

# KSG: NEWSPAPER CRUX

21<sup>ST</sup> AUGUST 2022

## NEWSPAPER HIGHLIGHT

Over the course of nearly five centuries, researchers put forward numerous, much debated theories as to how the Moon was formed. Now, researchers at ETH Zurich discover the first definitive proof that the Moon inherited indigenous noble gases from the Earth's mantle. They show that the Moon inherited the indigenous noble gases of helium and neon from Earth's mantle. The discovery adds to the already strong constraints on the currently favoured "Giant Impact" theory that hypothesises that the Moon was formed by a massive collision between Earth and another celestial body.

Fifty years after Green Revolution, some negative effects of this intense methodology are becoming apparent. A transcriptional regulator that boosts grain yields and shortens the growth duration of rice", which appears in the journal Science. Erik Stokstad, a reporter for Science points out in the same issue that "supercharged biotech rice yields 40% more grain". This report points out that when a second copy of a single gene (called OsDREB1C) is added to rice, it improves photosynthesis and nitrogen use, speeds up flowering and absorbing nitrogen more efficiently — offering larger and more abundant grains. The change helps the plant absorb more fertilizer, boosts photosynthesis, and accelerates flowering, all of which could contribute to larger harvests.

Russian fertilizers and agricultural products must be able to reach world markets "unimpeded" or a global food crisis could strike as early as next year, UN Secretary General Antonio Guterres said on Saturday. "It is important that all governments and the private sector cooperate to bring them to market," he said from the Joint Coordination Center (JCC). The JCC oversees the implementation of the Ukrainian grain export agreement signed in July by Kyiv and Moscow with the UN and Turkey as guarantors.

A desire to rest after a day spent toiling at the computer could be a physiological response to mentally demanding work. People who spent more than six hours working on a mentally taxing assignment had higher levels of glutamate, which can disrupt brain function.

## LACTOSE INTOLERANCE

1. Studies on the global level suggest that 65% of humanity is lactose-intolerant. Milk has often been branded as a superfood as it is rich in most of the nutrients necessary for health. However, how milk came to be an integral part of the human diet has been a conundrum to scientists because most of the world can't digest the product.

2. Lactose intolerance means, the individual lacks the gene to break down lactose into adulthood. Beyond the age of five, lactose, a sugar present in milk, cannot be naturally broken down in the stomach and this remains in the gut causing flatulence, acidity and diarrhoea. India is among the largest producers of milk and, by country, the largest consumer of it.

3. Milk drinking, the story goes, hasn't been very popular in the roughly 3,00,000-year history of humanity. However, in the last 5,000 years, a genetic mutation enabled European pastoralists to produce lactase. Drinking milk is actually harmful in those who lacked the gene-variant but only in periods of famine and adverse environmental conditions.

4. **Lactose persistence-Lactase, an enzyme that breaks down lactose into a digestible form, well into adulthood, a trait called lactose persistence.** The lactase persistence trait is more common in populations that practice cattle herding and dairy farming, and it is related to genetic selection of individuals with the ability to digest lactose.

## FLUE GAS DESULFURIZATION

1. State-owned power giant NTPC said it has started capturing carbon dioxide (CO<sub>2</sub>) from the flue gas stream at its thermal plant in Vindhyachal. Flue Gas Flue gas (sometimes called exhaust gas or stack gas) is the gas that emanates from combustion plants. It contains the reaction products of fuel and combustion air and residual substances such as particulate matter (dust), sulphur oxides, nitrogen oxides, and carbon monoxide.

2. **Flue Gas Desulfurization-It is a set of technologies used to remove sulphur dioxide (SO<sub>2</sub>) from flue gases. Flue gases produced from industrial combustion at petrol refineries, chemical manufacturing industries,** mineral ore processing plants, and power stations, are removed. The removal of sulphur dioxide is critical to establishing a safe and clean environment where toxic emissions are kept to a safe low.

3. Fossil fuels such as coal and oil often contain high amounts of sulphur. When these fuels are burned, around 95% or more of the sulphur is converted to sulphur dioxide (SO<sub>2</sub>) which is emitted as flue gas. The main source of sulphur dioxide in the air is a result of industrial activity that processes or uses materials that contain sulphur.

4. Sulphur dioxide is an acidic gas that reacts easily with other substances to commonly form harmful compounds such as sulphuric acid, sulphate particles, and sulphurous acid. When breathed in, it can irritate the nose, throat and airways with a risk of developing more severe problems over prolonged exposure. Sulphur dioxide in itself is a major air pollutant which impacts all life. It is also a precursor of acid rain which has significant adverse impacts on forests, freshwaters and soils.

5. Removal of Sulphur-An alkaline-based sorbent is used to bring the pH level of the sulphur dioxide gas close to neutral. Scrubber systems are one of the most efficient ways of reducing sulphur dioxide emissions caused by industrial combustion.

## LORD CURZON

1. The Bardhaman municipality, West Bengal has decided to erect a statue of an erstwhile maharaja in front of the landmark Curzon Gate in the city. About Curzon He served as Under-Secretary of State for India (1891-1892), and for Foreign Affairs (1895-1898), before being appointed Viceroy of India in 1899.

2. Of all the Viceroys of India, Curzon is possibly the most criticised — he is the man who partitioned Bengal in 1905, and triggered a wave of Bengali nationalism that contributed to the

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A reduction of 686 million tons of carbon emissions per year could be achieved if every person in the world cycled 2.6 km per day, similar to cycling patterns in The Netherlands, a Communications Earth & Environment paper reports. The findings are based on a global assessment of bicycle production, and usage by the country from 1962–2015.

The J&K government clarified that only existing residents who have attained the age of 18 would be enlisted in the electoral rolls but remained silent on whether domicile was a requirement for outsiders to get registered as voters.

At least 25 people were killed as torrential rain triggered flash floods and landslips in the hill States of Himachal Pradesh and Uttarakhand, officials said. Several arterial roads were blocked by debris, while gushing currents washed away bridges and vehicles.

A new study in India has found that warning labels on food packets are most effective in helping consumers identify foods “high in sugar, saturated fat and sodium” as compared with other labelling formats. Published in an open access journal, *Nutrients*, earlier this month, the study is the first peer-reviewed paper on the subject in an Indian context. It found that on most parameters, the Health Star Rating (HSR) format — where a product is assigned between half a star and five stars — was least effective.

The United Nations is set to end travel ban exemptions for 13 Taliban officials, pending any deal by Security Council members on a possible extension, diplomats told AFP. Under a 2011 UN Security Council resolution, 135 Taliban officials are subject to sanctions that include asset freezes and travel bans.

The recent exemption granted to India by the U.S. House of Representatives from sanctions under the Countering America's Adversaries Through Sanctions Act (CAASTA) for its S400 deal is convincing other international customers apprehensive of sanctions to buy Russian equipment, a senior Russian defence official said, while stating that the delivery of S400 systems to India is under way as per contract.

wider Indian national movement. He was also one of the more openly imperialist of viceroys, and a man who saw Britain's rule over India as critical to the survival of the empire. In 1900, Curzon famously stated, “We could lose all our [white settlement] dominions and still survive, but if we lost India, our sun would sink to its setting.”

**3.Reforms by Lord Curzon:** Educational: Curzon brought in the Indian Universities Act of 1904, which brought all the universities in India under the control of the government. Scientific: The Agriculture Research Institute in Pusa (Bihar – Bengal Presidency) was established. Administrative: He instituted a Police Commission in 1902 under the chairmanship of Sir Andrew Frazer.

**4.During the Curzon regime,** the Northwest Frontier Province (NWFP) was established which covered roughly the areas of the upper course of the River Indus. Military: Imperial cadet corps was set up which became an instrument for the Indianisation of the army later. Other reforms: He passed a law called the Ancient Monuments Act, 1904 which made it obligatory on the part of the government and local authorities to preserve monuments of archaeological importance and their destruction an offence.

## KARNATAKA HIGH COURT DIRECTS UIDAI TO DISCLOSE AADHAAR DETAILS OF 12 BANGLADESHI NATIONALS TO NIA

**1.The High Court of Karnataka** has directed the Unique Identification Authority of India (UIDAI) to furnish information and documents submitted for securing Aadhaar by 12 Bangladesh nationals to NIA. Many of whom are facing severe criminal charges such as rape and trafficking.

**2.Legal Provision Section 33 of the Aadhaar Act** mandates that confidential information/ authentication documents, **which are prohibited from being revealed, can be disclosed in certain cases only by an order of the court not inferior to a judge of the High Court.**

**3.Accused not heard:** Contrary to the principle of ‘natural justice’, HC didn't hear the accused citing Aadhaar Act, 2016, which only mandated the court to hear the UIDAI (and not the person accused) before granting permission to provide confidential details.

## DRAFT INDIAN PORT BILL

**1.Recently,** the government circulated Draft Indian Ports Bill, 2022 for wider consultation. It has major objectives of ensuring coordination between States and centres; prevent pollution; address issues with dispute resolution systems and use data for the development of the port.

**2.Need for the Bill:** Indian ports are governed by Indian Ports Act 1908 (which is more than 110 years old) and Major Port Trust Act, 1963. Also, India's ports are falling behind its Asian competitors (Sri Lanka, Singapore) in terms of cargo handled and infrastructure facilities.

**3.About the Bill: Aim:** It seeks to repeal and replace the existing Indian Ports Act 1908, which is more than 110 years old. Significant provisions of the Bill: Environmental compliance: The bill will ensure the prevention and containment of pollution at ports, by complying with the maritime treaties and international instruments to which India is a party. India has signed the International Convention for the Prevention of Pollution from Ships (MARPOL).

**4.Institutional changes proposed:** Empower and establish State Maritime Boards and State Maritimes Development Council for effective administration, control and management of non-major ports in India. Provide adjudicatory mechanisms for redressal of port-related disputes. Establish a national council for fostering structured growth and development of the port sector. Constitution of maritime State Development Fund.

**5.Benefit of the Bill:** It will ensure optimum utilisation of the coastline of India, address logistics bottlenecks and help India emerge as a major trading hub.

## INTERNATIONAL TRANSPORT FORUM(ITF)

**1.Cabinet nod to India-France contract to support ITF activities**

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**As Himachal Pradesh experiences nature's fury in the form of landslips, cloudbursts, flash floods, avalanches and droughts year after year, natural hazards have become a matter of immediate concern, the hilly region's latest State of Environment report shows.**

in the Indian transport sector. The International Transport Forum at the OECD is an intergovernmental organisation with 64 member countries.

**2.It acts as a think tank for transport policy and organises the Annual Summit of transport ministers. ITF is the only global body that covers all transport modes.**

**3.**The ITF is administratively integrated with the OECD, yet politically autonomous.