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FOREWORD

We, at Team Vedhik is happy to introduce a new initiative - "Daily Current Affairs_The Hindu" compilations to help you with UPSC Civil Services Examination preparation. We believe this initiative - "Daily Current Affairs_The Hindu" would help students, especially beginners save time and streamline their preparations with regard to Current Affairs. A content page and an Appendix has been added segregating and mapping the content to the syllabus.

It is an appreciable efforts by Vedhik IAS Academy helping aspirants of UPSC Civil Services Examinations. I would like to express my sincere gratitude to Dr. Babu Sebastian, former VC - MG University in extending all support to this endeavour. Finally I also extend my thanks to thank Ms. Shilpa Sasidharan and Mr. Shahul Hameed for their assistance in the preparing the compilations.

We welcome your valuable comments so that further improvement may be made in the forthcoming material. We look forward to feedback, comments and suggestions on how to improve and add value for students. Every care has been taken to avoid typing errors and if any reader comes across any such error, the authors shall feel obliged if they are informed at their Email ID.

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PM to undertake three-nation tour in the first week of May

He will visit Germany, Denmark and France, says Ministry

SPECIAL CORRESPONDENT
NEW DELHI

Prime Minister Narendra Modi will embark on a three-nation tour of Germany, Denmark and France from May 2 to 4, the Ministry of External Affairs has announced. The tour will take place against the backdrop of the war in Ukraine.

In Berlin, Mr. Modi will hold talks with German Chancellor Olaf Scholz and the leaders will co-chair the sixth edition of the India-Germany inter-governmental consultations.

Minister of State for Federal Foreign Office Tobias Lindner told prespersons in

New Delhi that the visit would focus on renewable energy and other opportunities that had opened up because of the war in Ukraine and Europe's collective response to confront Russia for the military aggression against Ukraine. "It will give both sides an opportunity to exchange ideas," Mr. Lindner said.

"We want to have cooperation in technology, education, security and climate change with India. No major problem can be solved without India. India is such an important partner," Mr. Lindner said at a press conference on the sidelines of

the Raisina Dialogue. From Berlin, Mr. Modi will travel to Copenhagen to participate in the second India-Nordic Summit, which is being hosted by Denmark.

In Copenhagen, apart from meeting Danish Prime Minister Mette Frederiksen, Mr. Modi will interact with other leaders of the Nordic countries such as Sweden, Iceland, Norway and Finland.

He will then stop at Paris where he is scheduled to meet French President Emmanuel Macron. France and India are marking 75 years of establishment of diplomatic ties this year.

China urges Pak. to crack down on terror outfits

Those behind Karachi suicide attack will pay the price, Beijing says

ANANTH KRISHNAN
HONG KONG

China on Wednesday called on Pakistan to “resolutely crack down” on terror outfits in the wake of a suicide attack in Karachi on Tuesday that killed three Chinese teachers and one Pakistani national.

The Chinese Foreign Ministry in a statement said China “strongly condemns and expresses great indignation over this major terrorist attack, conveys deep condolences to the victims and sympathies to the injured and bereaved families”, State media reported, adding that the Chinese Foreign Ministry and missions in Pakistan “will continue to

urge relevant Pakistani departments to deal with the aftermath, treat the injured and resolutely crack down on the terrorist organisations involved”.

Thorough probe

“The blood of the Chinese people should not be shed in vain and those behind this incident will pay the price,” the Foreign Ministry said.

China’s Assistant Foreign Minister Wu Jianguo also “made an urgent phone call to the Pakistani Ambassador to China to express grave concerns”, State media said, adding that “he demanded that the Pakistani side should immediately make thorough investigation of the



Grim reminder: A view of the passenger van which was damaged in the suicide blast in Karachi on Tuesday. • REUTERS

incident, apprehend and punish the perpetrators to the full extent of the law, and take all possible measures to ensure the safety of Chinese citizens in Pakistan and prevent such incidents from happening again”.

Strongly condemning the attack, China’s Foreign Ministry spokesperson Hua Chunying said “nothing will undermine China-Pakistan

friendship”. The blast targeted a van carrying teachers to the Confucius Institute at the University of Karachi.

To underline the seriousness with which Pakistan was taking the attack, Prime Minister Shahbaz Sharif visited the Chinese Embassy in Islamabad to express his condolences and assure Chinese companies and nationals in Pakistan of their safety.

The suicide attack was claimed by the Baloch Liberation Army (BLA). Chinese analysts called for tough measures to retaliate against the group.

“The BLA will definitely be more resolutely annihilated,” Hu Xijin, commentator and former editor of the Communist Party-run *Global Times*, said.

“I support Chinese military to launch direct air strikes against this terrorist organisation’s camp after getting approval of the Pakistani government.”

China has in the past prodded Pakistan’s security forces to target groups such as the East Turkestan Islamic Movement (ETIM), including through air strikes on their camps. Beijing, however, is unlikely to directly involve itself in actions.

Russia stops gas supply to 2 NATO nations

European leaders decry the move as 'blackmail'

ASSOCIATED PRESS
POKROVSK

Russia cut off natural gas to NATO members Poland and Bulgaria on Wednesday and threatened to do the same to other countries, dramatically escalating its stand-off with the West over the war in Ukraine. European leaders decried the move as "blackmail".

A day after the U.S. and other Western allies vowed to speed more and heavier weapons to Ukraine, the Kremlin used its most essential export as leverage against two of Kyiv's staunch backers. Gas prices in Europe shot up on the news.

Poland has been a major gateway for the delivery of weapons to Ukraine and con-



Cutting the flow: Gazprom said it was shutting off the two countries because they refused to pay in Russian rubles. ■ AFP

firmed this week that it is sending the country tanks. Bulgaria, under a new liberal government that took office last fall, has cut many of its old ties to Moscow and supported sanctions against Russia over its invasion.

The gas cuts do not immediately put the two countries in dire trouble. Poland has been working for several years to line up other sour-

ces of energy, and the continent is heading into summer, making gas less essential for households.

Yet the cut-off and the Kremlin warning that other countries could be next sent shivers of worry through the 27-nation European Union.

Western leaders and analysts portrayed the move by Russia as a bid to divide the Western allies and under-

mine their unity in support of Ukraine.

"It comes as no surprise that the Kremlin uses fossil fuels to try to blackmail us," said EU Commission President Ursula von der Leyen. "Today, the Kremlin failed once again in his attempt to sow division amongst member states. The era of Russian fossil fuel in Europe is coming to an end."

State-controlled Russian giant Gazprom said it was shutting off the two countries because they refused to pay in Russian rubles, as President Vladimir Putin had demanded.

Fatih Birol, executive director of the Paris-based International Energy Agency, said the cut-off was a "weaponisation of energy supplies".

Preventing harm

Proactive intervention is needed to stop spread of hate and inflammatory speeches

The value of proactive judicial intervention cannot be understated. After the Supreme Court called for “corrective measures” against the peddling of communal hate from supposedly religious platforms, the authorities in Uttarakhand have prevented the holding of a ‘dharam sansad’ in Roorkee by imposing prohibitory orders against such gatherings. At a time when communally motivated gatherings are becoming conspicuous in their frequency and vociferous in their fulminations against minorities, one would have expected the police to be more sensitive to the situation and prevent hate speeches. Counsel for Himachal Pradesh has said preventive steps were taken when one such gathering took place a few days ago, and that the participants were warned against any incitement, but those who have approached the Court against the trend of hate speeches at such meets, accuse the local authorities of inaction. It was one such religious conclave in Haridwar in December that witnessed extraordinarily inflammatory speeches being made against Muslims, some of them having a shockingly genocidal tenor. After dithering, the Uttarakhand police had then arrested Yati Narsinghanand, a controversial priest and Hindutva leader, who was among those who had allegedly called for armed violence against minorities. Even after obtaining bail, under a condition that he would not make any provocative speeches, he had participated in a similar event in Delhi. Instances of controversial religious figures making unacceptable comments at different places and occasions have emerged as a disturbing pattern, one that the Court may have to arrest by stern action.

One way of looking at this phenomenon is to dismiss it as not being representative of the silent majority and as the activity of a few fringe elements. However, it cannot be gainsaid that the provocateurs are seeking to foster a collective fear among the majority that their interests are not being protected by an allegedly minority-friendly Constitution, and feeding off the same fear to spread their message of hate. The possible damage to the social fabric is incalculable, as the language of hatred may seep into the public consciousness as an acceptable thought process. The result may be an atmosphere in which communal harmony and public tranquillity will be at perennial risk. It is in this backdrop that modern democracies make a clear distinction between freedom of expression and speech that tends to incite hatred against a public group or section of society. The Supreme Court has recognised the potential for a wider societal impact beyond the distress caused to individual members of the targeted group. In cases relating to lynching and ‘khap panchayats’, the Court laid down guidelines on preventive, remedial and punitive measures. While these are to be followed without exceptions, there is also a need for considering new criminal and penal provisions to combat hate speech.

Meghalaya tribes oppose boundary deal

SPECIAL CORRESPONDENT
GUWAHATI

An autonomous tribal council in Meghalaya has formed a coordination committee to prepare the ground to challenge the partial boundary deal with Assam in court.

The Khasi Hills Autonomous District Council (KHADC) constituted the committee on Tuesday with representatives of five traditional Khasi tribal States called Himas. Each of these Himas have areas bordering Assam.

The KHADC is one of the three tribe-based councils in Meghalaya. The other two are the Garo Hills Autonomous District Council and the Jaintia Hills Autonomous District Council.

Filing petition

“The council will file a petition in the court opposing the memorandum of understanding to settle six of the 12 disputed sectors on the Assam-Meghalaya boundary once our boundary panel studies the report of the coordination committee,” Pynshngain N. Syiem, a member of the KHADC, said.

“We have to seek redressal from the court as the State government is adamant about not reviewing the boundary deal,” he added. Assam Chief Minister Himanta Biswa Sarma and his Meghalaya counterpart, Conrad K. Sangma, had signed the understanding on January 29 to settle the border dispute in six “less complicated” sectors. The Centre gave its assent to the agreement two months later.

‘Delhi should be under Centre’s control’

National capital can't be left to the 'small mercies' of a State legislature, says S-G

LEGAL CORRESPONDENT
NEW DELHI

The Central government on Wednesday argued that Delhi, the nation's capital and a sprawling metropolis, should be under its control.

Delhi cannot be left to the “small mercies and smaller resources” of a State legislature, it reasoned.

The Centre was justifying the intent behind the Government of National Capital Territory of Delhi (Amendment) Act, or GNCTD Act, of 2021. Parliament later also enacted the Transaction of Business of Government of National Capital Territory of Delhi (Amendment) Act.

The Delhi government has contended in the Supreme Court that the amended sections of the GNCTD Act diminish the constitutionally guaranteed powers and functions of the elected Le-

gislative Assembly.

A three-judge Bench led by Chief Justice of India N.V. Ramana is hearing a plea by the Delhi government to quash the amended sections of the GNCTD Act and several Rules of the Transaction of Business of the Government of National Capital Territory of Delhi Rules, 1993.

Perpetual friction

Solicitor-General Tushar Mehta, for the Centre, compared Delhi to London, saying the Capital was the country's most visible and recognised destination. “There are issues concerning Delhi which have an all-India point of view. There should not be a state of perpetual friction between the Centre and the State. The important issues concerning the Capital should be exclusively legislated by Parlia-

There are issues concerning Delhi which have an all-India point of view... The important issues concerning the Capital should be exclusively legislated by Parliament

TUSHAR MEHTA
Solicitor-General

ment,” he submitted.

“A metropolis of a large country like ours cannot depend on the small mercies and smaller resources of a State legislature,” he said in court. Mr. Mehta urged the three-judge Bench to refer the case to a larger Bench.

The Delhi government has contended that the amendments in 2021 violate the doctrine of basic structure of the Constitution. The Centre, through its amendments, has given more pow-

er to the Lieutenant Governor (LG) than the elected government of the people of Delhi, it argued.

In the petition, the Delhi government has stated that the amendments overturn the constitutionally stipulated balance between the State and the Union government. The amendments, it said, authorised the L-G to withhold consent from Bills that, in his judgment, may be “incidentally” outside the scope of the Assembly's legislative powers.

The Delhi government further sought to argue that the new laws encroach on the scope of the Assembly's core legislative functions by interfering with the power of the House to frame its own rules of business or to hold the government to account, which was a core function of any legislature.

Birth, death reporting to be automated

Centre plans revamp of the Civil Registration System that is linked to National Population Register

VIJAITA SINGH
NEW DELHI

The Union government is planning to revamp the Civil Registration System (CRS) to enable the registration of birth and death in real-time with minimum human intervention and independent of location, according to the 2020-21 annual report of the Union Home Ministry.

The CRS, run by the Registrar-General of India (RGI), is linked to the National Population Register (NPR), which already has a database of 119 crore residents. The report said there was a need to update the NPR, first collated in 2010 and updated in 2015 with Aadhaar, mobile phone and ration card numbers, “to incorporate the changes due to birth, death and migration. The NPR is to be updated with the decennial Census exercise that has been postponed indefinitely due to the COVID-19 pandemic.

The report said, “The CRS system is facing challenges in terms of timelines, efficiency and uniformity, leading to delayed and under-coverage of birth and death. To address the challenges faced by the system in providing prompt service delivery to the public, the Government



Error-free: The changes would be sustainable, scalable and independent of the location, says the report. •PTI

of India has decided to introduce transformational changes in the Civil Registration System of the country through an IT [information technology]-enabled backbone leading to registration of birth and death in real-time basis with minimum human intervention.”

Sustainable change

It said the changes would be in terms of automating the process delivery points so that the service delivery was time-bound, uniform and free from discretion. “The changes would be sustainable, scalable and indepen-

dent of the location.”

Last year, several instances of the online registration system being compromised were reported from States, with the login IDs and passwords of sub-registrars compromised and available in the open domain.

Following this, Deputy Registrar-General Sandhya Singh issued an advisory to the Chief Registrars of all States to avoid the misuse of the online portal user and login ID.

“A few State governments have reported issuance of fake birth and death certificates, including misuse of

the user/login ID and password created in the existing portal/software developed for online registration of birth and death by unauthorised persons. This has resulted in the registration of criminal cases in some instances,” the July 28, 2021 advisory said.

At present, the online software available on www.crsorgi.gov.in is operational in 22 States and Union Territories.

Amendments to Act

The RGI that functions under the Home Ministry has proposed amendments to the Registration of Births and Deaths Act, 1969 that will enable it to “maintain the database of registered birth and deaths at the national level”.

According to the proposed amendments, the database may be used to update the population register, electoral register, Aadhaar, ration card, passport and driving licence databases, *The Hindu* had reported.

The registration of birth and death is mandatory under the Act and the Chief Registrar is mandated to publish a statistical report on the registered births and deaths during the year.

The RGI is empowered under Section 3(3) of the 1969 Act to take steps to coordinate and unify the activities of the Chief Registrars of births and deaths of all States.

The Ministry report noted that the proportion of total registered births and deaths had steadily increased over the years.

“The registration level of births has increased to 89.3% in 2018 from 81.3% in 2009. On the other hand, the registration level of deaths has increased from 66.9% in 2009 to 86% in 2018,” it pointed out, adding that the level of total registration of deaths was lower than that of births in the States except Andhra Pradesh, Goa, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Sikkim and Tamil Nadu and the Union Territories of Andaman and Nicobar Islands, Dadra and Nagar Haveli and Daman and Diu and Lakshadweep.

“Lower level of death registration may partly be attributed to non-reporting of domiciliary deaths and deaths of females and infants,” it said.

'States not passing on fuel duty cut to people'

PM flays non-BJP governments for not reducing VAT

BINDU SHAJAN PERAPPADAN
NEW DELHI

Prime Minister Narendra Modi on Wednesday said that fuel prices were too high in some States ruled by BJP rivals and they were not passing on the benefits of the Centre's excise duty cut to the people.

"These States should bring in immediate remedial measures to stop this injustice," Mr. Modi said during an interaction with Chief Ministers to discuss the emerging COVID-19 situation.

"This harms the neighbouring States also. States like Karnataka and Gujarat undertook the tax reduction for the welfare of the people despite revenue loss, while their neighbouring States earned revenue by not reducing tax," he said.

The Prime Minister said that last November a request was made to reduce VAT, but many States, most of which are non-BJP-ruled ones like Maharashtra, West Bengal, Telangana, Andhra Pradesh, Tamil Nadu, Kerala and Jharkhand, did not do so for some reason.

He appealed to the States to ensure Centre-State cooperation, stating that this is the need of the hour because of the war situation when the global community



is under stress and is facing challenges caused by disruption in the supply chain and rising cases of COVID-19.

The Prime Minister said that along with the pandemic-related challenges, the global community and the common man are facing the fallout of a war. "The situation of war which has arisen has affected the supply chain," Mr. Modi said in a reference to the Russia-Uk-

raine conflict.

"In the current global scenario, for the strength of India's economy, coordination between the Centre and States in economic decisions is necessary. In the conditions imposed by global events, this spirit of cooperative federalism becomes important," he said in the context of fuel prices.

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‘States not passing on fuel duty cut to people’

The Prime Minister said that in an effort to reduce the fuel prices, the Central government has reduced the excise duty and had requested the States also to do so. Some States reduced taxes but some did not pass on the benefits to the people, leading to higher fuel prices there.

The Prime Minister said 42% of the revenue at the Centre goes to the State governments. “I urge all the States to work as a team in this time of global crisis following the spirit of cooperative federalism.”

On the recent increase in COVID-19 cases in some States and about the need to follow test, track, treat, vaccination and ensure appropriate behaviour, the PM said the pandemic challenge is not fully over.

He said that it is a matter

of pride that 96% adult population is vaccinated with at least one dose and about 84% people above 15 years of age have received both the doses.

The Prime Minister emphasised on the need to test serious influenza cases and genome sequencing of the positive cases, Covid appropriate behaviour and avoid panic. He also emphasised on continued upgradation of health infrastructure and medical manpower.

The Prime Minister pointed out that with increasing temperature, fire incidents in forests and buildings are increasing. He specially asked for the fire safety audits of the hospitals. He said our arrangements for meeting this challenge should be comprehensive and response time should be the minimum.

Centre enhances subsidy for non-urea fertilizers

Move comes amid global price surge

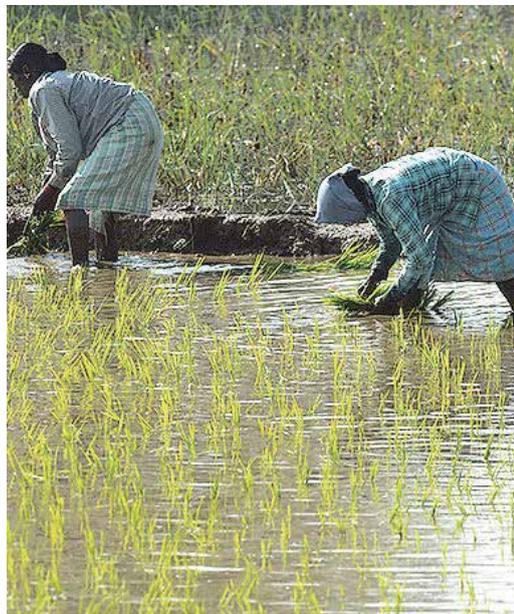
SPECIAL CORRESPONDENT

NEW DELHI

With urea and fertilizer prices shooting up in the wake of Russia's invasion of Ukraine, the Union Cabinet on Wednesday approved an enhancement in subsidies on non-urea fertilisers for the upcoming Kharif crop, to ₹60,939 crore.

While the government fixes the retail price of urea and subsidises producers based on the difference between costs and the fixed selling price, it pays a subsidy to non-urea fertiliser makers on the basis of nutrient-based rates.

“The increase in the international prices of Di-ammonium phosphate (DAP) and its raw materials have been primarily absorbed by



the Union Government,” the Chemicals and Fertilizers Ministry said.

The subsidy will be ₹2,501 per bag on DAP, instead of the existing subsidy of ₹1,650 per bag, which is a 50% increase over last year's subsidy rates.

The increase in the prices of DAP and its raw material is in the range of about 80%.

LIC share sale price band set at ₹902-₹949; govt. to divest 3.5%

Centre says cut size in view of current environment, expects to raise ₹21,000 cr.

SPECIAL CORRESPONDENT
MUMBAI

The Centre said on Wednesday it had reduced the size of the Life Insurance Corporation of India (LIC) Initial Public Offering (IPO) in light of the current 'volatile market' environment.

Despite the "right sizing", the LIC IPO, which would open on May 4, would be India's biggest ever, Tuhin Kant Pandey, Secretary, Department of Investment & Public Asset Management told reporters at a press conference in Mumbai. The share sale, which is expected to help raise about ₹21,000 crore for the government, would close on May 9. The



Easy on the market: The LIC IPO will not crowd out capital and monetary supply, says Pandey. ■ REUTERS

anchor investor portion would open on May 2.

The Centre has fixed the price band at ₹902 to ₹949 per equity share of LIC. While policy holders would get a discount of ₹60 per

share, eligible employees, and retail investors would get a discount of ₹45 per share. Mr. Pandey said the government decided to dilute 3.5% stake in LIC, from the earlier plan of 5%, consi-

dering the current (volatile) environment. He added the Centre had no plans to come out with a follow-on public offer in the next one year. SEBI had given an exemption, allowing a reduction in the IPO size, he clarified.

He said the decision to list LIC was taken considering factors like market demand, reduced market volatility, domestic fund flows and LIC's performance.

"LIC IPO will not crowd out capital, monetary supply," he said. Investors can bid for a minimum of 15 equity shares and in multiples of 15 shares thereafter. The IPO is via an offer-for-sale of up to 22,13,74,920 shares.

Labour codes to be rolled out soon

Ministry to release report of employment survey today, says Bhupender Yadav

DAMINI NATH
NEW DELHI

The four labour codes, which were passed by Parliament in 2019 and 2020, would be implemented soon, with only a handful of the States left to draft their own rules under the codes, Union Labour and Employment Minister Bhupender Yadav said on Wednesday.

Asked when the codes would be rolled out, Mr. Yadav said “soon”. He said all but three or four States had drafted their rules under the

codes. While the Labour Ministry had prepared its rules under the four codes last year, they had not been notified.

As many as 29 Central Acts on wages, social security, occupational safety and industrial relations have been subsumed into four codes. Asked about the rumoured date of implementation, July 1, Mr. Yadav did not comment. With labour being a subject on the Concurrent List, Mr. Yadav said a “consensus” was being built with

the States. The Ministry would be releasing the third quarter report of its Quarterly Employment Survey as part of the All-India Quarterly Establishment-based Employment Survey that covers nine selected sectors on Thursday, Mr. Yadav said.

In the second report released in January, the survey found employment had increased by about 2 lakh from April-June 2021 to July-September 2021.

It comes just days after a Centre for Monitoring Indian

Economy report said half the working age population had exited the labour force, a finding the Ministry countered on Tuesday.

In a statement, the Ministry said the number of working age population not seeking work included 10 crore students as well as those engaged in unpaid activities such as care-giving.

The Ministry said it was incorrect to infer that half the working age population had lost hope and dropped out of work.

Energy independence through hydrogen

It can help lay the foundation of a new India which aims to be a global climate leader



RAMIT KALIA & USHA SURESH

India's Green Hydrogen Policy released on February 17, 2022 has addressed several critical challenges such as open access, waiver of interstate transmission charges, banking, time-bound clearances, etc., and is expected to further boost India's energy transition.

India's per capita energy consumption is about one-third of the global average and one-twelfth of the U.S. Increasing growth and economic prosperity would significantly increase India's energy appetite furthering import dependence. This, coupled with volatility in prices, as seen during the Russia-Ukraine crisis and the roller-coaster ride of energy prices from historic lows in 2020 to record highs in 2021, could pose a serious threat to our energy security, accentuating an unequivocal need to strive for energy independence.

The new age fuel, hydrogen, is touted as India's gateway to energy independence. Hydrogen has a multifaceted role to play in the futuristic energy landscape, be it energy storage, long-haul transport, or decarbonisation of the industrial sector.

In the long run, two envisioned prominent fuels are hydrogen and electricity. Though both are energy vectors, hydrogen can be stored on a large scale and for a longer duration explicitly affirming its huge potential to become a great balancer to the ever-increasing supply of variable renewable energy. It will complement and accelerate renewables into India's clean energy transition, thereby supporting India's ambitious plan to achieve 500 GW renewable capacity by 2030.

Hydrogen: a game-changer

Hydrogen has a major role to play in the decarbonisation of India's transport sector. The advantages of fuel cell vehicles over battery electric vehicles are faster fuelling and long-driving range thereby making them ideal for long-haul transportation which is a major constraint with Li-Ion batteries. In the industrial segment, hydrogen can de-carbonise



Hydrogen could completely transform India's energy ecosystem ■ GETTY IMAGES

'hard-to-abate' sectors such as iron and steel, aluminium, copper etc. It is a huge prospect to produce fuels such as methanol, synthetic kerosene and green ammonia.

India's hydrogen consumption was around 7 Mt in 2020 and according to The Energy and Resources Institute (TERI), it is anticipated to leapfrog to about 28 Mt in 2050. Assuming 25% export capacity, we can expect a requirement of 35 Mt by 2050. On the basis of this assumption, we can calculate that India would require a tentative capacity in the range of 192 GW to 224 GW of electrolyzers by 2050, assuming all of it is green hydrogen.

The global capacity of electrolyzers has just crossed 300 MW in 2021. This signifies that India itself would require an electrolyser capacity of 640 to 750 times the current global capacity, by 2050.

This would entail an exponential increase in electricity demand of around 1,500 to 1,800 TWh, implying that just for hydrogen production; India would require 110-130% of its current total electricity generation (2020-21) by 2050. Therefore, a road map for rapid growth in demand for electricity, especially from renewables should be prepared.

Apart from the ever-increasing electricity demand, the high cost of hydrogen manufacturing and water scarcity could also pose a challenge. Production of 1 kg of hydrogen by electrolysis requires around nine litres of water. Therefore, hydrogen project planning should be holistic and targeted in areas that are not

water-scarce.

Creating a hydrogen economy is a chicken and egg problem as consumers seek lower costs which could be possible with scalability and large investments, but for those, producers seek assured demand. Hydrogen fulfils the three Es of India's energy road map – energy security, energy sustainability and energy access – and India should strive to seize one more E, viz. economic opportunity so that industry can be encouraged to its full potential.

Five-step strategy

On the demand side, a five-step strategy should be devised. Firstly, to create an initial demand, a mandate should be given to mature industries such as refining and fertilisers, with adequate incentives. Secondly, industries manufacturing low emission hydrogen-based products inter alia green steel and green cement need to be incentivised by government policies. Thirdly, blending hydrogen with natural gas can act as a big booster shot which can be facilitated by framing blending mandates, regulations and promoting H-CNG stations. Further, to promote FCEVs, hydrogen fuel stations may be planned on dedicated corridors where long-distance trucking is widespread. Lastly, the concept of carbon tariffs needs to be introduced on the lines of European countries.

On the supply side too, a five-step strategy should be devised. Firstly, investment in R&D should be accelerated to bring its cost at par with fossils. Secondly, Sustainable Alterna-

tive Towards Affordable Transportation (SATAT) scheme with a target to produce 15 MMT of compressed biogas could be leveraged by exploring biogas conversion into hydrogen. Thirdly, to commercialise and scale-up nascent technologies, a Viability Gap Funding (VGF) scheme may be introduced for hydrogen-based projects. Further, to secure affordable financing, electrolyser manufacturing and hydrogen projects need to be brought under Priority Sector Lending (PSL). Lastly, since two dominant cost factors for green hydrogen are renewable energy tariffs & electrolyser costs, and India has the advantage of one of the lowest renewable tariffs; the thrust should be on reducing the cost of electrolyzers by implementing the Production Linked Incentive (PLI) scheme. This could help India become a global hub for electrolyser manufacturing and green hydrogen.

On the transportation front, ammonia, having high energy density could be promoted as a mode of transportation. A hydrogen transportation system could also be built on the foundation created for natural gas by using its existing infrastructure. Additionally, hydrogen transportation projects may be integrated with PM Gati Shakti Master Plan.

Hydrogen could completely transform India's energy ecosystem by shifting its trajectory from an energy importer to a dominant exporter over the next few decades. India could export to projected future import centres like Japan, South Korea, etc.

With hydrogen, India could lead the world in achieving Paris Agreement's goal to limit global warming to 2°C compared to pre-industrial levels. Hydrogen could lay the foundation of a new India which would be energy-independent; a global climate leader and international energy power.

In COP 26, Prime Minister Narendra Modi had given a clarion call of *panchamrit* (five goals), with an ambitious target to achieve Net Zero by 2070. Hydrogen will certainly play a decisive role in India's Net Zero ambition and in making India 'Aatmanirbhar in energy'.

Ramit Kalia is Manager, Engineers India Limited. Usha Suresh is Former Senior Economic Adviser, Ministry of Petroleum and Natural Gas

Plan for 4G upgrade in LWE areas

BSNL will maintain the sites for another five years: official

YUTHIKA BHARGAVA
NEW DELHI

The Union Cabinet on Wednesday approved a Universal Service Obligation Fund (USOF) project for upgrading 2G mobile services to 4G at security sites in LWE (Left Wing Extremism) areas at an estimated cost of about ₹2,426.39 crore.

An official statement said the project envisaged upgrading 2,343 sites in Phase-I from 2G to 4G mobile services at an estimated cost of ₹1,884.59 crore (excluding taxes and levies).

“This includes O&M for five years. However, Bharat Sanchar Nigam Ltd. (BSNL) will maintain the sites for



The project is to upgrade 2,343 sites in Phase-I from 2G to 4G mobile services.

another five years at its own cost. The work will be awarded to it because these sites belong to it,” it said. Additionally, the Cabinet also

approved the funding of operations and maintenance cost of LWE Phase-I 2G sites by BSNL for an extended period beyond the contractual period of five years at an estimated cost of ₹541.80 crore. The extension would be up to 12 months from the date of approval by the Cabinet or the commissioning of 4G sites, whichever was earlier, it noted.

“The government chose BSNL for a prestigious project to [promote] indigenous 4G telecom equipment so as to achieve self-reliance in the telecom gear segment to fulfil domestic market needs apart from exporting to other markets,” it said.

General Studies Paper I	
A	History of Indian culture will cover the salient aspects of art forms, literature and architecture from ancient to modern times;
B	Modern Indian history from about the middle of the eighteenth century until the present-significant events, personalities, issues;
C	Freedom struggle-its various stages and important contributors / contributions from different parts of the country;
D	Post-independence consolidation and reorganization within the country;
E	History of the world will include events from 18 th century such as industrial revolution, world wars, re-drawing of national boundaries, colonization, decolonization,
F	Political philosophies like communism, capitalism, socialism etc.-their forms and effect on the society
G	Salient features of Indian Society, Diversity of India;
H	Effects of globalization on Indian society;
I	Role of women and women's organization;
J	Social empowerment, communalism, regionalism & secularism
K	Salient features of world's physical geography;
L	Geographical features and their location- changes in critical geographical features (including water bodies and ice-caps) and in flora and fauna and the effects of such changes;
M	Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc.
N	Distribution of key natural resources across the world (including South Asia and the Indian subcontinent);
O	Factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India);
P	Population and associated issues;
Q	Urbanization, their problems and their remedies
General Studies Paper II	
A	India and its neighbourhood- relations;
B	Important International institutions, agencies and fora- their structure, mandate;
C	Effect of policies and politics of developed and developing countries on India's interests;
D	Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.
E	Indian Constitution, historical underpinnings, evolution, features, amendments, significant provisions and basic structure;
F	Comparison of the Indian Constitutional scheme with other countries;
G	Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein; Inclusive growth and issues arising from it;
H	Parliament and State Legislatures - structure, functioning, conduct of business, powers & privileges and issues arising out of these;
I	Structure, organization and functioning of the executive and the judiciary, Ministries and Departments;

J	Separation of powers between various organs dispute redressal mechanisms and institutions;
K	Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional bodies;
L	Statutory, regulatory and various quasi-judicial bodies;
M	Mechanisms, laws, institutions and bodies constituted for the protection and betterment of these vulnerable sections;
N	Salient features of the Representation of People's Act;
O	Important aspects of governance, transparency and accountability, e-governance- applications, models, successes, limitations, and potential;
P	Citizens charters, transparency & accountability and institutional and other measures;
Q	Issues relating to poverty and hunger,
R	Welfare schemes for vulnerable sections of the population by the Centre and States, Performance of these schemes;
S	Issues relating to development and management of social sector / services relating to education and human resources;
T	Issues relating to development and management of social sector / services relating to health
General Studies Paper III	
A	Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment;
B	Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth;
C	Inclusive growth and issues arising from it;
D	Infrastructure Energy, Ports, Roads, Airports, Railways etc. Government budgeting;
E	Land reforms in India
F	Major crops, cropping patterns in various parts of the country, different types of irrigation and irrigation systems;
G	Storage, transport and marketing of agricultural produce and issues and related constraints;
H	e-technology in the aid of farmers; Technology Missions; Economics of Animal-Rearing.
I	Issues of buffer stocks and food security, Public Distribution System- objectives, functioning, limitations, revamping;
J	Food processing and related industries in India – scope and significance, location, upstream and downstream requirements, supply chain management;
K	Issues related to direct and indirect farm subsidies and minimum support prices
L	Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology;
M	Indigenization of technology and developing new technology;
N	Developments and their applications and effects in everyday life;
O	Issues relating to intellectual property rights
P	Conservation, environmental pollution and degradation, environmental impact assessment
Q	Disaster and disaster management
R	Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security;
S	Money-laundering and its prevention;

T	Various forces and their mandate;
U	Security challenges and their management in border areas;
V	Linkages of organized crime with terrorism;
W	Role of external state and non-state actors in creating challenges to internal security;
X	Linkages between development and spread of extremism.
General Studies Paper IV	
A	Ethics and Human Interface: Essence, determinants and consequences of Ethics in human actions;
B	Dimensions of ethics;
C	Ethics in private and public relationships. Human Values - lessons from the lives and teachings of great leaders, reformers and administrators;
D	Role of family, society and educational institutions in inculcating values.
E	Attitude: Content, structure, function; its influence and relation with thought and behaviour;
F	Moral and political attitudes;
G	Social influence and persuasion.
H	Aptitude and foundational values for Civil Service , integrity, impartiality and non-partisanship, objectivity, dedication to public service, empathy, tolerance and compassion towards the weaker sections.
I	Emotional intelligence-concepts, and their utilities and application in administration and governance.
J	Contributions of moral thinkers and philosophers from India and world.
K	Public/Civil service values and Ethics in Public administration: Status and problems;
L	Ethical concerns and dilemmas in government and private institutions;
M	Laws, rules, regulations and conscience as
N	sources of ethical guidance;
O	Accountability and ethical governance; strengthening of ethical and moral values in governance; ethical issues in international relations and funding;
P	Corporate governance.
Q	Probity in Governance: Concept of public service;
R	Philosophical basis of governance and probity;
S	Information sharing and transparency in government, Right to Information, Codes of Ethics, Codes of Conduct, Citizen's Charters, Work culture, Quality of service delivery, Utilization of public funds, challenges of corruption.
T	Case Studies on above issues.