

NEWSPAPER HIGHLIGHT

Rain fell at the highest point on the Greenland ice sheet last week for the first time on record, another worrying sign of warming for the ice sheet already melting at an increasing rate, scientists said. "That's not a healthy sign for an ice sheet. "Water on ice is bad. It makes the ice sheet more prone to surface melt." Not only is water warmer than the usual snow, it is also darker – so it absorbs more sunlight. This melt water is streaming into the ocean, causing sea levels to rise. Already, melting from Greenland's ice sheet – the world's second largest after Antarctica's – has caused around 25% of global sea level rise seen over the last few decades, scientists estimate.

Nuclear fusion is a clean and green route to producing energy, as it does not involve any remnant radioactive waste products. Fusion reactions power hydrogen bombs. However, so far, fusion devices that show a net energy gain have not been demonstrated in labs. An experiment at the U.S. National Ignition Facility (NIF), comes close to demonstrating this. In this lab, using laser beams, tiny pellets of deuterium and tritium (heavier isotopes of hydrogen) have been fused to form helium and release energy that very nearly matches the amount of energy input using the lasers.

A team of marine biologists from the Central University of Punjab have discovered a new species of marine green algae from Andaman and Nicobar Islands. It has been named *Acetabularia jalakanyakae*. *Jalakanyaka* in Sanskrit literally means mermaid, the researchers were influenced by the fairy tale "The Little Mermaid."

A study by MIT researchers published in *Science Advances* looks at paleoclimate over the last 66 million years and finds a warming bias, that is, there were far more warming events than cooling ones. There were many more instances of prolonged global warming that lasted thousands to tens of thousands of years. These were multiplied by existing warming.

Elephants and killer whales are highly socially organised. Giraffes were believed to have little or no

MAHARAJA RANJIT SINGH

1.A nine-foot-tall bronze equestrian statue of Maharaja Ranjit Singh, the founder of the Sikh Empire, was vandalised in Lahore Fort earlier this week. India has expressed concern at the development, saying incidents of violence against Pakistan's minorities are increasing at an "alarming rate".

2.**Ranjit Singh and Lahore: Maharaja Ranjit Singh (1780-1839) seized Lahore in 1799 after he was invited to rule the city by its Hindu, Muslim, and Sikh elite.** He brought peace and security to Lahore and revived its economic and cultural glory. He proclaimed himself maharaja of the Punjab in 1801, and proceeded to rule with religious tolerance for communities other than Sikhs. He carried out repairs to the Lahore fort — which was built by Emperor Akbar.

3.About Maharaja Ranjit Singh: **Ranjit Singh was born on November 13, 1780 in Gujranwala, now in Pakistan.** At that time, Punjab was ruled by powerful chieftains who had divided the territory into Ranjit Singh **overthrew the warring Misls and established a unified Sikh empire after he conquered Lahore in 1799.** He was given the title Lion of Punjab (Sher-e-Punjab) because he stemmed the tide of Afghan invaders in Lahore, which remained his capital until his death.

4.His general Hari Singh Nalwa built the Fort of Jamrud at the mouth of the Khyber Pass, the route the foreign rulers took to invade India. At the time of his death, he was the only sovereign leader left in India, all others having come under the control of the East India Company in some way or the other.

5.Administration: He also employed a large number of European officers, especially French, to train his troops. He appointed French General Jean Franquis Allard to modernise his army.

PM-KUSUM SCHEME

1.The Union Minister for Power and MNRE recently reviewed the implementation of PM-KUSUM Scheme. He emphasised on the importance of PM-KUSUM scheme for farmers which provides them a day-time reliable source of power for irrigation activities and also increasing their income.

2.**The Scheme is an initiative of the Ministry of New and Renewable Energy (MNRE). It is a scheme for farmers for installation of solar pumps and grid connected solar and other renewable power plants** in the country. Approved in February 2019, the objective of the scheme is to provide financial and water security. The scheme aims to add solar and other renewable capacity of 25,750 MW by 2022.

3.Key features: As per provisions of the PM-KUSUM Scheme, the grid connected agriculture pumps can be solarised with central and state subsidy of 30% each and farmer's contribution of 40%. It will also include feeder level solarisation. Scheme implementation: State Nodal Agencies (SNAs) of MNRE will coordinate with States/UTs, Discoms and farmers for implementation of the scheme.

4.Scheme benefits: The scheme will open a **stable and continuous source of income to the rural landowners for a period of 25 years by utilisation of their dry/uncultivable land.** In case cultivated fields are chosen for setting up solar power projects, the farmers could continue to grow crops as the solar panels are to be set up above a minimum height. The solar pumps will save the expenditure incurred on diesel for running diesel pumps and provide the farmers **a reliable source of irrigation through solar pumps apart from preventing harmful pollution** from running diesel pumps.

KARNATAKA STATE MENTAL HEALTH AUTHORITY

1.Formation of Karnataka State Mental Health Authority in process. According to WHO, Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.

2.Need of Mental health authority now: Mental health issues following the COVID-19 pandemic stem from **'normal' people being exposed to 'extraordinary situations'.** The

social structures, which studies over the last decade have shown otherwise. A study from Bristol University finds about 30% of the life of giraffes is in post-reproductive stages, comparable to, say, elephants. The study deduces that this helps giraffes engage in cooperative parenting.

Human babies are not the only ones who babble, some bats are also very talkative in their infancy. Babbling in human children is key to developing the careful control over the vocal apparatus necessary for speech. The study, published in the journal *Science*, indicates that the same practice is seen in the greater sac-winged bat, or *Saccopteryx bilineata*, native to Central America.

Sri Lanka will issue captive elephants with their own biometric identity cards and ban their riders from drinking on the job under a wide ranging new animal protection law. Many rich Sri Lankans — including Buddhist monks — keep elephants as pets to show off their wealth, but complaints of ill treatment and cruelty are widespread.

A swath of the U.S. East Coast, including New York City, was under alert on Saturday, as storm Henri was upgraded to what could be the first hurricane in 30 years to hit New England. Forecasters warned of violent winds, the risk of flash floods and surging seas as the storm churned in the Atlantic.

Two suicide bombings in the space of just over one month have cast doubt on the future of China's ambitious projects in Pakistan and neighbouring Afghanistan, with renewed concerns over the safety of Chinese personnel in the region.

Taliban cofounder Mullah Abdul Ghani Baradar arrived in Kabul for talks on establishing a new "inclusive" government in Afghanistan, a senior official said. It comes after other senior Taliban leaders were seen in the capital in recent days, including Khalil Haqqani — one of America's most wanted terrorists with a \$5 million bounty on his head.

Two women from Sabang in West Bengal's Paschim Medinipur district have been given the National Handicraft Award in recognition of their outstanding contribution to the development of crafts. The announcement of awards for Gauri Rani Jana and Gauri Bala Das was

presentations are myriad, and include emotional difficulties like anxiety, depression, biological effects like sleep, appetite disturbances, substance misuse and post-traumatic distress. More complex array of challenges to vulnerables like women, children and elderly facing domestic violence, social isolation, increased screen time and poverty have negatively affected their mental health.

3. Notable facts on mental health in India: According to WHO (2020): India accounts for 36.6 percent of suicides globally. About 7.5 per cent Indians suffer from some mental disorder and by the end 2020 it will shoot up to roughly 20 percent. According to the numbers, 56 million Indians suffer from depression and another 38 million Indians suffer from anxiety disorders.

4. The contribution of mental disorders to the total disease burden in India in terms of DALYs (Disability adjusted life year) increased from 2.5% in 1990 to 4.7% in 2017.

FREE TRADE AGREEMENT AND TARIFF AND NON-TARIFF BARRIERS

1. A free trade agreement is a pact between two or more nations to reduce barriers to imports and exports among them. **Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.** The benefits of free trade were outlined for the first time in *On the Principles of Political Economy and Taxation*, published by economist David Ricardo in 1817.

2. According to the Asian Development Bank Institute, as of now, India has 42 trade agreements (including preferential agreements) either in effect or signed or under negotiation or proposed. Figure: Various stages of trade integration Early harvest deal: An early harvest deal is a precursor to a free trade agreement (FTA), in which trading partners reduce tariff barriers on limited goods to promote trade.

3. **Tariff barriers are the tax or duty imposed on the goods which are traded to/from abroad. On the contrary, non-tariff barriers are the obstacles to international trade, other than tariffs.** These are administrative measures implemented by the country's government to discourage goods brought in from foreign countries and promote domestically produced items.

4. Tariff barriers are imposed through Taxes and Duties Non-tariff barriers are imposed through Regulations, Conditions, Requirements, Formalities, etc.

MALABAR REBELLION OF 1921

1. August 20, marks the **centenary of the Malabar rebellion, which is also known as the Moplah (Muslim) riots.** It has often been perceived as one of the first nationalist uprisings in southern India. However, the riots, which had led to the deaths of hundreds of Hindus in the Malabar region, still remains a debated topic among historians.

2. The Mappila rebellion or Moplah Rebellion (Moplah Riots) of 1921 was the **culmination of a series of riots by Moplahs (Muslims of Malabar) in the 19th and early 20th centuries** against the British and the Hindu landlords in Malabar (Northern Kerala). The year 2021 will mark the 100th year anniversary of the uprising.

3. Causes and outcomes of the revolt: The resistance which started against the British colonial rule and the feudal system later ended in communal violence between Hindus and Muslims. Gandhiji along with Shaukat Ali, the leader of the Khilafat movement in India, visited Calicut in August 1920 to spread the combined message of non-cooperation and Khilafat among the residents of Malabar. In response to Gandhiji's call, **a Khilafat committee was formed in Malabar and the Mappilas, under their religious head Mahadum Tungal of Ponnani** who pledged support to the non-cooperation movement.

4. Most of tenants' grievances were related to the security of tenure, high rents, renewal fees and other unfair exactions of the landlords. The British government responded with much aggression, bringing in Gurkha regiments to suppress it and imposing martial law.

5. **Wagon Tragedy:** A noteworthy event of the British suppression was the wagon tragedy when approximately 60 Mappila prisoners on their way to prison, were suffocated to death in a closed railway goods wagon.

HAZARAS OF AFGHANISTAN

1. Hazara is an ethnic group from Afghanistan. They are **believed**

made on Independence Day to honour their skills in making madur floor mats that are unique to West Bengal. An intrinsic part of the Bengali lifestyle, madur mats are made of natural fibres

to be descendants of the founder of the Mongol empire, Genghis Khan, and his army that overran the entire region during the 13th century.

2.Their distinct Asiatic features and use of a Persian dialect called Hazaragi also sets them apart from the rest of the country.

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