

In the war, Russia, which suffered some setbacks last year after its initial thrust into Ukraine, is trying to build battlefield momentum with minor advances. Ukraine, whose troops are struggling to defend the frontlines in the east and south, is asking for heavier weapons from its NATO allies. While NATO allies wanted Germany to send its Leopard 2 tanks to Ukraine, Chancellor Olaf Scholz initially refused, saying that such a move would escalate the conflict further, which was not in Berlin's interest.

Germany, being geographically closer to Russia and lacking its own nuclear deterrent, sees itself in a disadvantageous position in the event of a direct confrontation between NATO and Russia. Russian troops seem to have regrouped and built stronger defensive positions across the frontline, stretching from the borders of Kharkiv to Kherson. If Russia takes Bakhmut in the east and Zaporizhzhia in the south, it could boost its logistical capabilities to make deeper inroads into Ukraine. Kyiv wants to stop this by launching its own offensive.

India and Egypt agreed on Wednesday to elevate their bilateral ties to a 'strategic partnership' that covers political, security, defence, energy, and economic linkages. Welcoming Egyptian President Abdel Fattah ElSisi, who will be the chief guest at the Republic Day celebrations on Thursday, Prime Minister Narendra Modi said the abuse of cyberspace by extremist forces was a "growing threat," and that both sides agreed to intensify cooperation in this regard. The two sides also discussed "platforms and equipment" to enhance defence partnership.

The Jal Shakti Ministry on Wednesday tweeted that the government had provided 11 crore rural households with a tap water connection. Data from the Ministry suggest that 56% of the targeted 19.3 crore households had been covered. In September 2022, 53% of the households, or 10.2 crore households, had been covered. In villages where the Jal Jeevan Mission (JJM) has reached, the adolescent girls no longer drop out of school to help their mother walk long distances and get water to quench their thirst, Mr. Shekhawat said in a tweet. "It goes a long way in empowering and educating the girl child." Prime Minister Narendra Modi congratulated the Ministry, via a tweet, on the achievement.

India has succeeded as a democratic republic because many creeds and languages have united and not divided the country, President Droupadi Murmu said on Wednesday, in her address to the nation on the eve of its 74th Republic Day. "That is the essence of India. That essence was at the heart of the Constitution, which has withstood the test of time," she said in her first Republic Day address as President.

Shares of the Adani Group's listed companies, including its recently acquired cement and media units, fell across the board on Wednesday with losses ranging from 1.5% to 8% in the wake of U.S. -based short seller Hindenburg Research raising concerns

RURAL FOLKS HAVE EQUAL RIGHTS TO HEALTHCARE AS CITY DWELLERS: SUPREME COURT (SC)

1. Setting aside the Assam Rural Health Regulatory Authority Act of 2004 which allowed diploma holders to treat certain diseases, perform minor procedures and prescribe certain drugs, SC held that: Prescribing Lesser Qualifications for Medical Practitioners serving Rural Areas is violative of substantive equality and non-discrimination.
2. State legislature has no legislative competence to enact a law in respect of modern medicine or allopathic medicine, contrary to standards set by central law. Government is duty-bound to enhance access to healthcare in such areas and appoint qualified doctors for rural population.
3. **India's Rural Health Care System**-Divided into three-tier (refer image), rural healthcare system in India faces acute shortage of healthcare infrastructure and qualified medical professionals. Rural Health Statistics 2021-22 reported: Over 80% shortfall of specialists in the 6,064 CHCs across the country.
4. 14.4% vacant posts of Health Workers (Female) and Auxiliary Nursing Midwives (ANM) in PHC and sub-centres. Causes of Rural Health Disparities: Poor socio-economic status of people, geographic isolation, infrastructure limitations, lack of interest of doctors to serve in rural areas etc.

DEMO-RUN OF INLAND WATER VESSEL POWERED BY METHANOL BLENDED DIESEL (MD15) HELD

1. Demo-run of Vessel named SB Gangadhar in Guwahati, Assam was held in run-up to India Energy Week 2023 (IEW 2023). IEW 2023, first major event under India's G20 Presidency, follows PM's pledge at COP26 to cut India's emissions to net-zero by 2070.
2. IEW 2023 is held under Ministry of Petroleum & Natural Gas. Methanol (CH₃OH), also known as wood alcohol, is a low carbon hydrogen carrier fuel produced from high ash coal, agricultural residue, CO₂ from thermal power plants and natural gas. It has properties similar to ethanol. It is used in various products, including plastics, paints, cosmetics etc.
3. **Significance of Methanol economy for India**-Blending of 15% methanol in gasoline can result in at least 15% reduction in import of gasoline/crude oil. Would bring down GHG emissions by 20% in terms of particulate matter, NO_x, and SO_x. Although slightly lower in energy content than petrol and diesel, methanol can replace these fuels in transport sector, energy sector and retail cooking. Cost to convert vessels to run on methanol is significantly less than other alternative fuel conversions. Would create close to 5 million jobs.

UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP) INDIA LAUNCHES CAMPAIGN TO DRIVE INCLUSIVE CIRCULAR ECONOMY

1. It is launched in partnership with Hindustan Unilever Limited (HUL) and will focus on: End-to-end management of plastic waste by promoting segregation of waste at source and collection of segregated waste. Setting up Material Recovery Facilities (MRFs) or Swachhata Kendras for recycling all kinds of plastic waste along the value chain.
2. Social Inclusion of 20,000 Safai Saathis or waste pickers through access to government welfare schemes and linkages etc. Building capacities of Urban Local Bodies for adopting MRFs model for plastic and dry waste management. Initiative is a scale-up of existing partnership under UNDP's flagship Plastic Waste Management Programme to develop a sustainable model for plastic waste management in India.
3. It promotes collection, segregation, and recycling of all plastics to move towards a circular economy. An alternative to current linear economy, circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products as long as possible to: Extend life cycle of products. Reduce waste to a minimum by creating further value.

THE NECESSITY OF TAXING FARMERS' INCOME IN INDIA

1. Some economic experts have opined that income tax must be paid if one's income is above a threshold, irrespective of whether one is a farmer. It can help in: Increasing number of taxpayers and share

about the Gujarat based conglomerate's "substantial debt" that had put the entire group on a "precarious financial footing". Germany and the United States said on Wednesday they will send battle tanks to Ukraine, the first stage of a coordinated effort by the West to provide dozens of the heavy weapons to help Kyiv break combat stalemates as Russia's invasion enters its 12th month. President Joe Biden said the U.S. will send 31 M1 Abrams tanks to Ukraine.

30 lakh tonnes, the amount of wheat from its buffer stock that the Union government will sell in the open market under the Open Market Sale Scheme (OMSS) to control the rise in prices of wheat and wheat flour (atta), according to the Ministry of Consumer Affairs, Food and Public Distribution. The average price of atta has risen to around ₹38 per kg.

1503 number of cases of stone pelting on moving trains recorded across the country in 2022, with over 400 people arrested for the offence, according to the Indian Railways. Vande Bharat trains have also suffered damage due to stone pelting. Several awareness drives are being made to educate residents near the track.

\$72 million, the amount of assistance, the U.S. is rerouting to Lebanon to help the country's cash strapped government boost the wages of its soldiers and police officers, according to the U.S. ambassador. Washington is a key donor of the Lebanese Army, providing over \$3 billion in military aid since 2006.

India and Egypt on Wednesday signed a memorandum of understanding (MoU) to facilitate content exchange, capacity building, and co-productions between Prasar Bharati and National Media Authority of Egypt.

Union Law Minister Kiren Rijju on Wednesday said that any electoral reform would be carried out only after consultations with all stakeholders, including political parties. His remarks come against the backdrop of the Election Commission deferring the demonstration of its recently developed prototype Remote Electronic Voting Machine (EVMs) after opposition from most political parties.

India has invited Pakistan Foreign Minister Bilawal Bhutto to attend the Shanghai Cooperation Organisation (SCO) Ministers meeting likely to be held in Goa in early May, officials confirmed on Wednesday. Invitations for the SCO summit, expected to be held in June, will also go out to Pakistan Prime Minister Shehbaz Sharif shortly.

of direct taxes to total taxes. Reducing tax evasions with better record-keeping from farmers.

2. Formalization of loans with a unified taxation across states. Income tax is a direct tax that a government levies on income of its citizens. Section 10 (1) of Income Tax Act (1961) exempts agricultural income from tax. Agriculture is a state subject and State Governments can charge agricultural tax (Entry 46 in State List).
3. But exemption leads to various anomalies, highlighted by multiple committees (e.g., Kelkar task Force on Direct Taxes of 2002, Tax Administration Reform Commission of 2014) such as: Laundering of non-agricultural income as agricultural income by individuals and corporate sector.
4. Violation of Horizontal and Vertical Equity Principles in Taxation which ensures tax fairness. Lack of credibility about the way states issue farmer certificates. Challenges to taxation: Politically sensitive issue, extra burden on farmers (mostly small and marginal), lack of clarity on land titles, high crop output fluctuations etc.

ONGC TO MAP INDIA'S GEOTHERMAL RESOURCES IN SEARCH OF CLEAN ENERGY

1. Move comes at a time when India has set an ambitious target of 500 GW of installed renewable energy capacity by 2030 and net zero carbon emission by 2070. Geothermal energy is an energy source that is stored in the form of heat beneath earth's surface.
2. Magma in inner layer of earth heats nearby rocks and underground aquifers, as a result hot water is released through geysers, hot springs, steam vents, underwater hydrothermal vents, and mud pots. Hot water and steam can be piped up through underground wells and used to generate electricity in a power plant.
3. As per preliminary investigations undertaken by Geological Survey of India, there are around 300 geothermal hot springs in India. Puga and Chumathang in eastern Ladakh are the most promising geothermal sites. Other sites include Cambay in Gujarat, Tattapani in Chattisgarh, Khammam in Telangana & Ratnagiri in Maharashtra. Total geothermal power potential is estimated to be 10 gigawatts (GW).
4. **Benefits of Geothermal:** carbon-free, renewable, provides a continuous, uninterrupted supply etc.
5. **Disadvantages:** location-specific energy source, associated with other emissions like sulphur dioxide and hydrogen sulphide, causes mini tremors in area of operation, high initial cost etc.

IMMUNE IMPRINTING

1. Recently, Scientific studies have found that immune imprinting can make bivalent boosters less effective. Bivalent boosters are variant specific booster shots of vaccines to develop better immunity against coronavirus.
2. Immune imprinting is a tendency of the body to repeat its immune response based on the memory of first infection through infection or vaccination. Imprinting acts as a database for immune system, helping it put up a better response to repeat infections.
3. This makes the variant specific booster dose less effective. Concept of immune imprinting came to light for the first time in 1947.



"In the race of competition, you are always working, either for passing or for failing. List them daily to prognosticate the result."

DR. KHAN
(KSG)