

NEWSPAPER HIGHLIGHT

As per the estimates of WHO (and the FDA of the US) 1.3 billion people (among the 7.9 billion across the world) who smoke, and 80% of them live in low and middle income countries. Smoking is thus an epidemic and a great public health threat, killing over eight million people around the year. Over seven million of these people die due to direct tobacco use, and 1.2 million non-smokers who are exposed to second hand smoke. And, as per the American Journal of Preventive Medicine, traditional cigarette smokers are 30% to 40% more likely than non-smokers to develop Type 2 diabetes.

A new study (PNAS) from Monterey Bay Aquarium Research Institute (MBARI) researchers and their collaborators have documented how the thawing of permafrost, submerged underwater at the edge of the Arctic Ocean, is affecting the seafloor. Numerous peer reviewed studies show that thawing permafrost creates unstable land which negatively impacts important Arctic infrastructure. Using advanced underwater mapping technology, MBARI researchers and their collaborators revealed that dramatic changes are happening to the sea floor as a result of thawing permafrost. In some areas, deep sinkholes have formed, some larger than a city block of six story buildings. In other areas, ice filled hills called pingos have risen from the sea floor.

Once known as a safe nesting ground on India's east coast, a nearly 30km coastline in the Godavari estuary has recorded a sharp fall in the arrival of Olive Ridley turtles (*Lepidochelys olivacea*) during the breeding season as large numbers of the endangered animals are trapped by high speed fishing boats. The entire rookery, including the Coringa Wildlife Sanctuary, is part of the rare and ecologically sensitive Godavari mangrove system. According to official data, 1,061 turtles arrived at the Godavari estuary in the 2018/19 breeding season (January-April), in which a record number of 89,172 hatchlings were returned to the sea. But the number of turtles arriving started falling from the following season.

A cornershot weapon system (CSWS), designed and developed by the Defence Research and Development

AUSTRALIA'S DEFENCE SPACE COMMAND AGENCY

1. Australia's Defence Space Command Agency Set up in January 2022, Australia's new Defence Space Command Agency began functioning. Australia's new Defence Space Command was set up to achieve strategic space ambitions and lead the effort to assure Australia's access to space. Mainly, this Agency was set up to counter the growing influence of Russia and China in space.

2. This Agency is headed by the Air Vice-Marshal Catherine Roberts. Structure - This agency brings members of Air Force, Army, Navy and the Australian Public Service together under an integrated headquarters reporting to the Chief of Air Force, as the Space Domain Lead. This agency will come under the Air Force.

3. The command will be working alongside the Australian Space Agency (ASA); industry partners; and research and scientific institutions. Function - The agency will help Australia in developing and advocating space-specific priorities within the government, industry, allies and even international partners. It will enable Australia in providing training to people to become space specialists and, help it conduct strategic space planning.

4. **It will be able to be a part of any developments regarding the refinement of space policy. Australia will be setting scientific and space priorities with the agency in place & will be working towards creating an efficient space architecture.** All the operations of the agency will be within the purview of the standards and limitations of the Defence Ministry. Australian government plans to triple the size of its space sector by 2030.

BUCHAREST NINE (B9)

1. The "Bucharest Nine" wrote an article in a popular Indian newspaper to acquaint the Indian public with the basic facts on the ground about the premeditated, unprovoked and unjustified Russian aggression in Ukraine. The "Bucharest Nine" or "Bucharest Format" or "B9" was founded in 2015, and takes its name from Bucharest, the capital of Romania.

2. **The "Bucharest Nine" is a group of nine NATO countries in Eastern Europe that became part of the NATO after the end of the Cold War. It is also regarded as the "Voice of the Eastern Flank" in the NATO alliance.**

3. The group was created at the High-Level Meeting of the States from Central and Eastern Europe in Bucharest on the initiative of, Klaus Iohannis, who became the President of Romania in 2014, Andrzej Duda, who became President of Poland in 2015. B9 offers a platform for deepening the dialogue among the participant allied states, in order to articulate their specific contribution to the ongoing processes across the NATO.

4. Composition of B9 include, Romania, Poland, Hungary, Bulgaria, the Czech Republic, Slovakia, and the three Baltic republics of Estonia, Latvia, and Lithuania. All nine countries were once closely associated with the now dissolved Soviet Union, but later chose the path of democracy.

5. Romania, Poland, Hungary, and Bulgaria are former signatories of the now dissolved Warsaw Pact military alliance led by the Soviet Union. (The other Warsaw Pact countries were the erstwhile Czechoslovakia and East Germany, and Albania.) Estonia, Latvia, and Lithuania were part of the former Union of Soviet Socialist Republics (USSR).

NARI ADALAT

1. Nari Adalat (Women's court) is a gender-sensitive, informal Alternative Dispute Resolution (ADR) platform. It is an innovation of the Mahila Samakhya of the Ministry of Human Resource Development (now Ministry of Education), in response to the rise in the number of cases of violence against women.

2. **'Nari Adalat' is one of the components included in 'Mission Shakti', an integrated women empowerment programme. ['Mission Shakti' is carefully designed to touch upon and address all concerns and issues of women, responsively, in a comprehensive manner, and during their entire lifecycle**

Organisation (DRDO), is at an advanced stage of being inducted by the Central Reserve Police Force (CRPF) and the Jammu and Kashmir police. The CSWS is a special purpose weapon designed by the Armament Research and Development Establishment (ARDE), Pune. It can engage targets located around the corners as the system bends and captures video feed thus saving soldiers from any surprise counter attack and is best suited for urban, close quarter situations.

The Union Cabinet, chaired by Prime Minister Narendra Modi, on Saturday extended the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) by another six months till September 2022. The scheme was originally introduced in April 2020 a month into the first lockdown during the initial onset of the COVID pandemic.

Maintaining that there are no "divisions" in the Quad over India's stand on Russia in the Ukraine war, Australia's High Commissioner to India Barry O'Farrell says there is an understanding among Quad partners that India has the "extra issue" of dealing with challenges from China to its northern border.

Not all forest-restoration efforts deliver the same biodiversity benefits. Researchers compared the performance of monoculture tree plantations with diverse native forests in 53 countries. The native forests provided better carbon storage and were better at preventing soil erosion. Monoculture tree plantations yielded more wood.

Sleep seems to be as old as animals themselves: even those with the simplest nervous systems, such as jellyfish and hydra, do it. Experiments on sleep-deprived fruit flies found reactive oxygen species building up in the gut and cutting their lifespans in half. Genetically modified flies were able to survive without sleep.

Scientists say they can sequence almost the whole genome of a days-old embryo created for in vitro fertilization (IVF). They were able to achieve the feat with so few cells by filling in the blanks with their knowledge of the parents' DNA. Researchers then calculated the risk that a person with that genome might develop certain diseases.

An organism that has been around from 2 billion years ago has given biologists from Centre for Cellular and Molecular Biology, Hyderabad (CCMB), a clue as to how mitochondria became an inseparable part of animal and plant cells. The researchers, led by Rajan

continuum.] Started on a pilot basis, 'Nari Adalat' is providing women with an ADR Mechanism for resolving petty cases (harassment, subversion, curtailment of rights or entitlements) faced by them at local level.

3. Working - The panel of women adjudicators who are commonly known as Nyaay Sakhis (friends of justice) adjudicate the complaints filed either by the aggrieved women herself or by her family or friends. These courts strictly follow natural justice principles. Previously (till 2014-2015), these matters were handled by the Parivarik Mahila Lok Adalats (PMLAs).

4. These Lok Adalats redressed issues related to family affairs, matrimonial disputes, bigamy, succession, and motor vehicle accident disputes related to labour. Also, till 2014-2015, the National Commission for Women (NCW) used to provide financial assistance to NGOs for organising PMLAs. Thereafter, the scheme has been discontinued by the NCW.

CENTRAL EQUIPMENT IDENTITY REGISTER

1. The Central Equipment Identity Registry (CEIR) tries to connect the 15-digit International Mobile Equipment Identity (IMEI) database of all the mobile Operators. [From your mobile, you can check the IMEI number by dialling *#06#.] CEIR acts as a central system for all network Operators to share black listed mobile devices so even if the Subscriber Identity Module (SIM) card in the device is changed these devices won't work in any network.

2. The Department of Telecommunications intends to implement the CEIR with the aim to Curtail the counterfeit mobile phone market, Discourage mobile phone theft, Protect consumer interest and Facilitate law enforcement authorities for lawful interception. Functions - The CEIR project facilitates the blocking and tracing of lost and stolen mobile phones using the IMEI. The traceability data for the IMEIs will be made available to police of the respective LSA to facilitate recovery of handsets.

3. People can request the CEIR system for blocking the IMEI number. Accessibility - CEIR is a multi-stakeholder system where respective stakeholders have a limited access as per their defined roles and responsibilities. [Stakeholders include the Department of Telecommunications, Telecom Service Providers, Police, Mobile phone manufacturers and mobile phone subscribers.]

4. Currently, this accessibility includes Information to the subscriber about the make & model corresponding to IMEI of his/her mobile handset, Information to mobile phone manufacturers about genuineness of IMEI during import of consignment of mobile phones etc. The CEIR project has been launched in Delhi, Mumbai and Maharashtra licensed service areas (LSAs) in a phased manner.

5. Know Your Mobile-Through Know Your Mobile (KYM), one can check the validity of their mobile device even before buying it. IMEI is written on the mobile packaging box or the mobile bill/invoice. If the status of the mobile is shown as Black-listed, duplicate or already in use, please avoid buying the mobile. KYM could be used through any of the following 3 methods - SMS (Type KYM <IMEI number> and send to 14422), app or web portal.

H2Ooooh

1. It was launched by UNESCO in July 2021, jointly with the National Mission for Clean Ganga (NMCG) and others. H2Ooooh! is a unique program crafted for Indian school students from Standard 1-8.

2. Objectives: It aims to increase awareness about the limited availability of water, its sustainable use, its conservation, its exploitation and much more. It seeks to enable the students to share their own experiences and proposals for the protection of the environment. **3. Divided in three phases, the project aims to spur creativity and raise awareness on water conservation and its sustainable use for students between the age of 6-14 years, by providing training and encouraging them to submit paintings and story ideas for the animated short films.**

NASA VOYAGER SPACECRAFT

1. Both Voyager spacecraft are rushing away from Earth and into interstellar space. Yet for a portion of every year, both spacecrafts' distances to Earth decrease. Why is it so? The answer is that for a few months each year, Earth in its orbit moves toward the spacecraft faster than they're moving away.

Sankaranarayanan, identify two key transformations, one in the molecule known as Daminoacyl tRNA deacylase (DTD) for short and another in the transfer RNA (tRNA).

Iran branded “illegal” a deal reached between Kuwait and Saudi Arabia to develop a disputed gas field in the Gulf, insisting on its right to also exploit it. The energy ministers of the Gulf Arab states signed an agreement on Monday to develop the Arash/Dorra gas field, according to an official Kuwaiti statement.

Chinese Foreign Minister Wang Yi on Saturday held talks with Nepal’s top leadership here and discussed bilateral relations and mutual cooperation, as the two countries inked nine agreements, including one on the technical assistance scheme for the China aided feasibility study of the cross border railway.

2. Earth’s motion around the sun is faster than the motion of the Voyager spacecraft. Earth moves through space at a speed of 67,000 miles per hour (30 km/s). Voyager 1 moves at a speed of 38,210 miles per hour (17 km/s). Voyager 2 moves at a speed of 35,000 miles per hour (15 km/s). So, for a portion of the year, Earth comes around the side of the sun and is speeding toward the spacecraft faster than they’re moving away. Therefore their distances to Earth are getting closer, if only temporarily. They never change their outward motion. It is we who change.

3. About Voyager mission: Launched in the 1970’s, and the probes sent by NASA were only meant to explore the outer planets – but they just kept on going. Voyager 1 departed Earth on 5 September 1977, a few days after Voyager 2 and left our solar system in 2013.

4. The mission objective of the Voyager Interstellar Mission (VIM) is to extend the NASA exploration of the solar system beyond the neighborhood of the outer planets to the outer limits of the Sun’s sphere of influence, and possibly beyond. The Voyager spacecraft are the third and fourth human spacecraft to fly beyond all the planets in our solar system.

5. Pioneers 10 and 11 preceded Voyager in outstripping the gravitational attraction of the Sun but on February 17, 1998, Voyager 1 passed Pioneer 10 to become the most distant human-made object in space.