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DAILY NEWS **ANALYSIS**

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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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India, China hold 15th round of military talks

Focus on PP 15 in Gogra-Hot Springs

SPECIAL CORRESPONDENT

NEW DELHI

The 15th round of Corps Commander talks between India and China began on the Indian side of the Chushul Moldo Meeting Point in eastern Ladakh on Friday with the immediate focus on working out a disengagement agreement at Patrolling Point 15 in the Gogra-Hot Springs area as part of the overall disengagement and de-escalation process.

The talks began around 10 a.m., a defence source confirmed.

Defence sources expressed optimism about the outcome of the talks, given that the recent statements by both sides to find a mu-

tually acceptable solution have been “encouraging and positive”.

Diplomatic talks

Since the stand-off began in May 2020, the two sides have so far held 14 rounds of talks with disengagement on both sides of Pangong Tso (lake) in February 2021, and from Patrolling Point 17 in the Gogra area in August, in addition to Galwan in 2020 after the violent clash. The two sides have held talks at the political and diplomatic levels too.

The other areas yet to be resolved are PP15, Demchok and Depsang.

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India, China hold Corps Commander talks

India has been insisting on comprehensive disengagement and de-escalation of the situation in eastern Ladakh, while China has been reluctant to discuss Depsang and Demchok, maintaining that they are not a part of the current stand-off.

Due to this, the 13th round of talks ended acrimoniously.

Over 50,000 troops and heavy equipment continue to be deployed on both sides close to the Line of Actual Control (LAC) for the second winter in the super high-altitude areas.

China has also undertaken massive construction of infrastructure, habitat and support structures to maintain the troops close to the

LAC, altering the ground status.

Army chief General Manoj Naravane had stated that any deinduction will have to follow a few laid-out steps, which comprises disengagement in the friction areas along the LAC, confidence building, followed by de-escalation which is moving back to the depth areas and de-induction can take place “only after that”, which is when troops would move back to their permanent locations. “Whatever we decide to do, will be based on the principle of mutual and equal security. Till we reach there, we will have to be prepared to stay there for as long as required,” he said in January.

India, Canada to reboot trade agreement talks

Investment protection treaty on cards

SPECIAL CORRESPONDENT

NEW DELHI

India and Canada have decided to restart talks for a comprehensive economic partnership agreement (CEPA) and will strive to seal an investment-protection agreement as well, the countries' trade ministers said, following a bilateral ministerial dialogue on Friday.

CEPA talks with Canada had got derailed amid the COVID-19 pandemic but were expected to restart after the Canadian elections concluded in September 2021.

Bilateral trade

Bilateral goods trade between the two nations stood at \$6.3 billion in 2021 and the two sides agreed that a

comprehensive trade agreement would help bolster trade and investment flows.

CEPA negotiations will be formally restart and the two countries will consider an interim agreement or Early Progress Trade Agreement (EPTA) that could be concluded early as a transitional step. India is eyeing market access for its sweet corn, baby corn and bananas in Canada, while Ottawa is keen to export its cherries and lumber to India.

The EPTA shall include 'high level commitments in goods, services, rules of origin, sanitary and phytosanitary measures, technical barriers to trade, and dispute settlement, and may also cover any other areas mutually agreed upon,' as per a joint statement.

‘Positive shifts’ in talks with Ukraine: Putin

Russian President plays down sanctions

REUTERS

MOSCOW

President Vladimir Putin said on Friday some progress had been made in Moscow’s talks with Ukraine, while the Kremlin said the conflict would end when the West took action to address Russia’s concerns.

At a Kremlin meeting with Belarusian President Alexander Lukashenko, Mr. Putin said Western sanctions would not hinder Russian development and that Russia would end up stronger.

He then said Ukrainian negotiations were taking place practically every day. “There are certain positive shifts, negotiators on our side tell me,” Mr. Putin said. “I will talk about all of this later.”

Russian Foreign Minister Sergei Lavrov and Ukraine’s Dmytro Kuleba met in Turkey on Thursday in the highest-level talks since the conflict began. No breakthrough was made.

The Kremlin said on Friday the conflict in Ukraine would end when the West took action over Russia’s repeatedly raised concerns about the killing of civilians in eastern Ukraine and NATO enlargement eastwards.

“We need to find a resolution to these two questions. Russia formulated concrete demands to Ukraine to resolve those questions,” Kremlin spokesman Dmitry Peskov said.

In a separate meeting with Defence Minister Sergei Shoigu, Mr. Putin backed plans to allow volunteers, including from abroad, to fight in Ukraine. “If you see that there are people who want on a voluntary basis [to help east Ukraine’s separatists], then you need to meet them halfway and help them move to combat zones,” Mr. Putin told Mr. Shoigu during the televised meeting.

U.S., allies to end normal trade ties with Russia

President Joe Biden also announces ban on imports of seafood, vodka and diamonds

SRIRAM LAKSHMAN
WASHINGTON DC

U.S. President Joe Biden announced on Friday that the U.S. and others in the Group of Seven (G7) advanced economies would end normal trade relations with Russia as Moscow pursues its invasion of Ukraine. The G7 released a statement shortly after Mr. Biden's speech, announcing these measures.

"... Each of our nations is going to take steps to deny Most Favoured Nation status to Russia," Mr. Biden said at the White House. "Most Favoured Nation status designation means two countries have agreed to trade with each other under the best possible terms: low tariffs, few barriers to trade and the highest possible imports allowed."

Mr. Biden thanked both Democrat and Republican lawmakers for their support to end Permanent Normal Trade Relations (PNTR), the U.S.'s version of MFN, for Russia. He also thanked House Speaker Nancy Pelosi for holding off on any action while he consulted allies. The White House has been under pressure from both sides of the aisle on Capitol Hill to continue hardening its approach to Moscow.

While the closing off of trade in goods and services with the U.S. is likely not to be of significant impact on Russia on its own, the ending of trade with key European economies, implemented in concert with the U.S., is likely to hurt more. U.S.-Russia bilateral two way trade in goods and services was just

under \$35 billion in 2019 as per official U.S. data – the bulk of this (\$24 billion) were imports of Russian goods to the U.S.

Additional steps announced by Mr. Biden on Friday included an effort by the G7 to stop Russia borrowing from international institutions such as the World Bank and the International Monetary Fund.

"He [Russian President Vladimir Putin] cannot pursue a war that threatens the very foundations... of international peace and stability, and then ask for financial help from the international community," Mr. Biden said.

Mr. Putin also announced banning of imports from Russia's key sectors – seafood, vodka and diamonds. He also announced further

measures against Russian oligarchs and said that new names would be added to the sanctions list. The U.S. and some allies – such as the E.U. – have already been going after the assets of Mr. Putin's powerful friends, such as seizing their yachts and freezing their financial assets.

"They steal from the Russian people and they seek to hide their money in our countries," Mr. Biden said on Friday. "They must share the pain of the sanctions."

'No direct confrontation'

Mr. Biden reiterated that the U.S. would ensure that Ukraine had the weapons it needed to fight Russia, but ruled out any direct conflict with Russia on Ukrainian soil, saying a NATO-Russia

confrontation would be tantamount to "World War Three".

Also on Friday morning, a meeting of the UN Security Council, convened by Russia, to discuss "military biological activities" by the U.S. in Ukraine, was underway. The White House had said that the U.S. was neither developing nor in possession of biological or chemical weapons and that Moscow was preparing for a possible "false flag" operation.

Asked by a reporter for the basis of the false flag assessment, Mr. Biden said he was not prepared to discuss the intelligence behind it. "I'm not going to speak about the intelligence but Russia would pay severe price if they use chemical weapons," he said.

Ukraine halts half of world's neon output for chips, clouding outlook

War hits production at Ingas, Cryoin

REUTERS
WASHINGTON

Ukraine's two leading suppliers of neon, which produce about half the world's supply of the key ingredient for making chips, have halted their operations as Moscow has sharpened its attack on the country, threatening to raise prices and aggravate the semiconductor shortage.

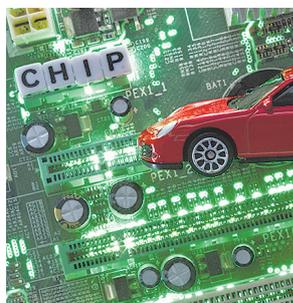
Some 45%-54% of the world's semiconductor grade neon, critical for the lasers used to make chips, comes from two Ukrainian companies, Ingas and Cryoin, according to Reuters calculations based on figures from the companies and market research firm Techcet. Global neon consumption for chips reached about 540 metric tonnes last year, Techcet estimates.

Both firms have shuttered their operations, according to company representatives contacted by Reuters, as Russian troops have escalated their attacks on cities throughout Ukraine.

The stoppage casts a cloud over the worldwide output of chips, already in short supply after the pandemic drove up demand for cell phones, laptops and later cars, forcing some firms to scale back production.

While estimates vary widely about the amount of neon stocks chipmakers keep on hand, production could take a hit if the conflict drags on, according to CFRA analyst Angelo Zino.

"If stockpiles are depleted by April and chipmakers don't have orders locked up in other regions... it likely means further constraints for the broader supply chain and inability to manufacture the end-product," Mr.



Zino said.

Before the invasion, Ingas produced 15,000 to 20,000 cubic metres of neon per month for customers in Taiwan, Korea, China, the U.S. and Germany, with about 75% going to the chip industry, Nikolay Avdzhy, the company's chief commercial officer, said in an email. The company is based in Mariupol, which has been besieged by Russian forces.

Cryoin, which produced about 10,000 to 15,000 cubic metres of neon per month, and is located in Odessa, halted operations on February 24 when the attacks began, to keep employees safe, according to business development director Larissa Bondarenko.

'Unable to fulfill orders'
She said the firm would be unable to fill orders for 13,000 cubic metres of neon in March unless the violence stopped. She said the company could weather at least three months with the plant closed, but warned that if equipment were damaged, that would prove a bigger drag on company finances and make it harder to restart operations quickly.

Taiwan's Economy Ministry said Taiwanese firms had already made preparations and had "safety stocks" of neon, so it did not see any problems in the supply chain in the near term.

Air India staff interest protected: Madras HC

Employees' charges misplaced: judge

MOHAMED IMRANULLAH S.
CHENNAI

The Madras High Court on Friday said it was “fully convinced” that the Centre had protected the interests of Air India employees “to the hilt” while going for 100% disinvestment of the sinking public air carrier, which could not be revived despite pumping in over ₹1 lakh crore of public money, and handing it over to Talace Private Ltd. of the Tata Group earlier this year.

Dismissing a case filed by a trade union, Justice V. Parthiban wrote: “The government appeared to have taken every care not to jettison the interests of its employees in the bargain. Considering the fact that Air India Ltd., prior to the disinvestment initiative, was a sinking company, a fortuitous transformation has happened for their [employees] own good.”

The order said: “In the opinion of this court, various conditions of service under the Share Purchase Agreement (SPA), signed on October 25, 2021, are the best that the Government could wrangle out from Talace towards ensuring protection of employees’ interest. Therefore, the employees conjecturing they have been treated unfairly and unjustly is misplaced and misconceived.”

After taking note of the



Employees presuming they were unfairly treated is misplaced, says Court.

clauses in the SPA with respect to job security, revision of pay scale, leave encashment, gratuity, provident fund, medical benefits, passage facilities, arrears of salary, colony accommodation and reservations in employment, Justice Parthiban said: “This court would have no hesitation to hold that at the end of the day, the Government handed out a fair, reasonable, just and equitable package to the employees.”

Convinced with the clarifications provided by Solicitor-General Tushar Mehta on all concerns raised by Air Corporation Employees Union, the judge wrote: “It cannot be gainsaid that the interests of the employees have been bartered away unilaterally, unjustly and arbitrarily.”

The employees union had approached the court last year with a plea to restrain Centre from disinvesting the air carrier without fully protecting the employee service conditions.

India not a contractual union but an organic one: Governor

‘Looking at the country through colonial prism promotes regional imbalances’

SPECIAL CORRESPONDENT
COIMBATORE

Tamil Nadu Governor R.N. Ravi said on Friday that those talking about federalism should realise that India is not a “contractual union” but an organic one, unlike the United States of America.

India, that was Bharat, was like body parts, each different in shape and functioning, but part of the body and which couldn’t function outside the body, he said, speaking at the South Zone Vice-Chancellors Meet here.

Colonial prism

The perception of looking at the country through the colonial prism, even after Independence, had not helped to eradicate poverty but instead promoted regional imbalances. Even within the



Governor R.N. Ravi (centre) at the South Zone Vice-Chancellors' meet in Coimbatore. ■ M. PERIYASAMY

United States, there were less developed regions, Mr. Ravi said. Universities, as a place for spreading knowledge, should help in dissemination of knowledge useful to society, he said.

As the Chancellor of universities, the Governor said he had a chance to learn about the 30,000 doctorate

theses. While a few were good and on topics beneficial to society, a bulk of them were “on a leader or his ideology” and showed that the researcher had pursued a Ph.D. for the sake of a degree. While it could be politically correct to do such research, the universities should not lose sight of na-

 Universities, should ensure that they help in dissemination of knowledge useful to society

tional or societal interests, he said.

The president of the Association of Indian Universities (AIU), G. Thiruvassagam, spoke on the theme: ‘Realising Sustainable Development Goals through higher education institutions for ensuring inclusive and quality education’.

AIU secretary-general Pankaj Mittal said India ranked 120th in the Sustainable Development Goals and had only eight years to reach the target. Bharathiar University Vice-Chancellor P. Kaliraj also participated.

MHA amends Foreigners Order

Passport or travel document needed

VIJAITA SINGH
NEW DELHI

The Union Home Ministry has notified that a foreigner living in India shall hold a valid passport or any “other valid travel document”, which includes emergency certificate, certificate of identity and any other document issued by the government of a foreign country.

The Ministry through a gazette notification amended the Foreigners Orders, 1948 by inserting a new provision, paragraph 3B, stating “requirement of holding a valid passport or other valid travel document while living in India.”

The order assumes significance as many people from Afghanistan were not able to return or had decided to stay back in India after the Taliban takeover in Afghanistan in August 2021. India issued 200 e-Emergency X-Miscellaneous visas, out of 60,000 applications, to Afghan nationals. The passports of many Afghans seem to have either expired and are not valid anymore. The Passport Act states that a foreigner, unless exempted through a government order, needs to be in possession of a valid passport to continue to stay in India.

India had last year extended the visas of all Afghan nationals living in India on gratis until further

orders. “They will not be granted exit or issued leave India notice by the Foreigners Regional Registration Office (FRRO) without prior approval of the Ministry of Home Affairs,” the September 2, 2021 order had said.

The Foreigners Order under Foreigners Act, 1946 regulates the entry and departure of foreigners in India. Other than this, the Passport (Entry in India) Act, 1920 prescribes the rules for foreigners authorising their stay here on the basis of visas affixed to passports or other travel documents. Foreigners not in possession of valid passports is a punishable offence.

The amended order also enables online filing of “any report or application or information.”

“...the Registration Officer or the civil authority shall verify genuineness of the report or application or information and, he may, if considered necessary, call upon the applicant or the informant for personal appearance of the applicant or informant,” the amended order says.

A Ministry official said the amendment has been done for “ease of doing business.”

“It is to improve compliance, and electronic data helps in ease of business,” the official said.

Cong. to come close to losing RS Opposition Leader's post

By July, there will be no Akali MP and only one BSP member

SOBHANA K. NAIR
LUCKNOW

By July, there will be two big changes in the Rajya Sabha – there won't be a single Akali Dal member in the House, and there will be only one BSP member left. The Congress will come precariously close to losing the post of Leader of the Opposition.

The results of the Assembly elections in Uttar Pradesh, Punjab, Uttarakhand, Manipur and Goa dictate these changes.

All the seven seats of Punjab are getting vacant this year. Elections to the five seats have already been announced and another two will come up for polls in July. All these seats are expected to go to the new victor – the Aam Aadmi Party, which won 92 seats in the Assembly. Currently, three each are with the Congress and the Shiromani Akali Dal and one with the BJP. “It is perhaps the first time that we will not have a single member in the Upper House. While I wish

all the best to the AAP, the question is will they be able to keep the tall promises they have made. In cases of such sweeping mandates, the disillusionment also sets in that quickly,” Rajya Sabha member and senior Akali Dal leader Naresh Gujral said.

U.P. sends 31 members

Uttar Pradesh sends 31 members to the Rajya Sabha. Of these, 11 fall vacant in July. The list of retirees includes senior BSP leader and Mayawati's key confidant Satish Mishra. His colleague, Ashok Siddharth, retires, leaving sole member Shri Ramji behind.

In the coming Rajya Sabha election to be held on March 31, the Congress is already slated to lose three seats – two from Assam and one from Himachal Pradesh. The retirees include the party's deputy leader in the House, Anand Sharma, who was elected from Himachal Pradesh.

With Thursday's results, additionally, it will lose the three seats in Punjab and one each from Uttarakhand and Uttar Pradesh. The list of retirees includes former Minister Kapil Sibal, who was nominated by the party from Uttar Pradesh, and Ambika Soni, who was elected from Punjab. So in total, the Congress could lose eight seats, bringing down its current tally of 34 to 26. Under Rajya Sabha rules and procedures, for any party to hold the position of Leader of the Opposition, it must have at least 10% of the total strength. The House currently has only 237. So, for the party to hold on to the post, it must have 24 or 25 members.

The election results have brought Opposition parties' hopes to float a common candidate against a BJP nominee crashing down. The President is elected by an electoral college of 543 Lok Sabha and 233 Rajya Sabha members, and 4,120 MLAs.

‘Centre to soon file final papers for LIC offer’

‘Volatility triggers wait-n-watch mode’

PRESS TRUST OF INDIA

NEW DELHI

The government is planning to soon file the final papers for LIC IPO with market regulator SEBI, which will provide details about the price band, discount for policyholders and retail buyers, and the actual number of shares to be put on the block, an official said.

The Centre is now in the wait-and-watch mode because of the market volatility induced by the Russia-Ukraine war and will decide on the timing of the initial public offering (IPO) of Life Insurance Corporation (LIC).

“We have got the approval of the [draft red herring prospectus] DRHP and the next step would be to file the RHP, which will give details



of the price band and the actual number of shares. We are watching the situation, and soon we will take a call on the timing of the share sale,” an official told PTI.

The Centre was expecting to garner more than ₹60,000 crore by selling about 5% shares in the firm to meet the disinvestment target of ₹78,000 crore in the current fiscal.

Industrial output grows 1.3% in Jan.

SPECIAL CORRESPONDENT

NEW DELHI

India's industrial output grew 1.3% in January 2022, recovering marginally from a revised growth rate of 0.7% for December 2021, but was still only 0.7% above the pre-pandemic levels, as per data from the National Statistical Office.

Manufacturing output rose 1.1%, while mining production grew 2.8% and electricity generation went up by 0.9% year-on-year.

Production of consumer durables slumped for the fifth month in a row in January, contracting 3.3% compared with a 0.1% shrinkage a year ago.

Industrial production grows 1.3% in January

The growth in manufacturing and mining production is largely attributable to base effects as the two sectors' output had shrunk by 0.9% and 2.4%, respectively, in January 2021, when the overall index of industrial production (IIP) had contracted 0.6%.

Private consumption appeared subdued even after factoring in fast moving consumer goods.

While consumer non-durables output grew 2.1% year-on-year in January, the fastest pace since August 2021, it marked a significant 5% decline from the December 2021 levels.

Output growth in the segment had contracted fractionally from 2020 levels, in September as well as December 2021.

Capital goods' production also shrank for the fourth successive month, dipping 1.4% in January compared to a sharper 3.76% drop in December. Capital goods' output had

declined a sharp 9% in January 2021.

Primary goods output growth slowed in January to 1.6% from 2.7% in December 2021, but infrastructure and construction goods' surged at the highest pace in three months at 5.4%, compared with just 2.05% in December.

The NSO also revised its estimates for industrial output growth in October 2021 to 4.16% from 4.01% estimated earlier. "Relative to the pre-COVID level of January 2020, the index of industrial production displayed a mild 0.7% rise, with lower output of consumer durables and non-durables as well as capital goods imposing a drag," said ICRA chief economist Aditi Nayar.

However, the pickup in growth of infrastructure/construction goods is promising after the contraction in construction Gross Value Added (GVA) in the economy in the third quarter of 2021-22," she added.

PSBs on course to book better profits next fiscal year: Fitch

'Private banks better placed to reap the benefits of recovery'

PRESS TRUST OF INDIA

MUMBAI

Strengthening economic recovery and stable financial metrics will help state-owned banks have stable earnings during the next financial year, aided by the gradual unwinding of regulatory forbearance through the year, according to a report.

Fitch Ratings, in the report, on Friday also said private sector banks are better placed to reap the benefits of recovery and will continue to increase their market share both in credit as well as deposits.

Noting that regulatory forbearance has suppressed state-owned banks' immediate capital requirements



by deferring recognition of stressed loans, the report said private banks are most competitive on this front, too. The report expects earnings and profitability of banks to recover next fiscal on the back of falling loan impairment charges that improved to 1.2% in H1 of FY22, from 1.7% a year ago, because forbearance will limit

fresh loan impairments.

Asset-quality pressure will ease on the back of improving recoveries from impaired loans, while earnings are supported by adequate pre-provision profit of 3.6% in H1, up 10 basis points against a year ago, thanks to stable net interest margins and operating costs.

But, waning forbearance is likely to pressure profitability, and average operating profit/risk-weighted assets will remain commensurate with banks' current earnings and profitability scores, the report said.

On the other hand, earnings of private banks should continue to outperform state-owned banks, according to the report.

‘Start-ups eyeing IPO may face tighter valuation scrutiny’

‘Paytm flop sparks SEBI push for audit of non-financial data’

REUTERS
NEW DELHI

India has tightened scrutiny of IPO-bound firms by questioning how key internal business metrics are used to arrive at valuations, unsettling bankers and companies which fear delays in listing plans, sources with direct knowledge told Reuters.

India’s push comes after the flop listing of SoftBank-backed payments firm Paytm’s \$2.5 billion IPO in November which sparked criticism of lax oversight of how loss-making companies price issues at what some say are lofty valuations.

The Securities and Exchange Board of India (SEBI) last month flagged concerns

 **Metrics such as average time spent on a platform are difficult to audit or link to valuations**

in proposing stricter disclosures, saying more and more new-age tech firms which “generally remain loss-making for a longer period” were filing for IPOs, and traditional financial disclosures “may not aid investors.”

But even before the proposal is finalised, SEBI has in recent weeks asked many companies to get their non-financial metrics – KPIs, or key performance indicators – audited, and then explain how they were used to arrive at a valuation, five banking

and legal sources said.

For a tech or app-based start-up, KPIs could be figures like the number of downloads or average time spent on a platform – metrics sources said are disclosed but difficult to audit or link to valuations. SEBI is asking us to “justify the valuation,” said one Indian lawyer advising several companies eyeing IPOs, adding it was “creating uncertainty and increasing cost of compliance.”

One senior executive at an Indian start-up planning an IPO said, “This will further encourage future generations of start-ups to incorporate outside India so they can easily list overseas”.

Shutdown this misguided energy policy

The vulnerabilities of reactors and their high costs are strong reasons why India must cancel its nuclear expansion plans



SUVRAT RAJU & M.V. RAMANA

Nuclear technology is hazardous. The world was reminded of this on March 3, when a fire broke out near the Zaporizhzhia nuclear plant in Ukraine (Europe's largest) during the course of a military battle. Had the fire affected the cooling system, the plant's power supply, or its spent fuel pool, a major disaster could have occurred. Luckily, this did not happen.

Eleven years ago, the people of Japan were not as fortunate. On March 11, 2011, multiple reactors at the Fukushima Daiichi nuclear plant suffered severe accidents after an earthquake and a tsunami. Those reactors were quickly "shut down" following the earthquake. But their radioactive cores continued producing heat and eventually melted down because the tsunami knocked out the cooling system.

The aftershocks of the Fukushima disaster were felt beyond Japan and led to a slump in nuclear energy in most of the world. Yet, some policymakers insist on expanding nuclear power, ostensibly in response to climate-change concerns.

On December 15, 2021, the Indian government informed Parliament that it plans to build "10 indigenous reactors... in fleet mode" and had granted "in principle approval" for 28 additional reactors, including 24 to be imported from France, the U.S. and Russia. Given the post-Fukushima global and national trends in the nuclear industry, such a policy seems misguided; nuclear power is neither an

economical source of electricity nor a viable route to meeting India's climate goals.

Nuclear power plants are capital intensive and recent nuclear builds have suffered major cost overruns. An illustrative example is the V.C. Summer nuclear project in South Carolina (U.S.) where costs rose so sharply that the project was abandoned – after an expenditure of over \$9 billion.

In contrast, renewable-energy technologies have become cheaper. The Wall Street company, Lazard, estimated that the cost of electricity from solar photovoltaics and wind turbines in the U.S. declined by 90% and 72%, respectively, between 2009-21. In 2020, the International Energy Agency dubbed solar energy the "new king of electricity".

This contrast has stymied plans for expanding nuclear power. In 2008, the U.S. government projected an expansion of nuclear capacity to 114.9 gigawatts by 2030; in 2021, it predicted that capacity would contract to 83.3 gigawatts. This mirrors a global trend: in 1996, 17.5% of the world's electricity came from nuclear power plants; by 2020, this figure had declined to just around 10%.

India has also had to drastically cut its nuclear ambitions after Fukushima. In 2008, then chairman of the Atomic Energy Commission, Anil Kakodkar, projected that India would have 650GW of installed capacity by 2050; his successor, Srikumar Banerjee, predicted in 2010 that capacity would reach 35 gigawatts by 2020. Installed capacity today is only 6.78 GW.

Unviable imports

Such targets were based on the expectation that India would import many light-water reactors after the India-U.S. civil nuclear deal. But, the deal has not led to the esta-



AP/

ishment of a single new nuclear plant, over 13 years after it was concluded. The worrying part of the Government's recent parliamentary submission is that these plans for imports have not been cancelled, as is widely believed, and still remain on the books.

Of the 24 foreign reactors with "in principle" approval, six are of the VVER (water-water energetic reactor) design that has had multiple operational problems at Kudankulam in Tamil Nadu. The cumulative load factors for the Kudankulam-1 and two reactors in 2020 were just 53% and 52%, respectively.

Twelve reactors are proposed to be imported from the U.S., including at least six AP1000 reactors – the same design that was abandoned in South Carolina. Elsewhere in the U.S., the Vogtle project comprising two AP1000 reactors has escalated from an initial estimate of \$14 billion to over \$30 billion.

The remaining six are of the EPR design that France has been unable to successfully complete in its home country. The single EPR plant being constructed in Flamanville in France is now estimated to cost €12.4 billion, four times what was forecast when construction started in 2007.

We estimated in 2013 that had the six planned EPRs at Jaitapur in Maharashtra been constructed on schedule, electricity from these reactors would cost at least ₹ 15

per unit excluding transmission costs. Given recent cost escalations, this is most likely an underestimate. The figures from Vogtle suggest that the proposed AP1000 reactors would produce power that would similarly be costly.

Compare that figure with recent low bids of ₹2.14 per unit for solar power, and ₹2.34 for solar-wind hybrid projects; even in projects coupled with storage, bids are around ₹4.30 per unit. If nuclear electricity is to be sold at a competitive rate, it would have to be greatly subsidised by the Indian government, which operates all nuclear plants through the Nuclear Power Corporation of India.

Understanding risks

Safety concerns following the Fukushima accident have led to protests against each planned reactor. Vijay Rupani, then Chief Minister of Gujarat, admitted in the State Assembly in March 2018 that "locals turned against" the Mithivirdi nuclear project after the Fukushima disaster.

Contrary to the condescending opinion held by some nucleocrats, peoples' concerns are not based on an irrational fear of nuclear energy. In a densely populated country such as India, land is at a premium and emergency health care is far from uniformly available. Local citizens understand that a nuclear disaster might leave large swathes of land uninhabitable – as in Chernobyl – or require a prohibitively expensive clean-up – as in Fukushima, where the final costs may eventually exceed \$600 billion.

Concerns about safety have been accentuated by the insistence of multinational nuclear suppliers that they be indemnified of liability for the consequence of any accident in India. Under pressure from multinational manufac-

turers, India's liability law already largely protects them. But the industry objects to the small window of opportunity available for the Indian government to hold them to account.

The message to local citizens is simple: manufacturers do not really believe in their own claims about how safe their reactors are. If they did, they should have been willing to accept responsibility for any failure rather than insisting on special legal arrangements not available to any other industry.

Climate concerns

Climate change will increase the risk of nuclear reactor accidents. The day after the fire at the Zaporizhzhia nuclear plant, a wildfire approached the Hanul nuclear power plant in South Korea and President Moon Jae-in ordered "all-out efforts" to avoid an accident at the reactors there. In 2020, a windstorm caused the Duane Arnold nuclear plant in the U.S. to cease operations. The frequency of such extreme weather events is likely to increase in the future.

Therefore, nuclear power is not the right choice to "adapt" to climate change, which requires resilience in power systems. It is also not the appropriate choice for mitigating India's carbon emissions since it cannot be deployed at the necessary scale. The resources spent on nuclear plants will yield quicker results if they are redirected to renewables.

Given the inherent vulnerabilities of nuclear reactors and their high costs, it would be best for the Government to unambiguously cancel its plans for a nuclear expansion.

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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-drawal 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.