic between their data centres caused the outage. But, network experts said that the outage was due to an update to Border-Gateway Protocol (BGP).

**2.Border-Gateway Protocol** is a gateway protocol that enables the internet to exchange routing information between autonomous systems (AS). It allows the network of networks in the Internet to be bound together. It lets one network know it is available to the others.

**3.Facebook is a network, which advertises its presence to other networks. This enables Internet service providers across the world to route web traffic to different networks via BGP process.** In the case of Facebook, an update to the BGP removed its online properties from being available to world’s computers. Any time a change made to a network’s BGP, be it an announcement or withdrawal, a message is sent to a router informing the update.

**4.**It was found that the route withdrawals from Facebook made its Domain Name System (DNS) servers offline. So, the social network’s DNS was not accessible to other networks, and the Internet. When a DNS resolver fails to translate a domain name into an IP address, people won’t be able to access that specific website. As a direct consequence, the webpage won’t load. This is what happened in the case of Facebook.

### **NATIONAL ROAD SAFETY BOARD**

**1.**Ministry of Road Transport & Highways has notified constitution of the National Road Safety Board, along with Rules thereof. The Head Office of the Board shall be in the National Capital Region and the Board may establish offices at other places in India. It shall consist of the Chairman and not less than 3, but not exceeding seven Members, to be appointed by the Central Government.

**2.The Board shall promote road safety, innovation and adoption of new technology, and regulate traffic and motor vehicles. For this purposes, inter alia, the Board shall formulate specific standards for road safety;** guidelines for capacity building and development of skills, etc for consideration by the Central Government. The Board shall provide technical advice and assistance to the Central Government, State Governments and local authorities on road safety and traffic management.

**3.**It will promote, Good practices in road safety and traffic management; new vehicle technology in the field of vehicular engineering; Co-ordination with international organizations; and Consistency between international technical standards and domestic technical standards, conduct research to improve road safety, traffic management, crash investigation.

### **FAILURE OF ANTI-DEFECTION LAW TO DISCOURAGE DEFECTION**

**1.**There have been accusations on anti-defection law being failed to discourage defection with varying suggestions from Former Vice President Hamid Ansari, ECI and Supreme Court.

**2.What is the anti-defection law?** The anti-defection law punishes individual MPs/MLAs for leaving one party for another. It was added by 52 nd Constitutional Amendment Act as the Tenth Schedule in 1985. Its purpose was to bring stability to governments by discouraging legislators from changing parties. It was a response to the toppling of multiple state governments by party-hopping MLAs after the general elections of 1967. The Presiding Officers of the Legislature (Speaker, Chairman) are the deciding authorities in such cases. The decision can be challenged before the higher judiciary.

**3.What constitutes defection?** The law covers three kinds of scenarios. When legislators elected on the ticket of a political party voluntarily give up membership of that party or vote in the legislature against the party’s wishes. When an MP/MLA who has been elected as an independent joins a party later. When nominated legislators join a political party after six months of being appointed to the House. Violation of the law in any of these scenarios can lead to a legislator being penalised for defection. But it allows a group of two-third MP/MLAs to join (i.e. merge with) another political party without inviting the penalty for defection.

**4.What are the loopholes in defection law?** The law does not provide a time-frame within which the presiding officer has to decide a defection case. There have been many instances where a Speaker has misused this in not determining the case of a

**parliamentary instrument. The government has a tardy record in the constitution of the panels. In 2019, the committees were constituted in October, nearly five months late. In 2014, the panels were notified on September 1, less than three months after the process was started. In 2009, during the UPA term, it was notified on August 31. And in 2004, it was constituted by August 5.**

**The Union Cabinet approved the setting up of seven Mega Integrated Textile Region and Apparel (PM MITRA) Parks at an outlay of ₹4,445 crore. The mega parks scheme will include brownfield and greenfield projects, spread over five years, said Textiles Minister Piyush Goyal. The parks would be developed by a Special Purpose Vehicle (SPV) owned by the Central and State governments. Brownfield is a term used in urban planning, which means land that has been used previously but is lying vacant or unused now. A greenfield project is one that lacks constraints imposed by prior work on the site. Typically, what a greenfield project entails is development on a completely vacant site. Architects start completely from scratch.**

defecting MLA until the end of the legislature term. Parties often sequester MLAs in resorts to prevent them from changing their allegiance or getting poached by a rival party. Recent examples are Rajasthan (2020), Maharashtra (2019), Karnataka (2019 and 2018), and Tamil Nadu (2017).

**5. Have any suggestions been made to improve the law?** Last year, the Supreme Court held that ideally Speakers should take a decision on a defection petition within three months. It also said that Parliament should set up an independent tribunal headed by a retired judge of the higher judiciary to decide defection cases swiftly and impartially. The Election Commission has suggested it should be the deciding authority in defection cases.