



25th June to 1st July 2023

CURRENT AFFAIRS FOR UPSC

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INTERNATIONAL

REBELLION IN RUSSIA

The short-lived mutiny of Yevgeny Prigozhin, head of the Wagner private military company, not only exposed the growing, uncontrollable feud between the warlord and Russia's top defence leadership but also the weakening position of Russian President Vladimir Putin in the country's complex power dynamics. For over two decades, Mr. Putin has ruled Russia with an iron fist, allowing little dissent at home and expanding foreign policy interests through force. But in Mr. Prigozhin, whose forces took over a critical military headquarters in the southern city of Rostov-on-Don and launched a "march of justice" towards Moscow, Mr. Putin faced his most significant political and internal security challenge. He called the mutiny a "betrayal", and ordered his security services to crush the rebellion. But Mr. Putin's hands were understandably tied as Wagner has grown over the years as a parallel security structure with deep influence in Africa and has made battlefield gains in Ukraine. So, instead of crushing the rebellion, Mr. Putin allowed the Belarus President, Alexander Lukashenko, to strike a deal with Mr. Prigozhin. As part of the deal, Mr. Prigozhin, who earlier on Saturday had demanded the dismissal of Russia's top military leadership and called the Defence Minister, Sergei Shoigu, and the Chief of General Staff "geriatric clowns", decided to pull back his troops and exile himself in Belarus.

Mr. Putin has averted an all-out civil war, but he cannot escape the question why he failed to prevent this feud in his security circle from escalating into such a humiliating public crisis. The rivalry between the Defence Ministry and Wagner was hardly a secret. Since February, Mr. Prigozhin has attacked the Ministry, accusing it of corruption and incompetence, and Mr. Putin did nothing. Mr. Prigozhin has also blamed the defence establishment for the excessive losses Wagner suffered in Bakhmut. But Wagner's victory in Bakhmut, the first major Russian battlefield victory in months, seemed to have intensified the Shoigu-Prigozhin feud. A few days after Wagner captured Bakhmut, Mr. Shoigu asked all paramilitary forces to sign contracts with the Defence Ministry, which Mr. Prigozhin saw as an attempt to dismantle Wagner. This was the trigger for his revolt. Before the Ukraine war began on February 2022, Mr. Putin seemed all powerful, presiding over a huge but cohesive administration and expanding Russia's influence abroad. Sixteen months later, with limited Russian territorial gains in Ukraine, Mr. Putin's challenges at home are mounting. He may have brought temporary peace between his generals and warlords, but the reasons behind the mutiny remain unaddressed. If he wants stability, Mr. Putin should first bring the war to an end and put his house in order.

GREEK RECOVERY

There was a festering scandal about wiretapping Opposition politicians, military figures and journalists that put the Greek government under pressure; 57 people were killed in a train crash, in February, which included many students, triggering mass protests, and more than 200 migrants drowned off the coast in a boat tragedy just before the elections. But none of these developments dented the public perception about Kyriakos Mitsotakis, the 55-year-old conservative leader whose centre-right New Democracy had a resounding victory in the June 25 parliamentary elections. This was the second election in Greece in less than two months. In May, New Democracy emerged as the single largest party but was short of securing an absolute majority. In the second vote, held under a different electoral system, Mr. Mitsotakis's party won 40.55% of the votes or



158 seats in the 300-member Parliament, while the main Opposition Syriza secured 18% votes (48 seats). The centre-left PASOK, which once dominated Greek politics, ended up with 12% votes (32 seats), while the newly formed far-right Spartans, which has been endorsed by Ilias Kasidiaris, an imprisoned former leader of the fascist Golden Dawn, made a surprise entry into Parliament with 4.6% of the vote.

Mr. Mitsotakis, who came to power in 2019, ran a campaign focused on his policies aimed at economic recovery, his government's handling of the coronavirus pandemic and the cost-of-living crisis in Europe. Greece's economic recovery is still an ongoing story. After the depression and acute debt crisis of the 2010s, which pushed the country to the brink of exiting the eurozone, Greece has seen stable growth in recent years (now above the EU average). Investment and exports have improved, thanks to EU funds, and its credit is close to regaining an investment grade credit rating. GDP, despite its high growth rate, is still 20% smaller than in 2008, before the global financial and debt crisis. Mr. Mitsotakis's biggest achievement and promise was relative economic stability. He blended his message with a hardline immigrant policy that often saw authorities sending asylum seekers back to Turkey (the Greek coast guard was also blamed for not doing enough to avert the boat tragedy), and a tough foreign policy that kept tensions with Turkey in the Aegean Sea high. This conservative nationalism helped him emerge as Greece's most powerful politician since the economic crisis. Mr. Mitsotakis should now make bold decisions in the economic and social realms. He has to continue the journey of economic recovery and also get back the country's investment grade credit rating. But he should also take a more humanitarian view of asylum seekers and improve the overall relationship with Turkey to reduce geopolitical tensions.

DOES CHINA-PAK. N-DEAL FLOUT GLOBAL RULES?

The story so far:

On June 20, China and Pakistan signed an agreement for a 1,200 MW nuclear power plant in the Chashma nuclear complex in Pakistan. The deal, reported to be worth \$4.8 billion, comes amid Pakistan facing a dual energy and economic crisis. The latest nuclear deal between China and Pakistan has implications not only for the crisis-hit country but also for the global governance of nuclear commerce, with Beijing proceeding with the recent deal without seeking necessary waivers from the Nuclear Suppliers Group (NSG).

What is the latest deal?

Pakistan's Prime Minister Shehbaz Sharif on June 20 witnessed the signing of the agreement for the construction of a 1,200 MW nuclear plant. This is the fifth reactor at the Chashma nuclear complex (C-5). The financial details have not been spelled out, but Mr. Sharif said China had given "special concessions" for financing the construction amid Pakistan's continuing financial crisis and on-going negotiations for a bailout from the International Monetary Fund (IMF). C-5 will be the biggest reactor at Chashma, where China has already constructed four phases of the complex, with four reactors of around 325 MW each. It will use China's Hualong One reactor, which has also been installed in two plants in Karachi.

How many other nuclear plants has China built for Pakistan?

Pakistan is currently operating six China-built nuclear plants, four smaller reactors at the Chashma complex and two at the Karachi Nuclear Power Plant (KANUPP). Pakistan's oldest



reactor, the Canada-built KANUPP-1, is now decommissioned, while KANUPP-2 and KANUPP-3 both use 1,100 MW Chinese Hualong One reactors. KANUPP-3, with a \$2.7 billion investment, went fully online in the past year and was hailed by Mr. Sharif as helping ease Pakistan's energy crisis. An agreement for KANUPP-3 was signed in 2013, the year Chinese President Xi Jinping launched his Belt and Road Initiative (BRI), and became a flagship energy project as part of the China Pakistan Economic Corridor (CPEC) of the BRI.

According to Pakistan's Ministry of Energy, faced with a continuing energy deficit, financial crisis and rising import bills, the country needs to urgently increase the share of renewables and nuclear energy. "The energy sector is heavily dependent on imported fuel including oil and LNG and will continue to rely on its imports because of the low domestic capacity," the 2021-2022 Economic Survey said. "Higher oil prices in the global market and massive depreciation of the Pakistani rupee is making oil imports more expensive, triggering external sector pressure and widening trade deficit of the country."

The Alternative and Renewable Energy Policy rolled out in 2019 envisages increasing the share of renewables to 30% by 2030. Currently, thermal sources account for 61% of the energy mix, while hydropower accounts for 24%, nuclear 12%, and wind and solar only 3%, according to the 2021-22 Economic Survey. On the nuclear side, gross capacity of nuclear plants had increased by 39% annually to 3,530 MW.

What are the broader implications?

China's civilian nuclear projects with Pakistan have come under scrutiny because the Nuclear Suppliers Group (NSG), which describes itself as a group of nuclear supplier countries "that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports", explicitly prohibits the transfer of nuclear technology by its members to countries that have not signed the nuclear Non-Proliferation Treaty (NPT). China joined the 48-member grouping in 2004, and argued subsequently that the Chashma 3 and Chashma 4 reactors were "grandfathered" under its earlier Chashma deals with Pakistan that pre-dated its joining of the NSG.

Chinese analysts have now justified the continuing nuclear commerce, despite Beijing's NSG commitments, by pointing to the India-U.S. nuclear deal. There are, however, significant differences. For one, India and the U.S. had to seek a waiver from the NSG for their civilian nuclear deal, which was granted in 2008, paving the way for India to enter the tent of global nuclear commerce.

That was, however, only granted after India undertook a number of commitments such as placing facilities under International Atomic Energy Agency (IAEA) safeguards, separating civilian and military nuclear programmes and a continued moratorium on testing. Neither has China sought any such waiver from the NSG nor has Pakistan undertaken similar commitments. China has suggested that the reactors being under IAEA safeguards would suffice.

While China had explained its C-4 and C-5 deals as being part of an earlier agreement, the KANUPP-2 and KANUPP-3 plants were agreed to in 2013, a decade into its NSG membership. Meanwhile, long-running negotiations to include India as a full-fledged NSG member have run into a Chinese wall. A years-long effort, which included talks with China, appeared to run aground in 2015 when Beijing started to link India's aspirations for NSG membership with that of Pakistan's. Experts fear the latest deals have only further eroded the global rules governing nuclear



commerce, and also raised questions about both the continuing relevance and future of the NSG and governance of global nuclear commerce.

NEPAL SUPREME COURT ORDERS GOVT. TO REGISTER SAME-SEX MARRIAGES

The Supreme Court of Nepal on Monday issued an interim order directing the office of the Prime Minister and Council of Ministers and other relevant ministries to establish a “transitional mechanism” to ensure the registration of marriages for “same-sex couples”.

The court asked the government to establish a “separate register of marriages” for such couples from gender minority communities. The interim order from the Supreme Court of Nepal came as a result of a Public Interest Litigation (PIL) filed on June 7, by Pinky Gurung (current president of the Blue Diamond Society, a rights group). The PIL had sought equality before law for the vulnerable sexual minority groups in Nepal.

“This is a very significant development as same-sex as well as third genders and their partners can register their marriages. They will be entitled to the same rights as heterosexual couples,” said Sunil Babu Pant, a member of Nepal’s Parliament.



DreamIAS



NATION

INDIA BACKS 2016 RULING FAVOURING THE PHILIPPINES IN SOUTH CHINA SEA

As negotiations continue between China and the ASEAN bloc for a code of conduct in the South China Sea — which diplomatic sources described as a “complex exercise” involving 11 countries — India called for adherence to the 2016 arbitration decision in favour of the Philippines, which has been rejected by China.

A joint statement issued after talks between Enrique A. Manalo, the visiting Secretary of Foreign Affairs of the Philippines, and his Indian counterpart S. Jaishankar on Thursday said that the two leaders “underlined the need for peaceful settlement of disputes and for adherence to international law, especially the United Nations Convention on the Law of the Sea (UNCLOS) and the 2016 Arbitral Award on the South China Sea in this regard.”

Mr. Manalo, who arrived in India on an official visit on June 27, concluded his visit on Friday.

China disagrees

The Philippines had instituted an arbitration proceeding against China in the Permanent Court of Arbitration under UNCLOS on January 22, 2013. The court ruled in favour of Manila on July 12, 2016, but this was rejected by China, which had called it “null and void.” China, which claims rights to most of the resource-rich South China Sea up to the nine-dash line, has become more assertive in recent years, leading to flare-ups in the region.

On the ongoing negotiations on a code of conduct, the source said that it involved a lot of details and 11 countries. Though it has a common agenda, ASEAN does not have a common stance on all issues, given the differing views of its member nations. “It goes into a lot of details like what to do and what rules to observe when there is a collision at sea, how to deal with third parties. Also in the end, we have to agree if the code is legally binding or not, and if so who will enforce it, and if it is not legally binding, then what is its status. Negotiations are going on regularly at the technical and legal levels,” the source added.

Seeking support

Referring to the 2016 arbitral ruling, the anniversary of which is in two weeks, the source noted that China does not recognise the ruling and did not participate in the deliberations at The Hague.

On the Philippines’ ongoing tensions with China, the source said that Manila was also doing other things beyond the 2016 ruling to deal with the actual issue, which is the “presence of China in the South China Sea”. Manila is trying to send as many assets there as possible, to show that it is the Philippines’ Exclusive Economic Zone, even while stressing that it only wants to “assert its rights and protect its fishermen”.

STRATEGIC HIGH

The just concluded state visit of Prime Minister Narendra Modi to the United States is undoubtedly a new gambit by both sides to propel their strategic cooperation to an unprecedented level, while staying short of turning treaty allies. The announcement for potential joint manufacture of General Electric (GE) Aerospace’s F414 engines in India by GE and Hindustan Aeronautics Limited to power India’s indigenous Light Combat Aircraft MK2 and the twin-engine Advanced Medium

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Combat Aircraft MK1 as well as the purchase of 31 high-altitude, long-endurance Predator-MQ-9B armed unmanned aerial vehicles take the defence ties between the countries to a new high. Military cooperation between the two nations has been deepening in the recent past. India has bought from the U.S. the C-130 and C-17 Globemaster transport aircraft, AH-64E Apache attack helicopters as well as CH-47 Chinook and MH-60R multi-role helicopters, P-8I maritime patrol aircraft and M777 ultra light howitzers, among others. The U.S. has been aggressively pitching its fighter jets, the F-16 and F/A-18, for the Indian Air Force and the Indian Navy. India and the U.S. had tried and shelved an earlier engine development effort under the Defence Technology and Trade Initiative some years ago. But now, the new jet engine deal is an investment in each other to address the shared security concerns, while continuing to navigate the disagreements.

Top among their shared concerns is China and its expansion in the Indo-Pacific. The U.S. also wants to wean India away from its defence partnership with Russia in the long term. From a technological perspective, the newly announced joint initiatives in jet engine production, semiconductors and space technology present an opportunity for India to develop a defence industry of its own, and improve its technological competence across the board. India and the U.S. have already signed the four foundational agreements and regularly conduct joint military exercises. While its embrace with the U.S. is getting stronger, deeper and more comprehensive, India is also cognisant of the need to maintain its strategic autonomy. U.S. strategy at the moment is focused on creating a new bipolarity in the world, which India is not comfortable with. Getting caught in the power rivalries of others is the last thing that India wants, and the good thing is that the U.S. is increasingly aware of that concern. India's desire to protect its borders and sovereignty aligns with U.S. interests. This is a new era of mutual trust between the two countries, and it should act as a force for stability in the region.

THE CONCERNS ABOUT INDIA-U.S. DIGITAL TRADE

The story so far:

During Prime Minister Narendra Modi's U.S. state visit, cooperation on technology emerged as a prominent talking point and yielded some of the most substantive outcomes, according to Foreign Secretary Vinay Kwatra. However, digital trade is also the area where some of the biggest U.S. tech companies have recently flagged multiple policy hurdles, including "India's patently protectionist posture". Earlier this year, the Washington D.C.-headquartered Computer & Communications Industry Association (CCIA), with members like Amazon, Google, Meta, Intel, and Yahoo, flagged 20 policy barriers to trading with India in a note titled "Key threats to digital trade 2023".

What is the current status of India-U.S. technology trade?

Notably, in FY2023, the U.S. emerged as India's biggest overall trading partner with a 7.65% increase in bilateral trade to \$128.55 billion in 2022-23. However, digital or technology services did not emerge as one of the sectors at the forefront of bilateral trade. The CCIA points out in its report that "despite the strength of the U.S. digital services export sector and enormous growth potential of the online services market in India, the U.S. ran a \$27 billion deficit in trade in digital services with India in 2020".

In the recent past, however, the two countries have been ramping up their tech partnership through moves like the Initiative on Critical and Emerging Technology (iCET) announced by President Joe Biden and Prime Minister Narendra Modi last year. Additionally, under the iCET, India and the U.S. also established a Strategic Trade Dialogue with a focus on addressing



regulatory barriers and aligning export controls for smoother trade and “deeper cooperation” in critical areas.

What have U.S. tech firms flagged?

The CCIA, while appreciating the reinvigorated efforts to ramp up trade through bilateral initiatives, has flagged in its note, the “significant imbalance” and “misalignment” in the U.S.-India economic relationship. “The U.S.’s extension of market access, trade and openness to Indian companies to operate and succeed in the U.S. has not been reciprocated by the Indian side,” it reads, adding that the Indian government has deployed a range of “tools to champion their protectionist industrial policy”, tilting the playing field away from U.S. digital service providers in favour of domestic players.

To describe these “discriminatory regulation and policies”, it cites the example of India’s guidelines on the sharing of geospatial data, which it accuses of providing preferential treatment to Indian companies. It has also expressed discontent over India’s veering away from “longstanding democratic norms and values, and seeking greater government censorship and control over political speech”, which it argues has made it “extremely challenging for U.S. companies to operate in India”.

What taxation measures has the CCIA raised concerns about?

One of the taxation tools that U.S. tech firms have long taken exception to is the expanded version of the “equalisation levy” that India charges on digital services. India in 2016, with the goal of “equalising the playing field” between resident service suppliers and non-resident suppliers of digital services imposed a unilateral measure to levy a 6% tax on specific services received or receivable by a non-resident not having a permanent establishment in India, from a resident in India who carries out business.

In 2020, the Centre came out with the ‘Equalisation Levy 2.0’, which imposes a 2% tax on gross revenues received by a non-resident “e-commerce operator” from the provision of ‘e-commerce supply or service’ to Indian residents or non-resident companies having a permanent establishment in India.

The equalisation levy, when it was first introduced in 2016, led to double taxation and further complicated the taxation framework. Besides, it also raised questions of constitutional validity and compliance with international obligations. The 2020 amendment again led the levy to become sweeping and vague in its scope. Further, in 2021, instead of introducing an amendment, the government issued a “clarification” to say that the expression ‘e-commerce supply or service’, inter alia, includes the online sale of goods or the online provision of services or facilitation of the online sale of goods or provision of services.

What about India’s IT Rules 2021?

The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, has been flagged by the consortium of foreign tech firms under the some of the most “problematic policies”. The IT Rules place compliance burden on social media intermediaries (SMIs) and platforms with five million registered users or more, which means several U.S. firms end up falling under the ambit.

Some points of concern raised are the “impractical compliance deadlines and content take-down” protocols — the IT Rules require intermediaries to take down content within 24 hours upon



receiving a government or court order. The platforms are also required to appoint a local compliance officer. Moreover, with the amendments made to the Rules late last year, SMIs are now obligated to remove, within 72 hours, information or a communication link in relation to the six stipulated prohibited categories of content as and when a complaint arises. There is also major criticism against the government's institution of the three-member Grievance Appellate Committees (GAC), which will hear user complaints about the decisions of SMIs regarding their content-related issues and have the power to reverse those decisions.

What has been flagged in the new draft of the data protection law?

While the firms appreciate a “notable improvement” in the government's new draft (and the fourth iteration) of the Digital Personal Data Protection Bill released in November 2022, ambiguities about cross-border data flows, compliance timelines, and data localisation still remain.

India, with more than 759 million active internet users representing more than 50% of its population is a gold mine for data. The country is also planning to become a hub for data processing, wanting to host data centres and cloud service providers. This means that India's policy on the flow of data across borders will impact the same on a global level, as was seen with the European Union's landmark General Data Protection Regulation (GDPR). While there are various arguments in favour of data localisation requirements by governments, such requirements also tend to significantly increase operating costs of companies and can be seen as discriminatory by foreign companies.

Foreign tech companies like Meta or Amazon operating in India find it convenient to store their data, say in the U.S. or wherever they have their servers. This means that such data has to leave Indian borders. The new draft has only one line about cross-border data flows — Section 17 of the Act says that cross-border flow of data will only be allowed for a list of countries notified by the Centre. On what basis will these countries be notified and what will the terms for such transfers be is not mentioned in the draft. Industry experts wonder whether whitelisting some countries for allowing data transfers would mean that other countries are automatically blacklisted. The CCIA argues that instead of taking this “opaque” approach, the law could be strengthened by “proactively supporting cross-border data flows through certifications, standard contractual clauses and binding corporate rules”.

What have firms said about the Telecom bill?

The CCIA contends that the draft Telecommunications Bill, 2022, has a sweeping regulatory ambit in that it “would redefine “telecommunication services” to include a wide range of internet-enabled services that bear little resemblance to the telephony and broadband services previously governed by this regulatory regime”.

The current draft of the Bill puts both Telecom Service Providers (TSPs) and Over-the-top (OTT) communication services under the definition of “telecommunication services”. OTT communication services include messaging platforms such as Whatsapp, Telegram, Signal, Google Meet etc., which use the network infrastructure of TSPs like Airtel and Jio to provide features that compete with telecommunication services such as voice calls and SMS services.

The CCIA contends in its note that the proposed law if passed in its current form, would subject a number of platforms to “onerous obligations including licensing requirements; government access to data; encryption requirements, internet shutdowns, seizure of infrastructure, and



possibly monetary obligations for the sector". The industry body contends that the law would "impose a first of the kind global authorisation/licensing requirement for any digital firm".

What are the other policy barriers?

Last year, the Parliamentary Committee on Finance, in order to address anti-competitive practices by big tech companies, proposed the adoption of a "Digital Competition Act". This, the CCIA says would include estimated taxes for big or significant digital intermediaries, arguing that the proposal appeared "to be largely targeted at U.S. tech companies".

WHY IS U.S.-INDIA FIGHTER JET DEAL IMPORTANT?

The story so far:

Coinciding with Prime Minister Modi's first state visit, India and the U.S. have announced a slew of deals in defence cooperation, space technology, AI and other areas. The U.S.-India joint statement mentions the "landmark" signing of a Memorandum of Understanding between General Electric (GE) and Hindustan Aeronautics Limited (HAL) for the manufacture of GE F414 jet engines in India, for the Light Combat Aircraft (LCA) Mk2. A fact sheet issued by the U.S. said a manufacturing licence agreement has been submitted for Congressional notification.

What is the status of the deal?

A senior Defence Ministry official said it is an "almost done" deal with some commercial terms pending finalisation, in addition to the U.S. Congressional approval, while stating that there would be an 80% transfer of production technology which will see some critical technologies transferred to India.

"It will take three years for the first engine to roll out once the contract is signed. It will see 80% technology transfer to HAL. Such a thing has never occurred before in the history of India's quest for high technology," the official said. Except for a small component, the F414-INS6 engine will be entirely manufactured in India which also shows the trust India has evoked in the U.S., the official stated.

The U.S. has stringent export controls and licensing systems for sharing sensitive and niche technologies. The final deal can be concluded only after the U.S. Congress approves it, though with the bipartisan support for India at the Congress, officials on both sides have expressed confidence that it will go through.

Why is it significant?

If the deal goes through, it will mean transfer of almost the entire engine technology compared to the 'Engine Development Agreement' worked out in 2012 between GE and HAL for the F414 engine with 58% technology transfer, officials said. This heralds a major high technology cooperation between the oldest and largest democracies, which the U.S. has shared with only its closest allies.

While the most critical technologies of the engine will be off limits, Indian industry, both public and private, will get a chance to upgrade their capacities and skills as significant sourcing as well as manufacturing will be done in the country, with the technologies that GE has agreed to transfer.



What is the status of indigenous tech development?

Jet engine technology is the proprietary right of very few countries and is a closely guarded secret due to its extreme criticality in modern warfare. India made unsuccessful attempts in the past to develop an engine locally under the now shelved 'Kaveri' project. The Kaveri project was sanctioned by the Cabinet Committee on Security (CCS) in 1989, and over the course of 30 years before it was shut down it entailed an expenditure of ₹2035.56 crore which led to the development of nine full prototype engines and four core engines.

Where will the GE engines be fitted?

The F414 engines are meant to power the indigenous LCA-Mk2, a larger and more capable variant of the LCA currently in service, and also the initial version of the fifth generation Advanced Medium Combat Aircraft (AMCA) that is under development. The F414 is from the family of the F404 engine that powers the current LCA-Mk1 and also the LCA-Mk1A that the Indian Air Force (IAF) will start receiving early-2024 onwards. An F414 engine produces 98kN thrust compared to 84kN by the F404 engine.

Last August, the CCS approved the development of the LCA-Mk2 at a total development cost of ₹9,000 crore of which ₹2,500 crore has already been spent. The rollout of the LCA-Mk2 is targeted by 2024 and the plan is to complete the flight testing by 2027, officials from the Defence Research and Development Organisation (DRDO) had stated earlier. The CCS sanction for the AMCA is expected soon.

The LCA-Mk2 will feature enhanced range and endurance including an Onboard Oxygen Generation System which is being integrated for the first time; it will also have the ability to carry heavy weapons of the class of Scalp, Crystal Maze and Spice-2000. The Mk2 is 1,350mm longer than Mk1 featuring canards and can carry a payload of 6,500kgs compared to 3,500kgs by Mk1.

The F414 also powers the F/A-18 Super Hornet and Swedish Gripen among others. According to a GE data sheet, the F414 shares its basic design with the F404 engine; it stands on a foundation of over 5,600 F404/F414 engines built, and a combined 18 million engine flight hours. More than 1,600 F414 engines have been delivered, accumulating over five million engine flight hours, it stated. This deal makes GE the front runner for another Indian proposal to jointly produce a 110kN jet engine for the AMCA-Mk2 for which Safran of France and Rolls Royce of the U.K. are competing and have submitted detailed technology transfer proposals. In this regard, GE said it will continue to collaborate with the Indian government on the AMCA Mk2 engine programme.

What is the timeline for production and delivery?

According to GE, a total of 75 F404 engines have been delivered and another 99 are on order for the LCA Mk1A, while eight F414 engines have been delivered as part of an ongoing development programme for LCA Mk2.

The F414 engine has been long chosen to power the LCA Mk-2, which has been designed around the engine, making it a larger, heavier and more capable jet, equal to the Mirage-2000 in terms of capability, as stated by officials earlier. The IAF has ordered 40 LCA Mk1, most of which have been inducted, and 83 LCA-Mk1A, on order under a ₹47,000 crore deal with HAL. As per schedule, HAL is expected to deliver the first three Mk1A aircraft in 2024 and 16 aircraft per year for the subsequent five years completing the deal by 2028-29.



The LCA-Mk2 is a major fillip for the IAF to arrest the dwindling fighter squadron as several frontline fighters like Mirage-2000, Jaguars and MiG-29s will be phased out by the end of the decade. The three existing Mig-21 squadrons will also be phased out by end-2025. The strength of India's fighter squadron is 31 now from a sanctioned strength of 42.

While the number of Mk2 jets are yet to be approved by the Defence Acquisition Council (DAC) headed by the Defence Minister, it is expected to be between 120 and 130 fighters, according to officials. With the combined requirement, the number of F414 engines needed over the next two decades could be well over 200.

THE INDIA-U.S. DEAL FOR 31 MQ-9B DRONES

The story so far:

U.S President Joe Biden and Prime Minister Narendra Modi welcomed India's plans to procure General Atomics MQ-9B High Altitude Long Endurance (HALE) Unmanned Aerial vehicles (UAV), the joint statement issued last week after talks between the two leaders said. This sets the stage for the acquisition of 31 of these armed UAVs, 15 SeaGuardians for the Indian Navy and 16 SkyGuardians — eight each for the Indian Army and Air Force.

What is the cost and the process to be followed?

Giving more details on the nature of purchase, the joint statement said that the MQ-9Bs, which will be assembled in India, will enhance the Intelligence, Surveillance, and Reconnaissance (ISR) capabilities of India's armed forces across domains. "As part of this plan, General Atomics will also establish a Comprehensive Global Maintenance, Repair and Overhaul (MRO) facility in India in support of India's long-term goals to boost indigenous defence capabilities."

The procurement process has commenced with the Defence Acquisition Council (DAC) chaired by Defence Minister Rajnath Singh according the Acceptance of Necessity (AoN) on June 15, the first step in the process. The deal will be executed through the Foreign Military Sales (FMS) route of the U.S. government and is expected to take a few months to be concluded.

On this a Ministry of Defence (MoD) statement said the AoN noted the estimated cost of \$3,072 million provided by the U.S. government. "However, price will be negotiated once policy approval of the US Government is received. The MoD will compare the acquisition cost with the best price offered by General Atomics (GA) to other countries. The procurement is in progress and would be completed as per the laid down procedure." The price and other terms and conditions of the purchase are yet to be finalised and are subject to negotiations, the MoD statement noted.

According to a senior MoD official, India is negotiating to increase the indigenous content under the deal. "The current indigenous content proposed is 8-9% while India is hoping it can be increased upto 15-20%. Discussions are underway. General Atomics is positive to it and the U.S. government has to accept it," the official said. General Atomics is in talks with several Indian companies for domestic manufacture of components as part of the deal, officials said. This could expand further to potentially include the manufacture of some electronics, sensor and avionics if the indigenous content goes up.

Detailing the process to be followed, the MoD statement said that under the FMS route, a Letter of Request (LOR) would be sent to the U.S. government where tri-services requirements, details of equipment and terms of the procurement would be included. "Based on the LOR, the U.S.



government and the MoD will finalise the Letter of Offer and Acceptance (LOA) where details of equipment and terms of the procurement would be negotiated and finalised in accordance with the FMS programme and the price and terms offered by the U.S. Government and General Atomics to other countries”, the Ministry detailed. The U.S. Administration will have to notify the U.S. Congress of the sale, expected to be a formality in this case. In the penultimate step, the deal has to be approved by the Cabinet Committee on Security after which the contract will be concluded.

What do the UAV's bring in terms of capability?

The MQ-9B has two variants — the SkyGuardian and the SeaGuardian, its maritime variant. The MQ-9B is designed to fly over the horizon via satellite for up to 40 hours, depending on configuration, in all types of weather and safely integrate into civil airspace, according to its manufacturer. For instance, the SeaGuardian configuration can include a 360-degree surface-search maritime radar, automatic identification system, sonobuoy monitoring system, and sonobuoy dispensers for persistent anti-surface and anti-submarine warfare missions.

According to General Atomics, the MQ-9B can provide roughly 80% of the capability of a large human-flown maritime patrol aircraft at about 20% of its cost per hour. That makes it much more economical for navies to, for example, send out SeaGuardians to clear big volumes of air or sea and then, if anything of interest is discovered, vector in a human-crewed aircraft to save it the time, cost, and wear that it otherwise might have expended, the company stated. This is the primary reason the Indian Navy is keen on these UAVs as it significantly reduces the wear and tear on manned aircraft, its fleet of 12 P-8I long range maritime patrol aircraft, as well as reduce crew fatigue in keeping an eye over the wide expanse of the Indian Ocean Region and beyond.

For the Army and Air Force, the MQ-9Bs can provide round-the-clock surveillance looking far beyond the borders, for instance on the movement of Chinese military buildup and troop movement along the Line of Actual Control (LAC) and deep inside. It also seamlessly integrates with other U.S.-origin platforms that India operates, the P-8Is, AH-64 Apache attack helicopters, MH-60R multi-role helicopters among others expanding MQ-9B's multi-domain mission set.

What UAVs are already in service?

The Indian Navy has leased two MQ-9As from General Atomics with the maiden flight taking place on November 21, 2020. In their two years of operation till November 2022, they had completed 10,000 flight hours, and “helped the Indian Navy to cover over 14 million square miles of operating area”, General Atomics has announced.

At Aero India in Bengaluru in February 2023, Hindustan Aeronautics Limited (HAL) and General Atomics announced that the turbo-propeller engines which power the MQ-9B will be supported by HAL's engine division for the Indian market. “The companies are looking to formulate a comprehensive engine MRO programme for upcoming HALE Remotely Piloted Aircraft projects,” a joint statement said.

The MQ-9 is a significant technological leap from the original RQ-1/MQ-1 Predator that heralded the arrival of long endurance armed drones at the end of the twentieth century. Armed with AGM-114 Hellfire missiles, the Predator became a symbol of the U.S. war on terror after the 9/11 attacks, with their extensive employment in Afghanistan and the tribal areas of Pakistan in the early 2000s. The RQ-1 Predator, which was first flown by the U.S. Air Force (USAF) in 1995, was retired in 2018 and replaced by the MQ-9 Reaper.



According to the USAF, the Reaper is employed primarily as an intelligence-collection asset and secondarily against dynamic execution targets. "Given its significant loiter time, wide-range sensors, multi-mode communications suite, and precision weapons, it provides a unique capability to perform strike, coordination, and reconnaissance against high-value, fleeting, and time-sensitive targets."

REBALANCING PORTFOLIO

Micron Technology is an unusual tech giant. It does not have the signature Silicon Valley origin in which the founders start a company from a garage in California. The memory chip maker was incorporated 45 years ago in Idaho, a State that largely depended on agriculture and food processing industries at that time. The four-member founding team from Dallas, Texas, moved into a dentist's basement in Boise, Idaho, with a goal to design the next gen memory chip.

The startup shipped its first 64K DRAM (Dynamic Random Access Memory) chip from its fabrication facility in Boise in 1981. Three years later, it unveiled the world's smallest 256K DRAM chip, an industry milestone and a springboard for future efficiencies in memory devices.

Since then, the American semiconductor company has been revolutionising the memory storage devices industry through cutting-edge innovation and strategic business acquisitions. It synchronised and pre-defined cycles for data transfers with the Synchronous DRAM (SDRAM), and then introduced high-capacity, low power DRAMs for cell phones as mobile handhelds started to support multimedia besides voice and text features.

Micron also bought a part of Japan-based Toshiba's DRAM business, and signed a deal with South Korea's SK Hynix that would give the American company control over Hynix's memory operations, including its chip design asset. Such deals marked a growing trend towards consolidation in the memory chip industry, making Micron one of the top three players alongside Samsung and SK Hynix. But during this time, its relationship with Boise started to change. It was investing in production facilities overseas, particularly in Asia. Within a span of five years, starting in 1998, it opened two production facilities in Singapore to test and package NAND flash memory. Its workforce in the city-state grew to almost a sixth of the company's global workforce.

Semiconductor is a cyclical business that is prone to both high demand and supply glut. As a result, firms have had to cut costs to maintain profitability. One of the major costs is labour. And chip testing and packaging processes continue to be the most labour-intensive parts in chip production.

According to some estimates, a fifth of the cost of such a facility is labour. So, as Micron increased its presence in Asia, it was also cutting corners at the Boise facility with a series of layoffs. By 2009, it ended chip making in Boise, and in the years since, the campus has remained its headquarters and principal research and innovation centre.

China phase

Boise's loss was Xi'an's gain. Just two years before the end of production in Idaho, Micron announced plans to set up its first plant in China's Xi'an to test and package DRAM, NAND flash memory chips, and CMOS image sensors. In China, the company got more than it bargained for. It was not just exporting products; it was also buying from the chip maker. By 2022, China had become an important market for Micron, accounting for about a tenth of its annual sales, which is a little over \$3 billion.



Some estimates note that the company has a 25% market share in the country. But its market has taken a hit because of the tit-for-tat trade moves between Washington and Beijing. Most recently, in May, the Cyberspace Administration of China (CAC) banned operators of critical infrastructure in the country from buying Micron products, citing national security risks. Still Micron continues to invest in mainland China. On Friday, it committed to invest \$603 billion in the country.

But the hostility between the U.S. and China is making the memory chip maker rebalance its portfolio in Asia with a \$2.7-billion semiconductor assembly and testing plant in India. To set up a testing and packaging plant in Gujarat, the company will get 50% fiscal support and an additional 20% in the form of incentives from the State government.

The company's investments in India and China, however, pale in comparison to the Megafab facility it plans to build in Clay, New York. It will invest \$100 billion over the next two decades to develop the plant. In the past two decades, Micron's compass moved east as a result of globalisation and cost efficiencies. The next two decades could possibly bring the chip maker back to the West because of national interest.

BIDEN GIFTS MODI FIRST EDITION COLLECTION OF ROBERT FROST'S WORK: THE POET AND HIS CONNECTION WITH INDIA

Among the many gifts received by Prime Minister Narendra Modi during his three-day State visit to the United States of America is an autographed first-edition copy of Collected Poems of Robert Frost, published in 1930 by Henry Holt and Company.

Who was Robert Frost?

The only writer to have been awarded four Pulitzer Prizes (in 1924, 1931, 1937, 1943), Robert Frost was one of the 20th century's most popular poets. Recognised as a poet whose work represented the quintessential American life, his poetry combined elements of romanticism and modernism in theme and style. In a career spanning over five decades, Frost wrote of nature and of the loneliness of the human condition. In an article in *The New Yorker* in September 1994, Nobel laureate Joseph Brodsky wrote, "He is generally regarded as the poet of the countryside, of rural settings — as a folksy, crusty, wisecracking old gentleman farmer, generally of positive disposition. In short, as American as apple pie... He was indeed a quintessential American poet..." Brodsky went on to establish Frost as a contemplative "Virgilian poet", his poetry tempered also by the influences of William Wordsworth and Robert Browning.

Born in San Francisco in 1874, Frost spent a large part of his childhood in New England. He studied at Dartmouth College and Harvard University. His first book of poems, *A Boy's Will*, was published in 1913 in the United Kingdom, where he had moved with his family the year before. It won him instant critical appreciation. In 1914, another volume of poetry, *North of Boston*, came out in the UK, cementing his position as a literary voice of heft. Frost was 40 at the time.

In 1915, in the backdrop of World War I, Frost returned to the US, where he set up a home in New Hampshire and taught at various universities while continuing with his literary career. In essays later collated as *Homage to Robert Frost* (1996), alongside Brodsky, Nobel laureates Seamus Heaney and Derek Walcott paid tribute to Frost's legacy and his impact on their work. As "the icon of Yankee values", wrote Walcott, Frost's poetry was suffused with the "smell of wood smoke, the sparkle of dew, the reality of farmhouse dung, the jocular honesty of an uncle" and presaged the poetic novelty of EE Cummings and William Carlos Williams.



Frost died in 1963 at the age of 88.

His notable works

Generations of students of English Literature would recognise some of Frost's most well-known poems such as Mending Wall (1914), The Road Not Taken (1916) and Stopping by Woods on a Snowy Evening (1923).

Frost won his first Pulitzer Prize in 1924 for New Hampshire: A Poem With Notes and Grace Notes; then for Collected Poems. He won his third Pulitzer for A Further Range in 1937 and, finally, in 1943, for A Witness Tree.

Frost's India connection

The gifting of a first edition collection of Frost's work to the PM may be emblematic of the poet's stature in American literary life, but much before that Frost had found an admirer in India's first Prime Minister Jawaharlal Nehru. Anecdotes of Nehru's friends and close associates mention his particular fondness for the poem, Stopping by Woods on a Snowy Evening. Towards the end of his life, beset by health issues and troubled by the result of the Sino-Indian War (1962), Nehru is said to have kept a copy of Frost's poems by his bedside, with the last stanza of Stopping by Woods... that read, "The woods are lovely, dark and deep,/ But I have promises to keep,/ And miles to go before I sleep, /And miles to go before I sleep" heavily underlined.

Nehru's friend, the poet Harivansh Rai Bachchan, is also known to have rendered the poem in Hindi, Nehru's favourite last stanza translated as "Gahan saghan manmohak van taru mujhko aj bulate hain/ Kintu kiye jo vade maine yaad mujhe woh aate hain/ Abhi kaha aaram badha, yeh muk nimantran chhalta hain/ Arey, abhi to milon mujhko, milon mujhko chalna hai."

HARASSMENT OF WSJ REPORTER IS UNACCEPTABLE, SAYS WHITE HOUSE

The White House on Monday pushed back strongly against those harassing Sabrina Siddiqui, the Wall Street Journal reporter who asked Prime Minister Narendra Modi a question on democratic backsliding in India during a press event on June 22, following Mr. Modi's bilateral meeting with U.S. President Joe Biden.

The White House was aware of the reports of harassment, John Kirby, the U.S. National Security Council's lead for strategic communication, said at a press briefing.

"It's unacceptable, and we absolutely condemn any harassment of journalists anywhere under any circumstances," Mr. Kirby said, adding that it was "antithetical to the very principles of democracy that were on display last week during the state visit".

Ms. Siddiqui was called on by Mr. Biden at a press interaction on June 22 to ask questions. She asked Mr. Modi what steps he was willing to take to protect minority rights, and the rights of Muslims and uphold free speech.

Mr. Modi defended democratic values in India in his response. Ms. Siddiqui was trolled online including about her motives and her heritage following the event.

"Since some have chosen to make a point of my personal background, it feels only right to provide a fuller picture. Sometimes identities are more complex than they seem," Ms. Siddiqui tweeted on



June 24, with photos of herself in an Indian cricket team shirt and another of her (in Team India colours) and her father, watching India win the 2011 Cricket World Cup, as per the photo caption.

White House Press Secretary Karine Jean-Pierre reiterated Mr. Kirby's message. "We're committed to the freedom of the press, which is why we had the press conference last week," the Press Secretary said.

"We certainly condemn any efforts of intimidation or harassment of any journalist that is trying to do their job," Ms. Jean-Pierre said. Ms. Jean-Pierre was asked if Mr. Biden had accepted Mr. Modi's answer to the question on rights in India.

"I think that is for the Prime Minister to answer and for — for all you all to critique or write about it. I'm not going to discuss that from here," she said, adding that the Biden administration was committed to freedom of the press and that was the reason the White House thought it was important that the press hear from not just Mr. Biden but also Mr. Modi.

The Prime Minister rarely takes questions from the press.

People close to the process told The Hindu that it "took a lot of persistence" to get the Indian side to agree to a joint press event with Mr. Modi taking questions. Ms. Jean-Pierre declined to provide details of the conversation between the Prime Minister and the President on human rights and press freedoms in India, saying only that Mr. Biden "will never shy away" from having those questions with another leader.

EXPRESS VIEW ON BJP AND OBAMA: MAKING DELHI LOOK INSECURE

Lectures on democracy, more often than not, invite questions about the gratuitousness and locus standi of the lecturer. During Prime Minister Narendra Modi's visit to Washington, when former US president Barack Obama made alarmed and alarmist remarks in an interview to CNN about India's treatment of its Muslim minority, his timing and tone sounded off-key.

These are times when the American project of exporting democracy around the world seems increasingly shown up by its presumption, and also by the fact that American democracy is beset by its own anxieties. And yet, having said that, the response to Obama's remarks by the Delhi establishment has been uncalled for.

One of the stated achievements of the Modi government has been on the foreign policy front — it claims, with more than some justification, to have upended the traditional diplomatic paradigms and reimagined India's place in the world as a more confident and assertive player. But, surely, confident does not equal prickly.

From Assam Chief Minister Himanta Biswa Sarma putting it crudely in a tweet against "Hussain Obama", to Baijayant Panda, BJP vice-president, endorsing his party colleague's attack on "Barry", to no less than the Union finance minister Nirmala Sitharaman pointing to the bombing of Muslim-dominated nations during the Obama presidency — the BJP and its government appear too quick on the draw.

Incidentally, President Joe Biden, who accorded PM Modi a grand welcome in Washington last week, was part of the same Obama administration that Sitharaman referred so sharply to. More seriously, the wolf warrior diplomacy on display is ill-fitting. While the larger project this new



diplomatic stance is part of has merits — the reclaiming of control over the India story, the signaling that it would now unfold on India’s own terms, could be said to have been overdue.

But assertive diplomacy must also be mature and tamping down the combative impulse can bring more benefits. A case in point is PM Modi’s successful visit to Egypt, after the spectacular US trip — it would not have been possible had Delhi reacted in short-term ways to Egypt’s decision to stay away from the G20 tourism meet in Srinagar in May.

The fact also is that Obama’s concern — about the need for India’s democracy to be more mindful of the protections it affords its largest minority, for the sake of both the minority and the majority — is not new. Others, many others, at home and abroad, have voiced similar concerns. As India readies to play host at the G20 summit in the year of its presidency, it will need to take those questions on board. Rounding on the questioner makes it look less self-assured, not more. Sharp retorts and pointed rebuffs, the kind that have become the trademark of Sitharaman’s colleague S Jaishankar, are effective and smart, but sometimes just listening — without rushing to grandstand — can be smarter.

A GRAND REVIVAL

The decision by India and Egypt to upgrade their ties to a Strategic Partnership during Prime Minister Narendra Modi’s meeting with Egypt President Abdel Fattah El-Sisi is a significant move for India’s ties with the West Asia-North Africa (WANA) region that is long overdue, given their historical ties. The two countries signed a Friendship Treaty in 1955, and India’s support to Egypt, including during the Suez Canal crisis in 1956, eventually led to the Non-Aligned Movement in 1961, with both as founder members. They were also instrumental in the G-77 grouping and “South-South Cooperation” initiatives. During the Cold War, India and Egypt were united over their desire not to become “camp followers” of either the U.S. or the Soviet Union. More recently, their positions on the Ukraine war have been extremely similar — refusing to criticise Russia’s actions but not condoning them either and calling for a diplomatic resolution. Last year, India’s decision to supply wheat to Egypt, one of the world’s biggest importers that was hit by the blockade on exports from Russia and Ukraine last year, before the Black Sea Grain Initiative stepped in, won New Delhi much goodwill in Cairo. The two sides are also pursuing closer cooperation in green energy, pharmaceuticals and defence, with MoUs in agriculture, archaeology and antiquities, and competition law. Mr. Modi’s visit to the Al-Hakim Mosque and meeting with Egypt’s Grand Mufti appeared to be an attempt to dispel misgivings about his government’s policies towards the Muslim world.

President El-Sisi who was India’s Republic Day chief guest this year, conferred Egypt’s highest State Honour, “The Order of The Nile”, on Mr. Modi; it is given to world leaders and those “who offer Egypt or humanity invaluable services”. The two leaders will meet again as Egypt is a “special invitee” to the G-20 Summit in Delhi in September. The leaders appear to have spent much time focusing on multilateral issues, India’s close ties in Egypt’s neighbourhood (especially Israel and Saudi Arabia), food and energy security constraints, and building more cooperation with the Global South including the African Union. In March, Egypt joined the “New Development Bank” set up by BRICS (Brazil-Russia-India-China-South Africa), and is keen to join this grouping that will deliberate new memberships at its Summit in Cape Town this August, where Egypt will seek India’s support. Bolstered by historical ties, and buffeted by present-day geopolitical turmoil, it is clear that India and Egypt are now essaying a closer relationship, one that looks both at future economies and autonomous foreign policies.



HOMEMAKERS ENTITLED TO EQUAL SHARE IN PROPERTIES PURCHASED BY THEIR SPOUSES: HC

Homemakers perform multi-dexterous tasks round the clock without any holiday. They are expected to have managerial skills, culinary penchant and a knowledge of accounts and economics. A woman taking care of a home also performs the role of a doctor by providing basic medical assistance to family members. Therefore, her contributions cannot be discounted as valueless, the Madras High Court has said.

Justice Krishnan Ramasamy has held that a homemaker would be entitled to an equal share in properties purchased by her husband with his earnings, because he could not have earned the money without the support of his wife in looking after the family.

'Joint effort'

"The property may have been purchased either in the name of the husband or wife. Nevertheless, it must be considered to have been purchased with money saved by their joint efforts," he said.

He further said: "When the husband and wife are treated as two wheels of a family cart, then the contribution made by the husband by earning or the wife by looking after the family, would be for the welfare of the family. Both are entitled equally to whatever they earned by their joint effort."

The judge said that a woman could not be left with nothing to call of her own after having devoted herself to taking care of her husband and children.

Second appeal

The verdict was delivered while disposing of a 2016 second appeal filed by an individual against his estranged wife, whom he had married in 1965. The couple had two sons and a daughter and he was working in India till 1982. He had accused his wife of usurping properties purchased with his earnings, and alleged that she had an extramarital affair.

Since the appellant had died during the pendency of the second appeal in the High Court, his children had stepped into his shoes and pursued the property case against their mother.

MANIFESTLY ARBITRARY, CLEARLY UNCONSTITUTIONAL

In 2015, soon after the Aam Aadmi Party won the Delhi Legislative Assembly elections by a significant margin, the central government issued a notification taking control over services in the National Capital Territory (NCT). This sparked an eight-year long legal battle between the Delhi government and the central government, involving four rounds of litigation before the Supreme Court of India. In May 2023, the Court ruled decisively in favour of the Delhi government. However, rather than being the end of the battle, the Court's decision turned out to be only another pit stop. Within days, the central government, acting through the President of India, issued an ordinance amending the Government of National Capital Territory of Delhi Act of 1991. Through this ordinance, the central government sought to undo the Court's judgment: it explicitly deprived the Delhi Legislative Assembly from enacting laws pertaining to services within the NCT, and, instead, set up a parallel body, comprising the Chief Minister and two bureaucrats, who would be responsible for taking service-related decisions with respect to Delhi.



In effect, a case of being handed back

Shorn of legalese, and in effect, the Delhi Services Ordinance takes away the control of services from the elected government of Delhi, and hands it back to the central government. A close look at the ordinance reveals two justifications offered by the central government. At the level of policy, the central government argues that Delhi's status as the national capital requires a "balancing" of interests between the elected Delhi government, and the government at the Centre. At the level of law, it is argued that Article 239AA of the Constitution (which encodes Delhi's "special status") expressly authorises Parliament to pass laws with respect to fields that are normally within the exclusive competence of the States. One of these fields is that of "services".

Both these arguments, however, miss the mark. In particular, they cannot paper over the major constitutional flaw with the Delhi Services Ordinance, i.e., that the ordinance violates and undermines core principles of democracy, representative governance, and a responsive administration.

To understand how, let us begin with first principles. Any functioning modern polity requires the performance of a vast range of daily administrative functions, which must be coordinated at multiple levels. This task is performed by the body that we colloquially call "the Services." While elected representatives are responsible for formulating policy and shaping vision when it comes to crucial issues such as health or education, it is the services that are responsible for implementing both vision and policy, in concrete terms.

Therefore, the question of who the services are responsible to — or, who they answer to — becomes crucial. In other words, whatever policy or vision that elected legislators may formulate, whether this is actually implemented — and what is actually implemented — depends on who the services report to, and who has power over mundane issues such as transfers, postings, and enforcing discipline.

For this reason, the default position has always been that, unless expressly provided otherwise — it is the directly elected government that should have control over services. This ensures that the representatives whom the people elect upon a certain manifesto, actually have the ability to implement the policies and promises on the basis of which they have been elected.

A chain of accountability

In its judgment in May 2023, the Court explicitly recognised this by formulating the concept of the "triple chain of accountability". The triple chain of accountability is integral to representative democracy and proceeds as follows: civil servants are accountable to the cabinet. The cabinet is accountable to the legislature, or the Legislative Assembly. And the Legislative Assembly is (periodically) accountable to the electorate. Any action that severs this "triple chain of accountability" fundamentally undermines the core constitutional principle of representative government, which is at the bedrock of our democracy.

The Court's idea of the "triple chain of accountability" is evident in the constitutional provisions relating to the status of Delhi, and demonstrates why the central government's defence of the ordinance cannot stand. Delhi's "special status" — which flows from it being the capital of the country — is already recognised in Article 239AA, in many distinct ways. For example, Article 239AA explicitly deprives Delhi's Legislative Assembly — and, by extension, the Delhi government — from legislating (or taking executive action) under three fields that are otherwise reserved for the States: public order, land, and the police.



In other words, by not giving to the Delhi government what all other State governments enjoy, Article 239AA already sets out the balance between the interests of representative governance, and national interest in the national capital.

Crucially — and this was a significant factor in the Court’s judgment — Article 239AA does not take away services from the purview and jurisdiction of the Delhi Assembly and the Delhi government. In other words, the very structure of Article 239AA is designed to preserve the triple chain of accountability, where Delhi’s bureaucrats shall be accountable to Delhi’s government, Delhi’s government will be accountable to Delhi’s legislature, and Delhi’s legislature will be accountable to the people of Delhi.

The Delhi Services Ordinance, however, severs this triple chain of accountability by taking away the entire category of services from the jurisdiction of the Delhi government, and, in effect, placing it under the control of the central government.

Now, it is of course true that another feature of the balance that is encoded within Article 239AA is that it grants to Parliament to pass laws, with respect to Delhi, under any of the fields that are otherwise reserved to the States (one of which is “services”). The purpose of this is to maintain a degree of flexibility: while public order, land, and police have been removed from the sphere of the Delhi government entirely, unforeseeable circumstances might arise requiring Parliament to pass specific legislation with respect to other fields as well.

Power over services taken away

The Delhi Services Ordinance, however, does not do that: instead of responding to any specific circumstance, it takes away the Delhi government’s power over services wholesale and in all circumstances. In other words, it tries to take, for the central government, what the Constitution expressly denied: exclusive power over services. Indeed, notably, the ordinance articulates no specific or concrete reason why it has been enacted, other than the need to “balance” interests; this, as we have seen, is illogical, as that balancing has already been achieved within the Constitution.

It can, therefore, be seen that the Delhi Services Ordinance undermines the principles of representative democracy and responsible governance, which are the pillars of our constitutional order. It is also manifestly arbitrary, as it lacks any determining principle that justifies what is, in effect, a wholesale transfer of power from Delhi to the Centre. For these reasons, in the opinion of this writer, it is clearly unconstitutional. It only remains to be seen what the outcome will be when the Supreme Court is approached for the fifth time, to adjudicate this seemingly endless battle.

MISADVENTURE

Tamil Nadu Governor R.N. Ravi appears to be on a mission to demonstrate his tenuous grasp of the Constitution. In an action without precedent — and, as it turns out, without forethought — he sent out a communication to the Tamil Nadu Chief Minister, M.K. Stalin, that he had dismissed V. Senthilbalaji, a State Minister without Portfolio, who is in hospital and in judicial custody. Within hours, on the advice of the Union Home Minister, he again wrote to the Chief Minister that he was holding the order in abeyance and was, instead, seeking the opinion of the Attorney General of India. One would have thought that a Governor expected to abide by constitutional norms would have obtained appropriate legal opinion prior to his drastic action. That Mr. Ravi had to be advised to seek ex post facto legal opinion reflects poorly on his decision-making prowess. His letter says



he was invoking Articles 153, 163 and 164 of the Constitution, which deal with the executive power of the State being vested in the Governor, his acting on the Cabinet's aid and advice, and the appointment of the Chief Minister and other Ministers. The constitutional scheme set out in these articles gives no room for doubt that the Governor has no discretion in the matter of appointing and removing ministers, which is under the Chief Minister's domain.

Mr. Ravi has sought to justify the extraordinary action by referring to the allegations against the Minister and the Supreme Court of India's observations in a recent order. However, any call to remove a Minister is an appeal to moral sense rather than a legal requirement. For the Governor to remove someone unilaterally on the ground that his earlier counsel to drop a Minister went unheeded is nothing but a constitutional misadventure. It will be desirable if Ministers facing charges quit on their own, or they are removed by the respective Chief Ministers. In the past, the framing of charges in the trial court has led to Ministers being removed, but it remains a moral high ground, and not a mandatory feature of the constitutional system. Few would disagree that the charges of bribery that Mr. Senthilbalaji faces, dating back to his stint in the erstwhile All India Anna Dravida Munnetra Kazhagam regime, and allegations of laundering the proceeds are serious enough to merit his stepping down until he is cleared of charges. Mr. Stalin could have acted on his own to avoid facing the charge that he is providing a "shield of office" for the Minister to protect himself or that the Minister's presence in the Cabinet is obstructing the due process of law. But nothing can excuse the Governor's misadventure.

THE 360° UPSC DEBATE: IS UNIFORM CIVIL CODE 'UNNECESSARY AND UNDESIRABLE' OR 'JUSTICE FOR ALL COMMUNITIES'

Recently, Prime Minister Narendra Modi emphasised the crucial need for the implementation of a Uniform Civil Code (UCC) in India. Also the 22nd Law Commission has recently issued a fresh notification on June 14th, seeking to solicit viewpoints from a wide range of stakeholders, including public and religious organisations, on the matter of the Uniform Civil Code (UCC). The Uniform Civil Code (UCC) has sparked a wide range of perspectives and discussions.

WHY THIS DEBATE

Prime Minister Narendra Modi has said the implementation of a Uniform Civil Code (UCC) was imperative for India, citing the impracticality of maintaining a dual legal system that caters to distinct communities. In addition, the 22nd Law Commission released a new notification on June 14, with the aim of gathering perspectives from diverse stakeholders, such as public and religious organisations, regarding the UCC. The UCC elicits diverse perspectives and discussions, primarily owing to its inherent implications for women's rights.

WHAT IS UNIFORM CIVIL CODE (UCC)?

A Uniform Civil Code would provide for one law for the entire country, applicable to all religious communities, in their personal matters such as marriage, divorce, inheritance, adoption, etc. The framers of the Constitution recognised the need for uniform personal laws, but placed it in the Directive Principles of State Policy. Article 44 of the Constitution says that "the State shall endeavour to secure for the citizens a uniform civil code throughout the territory of India".

Article 44 is among the Directive Principles of State Policy. Directive Principles are not enforceable by court, but are supposed to inform and guide governance. Currently, Indian personal law is fairly



complex, with each religion adhering to its own specific laws. Separate laws govern Hindus including Sikhs, Jains and Buddhist, Muslims, Christians, and followers of other religions.

ARGUMENTS FOR UNIFORM CIVIL CODE

“The implementation of a Uniform Civil Code (UCC) will promote the integration of India by establishing a shared platform for diverse communities”

During his address to booth-level workers in the state of Madhya Pradesh, Prime Minister Narendra Modi called for the implementation of the Uniform Civil Code (UCC), saying individuals are attempting to incite others by invoking the concept of a Uniform Civil Code. Expressing his support for the UCC, the PM said the smooth functioning of a family household may be compromised if differential laws or rules are applied to different family members within the same household. “How can a nation effectively operate with such dualistic systems?.” It is imperative to bear in mind that the Indian Constitution also explicitly addresses the notion of equal rights for all citizens.

The Union Government holds the belief that personal laws rooted in religion are a challenge to the unity of the nation. However, it asserts that the implementation of a Uniform Civil Code (UCC) will promote the integration of India by establishing a shared platform for diverse communities.

The Supreme Court, which is in charge of protecting the Constitution, has expressed unhappiness with the fact that there isn't a single set of personal laws for everyone in the country. This has happened several times while dealing with cases about personal laws. In different rulings, like the famous Shah Bano case from 1985, the Supreme Court has asked for the UCC to be in place. In both the Sarla Mudgal case (1995) and the Paulo Coutinho vs. Maria Luiza Valentina Pereira case (2019), it said the same thing.

One of the remarkable judgments was of Mohammad Ahmed Khan v. Shah Bano Begum, a contentious maintenance case, the Supreme Court issued a judgment favouring the maintenance of an aggrieved non-Muslim divorced woman. The Court while delivering the judgment emphasised the need for UCC. The court said that a universal civil code would support the cause of national integration by doing away with different loyalties to legislation that have contradictory philosophies. It is the State that is responsible for the responsibility of the people of the country to obtain a uniform civil code and, undeniably, has the legislative competence to do so. In the Shah Bano case (1985), Justice Y. V. Chandrachud lamented that Article 44 “has remained a dead letter” because there was “no evidence of any official activity for framing a common civil code for the country”. He wanted a beginning to be made in that direction “if the Constitution is to have any meaning”.

In the Kesavananda Bharati case (1973) Chief Justice SM Sikri, even after conceding that “no Court can compel the Government to lay down a uniform civil code”, stated that a UCC “is essentially desirable in the interest of the integrity, and unity of the country”. In January 2023, the Supreme Court upheld the constitutional jurisdiction of states to establish committees to examine the implementation of the Uniform Civil Code. The Uttarakhand government's move to set up such a committee was deemed permissible by the court. In March 2023, the Supreme Court stated that Parliament should decide issues related to the Uniform Civil Code, emphasising that courts should not direct the legislature to enact laws.

According to Kerala Governor Arif Mohammed Khan, the implementation of a Uniform Civil Code (UCC) is a constitutional objective aimed at ensuring equitable justice for all communities. He



further asserts that there is a misrepresentation of the UCC, leading to the construction of an inaccurate narrative surrounding its implementation. The objective of implementing a uniform civil code is to ensure equitable dispensation of justice to women from diverse religious backgrounds, encompassing matters such as marital conflicts and property inheritance disputes. According to a statement attributed to the Kerala Governor, he expressed the view that women in our nation have experienced inequity as a result of varying interpretations of personal laws embraced by different communities. Consequently, he emphasised the necessity of enacting a uniform law that encompasses identical provisions for all communities.

In her article titled “A Code for Gender Justice,” Zakia Soman argues that it would be ideal for India to establish a codified Muslim family law that aligns with progressive interpretations of religious texts and upholds constitutional principles of justice and equality. However, envisioning such a scenario proves challenging due to the prevailing influence of patriarchal rigidity within the mindset of clerics. The Indian Muslim community is governed by the Shariat Application Act of 1937, which lacks provisions regarding important aspects such as consent, the right to meher, the age of marriage, divorce, guardianship and custody of children, women’s inheritance rights, and polygamy. Despite the presence of affirmative provisions in the Quran, these circumstances persist. The Indian Muslim population is purportedly subject to the governance of the Shariat. However, the written version of this information is not readily available. The Shariat as interpreted by Islamic feminist scholars diverges from the conventional understanding and application of the Shariat in India. Several Muslim countries, including Morocco, Tunisia, and Indonesia, have implemented laws that promote gender equality. In itself, a UCC is a good thing.

Zakia Soman, co-founder of the Bharatiya Muslim Mahila Andolan and an advocate for women’s rights, expresses the view that the Shariat Application Act of 1937 is in need of immediate reform. The author additionally asserts that this legislation lacks provisions pertaining to significant elements including the minimum age for marriage, consent, meher (dowry), divorce proceedings, polygamy, child custody and guardianship, as well as women’s entitlement to property. As a result, the practice of child marriages continues to endure. These practises are deemed justified based on the principles of Shari’a law, which stipulates that a girl becomes eligible for marriage upon reaching the age of puberty. The prevalence of polygamy may not be significantly widespread. However, the notion of a husband’s legal right to have four wives is inherently problematic and requires attention in order to maintain the dignity of the wife. Given the current political situation surrounding the UCC, it is imperative to prioritise the pursuit of justice and equality for all Indian citizens, irrespective of their gender and religious affiliations. Undoubtedly, 75 years post-Independence, women and girls in India continue to endure injustice and violence both within the confines of their households and in the wider society. Although the law can serve as a mechanism to tackle specific obstacles, achieving gender justice and equality necessitates a comprehensive social and cultural transformation.

Tahir Mahmood, Professor of Law & Ex-Member, Law Commission of India, writes in one of his articles “How to make a Uniform Civil Code”, that there is nothing wrong in placing the whole nation under a single law of family rights and succession. This must be done in compliance with the constitutional guarantees for equality before the law and equal protection of laws. The provision of the Special Marriage Act relating to prohibited degrees in marriage should be suitably amended, and its 1976 amendment restricting the applicability of the Indian Succession Act must be set aside. The Act, so amended, should be extended to every part of the country. The day this is done, the constitutional promise of a “uniform civil code for the citizens throughout the territory of India” will stand duly fulfilled.



ARGUMENTS AGAINST UNIFORM CIVIL CODE

“The Uniform Civil Code may potentially enforce a code that is influenced by Hindu practices in all communities”

According to constitutional experts, a primary contention against the implementation of the Uniform Civil Code is its perceived infringement upon the constitutional right to freely exercise one’s chosen religion. This right enables religious communities to adhere to their respective personal laws. An illustration of this can be found in Article 25, which grants each religious collective the entitlement to autonomously administer its internal matters, while Article 29 safeguards their prerogative to preserve their unique cultural heritage. Furthermore, a contention is made regarding the inconsistency of applying the principle of ‘one nation, one law’ to personal laws of communities, given that codified civil laws and criminal laws, such as the Code of Criminal Procedure (CrPC) and the Indian Penal Code (IPC, do not adhere to this principle. The variation in the law of anticipatory bail is evident across different states.

According to experts, there is a contention that the Uniform Civil Code may potentially enforce a code that is influenced by Hindu practices in all communities. An instance of a Uniform Civil Code could encompass clauses pertaining to familial conflicts regarding the inheritance of property, which may align with Hindu traditions and impose legal obligations on other communities to adhere to these provisions.

According to the 21st Law Commission, led by former Supreme Court judge Balbir Singh Chauhan, the evaluation of the “Reform of Family Law” suggests that the development of a Uniform Civil Code is presently deemed unnecessary and not recommended. The Commission expressed the viewpoint that the presence of disparities does not necessarily indicate discriminatory practices, but rather serves as an indication of a strong and vibrant democratic system. It has been observed that a growing number of nations are shifting their focus towards acknowledging and accommodating differences instead of relying on legal frameworks that promote uniformity among culturally diverse populations. This shift is driven by the recognition that such uniform provisions tend to be unjust towards marginalised and vulnerable groups.

The 21st Law Commission emphasised the importance of reforming family laws across various religions to ensure gender equity, rather than solely focusing on the enactment of a Uniform Civil Code (UCC). The discussion focused on the consistency of rights rather than legislation. The consultation paper released by the Commission placed significant emphasis on the importance of ensuring that the celebration of diversity does not lead to any form of disadvantage for particular groups. It specifically highlighted the necessity of guaranteeing women the freedom to practise their faith without compromising their right to equality. The paper subsequently proposed a set of reforms concerning the personal laws of various religions, as well as the secular laws that result in the marginalisation of women and children. Therefore, the recommendations pertaining to the economic rights of women were deemed the most consequential among those put forth by the 21st Law Commission. The Law Commission expressed its support for achieving “equality within communities” between men and women, as opposed to pursuing “equality between” communities, in its ‘Consultation Paper on Family Law Reforms’.

According to Faizan Mustafa, an expert in the fields of constitutional law, criminal law, human rights, and personal laws in India, it would be incorrect to make the assumption that India possesses distinct personal laws solely due to its religious diversity. Indeed, it is evident that legal regulations exhibit variations across different states. According to the Constitution, the authority



to enact legislation pertaining to personal laws is vested in both the Parliament and state Assemblies. The inclusion of personal law in the Concurrent List (entry No. 5) appears to be motivated by the desire to maintain legal diversity. If the primary concern had been the establishment of uniformity in laws, personal laws would have been incorporated into the Union List, granting exclusive jurisdiction to Parliament for enacting laws pertaining to these matters.

Faizan Mustafa emphasised the importance of considering the 21st Law Commission's recommendation in light of India's diverse and multicultural society. He argued that the proposed Uniform Civil Code (UCC) should reflect India's "mosaic model" of multiculturalism. The inherent reasoning is consistently evident that the process of assimilating diverse identities should not be misconstrued as an illusion, as it has consistently been a distinctive characteristic of the American approach to multiculturalism. Ultimately, the significance of unity surpasses that of uniformity. The British colonial administration sought to promote homogeneity among Hindus and Muslims by significantly diminishing the existing heterogeneity within these religious communities.

In the year 2016, the Rashtriya Adivasi Ekta Parishad, an organisation purporting to advocate the interests of the Adivasi community and representing a population of approximately 110 million tribal individuals, initiated legal proceedings in the Supreme Court with the objective of safeguarding their cultural traditions and religious practises. This included the preservation of their rights to engage in polygamy and polyandry, matters that would potentially fall under the purview of a Uniform Civil Code. According to the Parishad, the Adivasis possess distinct personal laws and are not classified as Hindus due to their practice of nature worship instead of idol worship and their observance of burial rituals for the deceased. It has been argued that the marriage and death rituals observed by tribal communities differ from Hindu customs, and there is concern that these practices may also face prohibition.

UNIFORM CIVIL CODE- IT SHOULD REMAIN VOLUNTARY

"It is imperative to ensure that certain groups or marginalised segments of society are not subjected to disadvantageous treatment during this endeavour"

During the formulation of the Constitution, Dr B R Ambedkar expressed the view that a Uniform Civil Code was a desirable objective. However, he recommended that, at that time, its implementation should be voluntary. Consequently, Article 35 was incorporated as part of the Directive Principles of State Policy in Part IV of the Indian Constitution, specifically as Article 44. The inclusion of the Uniform Civil Code (UCC) in the Constitution was predicated upon the condition that it would be implemented at a time when the nation was deemed prepared to embrace it, and when there was sufficient social acceptance for its adoption. During his address to the Constituent Assembly, Ambedkar expressed that there was no need for concern regarding the potential misuse of state power. He emphasised that the state would not hastily employ its authority in a manner that could be deemed objectionable by various religious communities, including Muslims, Christians, or any other community. In my opinion, the implementation of such a policy by the government would be highly irrational.

In her column titled "Common code conversations," Bina Agarwal, a professor of Development Economics at the University of Manchester, raises the question of how a Code would be defined. For instance, what is the specific aspect of uniformity being referred to? The current legal framework encompasses various aspects of personal matters, such as marriage, inheritance, adoption, and guardianship, which are subject to variation based on religious and regional factors. Will the consolidation of these dimensions into a single Code be pursued, or will each dimension



continue to be addressed separately, as is the case with existing laws? In both scenarios, which principles will govern the attainment of uniformity? Will the process entail selectively selecting characteristics from disparate personal laws, opting for a singular set of pre-existing personal laws, or establishing an entirely novel set of laws? A crucial consideration is whether the UCC will exhibit a secular nature and ensure gender equality in all aspects.

Prominent scholars in the field of multiculturalism, such as Rochana Bajpai, argue that the Indian Constitution presents two primary approaches in relation to the incorporation of diversity: integrationist and restricted multiculturalism. The affirmative action policies predominantly align with the perspective of the first approach. However, Bajpai views state assistance to minority cultures as an illegitimate concession, often referred to as “appeasement of minorities.”

The 21st Law Commission exhibited a strong inclination towards prioritising gender equality within communities, as opposed to pursuing equality between communities. In accordance with paragraph 1.15 of its comprehensive 182-page report titled “Consultation Paper on Reform of Family Law,” the commission acknowledged that although the diversity of Indian culture is worthy of appreciation, it is imperative to ensure that certain groups or marginalised segments of society are not subjected to disadvantageous treatment during this endeavour. The resolution of this conflict does not entail the complete elimination of all differences. The Commission has thus addressed legislation that exhibits discriminatory characteristics, rather than advocating for the implementation of a uniform civil code, which is deemed unnecessary and undesirable at this particular juncture. Many nations are currently transitioning towards acknowledging and accepting diversity. It is important to note that the mere presence of diversity does not necessarily indicate discrimination, but rather signifies a thriving democratic society.

JHARKHAND TRIBAL BODIES TO URGE LAW PANEL TO DROP UCC PLAN

Representatives of more than 30 tribal bodies in Jharkhand gathered in Ranchi under the banner of Adivasi Samanwai Samiti (ASS) to discuss the Uniform Civil Code (UCC) on Sunday and resolved that the UCC might dilute tribal customary laws and rights.

The tribal bodies have decided to urge the Law Commission to withdraw UCC as it may put their identity in danger. They also decided to launch a protest against the fresh consultation on the UCC by the Law Commission.

“In the meeting, we have decided to write to the Law Commission,” ASS member Dev Kumar Dhan said. The tribal bodies would stage a demonstration against the UCC near Raj Bhavan on July 5 and submit a memorandum to the Governor.

Former Bihar legislator Devendra Nath Champia said, on the basis of the Constitution, the 5th Schedule is applicable in the Scheduled Areas. “Common law is not applicable there and that is why tribals have not been included in the Indian Succession Act and Hindu Marriage Act,” he said.

UCC to dilute Constitutional provisions: Naga church body

As the Law Commission sought views of stakeholders on the need for a Uniform Civil Code, a church body and a tribal organisation of Nagaland asserted that its implementation will violate fundamental rights of minorities and tribals.



EXPRESS VIEW ON RWAS AND PREJUDICE: PETTINESS OF POWER

Lord Acton was right when he said that “power corrupts”. He forgot to add, though, that petty power corrupts more absolutely. But then, the British peer did not have to live in a housing society in 21st-century India, under the often small-minded tyranny of a Residents’ Welfare Association (RWA).

A housing society in Bengaluru has barred maids from using common areas, for reasons that are now all too familiar in the country’s metropolitan landscape. The RWA reportedly ordered: “It is difficult to see them hang out everywhere in the park, amphitheatre, gazebos.

Residents can feel uncomfortable when being surrounded by maids everywhere we walk.” Apart from elitist and entitled upper-class discomfort at workers being “everywhere”, the notice cites the all-too-familiar bogey of “security” vis a vis the poor. The notice, like so many others in housing societies, smacks of casteism, class prejudice, etc.

Those chosen to run administrations can reflect either the worst or the best in their constituents. Which way this pendulum swings depends on who the powers that be report to. In constitutionally-mandated elections – from panchayats to Parliament – every citizen has a right to be heard, and in the system’s best version, their concerns and problems become a part of democratic negotiation.

Not so in the RWAs. Here, residents (and sometimes, only homeowners) are the ones with a voice. Their prejudices and bigotries masquerade as concerns for “security” and “hygiene”. And the part-time politicians of the RWA impose their will on those who do not have the means to object. The ones that can – the “open-minded” residents – are perhaps fighting the good fight. More likely, though, they are only busy composing outrage tweets.

EXPRESS VIEW ON MANIPUR AND MIZORAM: A CRY FOR HELP

The crisis in Manipur has a fallout in the neighbouring state of Mizoram. At least 12,000 people have crossed over from Manipur to Mizoram to escape the ethnic violence that has wreaked havoc since May. About 3,000 are lodged in camps while the rest are living with relatives and friends. Mizoram has already offered shelter to a large number of people who fled Myanmar after the 2021 military coup. The state administration has said that the Centre is ignoring its pleas for funds to provide relief to the displaced people and that it is now running short of resources. There are costs involved in providing relief such as extending educational facilities to children from displaced families — 1,500 students have been admitted to local schools so far, according to the state government. It’s time the Centre addressed Aizawl’s cry for help.

Mizoram shares borders with both Manipur and Myanmar. Residents of Mizoram have kinship ties with the Chin people in Myanmar and the Kukis in Manipur. In fact, ethnic bonds predate the formation of national citizenship and regional identities, which explains the movement of people across borders, international and state, in times of strife. Shared religious faith is also a factor, though less pronounced than ethnic identity. While the Union Ministry of Home Affairs has asked state governments to maintain vigil at the international borders, Mizoram, in particular, has seen a steady stream of people coming in from Myanmar. The state government, civil society groups such as the Young Mizo Association and church groups have been in the forefront of providing relief. Mizoram also hosts a large Chakma population that has fled persecution in Bangladesh, though the Mizos share a tense relationship with the mostly Buddhist Chakmas. The influx of



people from the Kuki-Zomi homeland in Manipur to Mizoram is influenced by the same reasons that drew in refugees from the Chin state in Myanmar. Any policy prescription will have to be framed after factoring in the complicated history of state formation in the region.

The Centre, preoccupied with finding a political solution to the ethnic strife in Manipur, needs to give more consideration to the plight of internally displaced persons. It could start with providing funds, food and other relief material to Aizawl, which seems overstretched. The hospitality that Mizoram has generously extended to fellow Indians in distress as well as those on the run from the Tatmadaw junta in Myanmar, should not be allowed to become a burden that the state shoulders alone.

WHO ARE MEIRA PAIBIS, MANIPUR'S 'TORCH-BEARING' WOMEN ACTIVISTS

Manipur Chief Minister N Biren Singh was expected to meet the state's Governor Anusuiya Uikey on Friday afternoon (June 30) amid speculations that he will be resigning from his post. Hundreds of women gathered near Singh's residence in Imphal and formed a human chain, saying that they did not want him to resign.

"All the mothers of Manipur are gathering here because they are not happy with the CM's decision. As a son of the soil, he should take responsibility and protect the people. If he resigns, President's Rule will be inevitable, which is not acceptable," said Sarojini Leima, one of the women gathered there.

The visible presence of women at protests is a phenomenon that is often witnessed in the state. In an earlier video posted on Twitter on Monday (June 26), the Spear Corps of the Indian Army had accused women activists in Manipur of "deliberately blocking routes and interfering in Operations of Security Forces" as the state struggled to contain the weeklong waves of rioting and unrest.

Since the beginning of May, violence has erupted mainly between the valley-dwelling majority Meiteis and hills-dwelling Kuki-Zomi groups after the old Meitei demand for inclusion in the list of Scheduled Tribes (STs) escalated dramatically.

The Army video, which contained clips from Imphal East district, said women protesters were "helping rioters flee", including "accompanying armed rioters" in their vehicles, and using even ambulances. It showed day- and night-time clips of groups of women protesters on the streets, confronting the security forces, and interfering in the "movement of logistics".

The video said "entry/exit route to Assam Rifles base" had been "dug up to cause delay", and warned that "blocking movement of security forces is not only unlawful but also detrimental to their efforts towards restoring law and order".

Who are the Meira Paibis of Manipur?

The videos do not identify the women they show, but civil society action in Manipur has long had a significant presence of activist women. The most visible organised face of such actions have been the Meira Paibis or "women torch bearers", so called because of the flaming torches that they hold aloft while marching in the streets, often at night.

The Meira Paibis, also known as Imas or Mothers of Manipur, are Meitei women who come from all sections of society in the Imphal valley, are widely respected, and represent a powerful moral



force. The Meira Paibis are loosely organised, usually led by groups of senior women, but have no rigid hierarchy or structure, or any overt political leanings.

They may become more visible during certain times, but their presence and importance in Manipuri civil society are permanent and palpable, and their role as society's conscience keepers is widely acknowledged.

During his recent visit to Manipur as violence raged in the state, Home Minister Amit Shah met with the Meira Paibis as part of his meetings with various civil society groups.

What social role do the Meira Paibis play?

"The Meira Paibi was formed in 1977. One of the largest grassroots movements in the world, its initial focus of fighting alcoholism and drug abuse has now expanded to countering human rights violations and the development of society at large," Lt Gen D S Hooda, former Northern Army Commander, had written in The Indian Express earlier.

Over the decades, the Meira Paibis have led numerous social and political movements in the state, including some powerful protests against alleged atrocities by Indian security forces, leveraging their strong position in society in the interest of the causes they have espoused.

What are some of the major actions undertaken by these women?

* The Meira Paibi women were the active support base of Irom Sharmila, the activist who remained on a hunger strike in the state from 2000 to 2016 to protest against the Armed Forces Special Powers Act (AFSPA), which gives the armed forces immunity against action in "disturbed" areas. Protesters such as Sharmila have long criticised the Act as a vehicle for overreach by the state.

* In 2015, the state saw tensions over demands for the Inner Line Permit (ILP) system to be introduced there, requiring outsiders to obtain a permit to enter. Protesters contended that this was necessary in order to protect local interests, culture, and commercial opportunities available to them. The Meira Paibis played an active role to ensure bandhs and shutdown calls in the markets.

* Two years later, the Meira Paibis were part of a bandh called in the Thangmeiband Assembly constituency in Manipur after the first BJP-led government came to power. After first-time MLA Heikham Dingo Singh was accused of going back on his promise to marry a woman, the woman approached the Meira Paibis in her locality. The women stormed into Sekmai town and stood in front of the MLA's gates. After they were turned away by the Meira Paibis of Sekmai, "The women leaders...came back to Thangmeiband and still seething with anger, called a bandh demanding that the two lovers be brought together," The Indian Express reported at the time.

* The Meira Paibis have been reported to play a role in the current crisis as well. The armed forces recently apprehended 12 KYKL cadres with arms, ammunition and war-like stores during an operation in Itham village in Imphal East, but were forced to release the men, reportedly after pressure from women activists who confronted the security personnel.



EXPLORING ASSAM'S DELIMITATION DRAFT

The story so far:

On June 20, the Election Commission (EC) released a draft proposal on the delimitation of the Assembly and Lok Sabha constituencies in Assam. The number of Assembly and Parliamentary seats remains unchanged at 126 and 14 but many constituencies were proposed to be reshaped and the number of reserved seats has been increased. This has led to a churning among various organisations and political parties, including the Bharatiya Janata Party (BJP) and its allies, with the fortunes of many MLAs likely to be affected.

How did the delimitation exercise come about?

Delimitation is the process of redrawing boundaries of Lok Sabha and State Assembly constituencies based on a recent Census to ensure each seat has an almost equal number of voters. It is ideally carried out every few years after a Census by an independent Delimitation Commission formed under the provisions of the Delimitation Commission Act. Such panels were set up in 1952, 1962, and 1972 before the exercise was suspended in 1976 due to the family planning programme. Before the exercise of the next panel could be completed in 2008, the delimitation of Arunachal Pradesh, Assam, Jammu and Kashmir, Manipur, and Nagaland was deferred due to "security risks" through presidential orders. In the case of Assam, many entities including the BJP wanted the delimitation done only after the National Register of Citizens (NRC) was updated to weed out "illegal immigrants". The Centre reconstituted the Delimitation Commission for the four north-eastern States and the Union Territory of Jammu and Kashmir on March 6, 2020. The EC notified the initiation of Assam's delimitation on December 27, 2022, following which four districts were re-merged with the ones they were carved out of.

How would the proposal pan out?

If the draft is accepted, 24 Assembly seats would be reshaped and renamed while the number of reserved seats for the Scheduled Tribes (ST) and Scheduled Castes (SC) would be increased from 16 to 19 and eight to nine respectively. The reserved seats would also be juggled – six each for the SCs and STs would become unreserved while nine ST and seven SC general seats would become reserved. The number of reserved Lok Sabha seats (two ST, one SC) would remain the same but Silchar would become reserved for SCs in place of Karimganj. The draft has erased the seats of Assembly Speaker Biswajit Daimary (Panery), ministers like Chandra Mohan Patowary (Dharmapur), and Parimal Suklabaidya (Dholai), ally Asom Gana Parishad MLAs Ramendra Narayan Kalita (West Guwahati) and Pradip Hazarika (Amguri), Congress MLAs Bharat Narah (Naoboicha), Sherman Ali Ahmed (Baghbar), and Rekitabuddin Ahmed (Chaygaon), and All India United Democratic Front's Aminul Islam (Dhing) and Rafikul Islam (Sarukhetri). Among the parliamentarians whose seats would have a different name and shape are Gaurav Gogoi of Congress (Kaliabor to Kaziranga) and the BJP's Dilip Saikia (Mangaldoi to Darrang). Altogether, 39 MLAs and five MPs would lose their seats.

Why are many opposed to the proposal?

There have been protests across Assam since the EC announced the draft proposal. Ethnic groups such as the Ahoms are disappointed with the number of Assembly seats reduced from eastern Assam and increased in western Assam. Raijor Dal MLA Akhil Gogoi has questioned the EC for citing Section 8A of the Representation of the People Act, 1950, to initiate the delimitation exercise. Section 8A only allows the reorientation of seats without any change in the total number.

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



The use of the 2001 Census data has also raised hackles; Congress and AIUDF sniffed a sinister design especially after the EC used the 2011 Census for completing the exercise in Jammu and Kashmir, where the number of seats increased. AIUDF's Badruddin Ajmal said Assam's delimitation could have been carried out along with the rest of the country in 2026, instead of rushing it through ahead of the 2024 Lok Sabha polls. "Some seats have been reshaped to scatter the Muslims voters to ensure their representation in the Assembly and Parliament reduces," he alleged. Other parties said delimitation should have waited for the exercise to update the NRC, to be completed. Meanwhile, people across the Bodoland Territorial Region are happy with the proposed increase of Assembly seats there from 16 to 19.

Can there be further changes?

The EC said the proposal was based on suggestions from 11 political parties and 71 other organisations although Congress skipped a meeting with the election panel team that visited Assam a few months ago. The EC has sought "suggestions and omissions" by July before visiting the State again for meeting various stakeholders. The AIUDF has threatened to go to court if the draft is accepted. The insistence of Assam Chief Minister Himanta Biswa Sarma, whose Assembly seat Jalukbari would also be affected by the delimitation, to safeguard the rights of the indigenous people in view of "demographic changes" indicates that there may not be significant changes. He also advised political leaders not to worry about losing out if more seats are reserved for the SCs and STs in the "greater interest of the State".

GOD'S OWN PUBLISHER

On June 18, a jury headed by Prime Minister Narendra Modi announced to confer the Gorakhpur-based Gita Press with the Gandhi Peace Prize for 2021 for its "outstanding contribution towards social, economic and political transformation through non-violent and other Gandhian methods". The press, established in 1923 by Jaya Dayal Goyanka and Ghanshyam Das Jalan, two Marwari businessmen, has become a household name in most of the Hindi heartland with its low-priced, popular Hindu religious texts. It now claims to be the world's largest publisher of Hindu religious texts with an objective to "promote and spread the principles of Sanatana Dharma, the Hindu religion among the general public". The Gita Press publications can be found in most bus stops and public places across North India.

The publisher which started its journey a century ago at a ₹10 rented accommodation in Gorakhpur, a small-town in Eastern U.P. famous for the Gorakhnath Math, whose Mahanth is U.P. Chief Minister Yogi Adityanath, has now evolved into a giant institution with a wide variety of publications. The idea of the Press was sown years back in the early 1900s, when Jay Dayal Goyandka, who was travelling across north Indian towns for business purposes, formed groups of friends to discuss religious texts. Goyandka, a trader of textiles and cotton, failed to get any authentic translation of the Gita for discussion. After his attempt to get the text published by an external publisher failed, Goyandka decided to start his own publishing house with the support of fellow businessmen. Ghanshyam Das Jalan, informed him that in Gorakhpur, it could be initiated as it's a religious place along with concentration of the Marwari business class.

Gita Press now claims to have published more than 910 million copies of 1,800 different religious and spiritual books and other materials in 15 languages since its inception. At least 70,000 books are printed every day at its modern printing press. The Press has printed more than 162.1 million copies of Shrimad Bhagwat Gita and 26.8 million copies of Puranas and Upanishads so far. More than 41% of its publications are in Hindi, while 5% make up English books. It has published 729



different Hindu religious and spiritual texts in Hindi, 78 in Tamil and 131 in Bangla. Similarly, the Gita Press prints 88 religious texts in English, 164 in Telugu, 98 in Oriya and 44 in Nepali.

The books published apart from the popular ones such as Shrimad Bhagvad Gita include Ramcharitmanas, Literature of Soordas, Literature of Tulsidas and children's books. The press printed more than 24 million copies of various texts, including Kalyan, a monthly magazine containing topics of devotion, dharma, detachment and spirituality, in 2022-23, worth ₹111 crore.

The Gita Press building's entrance takes inspiration from renowned ancient temple architecture: the pillars of the entrance, for example, are inspired by the pillars of the famous cave-temple of Ellora, Maharashtra. The entrance of the building, where 450-odd employees of Gita Press work, was inaugurated by Dr. Rajendra Prasad, India's first President, in 1955.

In the contemporary age of Internet revolution, the Press is aiming for a major expansion, aided by tech, by making available Gita, Ramayana, discourses of eminent Hindu saints, Upanishads, Puranas and other religious books and magazines online, many free of cost.

"A mobile application of the Geeta Press will be ready very soon, from where people can download books and also order them," said Devi Dayal Agarwal, one of the 11 Trustees of the society which manages the institution. The publisher also aims to provide free downloading of 500 different books and manuscripts through its website.

According to its website, "the institution neither solicits donations nor accepts advertisements in its publications.

The deficit is met by the surplus from other departments of the society which render services at reasonable cost, in accordance with the objects of the society."

The Press sees a huge demand for its offering and is struggling to meet it. "There is religious awakening among the people since 2014 and they want to learn and read more spiritual and Sanatana texts," added Mr. Agarwal, hinting at the political change in India that saw the BJP coming to power in the year. "The Press is able to meet only 60-70% of the demand."

'Political agenda'

Hours after the award for Gita Press was announced, Congress Rajya Sabha member and general secretary in-charge of communications, Jairam Ramesh, said, "The Gandhi Peace Prize for 2021 has been conferred on the Gita Press at Gorakhpur which is celebrating its centenary this year. There is a very fine biography from 2015 of this organisation by Akshaya Mukul in which he unearths the stormy relations it had with the Mahatma and the running battles it carried on with him on his political, religious and social agenda. The decision is really a travesty and is like awarding Savarkar and Godse." Mr. Ramesh also shared the cover page of Gita Press and the Making of Hindu India, written by Akshaya Mukul.

"We never comment on such statements," said Mr. Agarwal, referring to the criticism. "Why those people are commenting like this. They don't know anything about Gita Press," he added.

But the Press had its share of controversies. According to Mr. Mukul's book, Hanuman Prasad Poddar, one of the former editors of Kalyan, the Gita Press magazine, was among the key organisers of the Hindu Mahasabha's annual convention in Gorakhpur in 1946 and was briefly in trouble after the assassination of Mahatma Gandhi on January 30, 1948 by Nathuram Vinayak Godse due to his alleged association with the then banned right-wing organisations.



Local support

In Gorakhpur, the city whose name has been associated with the Gita Press, the locals, irrespective of their ideological and political affiliations, largely support the publication, calling the prize it won a proud moment for the city.

“It is a proud moment for every person of Gorakhpur as the Gita Press gained national and international recognition. It is not the time for criticism,” said Rakesh Yadav, a former district chief of the Congress in Gorakhpur. Similar sentiments were shared by many locals, including the Samajwadi Party (SP) district president, Brajesh Kumar Gautam. People in the city are aware of the fact that wherever they go, by trains or buses, Gita Press books would be there. For them, “the institution that is contributing to Hindu religion”, is also bringing goodwill to Gorakhpur.

23 VANDE BHARAT TRAINS ON TRACKS, BUT THEY FAIL TO LIVE UP TO THE PROMISE OF SPEED

Prime Minister Narendra Modi flagged off five more Vande Bharat Express trains from Bhopal in Madhya Pradesh, taking the total number of such trains in operation to 23. While they are designed to run at a speed of 110 kmph to 130 kmph, the average running speed ranges between 63 kmph and 96 kmph.

With even the newly launched routes adopting the same pattern, the Vande Bharat journey is proving to be much longer than it has to be.

Mr. Modi flagged off trains between Bhopal and Jabalpur, Bhopal and Indore, Goa and Mumbai, Ranchi and Patna and Dharwad and Bengaluru.

Information accessed by The Hindu revealed that the average speed of Vande Bharat Express on the Ranchi-Patna route is not more than 63 kmph. A rail distance of 379 km between Ranchi and Patna is currently traversed in six hours. However, if the train were to run at its full potential, the travel time can be reduced by half to three hours. Similarly, on the Mumbai-Shirdi route, the average speed is 64 kmph and the travel time is 5.25 hours. At a maximum speed of 110 kmph, the trip time could be shorter by two hours.

Lower speed is also causing journeys on certain rail routes to go beyond seven to eight hours. Take for instance the 662-km journey from Secunderabad to Tirupati in Andhra Pradesh, which at an average running speed of 80 kmph takes 8.15 hours. “An eight-hour journey should be a sleeper one instead of a chair car one. I will prefer the 10 p.m. or 11 p.m. to 6 a.m. to 7 a.m. journey if I have a choice,” tweeted Chinmay Agarwal, a rail enthusiast.

Of the 23 Vande Bharat trains, the New Delhi-Varanasi train is the fastest, running at an average speed of 96 kmph (the maximum speed is 130 kmph) and covers 759 km in eight hours.

VIKRAM, PRAGYAN TO RETURN FOR ANOTHER TRYST WITH THE MOON

India’s third moon exploration mission, slated for a mid-July launch, will share the names associated with the 2019 Chandrayaan-2 lunar adventure.

The Indian Space Research Organisation (ISRO) plans to retain the names of the Chandrayaan-2 lander and rover for their Chandrayaan-3 equivalents as well, ISRO Chairman S. Somanath told



The Hindu. This means, the Chandrayaan-3 lander will bear the name Vikram (after Vikram Sarabhai, the father of the Indian space programme) and the rover, Pragyan.

Much to its disappointment, the ISRO had lost the Chandrayaan-2 lander-rover configuration and the payloads aboard after Vikram crashed on the lunar surface while attempting a soft landing. Earlier this month, Mr. Somanath announced ISRO's plans to launch the third moon mission in mid-July aboard the LVM3 (formerly GSLV Mk-III) rocket from Sriharikota. A propulsion module will carry the lander-rover configuration to a 100-km lunar orbit. Once the Vikram lander module makes it safely to the moon, it will deploy Pragyan, "which will carry out in-situ chemical analysis of the lunar surface during the course of its mobility", the ISRO said.

Scientific experiments

The lander, rover and the propulsion module will have payloads for performing experiments designed to give scientists new insights into the characteristics of earth's lone natural satellite. The lander will have four payloads — Radio Anatomy of Moon Bound Hypersensitive Ionosphere and Atmosphere (RAMBHA), Chandra's Surface Thermo physical Experiment (ChaSTE), Instrument for Lunar Seismic Activity (ILSA) and the LASER Retroreflector Array (LRA).

The six-wheeled rover will have two payloads — the Alpha Particle X-ray Spectrometer (APXS) and the LASER Induced Breakdown Spectroscope (LIBS). In addition to these, there will be one payload on the propulsion module, the Spectro-polarimetry of HABitable Planet Earth (SHAPE).

NEW ART REGULATIONS PUSH UP COST OF TREATMENT, LIMIT CONCEPTION OPPORTUNITIES

The Health Ministry had notified the Assisted Reproductive Technology Regulations (ART), 2023, which are aimed at providing donors and patients with better medical care and security earlier this year. But the new provisions have pushed up the already sky-high medical costs and are proving to be a challenge for treating doctors and couples wanting to have children through ART because of the restricted and limited resource availability in terms of donors, according to industry insiders.

New provisions

The new ART provisions impose restrictions on the number of times a donor, male or female, can donate (sperm/oocyte) in their lifetime, and specifies age limits for donors.

The provision states that an oocyte donor should be a person who have been married at least once in their lives and have at least one living child of her own (minimum three years of age). She can donate oocyte only once in her lifetime and not more than seven oocytes can be retrieved.

Also, an ART bank cannot supply gamete (reproductive cell) of a single donor to more than one commissioning couple (couple seeking services).

Additionally, parties seeking ART services will be required to provide insurance coverage in the favour of the oocyte donor (for any loss, damage, or death of the donor). A clinic is prohibited from offering to provide a child of pre-determined sex. Also checking for genetic diseases before the embryo implantation is needed.



While welcoming the safety measures and transparency the new provisions bring, Archana Dhawan Bajaj, gynaecologist, Nurture IVF, said that the restrictions significantly limit the opportunities for ART couples to find suitable donors.

Overall, the new ART laws are restricting the number of donation attempts. “They have the potential to increase costs and create challenges for couples relying on assisted reproductive techniques,” Dr. Bajaj said.

India, much like the rest of the world, is facing a dip in fertility rates and further limiting available donors is likely to bring in more challenges, experts say.

GOVT. EXTENDS DEADLINE FOR AADHAAR-BASED PAYMENTS FORM GNREGS TO AUGUST 31

The Union Rural Development Ministry has extended the deadline for mandatory payments of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) via the Aadhaar-based Payments System (ABPS) to August 31.

The Ministry announced this on social media, though it did not share the order in public. This is the fourth time it is extending the deadline, since the State governments have complained that reconciling the differences in Aadhaar data and the job card details of the beneficiaries is taking some time. The first order was issued on January 30, setting the deadline for February 1; it was later extended to March 31 and then to June 30.

According to a press release by the Ministry on June 3, Aadhaar has been seeded for 13.75 crore out of the total 14.28 crore active beneficiaries.

Of this, 12.17 crore Aadhaar numbers have been authenticated and 77.81% are already eligible for ABPS. In May, 88% of the wage payment was through ABPS.

The Hindu, in a report on June 25, highlighted that this pressure to use ABPS had led to a high deletion rate of job cards with several beneficiaries excluded because of a mismatch between their Aadhaar and job card details.

The NREGA payment system allowed for two modes of wage payments — account-based and Aadhaar-based. The former is plain bank transfer while the latter uses Aadhaar as a financial address and sends money to the person’s “last Aadhaar-linked account”. For this to work, the worker’s job card and bank account must be seeded with Aadhaar and the account should also be connected to the National Payments Corporation of India (NPCI) mapper.

“The ABPS is a horrendously complex system that has created a new generation of payment problems such as unresolved rejections, diverted and/or blocked payments,” economist Jean Dreze had said in a note that he submitted during a meeting with the Ministry of Rural Development on this issue on May 2.

REGISTRATION OF BIRTH, DEATH BY AADHAAR AUTHENTICATION ALLOWED

A Gazette notification published on Tuesday said the Ministry of Electronics and Information Technology (MEiTY) has allowed the RGI office to use the Aadhaar database for authenticating the identity details provided during registration of births and deaths.



It said the Registrar “shall be allowed to perform Yes or No Aadhaar authentication, on voluntary basis, for verification of Aadhaar number being collected along with other details as sought in the reporting forms of births or deaths, as the case may be, for the purpose of establishing the identity of child, parent and the informant in case of births, and of the parent, spouse and the informant in case of deaths during registration of births or deaths.”

The State governments and Union Territories shall adhere to the guidelines with respect to the use of Aadhaar authentication as laid down by the Ministry.

Rules notified

In 2020, it notified rules stating that the Centre may allow Aadhaar authentication by requesting entities, in the interest of good governance, prevention of leakage of public funds and to promote ease of living.

The Ministry or States desirous of utilising Aadhaar authentication shall prepare a proposal to justify such authentication and submit it to the Centre for making a reference to the Unique Identification Authority of India (UIDAI).

EXPRESS VIEW ON QS RANKING: BREAKING THROUGH

IIT-Bombay should be commended on becoming the second Indian institution after IISc-Bangalore to crack the top 150 in the QS World University Ranking. The institute was placed 149 in the latest edition of the rankings released on Tuesday. In the past five years, IIT-B has done consistently well on two crucial yardsticks of academic excellence — the research output of its faculty and the reputation the institute’s graduates have secured for it amongst employers. Unfortunately, IISc’s performance in these criteria seems to have come down in the past year and the Bengaluru Institute has fallen outside the top 200 in the QS ranking. IIT-Delhi’s position too has dropped from 174 to 197. Overall, however, the rankings show the country’s higher education system in good light with 45 Indian institutes making it to the QS list — up from 41 last year.

Their performance should not detract, however, from the problems that affect the country’s university system, especially engineering and technology institutes. As IIT-B director Subhasis Chaudhuri told this newspaper in an interview, the metrics of global rankings do not always account for the idiosyncrasies of the higher education set-up. “What is important for us is to see the impact we make on the social ecosystem of India,” he said. IIT-B’s climb up the QS rankings in the past four years shows that the institute has worked consistently towards that task. Unfortunately, it is amongst the few exceptions in an ecosystem marked by an increasing lack of synergy between industry and tech training institutes. A number of surveys have highlighted that only one in five engineering graduates in the country has the state-of-the-art skills required in today’s job market.

Chaudhuri also talked about the budget constraints of Indian universities. He said that the government has its “limitations” when it comes to funds and IIT-B is “connecting with the industry to bridge the gap”. Indian industry has been an underperformer when it comes to investing in R&D and skilling. The few education-related philanthropy initiatives in recent times have been directed at elite institutes. Resolving India’s skill crisis requires private and public agents to show willingness to engage with the faculty in small cities and towns. Global experience shows taking such risks yields path-breaking results.



2019 MBBS BATCH WILL BE THE FIRST TO SHIFT TO NEXT; MOCK TEST TO BE HELD ON JULY 28

Registration for the mock test will begin on June 28, according to information released by the National Medical Commission (NMC) on Tuesday at a webinar organised for medical college faculty and final-year MBBS students across the country.

NExT will now be the medical licentiate exam and will replace the Foreign Medical Graduates Exam (FMGE) and the National Eligibility-cum-Entrance Test-Postgraduate (NEET-PG). It will be a two-step exam.

Step 1 of NExT will be a computer-based examination based on multiple-choice questions (MCQs) and Step 2 will be a practical or clinical examination. Both Step 1 and 2 will be held twice a year.

The All India Institute of Medical Sciences (AIIMS), Delhi, will conduct NExT Step 1 in May and November. Students will be allowed to sit for Step 2 after the completion of their internship and the exam will be conducted in June and December. The NMC on Tuesday released detailed information about the schedule, pattern and modes of NExT, which will be conducted for the first time in 2024.

SPRING CLEANING

A quarter of a century is time enough to justify a reassessment of any effort. About 25 years have passed since the existing Regulations on Graduate Medical Education (GMER) were notified in 1997, and the time was ripe to take a relook at all aspects of the system, and adapt them to changing requirements, including demography, socio-economic contexts, and advancements in science and technology. The National Medical Commission's (NMC) new GMER, which was withdrawn without any explanation, attempted to catch up, and correct course, wherever necessary. The medical world is a changed place since the regulations were last drawn up, with emerging diseases, changing demands and expectations of stakeholders also altering the game dramatically. The new regulations aimed at making medical education more learner-centric, patient-centric, gender-sensitive, outcome-oriented and environment-appropriate, while continuing to anchor on the basic principles of teaching medicine. The regulations were progressive in introducing a longitudinal programme based on attitude, ethics, and communication competencies for young medical students, to lay stress on ethical values, being responsive to patient needs, and improved communication, early clinical experience — all skills young medicos will benefit from in the real world. It had specified that didactic lectures would not exceed a third of the schedule; while the bulk of the course would include interactive sessions, practicals, clinical experience, and case studies. Also introduced anew was a family adoption programme through village outreach, for each MBBS student, and a 'pandemic module'. Other significant changes included reduction of the overall time period for students to complete the MBBS course to nine years (from 10), fixed number of attempts to clear papers, and common counselling for admission from 2024. If a student failed to clear any exam, he/she could have appeared in the supplementary examination, the results of which were to be processed within three-six weeks. The students, if successful, could have proceeded with the same batch.

A spring-cleaning of medical education in India is no doubt necessary to clear the cobweb remnants from the past. While a new GMER will enable the country's medical students to be future-ready, the question needs to be asked if the system will be ready to handle the requirements of students who breach odds to climb up to a medical seat. As the NMC takes a step

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back, with withdrawing the regulations, perhaps it will pause to anticipate and face, with least confrontation, the opposition of several States to common counselling and the exit test.

EXPECT THE STATE TO ENSURE ENOUGH HOMES FOR PERSONS WITH MENTAL ILLNESS: HC

A division bench of Justice Mukta Gupta and Justice Poonam A Bamba Monday underscored that “it is bounden duty of state to take care of the life of all its citizen” while modifying a woman’s conviction order – from murder to culpable homicide not amounting to murder – and sentence.

Referring to a 2005 decision of the coordinate bench of the HC in Charanjit Singh & Others v State and others, the bench said that it “hopes and expects” as per the directions passed in the said judgment that the “state will ensure sufficient number of short-stay homes and long-stay homes for people with mental illness who do not require regular hospitalisation and who have no homes to go back to live in a safe, congenial and pleasant environment”.

In the 2005 judgment, the HC had directed the state to create short- or long-stay homes for persons suffering from mental illness who do not need hospitalisation.

On Monday, the HC directed, “Since appellant is not in a position to take care of herself even though schizophrenia is in remission at the moment nor does any of her family members inclined to look after her, it is the duty of the State to take adequate care of... such... patients, for which purpose short/ long stay homes have been set up. Consequently, appellant will continue to stay in the long stay home at Institute of Human Behaviour and Allied Sciences (IHBAS) and expenses of all necessary treatment and stay of the appellant will be borne by the state.”

The HC directed that a copy of the decision be sent to the Principal Secretary (Home) and Principal Secretary (Health) of the Delhi government, Director General (Prisons) and Medical Superintendent, IHBAS for “necessary compliance”. The woman was convicted by trial court for alleged murder of her husband by inflicting knife injuries and causing grievous hurt to her husband’s daughter from first marriage and sentenced to life imprisonment in 2010. During the trial, the woman was diagnosed with schizophrenia and has been undergoing treatment at IHBAS since 2009.

EXPRESS VIEW ON NATIONAL RESEARCH FOUNDATION: CHANGING THE GAME

The Union cabinet’s decision to set up a National Research Foundation (NRF) — an apex body to promote, fund and mentor scientific research in higher education institutions across the country — is immensely welcome. The absence of a congenial ecosystem has meant that Indian scientists today work in silos and the research output of only a few select institutes matches up to global standards. The NRF could be a game-changer. It aims to “impact Indian universities, colleges, research institutions, and R&D laboratories”. Colleges and most universities are today seen as centres of knowledge dissemination, while specialised institutions are tasked with undertaking research. The NEP 2020 envisions a change in this state of affairs by making all higher education institutions teaching- as well as research-intensive. This requires addressing a dissonance: On the one hand, elite institutions nurture talents who go on to occupy top positions in industry and academia, across the world. On the other hand, colleges, universities and polytechnics wage a grim struggle for expertise, funds and infrastructure. By becoming a bridge between the two and enabling the top varsities to hand-hold the less well-heeled institutions, the NRF could help accomplish one of the NEP’s more difficult tasks.



The proposed agency intends to “forge collaboration between the industry, academia, government departments, and research institutions”. Such partnerships have resulted in some of the groundbreaking developments in the global knowledge economy. In India, however, scientists in even the top institutes face bureaucratic hurdles in raising money. The NRF could help catalyse change. But it will have its task cut out. The agency intends to raise 50 per cent of its next five years’ budget, of Rs 50,000 crore, from the private sector. That might not be easy in an economy that has just about recovered from the blows of the Covid pandemic. The NRF’s success in democratising the knowledge production ecosystem could hinge a lot on the incentives it offers to its private partners.

From making the country’s manufacturing sector competitive to cleaning rivers, from weather-proofing agriculture to designing smart cities and from developing antidotes to emerging diseases to nurturing cutting-edge digital innovations, the demands before Indian science are myriad. In underlining the need to make research sensitive to the “concerns of rural areas,” the NRF project seems alive to these imperatives. It is modelled on the National Science Foundation in the US which has been a research enabler in areas as diverse as oceanography, space research, material sciences, computerisation and AI. The director of the “independent federal agency” is appointed by the US president, and confirmed by the Senate. But it also draws on 50,000 independent experts every year to assess the projects it supports. The top positions in the NRF board are reserved for members of the government, including the PM and the ministers of science, technology and education. The dominant presence of the government is perhaps unavoidable given the significance it has attached to the agency. But while drawing up the fine print of the NRF Bill — likely to be introduced in Parliament’s monsoon session — the government should take care to ensure the institution’s autonomy.

‘RANI DURGA VATI GAURAV YATRA’ CONCLUDES IN MADHYA PRADESH: THE STORY OF THE QUEEN WHO FOUGHT THE MUGHALS

The Shivraj Singh Chouhan-led BJP government in Madhya Pradesh launched the six-day Rani Durgavati Gaurav Yatra on Thursday (June 22) and marked June 24 – when the queen is believed to have died while fighting the Mughals in the mid-16th century – as a day of sacrifice.

Starting from Balaghat, Chhindwara, Singrampur (Damoh district), Dhauhani, and Kalinjar Fort in Uttar Pradesh – the natal home of the queen – the five yatras will reach Shahdol in MP on June 27. Home Minister Amit Shah was to inaugurate the rally in Balaghat, while Prime Minister Narendra Modi was to conclude the Gaurav Yatra. However, heavy rains in the region led to a change of plans for both leaders. The PM was also scheduled to flag off two Vande Bharat trains from Bhopal as part of the visit to the state and will do so, while the visit to the tribal region has been postponed.

The yatra is also being seen as a part of the BJP’s larger tribal outreach nationwide. In 2021 too, it organised the Tantya Bhil Gaurav Yatra around the time of the tribal revolutionary leader’s birth anniversary and renamed several public spaces and institutions named after tribal leaders. Madhya Pradesh will go to polls later this year, and its tribal population makes up around 21% of the state’s total population. It is also the largest tribal population among all Indian states.

Who was Rani Durgavati?

The CM described the queen as a “symbol of India’s self-determination”, saying she fought Mughal emperor Akbar and his commander Asaf Khan and gave the ultimate sacrifice.



Rani Durgavati is said to have been born in 1524, in Mahoba's Chandela dynasty. The region comes under present-day Uttar Pradesh, near the southern border with MP. Her father was Raja Salbahan of Ratha and Mahoba, and the Chandelas were known for building the famous Khajuraho temples in the 11th century.

She was later married to Dalpat Shah, the son of the Gond King Sangram Shah of the kingdom of Garha-Katanga. This kingdom included the Narmada Valley and parts of northern MP. It was first welded together by Sangram Shah and is noted as one of the most powerful kingdoms of the Gond tribe. Durgavati, however, was widowed in 1550, a few years after her marriage. Her young son Bir Narayan presided over the throne in name and she then "ruled the country with great vigour and courage."

Historian Satish Chandra, in his book *Medieval India*, describes her as a good marksman, skilled at using guns, bows, and arrows. It was noted at the time that she was so intent on hunting tigers that "whenever she heard that a tiger had appeared she did not drink water until she shot it."

A stamp was issued in honour of Rani Durgavati in 1988.

The Mughal attack on Garha-Katanga

Chandra also terms the period of the mid-16th century as one of early Mughal expansion in India (between 1556-76) under Akbar. During her reign, Durgavati fought with Baz Bahadur, the sultan of the neighbouring Malwa who was eventually defeated by Akbar. But the frequent battles between the two adjoining states continued even after the takeover.

According to government documentation of the region's history, the queen and her generals managed the affairs of the kingdom for 16 years. There was evidence of trade with other kingdoms in the form of their currencies being found there and of public works being carried out, such as the construction of a large public reservoir near Jabalpur that is now called Ranital (the queen's tank).

Abul Fazl, the court historian of Akbar who chronicled these years in *Akbarnama*, described Durgavati as a combination of "beauty, grace and manlike courage and bravery". He adds that the prosperity of the kingdom was such that people paid their taxes in gold coins and elephants.

The Mughal governor of Allahabad, Asaf Khan, also took an interest in attacking Garha-Katanga, attracted by tales of the queen, writes Chandra. Another point of view states it was Akbar who dispatched him. Khan then went to the region with 10,000 cavalry. Some semi-independent rulers here also seized on the opportunity as one to overthrow the queen. She was, therefore, left with a small force.

The queen entered the battlefield and situated her troops in a place called Narhi, which was located in a thick forest, reached after crossing rivers, and was naturally difficult to breach. She suggested attacking the enemy forces upfront as they could not remain hidden for long. They allowed some Mughal forces to come through the narrow ravines peculiar to the region, before surrounding them. The first battle was therefore won by the Gond queen.

However, soon the Mughals fortified the area and overwhelmed the Gonds. While fighting them in battle, she was struck by two arrows and it is believed she stabbed herself with her dagger to not surrender to the Mughal forces. Her son also died in the fighting. It took Asaf Khan nearly two months to consolidate his victory. Afterwards, he decided to keep much of the loot himself instead of presenting it to Akbar, writes Fazl.



Akbar then asked Khan to let go of his gains and restored the kingdom to Chandra Shah, the younger son of Sangram Shah, after he accepted Mughal suzerainty.

Legacy and present-day politics

Durgavati today has been championed by politicians as a patriotic ruler who stood by her people, as a defender of her “culture”. The current BJP government in Madhya Pradesh has noted her role, among that of other tribal figures from history, as part of the larger outreach to a community not traditionally known to be among the party’s political supporters.

Congress leader Kamal Nath also tweeted his tribute to the queen in a video on June 24, saying she fought “historic battles” for the “pride and honour” of the nation. “She established that our Adivasi brothers are our pride,” he added.

Madhya Pradesh is due to have its State Legislative Assembly elections later this year. Of the 230 Legislative Assembly Seats, 47 are reserved for members of Scheduled Tribes (STs). As The Indian Express earlier reported, after the Bhil community, which comprises nearly 40 per cent of the total tribal population comes the Gond tribe, constituting another 34 per cent of the 1.53 crore tribal population. Gonds are largely spread across eastern districts of MP, such as Mandla, Dindori, Anuppur, Umaria, and Chhindwara.

In 2021, an award was instituted in the name of the Gond king Sangram Shah, the father-in-law of Queen Durgavati, of Rs 5 lakh for works in tribal art and culture. Another Gond queen, Rani Kamlapati, had Bhopal’s Habibganj station renamed after her recently.

A NEW REGIME

Last week, the Drug Controller General of India cleared, under the provisions of ‘emergency use authorisation’, a new mRNA vaccine for COVID-19 developed by Pune-based Genovra Biopharmaceuticals, a pioneer in India in developing mRNA vaccines. The vaccine is meant to be particularly effective against the dominant Omicron variant. With the World Health Organization having officially declared the end of the COVID-19 pandemic, there is no longer the obsessive public interest in new variants. Even less so in newer vaccines. Data suggest that the uptake of booster, or ‘precautionary doses’ of the array of COVID vaccines available in India has been declining for several months. Therefore, the significance of the new vaccine, GEMCOVAC-OM, is that it shows that an Indian company has the capability to make an mRNA vaccine, believed to be amenable to rapid production and scale-up, that could be useful against any future virus.

Normally, vaccines must go through progressive stages of testing, from petri dishes, to animals and expanding cohorts of human test subjects. Doing greater harm than good, or being unable to be better than the alternative in any of these stages is a ground for disqualification. Which is why vaccine development and approvals are a decades-long enterprise. During COVID-19, this risk-averse strategy was deemed unsuitable for the crisis at hand because of which drug regulators globally allowed vaccine makers to combine multiple stages while evaluating efficacy, thus giving greater leeway to experimental formulations. This underlines the basic framework of ‘emergency use authorizations (EUA)’ adopted by regulators globally. Unlike the U.S. Food and Drug Administration (FDA) that has for many years been evaluating novel drug and vaccine candidates, India’s regulatory system has largely been geared toward evaluating formulations that have been approved abroad and in assessing their suitability to India. Mistrust, arbitrary decree and lax regulations have historically plagued clinical trials in India. More than evidence-based



assessment, it was a technicality in India's 'New Drugs and Clinical Trials Rules, 2019' that allowed EUA in India for COVID-19 vaccines. A credible regime of phased, clinical trials and independent regulation for new drugs is still in its infancy in India. The FDA still authorises updated COVID-19 vaccines under emergency use provisions because while the pandemic is over, COVID-19 is not and thousands continue to die globally. This alone, however, cannot be the basis for continuing with the EUA regime in India. While the flexibility to accelerate should always be present, India must specify a streamlined regulatory process that weeds out non-essential steps but is hawk-eyed on safety and adverse reactions from new drugs and vaccines.

A 'HEALTHY' RETURN TO OUR ROOTS

The just-concluded International Yoga Day on June 21 and the attention it has drawn bring to mind our rich legacy of ancient Indian health systems.

While Allopathy is ubiquitous and has the first recall status when it comes to healthcare in large parts of India, traditional systems of medicine still have their rightful place. They have a range of effective practices for prevention and treatment of diseases and have been trusted for generations. Scoring on their side is easier access, lower costs and a reputation for purportedly negligible side effects.

They include Indian systems like Ayurveda, Yoga and Naturopathy, Unani and Siddha, as well as Homeopathy. The overseeing government department formed in 1995 was renamed AYUSH in 2003, an acronym of the names of these systems and Sowa-Rigpa. The Ministry of AYUSH was formed in 2014.

When it comes to insurance, treatment under any system except Allopathy was not payable under hospitalisation policies for a long time. In 2016, insurance regulations were changed to allow insurers to cover AYUSH treatments in hospitals accredited by National Accreditation Board on Health, Quality Council of India or similar institutions.

Companies started offering AYUSH coverage but with stiff sub-limits. While some companies offer barely 10% of the sum insured, in the case of AYUSH claims in recent years, some companies have removed sub-limits for this aspect. Insurers have also selected accredited AYUSH hospitals to be empanelled in their network for cashless treatment. Here, basic norms set down by the regulator like quality accreditation, number of qualified and registered doctors, therapy infrastructure and number of beds are taken into account. Such norms, incidentally are laid down for allopathic hospitals as well.

The ministry has also published rates of therapies/interventions under Yoga and Naturopathy for instance, to be taken as benchmarks for calculating treatment expenditure to settle insurance claims with room rent as per the norms of the insurance company and the policy terms. Similarly, treatment expenditure guidelines for Ayurveda and Siddha have been published as well.

With increasing health awareness and costs, AYUSH is an attractive option again. Your insurance policy offers some support – just be sure to check your coverage clauses before you start hospital treatment.

EXPRESS VIEW ON THE ONSET OF MONSOON: THE GIFT OF RAIN

After a sluggish first two weeks that saw India receive nearly 53 per cent below-normal rains, the southwest monsoon has picked up. Not only has the cumulative rainfall deficit for June 1-26 come

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down to 18.9 per cent, the monsoon has covered roughly 95 per cent of the country, as against only the Northeast and half of the south till June 14.

That's good for the plantings of rice, millets, maize, cotton, soyabean, groundnut, arhar, moong, urad and other kharif crops. The current bountiful showers are more than enough for their taking off and should set to rest worries over yield losses from delayed sowing. But crops need water not just for their seeds to germinate, but also during the vegetative and early reproductive growth stages when they are developing roots, stems, leaves and flowers. Therefore, July and August rains matter as much as June for the size of the crops to be harvested from September-end.

That's where El Niño — the abnormal warming of the central and eastern tropical Pacific Ocean waters, historically known to suppress rainfall in India — might be a worry. Earlier forecasts pointed to its formation only towards August or later. But the US National Oceanic and Atmospheric Administration has already declared El Niño's arrival and its gradual strengthening into the winter through December-February 2023-24. Subnormal rains in the remaining part of the monsoon season (June-September) can potentially impact not only the current kharif. Its effects can extend even to ensuing rabi (winter-spring) crops grown using the groundwater and dam reservoirs that are recharged/refilled during the monsoon. This is, of course, a worst-case scenario — something governments nevertheless can ill afford to ignore, especially in a year leading to national elections.

On the positive side, though, the stocks of rice, wheat and sugar are comfortable. There's also the option for more imports of edible oil and pulses such as masoor, arhar and urad, on which duties are nil or have been slashed. The NDA government has so far proved adept at "supply-side management" measures — some of them sensible (lowering import duties) and some retrograde (banning/restricting exports and imposing stocking limits on traders and processors).

One can expect more of these in the days ahead. Meanwhile, there is another source of comfort: Punjab and Haryana. Access to assured irrigation and government procurement at minimum support prices means that farmers of the two states would face less issues as far as water availability for rice and wheat goes. This is one year where nobody, least of all the government, will want them to produce less of the two cereals and divert acreages towards millets, oilseeds or pulses.

INDIAN OCEAN DIPOLE: WHAT IS IT, HOW IT CAN LIMIT EL NINO EFFECTS

With the El Niño phenomenon almost certain to affect the Indian monsoon this year, high hopes are pinned on the development of a positive Indian Ocean Dipole (IOD) and its ability to counterbalance the El Niño effect. The IOD is an ocean-atmosphere interaction very similar to the El Niño fluctuations in the Pacific Ocean, playing out, as the name shows, in the Indian Ocean. It is also a much weaker system than El Niño, and thus has relatively limited impacts.

But a positive IOD does have the potential to offset the impacts of El Niño to a small measure in neighbouring areas, and it has, at least once in the past (1997), delivered admirably on this potential.

While the El Niño is already firmly established in the Pacific Ocean this year, the IOD is still in the neutral phase. "The Indian Ocean Dipole is currently neutral. All international climate models surveyed by the Bureau suggest a positive IOD event may develop in the coming months," Australia's Bureau of Meteorology noted in its latest update on IOD.



The India Meteorological Department (IMD), in its bulletin earlier this month, said there was an 80% chance of a positive IOD in the coming months. "The probability forecast for IOD indicates about 80% probability for positive IOD conditions and 15% of a neutral IOD during June-August 2023 season," it said.

The Indian Nino

In a normal year, the eastern side of the Pacific Ocean, near the northwestern coast of South America, is cooler than the western side near the islands of Philippines and Indonesia. This happens because the prevailing wind systems that move from east to west sweep the warmer surface waters towards the Indonesian coast. The relatively cooler waters from below come up to replace the displaced water. An El Nino event is the result of a weakening of wind systems that leads to lesser displacement of warmer waters. This results in the eastern side of the Pacific becoming warmer than usual. During La Nina, the opposite happens.

Both these conditions, together called El Nino Southern Oscillation or ENSO, affect weather events across the world. Over India, the El Nino has the impact of suppressing monsoon rainfall.

IOD, sometimes referred to as the Indian Nino, is a similar phenomenon, playing out in the relatively smaller area of the Indian Ocean between the Indonesian and Malaysian coastline in the east and the African coastline near Somalia in the west. One side of the ocean, along the equator, gets warmer than the other. IOD is said to be positive when the western side of the Indian Ocean, near the Somalia coast, becomes warmer than the eastern Indian Ocean. It is negative when the western Indian Ocean is cooler.

ENSO and IOD

The IOD was identified as an independent system only in 1999.

The air circulation in the Indian Ocean basin moves from west to east, that is from the African coast towards the Indonesian islands, near the surface, and in the opposite direction at the upper levels. That means the surface waters in the Indian Ocean get pushed from west to east. In a normal year, warmer waters in the western Pacific near Indonesia cross over into the Indian Ocean and make that part of the Indian Ocean slightly warmer. That causes the air to rise and helps the prevailing air circulation.

In the years when the air circulation becomes stronger, more warm surface waters from the African coast are pushed towards the Indonesian islands, making that region warmer than usual. This caused more hot air to rise and the cycle reinforces itself. This is the state of negative IOD.

The opposite case involves air circulation becoming slightly weaker than normal. In some rare cases, the air circulation even reverses direction. The consequence is that the African coast becomes warmer while the Indonesian coastline gets cooler.

A positive IOD event is often seen developing at times of an El Nino, while a negative IOD is sometimes associated with La Nina. During El Nino, the Pacific side of Indonesia is cooler than normal because of which the Indian Ocean side also gets cooler. That helps the development of a positive IOD. Many studies suggest that IOD events are actually induced by ENSO. But Professor Ashok Karumuri, a senior scientist at the King Abdullah University of Science and Technology in Saudi Arabia, says there is evidence to show that IOD events can have an independent existence.



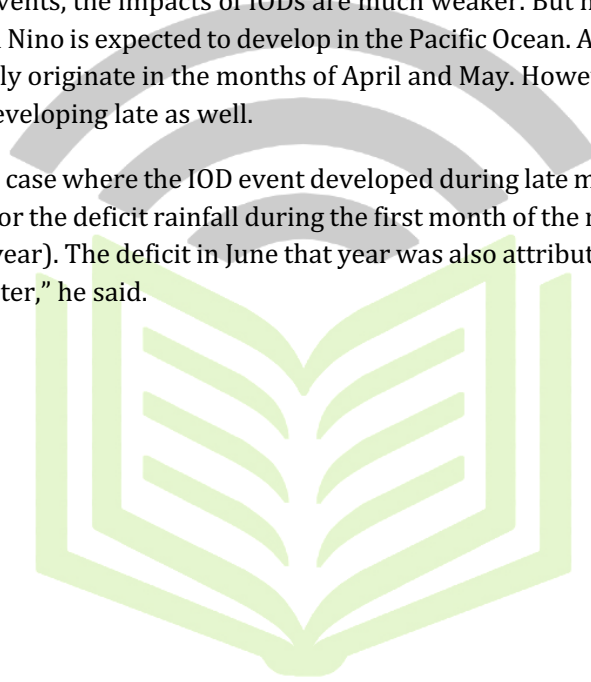
“While external factors such as ENSO can trigger IOD in some cases, the phenomenon, many times, is caused by local circulations or subsurface processes within the equatorial Indian Ocean. Even when triggered by external drivers, IOD events largely develop and mature through internal dynamics. Interestingly, when both IOD and ENSO are strong, their circulation patterns can impact each other,” Ashok, who is also affiliated with the University of Hyderabad, said.

IOD impacts

A positive IOD helps rainfall along the African coastline and also over the Indian sub-continent while suppressing rainfall over Indonesia, southeast Asia and Australia. The impacts are opposite during a negative IOD event.

Compared to ENSO events, the impacts of IODs are much weaker. But hope lingers, including this year when a strong El Nino is expected to develop in the Pacific Ocean. As Professor Ashok pointed out, IOD events usually originate in the months of April and May. However, there is an example of a strong IOD event developing late as well.

“The year 2019 was a case where the IOD event developed during late monsoon, but was so strong that it compensated for the deficit rainfall during the first month of the monsoon season (June had 30% deficiency that year). The deficit in June that year was also attributed to a developing El Nino but that fizzled out later,” he said.



DreamIAS



BUSINESS & ECONOMICS

UNDERSTANDING INTEREST RATE RISK

First of all, we need to understand to which category of investments this particular risk is applicable. As the name suggests, interest rate risk is applicable to all those investments that give us returns in the form of interest. Which are the investments that return interest? Fixed deposits, bonds and debentures are to name a few.

Basically, debt instruments are those instruments where we, as investors, lend money and in return, get interest. Upon maturity, the principal amount of these investments is returned to us.

There might arise a situation in which we may not want to wait until the maturity date and may need our money beforehand. If our investment is in fixed deposits (FD), we have to break the FD and get our principal back along with interest, if any.

But what if these are bonds or debentures? The difference between fixed deposits and bonds/debentures is that the latter could be sold or transferred during their tenure. It is mandatory for the issuing company to list them on the stock market; once they are listed, they can be bought and sold just as we buy and sell shares in the stock market.

FD vs bonds

What I mean to say is during the tenure of a fixed deposit, if we need funds, we can approach the financial institution to break the FD and get the principal amount back. This option is, however, not available in bonds/debentures. During its tenure, the holder of a bond/debenture cannot get the funds back from the issuing financial institution, but can generate liquidity by trading in the stock market.

Now comes the crux of the matter. Let us assume Shashibhai has purchased bonds issued by the Government of India. These bonds are to mature after 10 years. After purchasing these bonds, Shashibhai realises that he needs money to fund his daughter's higher education and is short of money. He decides to sell the bonds in the stock market. The face value of each bond is, say, ₹100 and interest payable as per the terms of the bond when it was issued is 9.5% yearly. After he purchased these bonds, interest rates in the market increased and now the new 10-year bonds being issued in the market are offering interest at 10.25%.

Bond buyers will be reluctant to purchase Shashibhai's bonds. However, since he needs money, he is willing to sell those ₹100 bonds at a discount – say at ₹92.50 each. As interest rates in the market had gone up, Shashibhai would have to suffer a loss.

Similarly, if interest rates were to go down, freshly issued bonds may be available with an interest rate of 8% per annum. In such a scenario, Shashibhai will sell his bonds at a higher price and make profit. For example, a ₹100 bond may fetch him ₹105. When interest rates go up, bond prices come down and when interest rates come down, bond prices go up. This is interest rate risk.

Principal stays

Of course, Shashibhai has the option not to sell his bonds till the end and on the maturity date, he will receive the principal amount back. In that case, there is no impact of interest rate movement on his investments and his investments are shielded from interest rate risk.



Debt mutual fund investors sometimes wonder how a debt mutual fund can give negative returns. This is because debt mutual funds have to factor in the movement of interest rates when they calculate the value of units (read NAV).

Accordingly, based on the movement of interest rates, there could be a situation wherein the bonds/debentures that a fund has invested in suffers losses and the NAV goes down.

The movement of interest rates could be due to several factors. We are not getting into those right now, but the so-called 'secured bonds/debentures' are also subject to risk and one of the prime risks is interest rate risk.

BANKS READYING SYSTEMS TO TRACK SPENDS ON OUTWARD REMITTANCES

With the 20 per cent tax on Liberalised Remittances Scheme (LRS) of the Reserve Bank of India set to kick off from July 1, banks are gearing up to get ready with the systems to track the spends on international cards and mobilise the tax collected at source (TCS) on outward remittances.

Banks were finding the going tough in assessing and collecting TCS on exemptions while using credit and debit cards outside India, banking sources said. The Reserve Bank of India (RBI), on the other hand, has left it to the banks to fend for themselves to collect the tax imposed by the government in the FY23-24 budget.

Under the RBI's LRS scheme, a resident individual can take out \$ 250,000 (around Rs 2.05 crore) every financial year. On February 1, 2023, the government decided to impose 20 per cent tax on foreign remittances except for overseas education and medical treatment. There was an outflow of \$ 27.14 billion (over Rs 2.22 lakh crore) under the LRS route in FY23.

With credit cards now coming under LRS, if a person spends \$10,000 (Rs 8,20,000) through credit cards abroad, he will have to shell out \$2,000 (Rs 1,64,000) as tax.

Indians are now increasingly using credit and debit cards abroad instead of taking travellers cheques or forex cards. While there is no estimate of money spent through cards abroad, banks are worried about the logistical requirement.

When contacted for clarifications, the Indian Banks Association did not respond to The Indian Express.

At a 20 per cent tax, the government would have earned a TCS of Rs 22,400 crore on overseas travel expenses of Rs 1.12 lakh crore (\$13.66 billion) – a jump of 185 per cent from \$4.8 billion in FY2019– by Indians in FY2023. However, bankers are estimating that use of credit cards, gift, and maintenance of relatives abroad are likely to come down in the near-term due to the 20 per cent tax. Earlier, use of credit cards for making payments during travel outside India was not included in the LRS limit.

The Budget 2023-24 had proposed hiking the TCS rate to 20 per cent from 5 per cent above Rs 7 lakh threshold for all purposes other than education and medical treatment. Also, for overseas tour packages, the government had proposed hiking the TCS rate to 20 per cent from 5 per cent, without any threshold, with effect from July 1. On May 16, the Centre amended rules under the Foreign Exchange Management Act (FEMA), bringing international credit card spends under the LRS. As a consequence, spending on international credit cards would have then attracted a higher rate of TCS at 20 per cent from July 1. However, on May 19, the government clarified that any



payments by an individual using their international debit or credit cards up to Rs 7 lakh per financial year will be excluded from the LRS limits and hence, will not attract any TCS.

TCS can be adjusted against the overall tax liability. It can be claimed as an income tax refund or a person can avail of credit while filing the ITR or calculating the advance taxes. The new system will enable the government to track high-value overseas transactions and will not apply on the payments for purchase of foreign goods and services from India.

“PAN should be valid and operative from July 1, 2023... the bank will check validity of PAN in terms, whether Aadhaar is linked to PAN or not. In case PAN is inoperative, TCS would be charged at the rate applicable to non-PAN case,” HDFC Bank said in a communication to its customers. In non-PAN case or inoperative PAN, TCS will be double the normal rate or 5 per cent, whichever is higher. However, TCS rate will not exceed 20 per cent.

MERGER OF HDFC TWINS TO BE EFFECTIVE FROM TODAY

The Boards of mortgage major Housing Development Finance Corporation (HDFC Ltd) and the country's largest private sector lender HDFC Bank Friday approved July 1 as the effective date of their merger.

The merger of the HDFC twins was announced in April last year. “The Boards of both the companies at their respective meetings held today noted that the merger would be effective from July 1, 2023,” HDFC Bank said in a statement.

The combined entity with a market capitalisation of Rs 14.37 lakh crore is likely to benefit both the shareholders and customers at a time when the Indian economy is making steady growth.

The boards of HDFC twins have fixed the ‘Record Date’ for determining the shareholders of HDFC Ltd who would be allotted the shares of HDFC Bank as per the share exchange ratio as July 13.

“As per the merger scheme, HDFC Bank will issue and allot to eligible shareholders 42 new equity shares of the face value of Re. 1 each, credited as fully paid-up, for every 25 equity shares of the face value of Rs 2 each fully paid-up held by such shareholder in HDFC Ltd as on the Record Date of July 13, 2023,” the release said.

After the amalgamation, HDFC Bank will be completely owned by public shareholders and existing shareholders of HDFC Ltd will own a 41 per cent stake in the bank. The foreign stake is around 8 per cent in the bank and is likely to increase.

HDFC Bank has over 6,300 branches globally and 18,000 ATMs. HDFC Ltd has 464 offices across India. All employees of HDFC Ltd as on effective date would become HDFC Bank employees, the release said.

With this merger, HDFC Bank gets an unparalleled advantage through the mortgage portfolio providing it a quantum leap in distribution to semi urban and rural areas with a huge opportunity to cross sell bank products to a very sticky client base. Competition is expected to heat up in the banking segment, especially between HDFC Bank and State Bank of India, the largest Indian bank. The home loan segment has become attractive as non-performing assets are minimal.

Post merger, the key HDFC Bank subsidiaries include HDFC Securities Ltd., HDB Financial Services Ltd., HDFC Asset Management Co. Ltd, HDFC ERGO General Insurance Co. Ltd., HDFC Capital Advisors Ltd. and HDFC Life Insurance Co. Ltd.



MOVE TOWARDS DIFFERENTIAL TIME-OF-DAY POWER TARIFFS: HOW WOULD IT IMPACT CONSUMERS?

The Centre has signalled a move towards rolling out differential time-based electricity tariffs, which would entail discounted prices during an eight-hour period during daytime and premium or surge pricing during the peak power consumption hours. The Union Power Ministry last week announced amendments to the Electricity (Rights of Consumers) Rules, 2020, and the changes included the introduction of time-of-day (ToD) tariff provisions.

Broadly, time-based power tariff structures can be static — predetermined tariffs based on time blocks — or dynamic — determined on a real-time basis in accordance with the actual demand conditions. There are some other variants as well, but those are combinations of static and dynamic pricing models. As per the notification issued by the Centre, ToD tariffs in India will be static, which means they will be decided in advance for different blocks of the day.

Time-of-day tariff norms – the fine print

Under the ToD tariff system, the power tariff during “solar hours” — the duration of eight hours a day as specified by the respective State Electricity Regulatory Commission (SERC) — of the day shall be at least 20 per cent lower than the normal tariff. On the other hand, tariffs during peak hours will be at least 20 per cent higher than the normal tariff for commercial and industrial consumers, and at least 10 per cent higher for other consumers.

“ToD tariff would be applicable for Commercial and Industrial consumers having Maximum demand of 10 KW and above, from 1st April, 2024 and for all other consumers except agricultural consumers, latest from 1st April, 2025. Time of Day tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters,” the Power Ministry said. Smart meters are a prerequisite for ToD tariff systems.

The amended rules prohibit the duration of peak power consumption hours to exceed the duration of the solar hours, which would be eight hours.

As per the government, most SERCs have already implemented ToD tariffs for large commercial and industrial categories of consumers, and with the installation of smart meters, ToD metering at the domestic consumer level will also be introduced. Also, power distribution companies will be required to display on their websites the tariffs for each category of consumers, and in case of a change in rates, consumers will have to be notified at least a month in advance.

Potential benefits of ToD power tariffs

Union Power and New & Renewable Energy Minister RK Singh described the ToD tariff system as a “win-win” proposition for consumers as well as the country’s power system. “The TOD tariffs, which are separate tariffs for peak hours, solar hours, and normal hours, send price signals to consumers to manage their load according to the tariff. With awareness and effective utilisation of the ToD tariff mechanism, consumers can reduce their electricity bills. Since solar power is cheaper, the tariff during the solar hours will be less, so the consumer benefits,” the minister said.

During the non-solar hours, mostly thermal, hydel, and gas-based power is consumed, which is relatively costlier than solar power. Hence, tariffs during non-solar hours will be relatively higher, reflecting the higher cost of electricity. As for peak power consumption hours, the government hopes to discourage consumers from placing excessive load on the grid with higher-than-normal



tariffs. If the load on the grid during peak consumption hours goes down, the requirement for additional investments in grid infrastructure for maintenance and upgradation also declines over the medium to long term.

The government also expects the ToD tariff structure to lead to better integration of renewable energy sources with the country's electricity grid, which will hopefully expedite India's energy transition. "The ToD tariff will improve the management of renewable generation fluctuations, incentivize demand increase during the periods of high RE generation hours and thereby increase grid integration of larger quantities of renewable power," Singh said.

For consumers

The move is expected to provide some flexibility to consumers to plan and optimise their electricity consumption so that the major share of their power use falls in the discount window. While the objective of the move is to offer a nudge to consumers to optimise their electricity consumption, especially during peak hours, this is also a major demand side management (DSM) tool that is expected to result in better grid integration of the increasing share of renewable power in India.

The Union Power Ministry said that ToD tariffs are recognised globally as a key DSM measure that is used as a means of incentivising consumers to shift a portion of their demand from peak hours to off-peak hours, "thereby improving the system load factor by reducing the demand on the system during peak period".

Around 20 countries, including at least 17 European nations and the United States, have time-based power tariff structures in one form or another.

But the success of ToD tariffs, especially at the consumer level, is contingent on smart metering being implemented at the unit level, and users being made aware of how to optimise their consumption patterns to take advantage of the scheme, experts said. This might be earlier when it comes to large users such as industrial and commercial units, and domestic users in urban areas. But the entire exercise needs a fresh approach to consumer awareness and education by the distribution utilities and other entities.

Grid management tool

In order to operationally sustain a huge monthly addition of an average of 1,000 MW from non-fossil fuels or renewables to the electricity grid, policymakers are of the view that India needs to urgently work on developing viable energy storage options. In India, which is the world's third largest producer of renewable energy, nearly 40 per cent of installed electricity capacity comes from non-fossil fuel sources. This green push has resulted in a sharp 24 per cent reduction in the emission intensity of GDP between 2005 and 2016, but it has also thrown up challenges of a grid being increasingly powered by renewables.

Even as the Lithium-ion storage battery option for grid application is now being ruled out as unviable, at least for now, an emerging policy push in the direction of solar and wind-based generation cannot continue to be pushed down to struggling electricity distribution companies or discoms. The renewables challenge is compounded by the fact that SECI (Solar Energy Corporation of India Ltd) — the state-owned company conducting solar auctions — has locked a number of contracts involving green developers in rigid PPAs (power purchase agreements) with no scope for innovation, according to sectoral experts.



Energy storage is needed alongside green energy sources to primarily balance out the variability in a renewable generation – electricity is generated only when the sun shines or when the wind blows. This is not always in sync with the demand cycle. Storage can help tide over this shortcoming associated with renewables.

For procurers such as state-owned discoms, renewables are not always a viable option precisely due to these vagaries in the generation trends, which means they still have to depend on thermal or nuclear generation for meeting base load demand. Renewables bundled with a viable storage option help overcome this problem.

There are two alternatives being considered by the government now: hydrogen and hybrid generation models blended with off-stream pumped storage. In 2023, as the hidden challenges of the RE (Renewable Energy) transition are likely to manifest more concretely, the government is making a renewed push on both technologies. A policy for stepping up green hydrogen production and tapping into its potential as a fuel has just been cleared by the cabinet. The Union Ministry of Power has also wrapped up a survey of all pumped hydro sites and hydro PSUs have been given a target of taking up pumped hydro schemes. The Ministry of Power has also written to the Union Coal Ministry to consider the option of opencast mines as potential sites for pumped hydro in the future.

Constraints in integrating RE generation

The main challenge is the non-availability of natural gas to run gas turbines to complement the growing RE capacity in the generation mix. India's vast fleet of coal-based power plants of 200 MW series is more than 25 years old, runs on old technology and does not promise robust reliability. Further, considering that India's load demand is far from saturated, there is the need to replace obsolete coal-based plants with supercritical highly efficient coal-based plants as an intermediate goal for total transition. However, this may not be acceptable to the international community in view of the impending climate crisis.

The country's current installed generation capacity is around 410 GW (1 gigawatt is 1,000 megawatts) while the maximum demand is around 229 GW. Of the installed capacity, the total electric power installed capacity from non-fossil fuel-based energy resources was 179 GW, which is over 40 per cent of the total electric power installed capacity, primarily solar and wind. To compensate for the intermittency, pumped-storage hydroelectric plants – where it stores energy in the form of the gravitational potential energy of water that is generally pumped from a lower elevation reservoir to a higher elevation reservoir when renewable power is available, which is then released to move a turbine to generate electricity when renewable generation is not available – is being seen as the most viable alternative

DSM tools essentially help grid managers and policy planners tide over these problems in RE integration till the time these storage issues are tangibly addressed.

SPIRALLING FOOD PRICES

Indian households find themselves yet again struggling to cope with a sharp surge in the prices of essential kitchen staples — ranging from tomatoes, onions and potatoes to tur dal and rice. Tomato prices have more than doubled month-on-month with the all-India average retail price as on June 29 soaring to ₹53.59 a kilogram, from ₹24.37 on May 29, data from the Consumer Affairs Department's Price Monitoring Division show. And while the rise in onion and potato prices over



the same one-month period is a seemingly far more benign 7.5% and 4.5%, respectively, the overall trajectory in price gains across the wider food basket is symptomatic of the unsettling build-up of underlying inflation pressures in the economy. For instance, the price of tur dal, a key protein source in the diets of vegetarian households, continues to keep rising; it had climbed 7.8% month-on-month to ₹130.75 a kilogram on June 29, as per the government's data. Official retail inflation data for May, released earlier this month, had shown that prices of pulses, which includes tur dal, had quickened by 128 basis points year-on-year to a 31-month high of 6.56%. The government's imposition of stock limits on urad and tur on June 2 seems to have so far done little to cool price gains in lentils.

To be sure there is a seasonality component to the prices of farm produce and their supply is largely determined by factors including timing of the harvest and the prices prevailing at the mandis when the farmers transport their crop to the markets. Just last month, tomato growers in rural Maharashtra had dumped sizeable quantities of their produce on the roads after being offered unremunerative prices. However, prices of several of these food items, including tomatoes, are still substantially higher than even the same time last year with the modal daily weighted average arrival prices at the mandis as per the government's agmarket website revealing tomato prices almost tripled year-on-year to ₹5,579 a quintal as on June 29. The same arrival price data show a 35% jump in tur dal and a 19% increase in common paddy (rice). With the monsoon rains 13% in deficit so far this year, and the outlook for spatial and temporal distribution in the coming months clouded with uncertainty by the El Niño, there is a real risk that food prices could cause retail inflation to accelerate again. Policymakers need to walk the talk and retain laser focus on taming inflation. After all, as the Reserve Bank of India's economists noted in the latest bulletin, "the path to high but sustainable inclusive growth has to be paved by price stability".

TOMATO PRICES ARE ON FIRE — AND WILL NOT COME DOWN SOON. HERE IS WHY

Over the last fortnight, the retail price of tomato has crossed Rs 60 per kg in towns and cities around the country — it was selling for more than Rs 100/kg at some places on Tuesday — and traders and growers do not expect prices to fall any time soon.

Why are tomatoes so expensive?

The reason for the current high prices can be traced back to their sudden fall in April-May, which led many growers to abandon their crops. The unusual heat of March and April also saw pest attacks that took a toll on production.

India grows two major crops of tomato. The rabi crop, which is grown mainly in the Junnar taluka of Maharashtra and in parts of Karnataka and Andhra Pradesh, comes to the market between March and August. After August, the market is supplied by the kharif crop in Uttar Pradesh, Nashik in Maharashtra, and elsewhere in the country. About 5 lakh hectares of farmland come under rabi tomato, and around 8-9 lakh hectares under the kharif crop on average.

So what went wrong this year?

3-4-inch-tall saplings are transplanted in raised beds either in December-January or February-March. The first batch ensures supplies until April; the second feeds the market until August. The crop is ready in three months, and picking continues for 45 days.

Farmers usually rotate their holding to ensure they have market-ready crops upto August. For farmers, the rabi crop fetches better returns. Deepak Bhise, president of the Junnar Tomato



Growers' Association in Maharashtra, said the cost of production of rabi tomato is around Rs 12/kg, while that of kharif is Rs 10/kg. "A higher incidence of pest attacks during the summer requires more control, and thus the cost of production is nominally higher," he said.

However, farmers suffered a shock in March-April this year. At the Narayangaon wholesale market in Junnar taluka of Pune district, the average price in March was Rs 5-10/kg, and in April it was around Rs 5-15/kg. In May, farmers were forced to sell for between Rs 2.50-5/kg.

Ajit Korde, a sugarcane and tomato grower from Mirewadi village in Phaltan taluka of Satara district, said the crash in prices led to many farmers abandoning their crops. "Farmers who had standing crops abandoned them, and those who were planning to plant a second crop in March did not do so. The present price rise is the result of this double whammy," he said.

In March-April and the beginning of May, prices collapsed because most the crop coming to the market was of inferior quality, and farmers resorted to panic selling. "In South India, which saw excessive heat, the crop was devastated by the leaf curl virus. In Maharashtra, the absence of winter and excessive heat in March-April saw attacks of the cucumber virus," Korde said. Faced with uncertainty with regard to both prices and supplies, farmers sold whatever crop they had, causing a glut.

When will tomato prices come down?

Farmers rule out chances of prices softening anytime soon.

24,000-25,000 crates (each containing 20 kg) of tomato are currently arriving at the Narayangaon wholesale market every day on an average — almost half the 40,000-45,000 crates that are expected at this time of the year.

The next crop will be the kharif tomato — the transplanting of which has just started after the monsoon was reactivated. "It will be only post August that arrivals will improve and retail prices can see any correction," Korde said.

GOVT REMOVES EXTRA IMPORT DUTY ON US APPLES: HOW IT CAN IMPACT DOMESTIC GROWERS

The Narendra Modi government has removed a 20% retaliatory duty on apple imports from the US as part of a deal where the latter restores market access for Indian steel and aluminium products. What will be its likely impact, including on domestic apple growers?

Will it open the floodgates for import of American apples into India?

Probably not, for three reasons.

The first is that US apples will continue to attract a 50% import duty. This duty is applicable on apples imported from all countries. The Modi government has merely done away with an additional 20% duty on American apples. That was imposed on June 15, 2019, as a retaliatory measure to the then Donald Trump administration levying tariffs of 25% on steel and 10% on many aluminium products imported from India.

Besides apples, India had also slapped retaliatory duties on US almonds, walnuts, chickpeas (chana) and lentils (masoor). These have all now been removed and American imports will be treated on par with imports from other countries.



Second, the retaliatory tariff on US apples has not stopped the growth in India's overall imports of the fruit. On the contrary, total imports have steadily risen from 1.75 lakh tonnes (lt) in 2013-14 (April-March) to 2.83 lt in 2018-19, and further to 4.59 lt and 3.74 lt in the last two financial years.

Third, US apple imports — mostly from Washington State — peaked at 1.28 lt in 2018-19, the year before the additional duty came into force. Regaining those levels may not be easy, especially after having plunged to a low of 4,486 tonnes in 2022-23.

How has India's apple import continued to grow even after 2018-19?

The US' loss has been other countries' gain. This has happened before. China was a major exporter of apples to India till 2017-18, even overtaking the US in the previous year. From June 2017, imports of apples and pears from China were suspended after Indian quarantine authorities cited the presence of mealy bug pests in shipments. That suspension has since not been revoked. The beneficiary was the US, which registered a jump in exports till 2018-19.

Post the retaliatory duty, Washington apples have heavily lost market share to fruit from Turkey and Iran. These two countries have emerged as top suppliers to India over the last three years, ahead of even other established exporters such as Chile, Italy and New Zealand.

Will the removal of the additional duty enable US apples to wrest back market share?

The timing of the move — giving a level playing field with its competitors — would help. Harvesting of Washington apples starts from August and extends till early-November. It allows for import of fresh fruit into India from mid-September through November. This is followed by supplies from cold-stored apples during December-January and, then, from controlled-atmosphere (CA) chambers from February right up to August.

CA storage entails manipulating the carbon dioxide (CO₂) and oxygen (O₂) concentration, along with temperature and humidity, in the chambers for increasing the shelf life of the fruits. Apples, like humans, breathe through intake of O₂ and release of CO₂. Respiration, however, also leads to ripening of fruits. By lowering the concentration of O₂ and raising that of CO₂, the respiration is slowed down, thereby extending fruit storability and minimum change in quality characteristics.

"Washington apples, unlike fruits of other origins, are available round the year. This is because a thin coat of natural wax is applied to the fruits in the warehouses after removing from CA storage and before shipping. This prevents moisture loss and further slows the respiration rate," said a leading importer.

Can more imports from the US hurt Indian apple growers?

India's production of apples was estimated at 24.37 lt in 2021-22, with Jammu & Kashmir (17.19 lt) and Himachal Pradesh (6.44 lt) accounting for the bulk of it. Imports, on the other hand, are only 4-4.5 lt. If US apples are going to simply replace apples from Turkey or Italy, it will not result in any significant rise in the total quantum of imports.

More than the quantity of imports per se, the timing of the decision to scrap the additional duty is what might hurt domestic growers. Apple harvesting will kick off from the middle of next month in Solan and the adjoining lower hills of HP. It extends from mid-August to mid-September in the main belt of Shimla and from mid-September to mid-October in the still higher altitudes of Kinnaur. Harvesting in the Kashmir valley begins in September and peaks in October, with arrivals continuing till early-December.



Given that harvesting of apples in HP and J&K is coterminous with that in the US (and other northern hemisphere producers such as Turkey, Italy, Iran and Poland), there could be some impact on price sentiment ahead of the marketing season. The Modi government has, however, imposed a minimum price of Rs 50 per kg (cost plus insurance plus ocean freight), below which no imports of apple would be allowed. The minimum import price, notified on May 8, will “be applicable on apples from the US as well as other countries...thus preventing any flooding and protecting domestic growers from predatory pricing,” an official statement said.

EXPRESS VIEW ON UREA PRICES: FERTILISER FOR THOUGHT

The maximum retail price (MRP) of urea has remained unchanged at Rs 5,360 per tonne during the nine years and more of the Narendra Modi government. The only revision, if at all, has been from companies having to mandatorily coat their entire material with neem oil since May 2015, for which they could charge an extra 5 per cent or Rs 268 per tonne from farmers. On Wednesday, the Union Cabinet approved the “continuation of the urea subsidy scheme” with a view to ensure supply of the fertiliser “at the same price”. Towards this, it has committed a total amount of Rs 3,68,676.7 crore over three years till 2024-25. That works out to roughly \$45 billion for subsidising a single nutrient product, whose average production/import cost is in the region of Rs 30,000 per tonne.

The decision not to raise the urea MRP till 2024-25 has, ironically, been announced along with a PM-PRANAM scheme that aims to promote alternative fertilisers and balanced plant nutrition. The truth is that urea sales in India crossed a record 35.7 million tonnes (mt) during 2022-23, as against 30.6 mt in 2021-22. The Modi government’s initiatives such as compulsory neem coating, reducing the bag size from 50 kg to 45 kg, and launch of the so-called Nano Urea haven’t helped bring down the consumption of this fertiliser containing 46 per cent nitrogen (N). The reason is simple: When urea retails at a fifth or even less than that of most other fertilisers, why should farmers cut back on its use? It’s another thing that the disproportionate application of N has, over time, resulted in diminishing crop yield response. Studies have shown that 1 kg of N, P (phosphorus) and K (potassium) used to yield 12 kg-plus of cereal grains during the 1960s, but only 5 kg now.

The Modi government has proposed the introduction of sulphur-coated urea, which, it claims, would be more economical and efficient than the plain-vanilla fertiliser. The idea of using urea as a carrier product for delivering sulphur or zinc to crops isn’t bad. In fact, the government should allow urea, di-ammonium phosphate and other commodity fertilisers to be freely coated with all secondary and micro nutrients. Further, the MRPs of such fortified fertilisers must be set free. If the yield benefits from applying sulphur or zinc-coated urea are significantly more from ordinary urea, the farmer may not mind paying extra. And that could also pave the way for the price decontrol of urea and bringing it under the nutrient-based subsidy regime.

THE OPEN MARKET SALE SCHEME FOR WHEAT AND RICE

The story so far:

States have been looking at alternative ways of procuring wheat and rice in the after the Food Corporation of India’s (FCI) imposed quantity restrictions followed by the refusal to allow States to procure the two food grains through its Open Market Sale Scheme (OMSS). The Centre has made it clear that the reason for restricting supplies per bidder and eventually excluding states from procuring through auctions was to curb inflation and regulate supply, States such as Karnataka

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



and Tamil Nadu have criticised the government for engaging in “politics” at the expense of marginalised beneficiaries of State welfare schemes.

What is the Open Market Sale Scheme?

Under the Open Market Sale Scheme, the FCI from time to time sells surplus food grains from the central pool especially wheat and rice in the open market to traders, bulk consumers, retail chains and so on at pre-determined prices. The FCI does this through e-auctions where open market bidders can buy specified quantities. States are also allowed to procure food grains through the OMSS without participating in the auctions, for their needs beyond what they get from the central pool to distribute to NFSA (National Food Security Act) beneficiaries.

This year’s OMSS was operationalised by the FCI in January. According to the latest press release of the Food Ministry, six weekly e-auctions of wheat had been conducted by FCI till March 15, 2023. “The total quantity of 33.7 LMT wheat was offloaded and the prices of wheat came down by 19% due to this massive intervention in a span of 45 days,” noted the release.

The next e-auction for wheat under OMSS will start on June 28 and the bidding for rice will commence on July 5.

How has the Centre revised the OMSS?

The Centre decided to restrict the quantity that a single bidder can purchase in a single bid under the OMSS. While the maximum quantity allowed earlier was 3,000 metric tonnes (MT) per bid for a buyer, it will now range from 10-100 metric tonnes.

The FCI claims that the quantities have been reduced this time “to accommodate more small and marginal buyers and to ensure wider reach of the scheme”. The objective behind the move is also to curb retail prices as allowing smaller bids should ideally break monopolies of bulk buyers, allowing more competitive bids by small buyers.

First, the Centre had decided earlier this month to reduce the quantity a particular bidder can purchase under the OMSS, but on June 13 in a notification sent to the States, it stopped the sale of rice and wheat from the Central pool under the OMSS to State governments, also disallowing private bidders to sell their OMSS supplies. to state governments.

Chairman and Managing Director of the FCI Ashok K.K. Meena, said the Centre was already meeting its obligations to distribute grains to 80 crore marginalised beneficiaries under the NFSA, and also had an obligation to the 60 crore common consumers who are affected by retail prices.

How have States reacted?

In Karnataka, the Anna Bhagya scheme to give rice to marginalised families was a part of the Congress government’s poll promise. The leaders of Congress accused Centre of conspiring to “fail” the State government’s poll guarantee by ensuring the State did not receive the required amount of rice to implement the scheme.

Tamil Nadu is trying to purchase 50,000 tonnes of rice from government agencies other than FCI. “We give rice to all ration card holders. To manage the supplies, we were buying from OMSS at a rate of about ₹35 for a kilo of rice and then subsidising it. Now, the Union government has stopped the supply under OMSS. We have to find an alternative now,” a senior government functionary of Tamil Nadu told The Hindu.



HOW PUNJAB AND HARYANA MAY DE-RISK INDIAN ECONOMY

Punjab and Haryana have been India's breadbasket and lynchpins of its food security, especially post the Green Revolution.

Over the last two decades though, the two states' combined share in total wheat procurement for the Central foodgrain pool has fallen from 90% or more, to hardly 70%. It's been more, from 43-44% to 28-29%, for rice (chart).

The diversification of procurement – traditionally concentrated in Punjab and Haryana for wheat and in the two, plus Andhra Pradesh (AP) and Tamil Nadu, for rice – has come on the back of the Green Revolution (the cultivation of high-yielding semi-dwarf varieties) spreading to more states and their governments also establishing infrastructure for purchase of grain at minimum support prices (MSP) from farmers.

Take wheat, where Madhya Pradesh (MP) briefly overtook Punjab as the top contributor to the Central pool in 2019-20: That was the crop harvested and marketed during April-June 2020 just after the first Covid lockdown. In rice, Telangana has emerged as a clear No. 2 behind Punjab, with Chhattisgarh, Odisha and Uttar Pradesh (UP), too, making impressive strides over the past decade, if not less (see tables).

Why Punjab and Haryana matter in poor monsoon years

But one bad monsoon or poor crop can make a difference

This has already been seen in wheat. The last two crops weren't all that great, owing to unseasonal temperature surge in March 2022 and heavy rain in March 2023, both at the time of grain-filling. Low production, in combination with high (above MSP) market prices, led to wheat procurement from MP plunging from almost 13 million tonnes (mt) to 4.6 mt in 2021-22. Although it rose to 7.1 mt in 2022-23, MP has dropped way behind Punjab. Even sharper has been the slide in procurement from UP and Rajasthan.

Simply put, the contribution of most states to wheat procurement has tended to be high largely in "fair-weather" years delivering excellent harvests, such as 2019-20 and 2020-21. During these two years, the combined share of Punjab and Haryana in procurement declined to 50-51%. But that has gone up in the last two years to 70-74%, reinforcing their status as reliable, "all-weather" contributors to national food security.

The reason for it is El Niño.

The immediate impact of a subnormal monsoon would be on the kharif crops, the sowings of which have barely taken off. Rice may bear the brunt, being highly water-intensive and requiring at least 25 irrigations in the absence of rain. Moreover, if El Niño is going to get stronger, the impact could extend to the rabi (winter-spring) crops. These, particularly wheat, are grown using groundwater and dam reservoirs that are recharged/refilled during the monsoon. A subnormal monsoon can, in other words, hit both rice and wheat production.

The saviour states

That's where Punjab and Haryana come in. They are states whose farmers have assured access to irrigation. Punjab alone cultivated paddy (rice with husk) on 31.67 lakh hectares (lh) in 2022-23, including 4.94 lh under basmati varieties.

3RD FLOOR AND 4TH FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR



Gurvinder Singh, director of Punjab's agriculture department, sees no reduction in rice area this year. If at all, it might increase due to diversion of some area from cotton, which has become vulnerable to whitefly and pink bollworm pest attacks, apart from fetching lower prices compared to last year. In paddy, there's no price risk, courtesy of guaranteed MSP procurement.

"Even in the event of a poor monsoon, our farmers would be able to safeguard their crop, thanks to the 15 lakh electric tube-wells in the state," Singh said. The Punjab government is supplying eight hours of uninterrupted free power daily to run these tube-wells during the four-month paddy season (from transplanting to harvesting), starting June 10.

An agriculture department official claimed that paddy yields in Punjab actually tend to go up during low rainfall years. That's because farmers then rely solely on groundwater and irrigate their fields accordingly. They are more worried about the monsoon season prolonging and causing rain towards the harvesting period. Even in wheat, the crop yield losses of the last two years have come from temperature spikes and too much, as opposed to less, rain.

LINK YOUR PAN AND AADHAAR: HERE'S WHAT CAN HAPPEN IF YOU DON'T

The Central Board of Direct Taxes (CBDT) has given taxpayers time till June 30, 2023, to link their permanent account number (PAN) with their Aadhaar number. It is mandatory for all taxpayers to complete the linking process as any non-compliance will mean that the PAN will become inoperative from July 1, 2023.

Since PAN is the sole identification number for all transactions in the securities market, the capital markets regulator Sebi has also directed existing investors to link their PAN with their Aadhaar number, in order to continue doing transactions in the securities market.

What is the rationale for linking PAN with the Aadhaar number?

The income-tax department announced the linking of PAN with Aadhaar after it came across instances where multiple permanent account numbers were allotted to one person or one PAN was allotted to more than one person. To have a robust way of de-duplication of the PAN database, it was made mandatory for a taxpayer who is eligible to obtain Aadhaar, to quote his Aadhaar in the application form for PAN and return of income.

Who needs to link PAN with Aadhaar?

As per a circular issued by the Central Board of Direct Taxes (CBDT) in March 2022, the Income-tax Act makes it mandatory for every person who has been allotted a PAN as on July 1, 2017, to intimate his Aadhaar Number so that the Aadhaar and PAN can be linked. This is required to be done on or before June 30, 2023, failing which the PAN shall become inoperative.

Who is not required to link PAN with Aadhaar?

There are a few categories of individuals for whom this linkage is not compulsory.

*Any person of age eighty years and above.

*Non-resident as per the Income-tax Act.

*A person who is not a citizen of India.



What will happen if PAN is not linked with Aadhaar by June 30?

In case a person fails to link his or her PAN with Aadhaar, the PAN will become inoperative. In such a case, the person will not be able to furnish, intimate or quote his PAN and shall be liable to all the consequences under the Income-tax Act for such failure. Some of the major implications of non-compliance are:

*The person shall not be able to file the income tax return using the inoperative PAN.

*Pending returns will not be processed.

*Pending refunds cannot be issued to inoperative PANs.

*Pending proceedings as in the case of defective returns cannot be completed once the PAN is inoperative.

*Tax will be required to be deducted at a higher rate as PAN becomes inoperative.

Besides these consequences, the person may find difficulties in doing other financial transactions such as with banks, as PAN is an important KYC criterion for these transactions.

Why has Sebi made it mandatory for investors to link PAN with Aadhaar?

Since PAN is the key identification number and part of KYC requirements for all transactions in the securities market, all SEBI-registered entities and Market Infrastructure Institutions (MIIs) are required to ensure valid KYC for all participants.

All existing investors are required to ensure the linking of their PAN with their Aadhaar number within the timeline for continual and smooth transactions in the securities market and to avoid consequences of non-compliance with the March 30, 2022, CBDT circular, as such accounts would be considered non-KYC compliant, and there could be restrictions on securities and other transactions until the PAN and Aadhaar are linked.

WHY GOOGLE HAS APPEALED NCLAT'S ORDER IN AN ANTITRUST CASE

Google has filed an appeal in the Supreme Court against a verdict by the National Company Law Appellate Tribunal (NCLAT) where it upheld a penalty of Rs 1,338 crore imposed by India's competition regulation body on the company, for its anti-competitive conduct in the Android ecosystem.

Google's appeal comes just weeks after the Competition Commission of India (CCI) also appealed the NCLAT order in the Supreme Court. In January, the Supreme Court refused to suspend any of the antitrust remedies ordered by the CCI against Google last year. It had asked the NCLAT to hear the case on merit and rule by March end.

The contest between Google and CCI was among the most high-profile battles globally between a tech giant and a regulator, one that was being followed closely by governments across the world. About 97 per cent of the 600 million smartphones in India run on Android, according to Counterpoint Research estimates.



Why has Google appealed the NCLAT order?

Google said that the NCLAT “correctly found” that harm for anti-competitive behaviour needs to be proven, but “did not apply this requirement to several of the CCI’s directions that it upheld”.

“We look forward to presenting our case before the Supreme Court and demonstrating how Android has benefitted Indian users, developers, and OEMs, and powered India’s digital transformation,” the company said in a statement.

What did the NCLAT order entail?

In March, the NCLAT upheld CCI’s Rs 1337.76 crore penalty on Google for antitrust violations while largely confirming its findings from last October that said Google abused its market dominance in the Android ecosystem. It held that mandating pre-installation of its entire Google Mobile Suite (GMS) – a family of key Google apps and services such as Google search, Chrome browser, YouTube, Google Maps, and Gmail – amounted to “imposing unfair conditions on OEMs which is an abuse of dominant position” by the company.

By making pre-installation of its GMS suite conditional to signing various agreements, such as Anti-fragmentation Agreement (AFA) and Android Compatibility Commitment Agreement (ACC) with the OEMs, the tribunal said that Google had “reduced the ability and incentive of device manufacturers to develop and sell self-device operating or alternative version of Android and Android Forks and thereby limited technical and scientific development”.

By bundling products like its search engine or the Chrome browser, Google had perpetuated its dominant position, NCLAT said. In its detailed order, the NCLAT held that the CCI in its order against Google did not violate the principles of “natural justice” and based it on relevant material submitted to it.

However, NCLAT offered some relaxation to Google.

How did Google score a partial victory in the NCLAT order?

Google managed to achieve some key relaxations in the final verdict pronounced by the NCLAT, primarily those that would have severely impacted its own products. Google will now not need to allow hosting of third-party app stores inside the Play Store, as had been previously ordered by the CCI.

“In many ways, this judgement sets the stage for dual regulators in the online space for various sectors. One will be a nodal regulator and one will be a sectoral regulator, who will both work together in framing rules for the respective sector and regulate it,” the official said.



LIFE & SCIENCE

EXPRESS VIEW ON THE UNIVERSE'S BACKGROUND HUM: LISTEN TO THE COSMOS

If two black holes collide in the dark loneliness of space, a long long time ago, far far away from this corner of the galaxy, do they make a sound? Albert Einstein thought so when he postulated the existence of gravitational waves, “ripples” that show that large bodies affect the very fabric of space-time. A century later, in 2015, the first faint notes of the “hum of the universe” were picked up, proving Einstein’s theory. This week, Pulsar Timing Arrays (PTAs) around the world — including in India — “heard” gravitational waves that scientists believed originated about 8 billion years ago. These waves are caused, simply put, by the mergers of large Black Holes. Over time and space, these waves have gathered, and now, picked up by radio telescopes on the third rock from the sun.

For the layperson — and perhaps even the astrophysicist — there is something awe-inspiring, to the point of provoking existential dread, about the sheer scale of the bass tones that are being heard. The celestial bodies that have collided are too large to be comprehended, except through abstraction — in essence, maths. It was eight billion years ago that the black holes collided, absorbing everything including light. This confrontation with the vastness of the cosmos, and the inevitable realisation of how all of human existence is barely a flicker in the heavens, makes the worries, hopes, dreams and desires of homo sapiens seem pointless.

What is the point of art, love, jobs, family, poetry when it pales against the rich song of all that went before? Maybe the existentialists and nihilists were always right. But then, it took just a little over a century — from Einstein to PTAs — for humans to become the only known species in the universe to hear the songs of the stars. Sometimes, being an audience is purpose enough.

RADIO TELESCOPES: PROBING SPACE

Telescopes are essential tools in every astronomer’s repertoire. A radio telescope is a telescope that helps scientists ‘see’ the universe using radio waves (1 mm to more than 10,000 km in wavelength). These telescopes collect faint radio waves coming from deep space, and with the help of other equipment focus and amplify them for scientific study.

Radio telescopes can detect radio waves from a number of celestial objects, such as stars, galaxies, and black holes. They are ground-based, and not in orbit, because they are usually quite large. This is because the size of the antenna – the dish-like structure that detects the waves – is proportional to the wavelength being tracked.

In fact, the most common radio telescopes have a parabolic dish antenna. Due to its curved shape, the radio waves hitting the dish bounce to a point called the focus, where a receiver collects them. Dish antennas collect many different wavelengths at once, so scientists often use receivers picking up multiple wavelengths at once.

Because of their large wavelength, radio waves can travel long distances without interruption, making them ideal to catch glimpses of stars behind dust clouds, for example. But the longer they travel, the weaker they get. So telescopes often try to maximise their signal collection area and use amplifiers to increase their strength. One of the biggest radio telescopes in the world today is the FAST instrument in China, with a 500-metre-wide dish.



INDIA'S LARGEST RADIO TELESCOPE PLAYS VITAL ROLE IN DETECTING UNIVERSE'S VIBRATIONS

India's Giant Metre wave Radio Telescope (GMRT) was among the world's six large telescopes that played a vital role in providing evidence confirming the presence of gravitational waves using pulsar observations, said scientists on Thursday.

An international team of astronomers from India, Japan and Europe has published the results from monitoring pulsars, called 'nature's best clocks', by using six of the world's most sensitive radio telescopes, including India's largest telescope, the Pune-based uGMRT.

"These results provide a hint of evidence for the relentless vibrations of the fabric of the universe, caused by ultra-low frequency gravitational waves. Such waves are expected to originate from a large number of dancing monster black hole pairs, crores of times heavier than our sun," said a statement issued by the city-based National Centre for Radio Astrophysics-Tata institute of Fundamental Research (NCRA-TIFR).

The team, consisting of members of European Pulsar Timing Array (EPTA) and Indian Pulsar Timing Array (InPTA) consortia, published their results in two papers in the Astronomy and Astrophysics journal on Thursday and shared that their results hint at the presence of such gravitational waves in their data set. A time aberration was observed in the signals emerging from these pulsars, their studies suggest. Pulsars are a type of rapidly rotating neutron stars that are essentially embers of dead stars which are present in our galaxy. A pulsar is like a cosmic lighthouse as it emits radio beams that flashes by the Earth regularly akin to a harbour lighthouse.

As these signals are accurately timed, there is a great interest in studying these pulsars and to unravel the mysteries of the Universe. In order to detect gravitational wave signals, scientists explore several ultra-stable pulsar clocks randomly distributed across our Milky Way galaxy and create an 'imaginary' galactic-scale gravitational wave detector.

CENTRE IDENTIFIES 30 CRITICAL MINERALS: WHY, HOW, AND IMPORTANCE OF THE EXERCISE

In a strategic move, the Centre has identified 30 critical minerals, including lithium, cobalt, nickel, graphite, tin and copper, which are essential for the country's economic development and national security.

The identification of these minerals — which form part of multiple strategic value chains, including clean technologies initiatives such as zero-emission vehicles, wind turbines, solar panels; information and communication technologies, including semiconductors; and advanced manufacturing inputs and materials such as defence applications, permanent magnets, ceramics — was done on the basis of a report on critical minerals prepared by an expert team constituted by the Ministry of Mines last November. The ministry will revisit the list periodically.

The exercise

While elements such as cobalt, nickel and lithium are required for batteries used in electric vehicles or cellphones, rare earth minerals are critical, in trace amounts, in the semiconductors and high-end electronics manufacturing. Most countries of the world have identified critical minerals as per their national priorities and future requirements.



In India too, some efforts have been made in the past to identify the minerals that are critical for the country, including an initiative in 2011 by the Planning Commission of India (now NITI Aayog) that highlighted the need for the “assured availability of mineral resources for the country’s industrial growth”, with a clear focus on the well-planned exploration and management of already discovered resources. That report analysed 11 groups of minerals under categories such as metallic, non-metallic, precious stones and metals, and strategic minerals. From 2017 to 2020, a big thrust was accorded to the study of exploration and development of rare earth elements in the country.

The specific trigger for the latest exercise are India’s international commitments towards reducing carbon emissions, which require the country to urgently relook at its mineral requirements for energy transition and net-zero commitments. In November 2022, the Ministry of Mines had constituted a seven-member Committee under the chairmanship of Joint Secretary (Policy), Ministry of Mines to identify a list of minerals critical to our country and the panel decided to have a three-stage assessment to arrive at a list of critical minerals.

Critical minerals

These are minerals that are essential for economic development and national security, and the lack of availability of these minerals or the concentration of extraction or processing in a few geographical locations could potentially lead to “supply chain vulnerabilities and even disruption of supplies”. This is true for minerals such as lithium, graphite, cobalt, titanium, and rare earth elements, which are essential for the advancement of many sectors, including hightech electronics, telecommunications, transport, and defence.

One of the definitions cited in the report characterises a mineral as critical when the risk of supply shortage and associated impact on the economy is (relatively) higher than other raw materials. This definition of a critical mineral was first adopted in the US and the subsequent legislation that resulted from the analysis, the report said. The European Union also carried out a similar exercise and categorised critical minerals on the basis of two prerequisites: supply risk and economic importance. Australia refers to critical minerals as: “metals, non-metals and minerals that are considered vital for the economic well-being of the world’s major and emerging economies, yet whose supply may be at risk due to geological scarcity, geopolitical issues, trade policy or other factors”.

Three-stage process

In its three-stage assessment for identifying the minerals critical to India, the panel, in the first stage, looked at the strategies of various countries such as Australia, USA, Canada, UK, Japan and South Korea. Accordingly, a total of 69 elements/ minerals that were considered critical by major global economies were identified for further examination, the report said, adding that due importance was given to domestic initiatives as well. In the second stage of assessment, an inter-ministerial consultation was carried out with different ministries to identify minerals critical to their sectors. Comments and suggestions were received from the Ministry of Power, Department of Atomic Energy, Ministry of New and Renewable Energy, Department of Fertilisers, Department of Science and Technology, Department of Pharmaceuticals, NITI Aayog, etc. The third stage assessment was to derive an empirical formula for evaluating minerals criticality, taking cognizance of the EU methodology that considers two major factors — economic importance and supply risk.



Based on this process, a total of 30 minerals were found to be most critical for India, out of which two are critical as fertiliser minerals: Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, REE, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium and Cadmium.

Specialised agency

Alongside this list, the committee also called for a need for establishing a National Institute or Centre of Excellence on critical minerals on the lines of Australia's CSIRO, which is the largest minerals research and development organisation in Australia and one of the largest in the world. A wing in the Ministry of Mines can be established as a Centre of Excellence for Critical Minerals, the report said, adding that this proposed Centre will periodically update the list of critical minerals for India and notify the critical mineral strategy from time to time and will execute a range of functions for the development of an effective value chain of critical minerals in the country.

To build competitive value chains in India, the discovery of mineral wealth and identifying areas of its potential by use of advanced technologies has been cited as essential. The identification of critical minerals "will help the country to plan for the acquisition and preservation of such mineral assets taking into account the long term need of the country, and, in turn, reduce the import dependency as India is 100% import dependent for certain elements".

Domestic and global outreach

The Geological Survey of India, an attached office of Ministry of Mines, has carried out a G3 stage mineral exploration (fairly advanced) during Field Season 2020-21 and 2021-22 in Salal-Haimna areas of Reasi district, Jammu & Kashmir, and estimated an inferred resource of 5.9 million tonnes of lithium ore. The estimated value of lithium at that site will be estimated on completion of further exploration. Based on the mapping outcome, more exploration programmes on various mineral commodities including lithium will be taken up in future in different parts of the country, including Jammu & Kashmir.

In addition, a joint venture company namely Khanij Bidesh India Ltd. (KABIL) has been incorporated with equity contribution from three Central Public Sector Enterprises. It is mandated to identify and acquire overseas mineral assets of critical and strategic nature such as lithium, cobalt and others so as to ensure supply side assurance. KABIL has initiated engagement with several state owned-organisations of the shortlisted source countries through the Ministry of External Affairs and the Indian Embassies in countries like Argentina and Australia to acquire mineral assets, including lithium, cobalt and rare earth elements.

In a fresh boost, India has recently been inducted into the Mineral Security Partnership (MSP), a US-led collaboration of 14 countries that aims to catalyse public and private investment in critical mineral supply chains globally. India's inclusion assumes significance given that one of the key elements of New Delhi's growth strategy is powered by an ambitious shift in the mobility space through the conversion of a large part of public and private transport to electric vehicles. This, alongside a concerted electronics manufacturing and semiconductor push, underlines the need to secure the supply of critical minerals.

The proposal to onboard India comes after a strong diplomatic push by New Delhi, given that there was considerable disquiet within sections of the Union government over the country not finding



a place in the strategic partnership that is also aimed at reducing dependency on China for securing critical minerals. The concerns grew after the partnership, originally floated mid last year, was expanded earlier this year to include a new member, Italy.

India is seen as a late mover in attempts to enter the lithium value chain, coming at a time when EVs are predicted to be a sector ripe for disruption. The year 2023 could be an inflection point for battery technology – with several potential improvements to the Li-ion technology, and alternatives to this combination in various stages of commercialisation.

THE TITAN TRAGEDY: HOW DID THE TITANIC TOURIST SUBMERSIBLE OPERATE?

The story so far:

On June 18, a submersible named Titan went missing. On board the missing vehicle were one pilot and four crew members travelling to see the wreckage of the RMS Titanic, which is nearly four thousand metres under water in the frigid North Atlantic ocean. One hour and forty-five minutes into the journey, contact with Titan was lost. The U.S., Canadian, and French authorities started using airplanes and boats as well as remotely operated vehicles to locate the sub. On June 22, authorities informed that all five passengers on Titan died in a ‘catastrophic implosion’. Titan’s pilot was Stockton Rush, CEO of OceanGate Inc., the company that runs these tours to the sunken ship.

What is the Titan submersible?

Titan is a submersible, or an underwater vehicle. It is operated by the privately owned U.S. company OceanGate that organises underwater expeditions for both research and tourism. The company claims that Titan, which it said was built with “off-the-shelf” components, is lighter and more cost-efficient than other deep diving submersibles. The 6.7-metre-long manned submersible is intended for “site survey and inspection, research and data collection, film and media production, and deep sea testing of hardware and software,” according to the OceanGate website. The company said its expeditions were meant to document the Titanic and its rate of decay on the ocean floor, and that all expeditions were in line with the National Oceanic and Atmospheric Administration (NOAA) Guidelines for Research, Exploration and Salvage of RMS Titanic, as well as the UNESCO guidelines for the preservation of underwater world heritage sites.

What do these guidelines say?

It is important to remember that the wreckage of the Titanic is a grave site where victims experienced unimaginable horror and suffering in their final hours. For this reason, international guidelines are in place to protect the now rust-covered wreckage which is scattered across the ocean bed, as well as the visitors who wish to see it. The UNESCO guidelines stress on the long-term preservation of “underwater cultural heritage” and the need to protect the surrounding waters by ensuring “responsible non-intrusive access.” The NOAA guidelines are similar and insist that recovered material and artefacts must be managed as per professional standards. In other words, taking souvenirs from the wreckage site is strongly discouraged.

What is the difference between a submarine and a submersible?

While the two categories can overlap, a submarine refers to an underwater vehicle that is largely independent and has power reserves to help it depart from a port or come back to the port after an expedition. Meanwhile, a submersible is generally smaller in size and has less power, so it



needs to work with a ship in order to be launched and recovered. Titan was working with a vessel named Polar Prince.

What happened to Titan?

The five people on the Titan submersible travelling to see the wreckage of the Titanic at a depth of 3,800 metres were OceanGate CEO Stockton Rush, billionaire Hamish Harding, businessman Shahzada Dawood and his university-going son Suleman Dawood, and Titanic researcher Paul-Henri Nargeolet. The cost of the tour is reportedly \$2,50,000 per person. The Titanic tour takes place about 380 nautical miles south of Newfoundland, close to where the British passenger liner RMS Titanic sank on 15 April 1912 after colliding with an iceberg. Over 1,500 people died in the tragedy.

On June 22, OceanGate said the five crew members had “sadly been lost”. The U.S. Coast Guard shared in a press conference that a field of debris with fragments of Titan was found, indicating that the submersible had suffered a “catastrophic loss of the pressure chamber” which killed all on board. OceanGate said it had conducted “successful” expeditions to the Titanic in 2021 and 2022.

How was the submersible operated?

Titan is made of carbon fibre and titanium, and weighs 10,432 kilograms, according to OceanGate’s website. It is capable of going 4,000 metres undersea, and moves as fast as three knots per hour (5.56 kph). Based on images from the company website, there is space for five crew members to sit on the floor, though not stand. While there is a small porthole window at one end, below 1,000 metres no sunlight reaches the ocean so the submersible would have to rely on its own lighting. The submersible is dependent on external crew members, as it is bolted from the outside. Titan also has an integrated launch and recovery platform.

In a 2022 video interview with BBC, OceanGate CEO Stockton Rush said that Titan had only one button inside and that the submersible was run with a “Sony PlayStation-style controller” made by Logitech. The company has explained that “off-the-shelf” technology helped make it easier to replace parts. While it may sound strange that a submersible on such a high-risk expedition was operated with a gaming-style controller, the fact is that such devices are also used by some drone operators, navy personnel, and robot operators. Game controllers are cheap, easy to buy in bulk, designed to be intuitive, and respond quickly to the users’ hand movements.

Before the expedition, OceanGate said in a tweet that it was relying on satellite-based internet from the Elon Musk-founded company SpaceX’s Starlink for communication from the middle of the ocean throughout the Titanic expedition. Mr. Musk is yet to formally address the situation or issue a statement.

Has Titan had problems before?

Titan has experienced problems in the past. CBS Sunday Morning correspondent David Pogue claimed this week that the submersible “got lost for a few hours” when he was part of an expedition last year as a journalist, though he was on the ship and not the submersible at the time. Mr. Pogue tweeted on June 19 that the company could text Titan that day but did not know where the submersible was. Mr. Pogue added that internet was shut off to stop those on the surface from tweeting, though he did not report this on the show at the time. He also claimed the submersible did not have a beacon that could be detected by rescuers. According to the CBS Sunday Morning



video report that his news organisation shared, the surface ship was supposed to lead Titan to Titanic's wreckage but communications broke down and they did not reach their destination that day.

In 2018, OceanGate fired its employee David Lochridge and sued him after he filed a whistleblower complaint with the Occupational Safety and Health Administration over the safety of the Titan submersible, CBS reported. Mr. Lochridge allegedly pushed for better testing of the submersible's hull before sending it down for dives. According to Mr. Lochridge's court filings from August 15, 2018, he learned that "the viewport at the forward of the submersible was only built to a certified pressure that is felt at 1,300 metres, although OceanGate intended to take passengers down to depths of 4,000 metres". His other concerns included the "experimental" design, a lack of comprehensive hull testing, and the use of hazardous flammable materials inside the submersible, as per the filings.

The submersible has ignited worldwide debate about the ethics of dark tourism and the need to regulate technological innovation in high-risk sectors.

EXPRESS VIEW ON CLIMATE MEET IN FRANCE: IT SIGNALS SMALL STEPS TOWARDS IMPROVING CLIMATE FINANCING ARCHITECTURE

The increase in the number of extreme weather events in recent years seems to have led to some change in the developed countries' attitude toward the global climate financing architecture. But thoughts have rarely matched action. The summit for a "Global Financial Pact on Climate Change" at Paris, last week, too asked the right questions. French President Emmanuel Macron set the tone by calling for a "public finance shock".

Most other delegates agreed that multilateral institutions should find ways to unlock new climate investments and debt arrangements should include disaster clauses — a two-year pause on repayments after an extreme weather event, for example. Yet, representatives of the developing countries at the two-day summit could not help coming away with the feeling that changes in the funding ecosystem are likely to be incremental, at best, in the coming years. Amongst the positives of the meet was President Macron's announcement that there is "a good likelihood" of the rich nations fulfilling, by the end of this year, their pledge for an \$ 100 billion annual fund for climate change initiatives in the Global South. That commitment was made in 2009 and developing countries were slated to receive the funds by 2020.

The failure to honour the 14-year-old pledge has become a symbol of the failure of the global climate financing system and aggravated the atmosphere of mistrust in climate negotiations. A course correction could help mend broken fences in the run-up to the COP28 at Dubai in November when the UNFCCC will take stock of the progress — or the lack of it — towards attaining the goals of the 2015 Paris Pact. Yet, the enormity of the task at hand is such that \$ 100 billion today represents a fraction of the amount required by the Global South to develop resilience against climate change — a report released at the COP27 last year, for instance, reckons that developing and emerging economies, other than China, will need \$ 2 trillion per year by 2030 for energy transition, adaptation, sustainable agriculture and addressing global warming-related loss and damage.

The IMF announced special drawing rights (SDR) of \$ 100 billion to the Global South; France, Japan and the UK also made SDR-related pledges. The World Bank said it will pause repayments "for countries struggling with climate disasters," but only for repayments. These commitments do



indicate a forward movement of sorts. However, any reform in the climate financing architecture shouldn't overlook the fact that loans today constitute the major source of funds. At Paris, last week, vulnerable countries reiterated that they require grants and technology transfers. That message shouldn't be lost.

WHAT DOES U.S. APPROVAL FOR LAB MEAT MEAN?

The story so far:

On June 21, two California-based companies were cleared to make and sell cell-cultivated chicken, the 'official' name of chicken meat that is grown in a laboratory for human consumption. As a concept, it is being hailed by stakeholders as a major step towards reducing carbon emissions associated with the food industry worldwide.

What did the FDA approve?

The two companies, Good Meat and Upside Foods, have received the U.S. government's approval to make and sell their cell-cultivated chicken. In cases like these, a company in question is required to assess the safety of its own facilities and the veracity of its production process. Sometimes, in order to boost consumer and investor confidence, it may consult with the Food and Drug Administration (FDA). At the end of this process, if the FDA is satisfied by the company's submissions, it will send a "no questions" letter, signalling its tacit approval. The FDA provided such letters to Upside in November 2022 and to Good Meat in March 2023. In June, the U.S. Department of Agriculture provided a 'grant of inspection', which is required to operate production facilities, to the companies.

What is cell-cultivated chicken?

To make cell-cultivated meat, the two companies isolate the cells that make up the meat (the meat that we consume), and put them in a setting where they have all the resources they need to grow and make more copies of themselves. These resources are typically nutrients, fats, carbohydrates, amino acids, the right temperature, etc. The 'setting' in which this process transpires is often a bioreactor (also known as a 'cultivator'), a sensor-fit device — like a container — that has been designed to support a particular biological environment. Once there are enough of these cells, which takes around two to three weeks in Upside's process, they resemble a mass of minced meat. They are collected and processed with additives to improve texture.

Which forms of cell-cultivated meat exist?

Chicken is the second most widely consumed meat in the world, according to the UN Food and Agriculture Organization (FAO). However, in the U.S. it has been the highest consumed meat since 2010. Good Meat and Upside have focused on chicken, and plan to expand their offerings to include other meats in the future. "beef, with its higher fat content and more complex flavour, is harder to replicate." Researchers are also developing cell-cultivated versions of sea bass, tuna, and shrimp. A 2021 report estimated that there were 107 companies in 24 countries working on developing similar alternatives to meat (two companies were from India).

Why was cell-cultivated meat created?

Its proponents have advanced the following arguments, among others — emissions, land use, prevention of animal cruelty, and food security. The first two are related to climate mitigation. The



FAO has estimated that global livestock is responsible for 14.5% of all anthropogenic greenhouse-gas emissions. Of this, the production of beef as a commodity accounted for 41% whereas chicken meat and eggs accounted for 8%. Similarly, the 2021 report estimated that lab-cultivated meat would use 63% less land in the case of chicken. Alternative meat's proponents have advanced it as a way to meet the world's nutritional security needs.

What are the challenges?

There are broadly four kinds of challenges.

First is consumer acceptance. Perfectly substituting animal meat with alternative meat requires it to match the original in taste, texture and appearance. Researchers have achieved some success on these counts but it remains a work in progress. Second, the cost of cell-cultivated meat is expected to remain high in the near future. One 2020 analysis concluded that it may never be cost-competitive, while reports have also expressed concerns about the costs imposed by quality control, especially at scale. Third, for cultivation, researchers require high quality cells, a suitable growth-medium in which the cells can be cultured, plus other resources required to maintain the quality of the final product. And fourth are the uncertainties associated with it. A recent study by the University of California, Davis, found that if cell cultivation requires a "highly refined growth medium", like that used in the pharmaceutical industry, the "environmental impact of near-term [cell-cultivated meat] production is likely to be orders of magnitude higher than median beef production." The paper is yet to be peer-reviewed.

HOW PROKARYOTES LED TO EUKARYOTES

Organisms on planet earth are broadly divided into prokaryotes and eukaryotes. The former are unicellular, do not have any organelles such as mitochondria, and their DNA is not packaged into a nucleus.

Eukaryotes have mitochondria, their DNA is packaged into a nucleus, and most of them are complex, multicellular beings.

About 50 years ago, a subset of unicellular organisms, the Archaea, were shown to have a different line of descent as compared to bacteria. The two differ in the composition of their cell walls, and in the sequence of some of their genes. The term Archaea, was used because the first members of this domain were found living in extreme environments of very high temperatures or very high salt.

The endosymbionts

One group of archaea were shown to have proteins that closely resembled eukaryotic proteins. These organisms are found in a geological formation where geothermally heated water is forced out of a ridge in the Atlantic Ocean floor at a depth of 2400 meters below sea level.

Many other related members were later found in unusual ecosystems, and came to be collectively called the Asgard, which is the home of the Gods in Norse mythology.

The mitochondria, which are the energy-generating organelles of eukaryotic cells, and the photosynthesizing chloroplasts found in plant cells, have evolved from free-living bacteria.

The ancestor of mitochondria was a proteobacteria that was engulfed by an Asgard archaean organism. Descendants of this endosymbiotic union gave rise to animals, fungi and plants.



In plants, the Asgard-mitochondrial union was followed by the intake of a photosynthesizing cyanobacterium, which became the chloroplast.

A few years ago, we Indians had seen complicated mergers of public-sector banks, brought in order to optimize their operations. In a similar vein, establishing a workable symbiotic relationship between two independent life forms poses many challenges.

Plants do it differently

There was no need to retain two full sets of genes, so choices were made: for Information Technology (cell replication, etc.), archaean genes were retained; for operations and housekeeping (assembling proteins), bacterial genes were preferred. Over time, most genes of the organelle were transferred to the nucleus, perhaps a more efficient arrangement.

The group of Rajan Sankaranarayanan at the CCMB has performed extensive studies on the reconfiguring of cellular processes in these endosymbiotic relationships. They compared animals and fungi with plants, where it is even more complicated as three gene sets were involved in the course of their evolution.

Proteins are made up of amino acids. Nature uses only left-handed amino acids; the right-handed ones can be poisonous. The mechanism for discriminating 'good' from 'bad' is different for Asgard and bacteria. The paper shows that animals and fungi work their way around this discrepancy by forcing the mitochondria to change. Plants segregate the two policing machineries in the cytoplasm and in mitochondria.

STANDING ERECT

Researchers have for the first time digitally reconstructed the missing soft tissue of an early human ancestor (hominin), revealing a capability to stand as erect as we Homo sapiens do today (Royal Society Open Science). Cambridge University researcher 3D-modelled the leg and pelvic muscles of the hominin Australopithecus afarensis using scans of 'Lucy': the famous fossil specimen discovered in Ethiopia in the mid-1970s.

The research recreated 36 muscles in each leg, most of which were much larger in Lucy and occupied greater space in the legs compared to modern humans. Australopithecus afarensis was an early human species that lived in East Africa over three million years ago.

Shorter than modern humans, with an ape-like face and smaller brain, but able to walk on two legs, it adapted to both tree and savannah dwelling — helping the species survive for almost a million years.

FRYING FOOD

We can't fry food with water because its boiling point is lower than that of oil. Generally all food materials contain water in an occluded form or as water of hydration. We fry food essentially to remove this water. For this, the food needs to be heated beyond the boiling point of water (100 degrees Celsius). If we use water as the frying medium, the water from the food cannot be removed as the medium itself will get vapourised.

However, oil can be heated to more than 150 degrees Celsius without charring the food. Being non-volatile at this temperature, heat from the oil facilitates frying.



RE-EVALUATING INDISCRIMINATE USE OF BMI TO MAKE CONCLUSIONS ON HEALTH

Here's a public health riddle. India is said to be among the least obese countries in the world, with an average Body Mass Index (BMI) of less than 22. BMI – the ubiquitous tool believed to measure fat and fitness – would classify most Indians as healthy. But more Indians than ever are at risk of type 2 diabetes, high blood pressure and cholesterol levels. Obesity, experts warn, is a “ticking time bomb”.

The paradox is built within the tool of choice – the BMI, a simple calculation that divides an individual's weight in kilograms by the square of their height in meters. The most-repeated myths about fitness are “the lower the BMI, the healthier you are...or that obesity happens only when you're not eating well or exercising regularly”, says Suruchi Gupta, a Gurugram-based nutritionist. Both claims misleading and untrue.

The American Medical Association (AMA) on June 14 this year accepted that BMI was an “imperfect way to measure body fat”, for it “does not account for differences across race/ethnic groups, sexes, genders, and age-span” and had caused “historical harm”. AMA's decision echoed a longstanding consensus among experts and activists that BMI is flawed, discriminatory and takes away targeted attention from health crises such as the ‘alarming prevalence’ of non-communicable diseases.

BMI has become the favoured tool to answer a complex public health question: how does weight affect a person's risk for disease and chronic health conditions? Its history, however, shows that BMI never promised scientific rigour.

A product of bias

Some 200 years ago, a Belgian astronomer and statistician Adolphe Jacques Quetelet wanted to study humans and develop ‘social laws’, like the laws of physics. He pored through available datasets to find the ‘average man’, using the height and weight of Caucasian, middle-aged men from France and Scotland. The ‘Quetelet's Index’, the first iteration of the BMI, helped identify a “type of perfection”, he wrote in *A Treatise on Man and the Development of his Faculties*, and everything else “would constitute deformity or disease... or monstrosity”.

Quetelet intended for it to be a population-level tool only, cautioning its use on individuals.

“It's not going to work”

Enter Ancel Keys, a century later, who saw fatness as a crisis, called it “ethically repugnant” and insisted on finding ways to measure body fat. Keys conducted a study centring White, wealthy men, and concludes “the BMI proves to be, if not fully satisfactory, at least as good as any other relative weight index as an indicator of relative obesity”. Even if imperfect, as a proxy indicator it's right half of the time. He published his findings in 1972, recording the birth of the Body Mass Index.

Medicalised link to obesity

Around this time, a push came from big pharma and health insurance companies. Life insurance companies “were instrumental in categorising bodies and raising public awareness of the dangers of obesity”, explained medical sociology expert Amanda M. Czerniawski. The ‘overweight’ people were charged a higher premium for availing services.



The National Institutes of Health (NIH) in the U.S. concurrently conferred about the health implications of obesity, eventually revising their definition of obesity to tie it with BMI cut-offs in 1995.

The WHO later recommended BMI as an 'objective measure', and further lowered the threshold of what it means to be fat.

The research for these revisions was funded by two pharma companies making weight-loss drugs at the time.

A complex science

Mounting evidence since has led people to reconsider the logic of BMI. For one, BMI doesn't understand weight entirely, is unable to distinguish between muscle mass and body fat. Muscle and bone are denser than fat and thus weigh more; explaining why people with larger body frames (like athletes) have a higher BMI and older adults (who lose muscle mass) tend to rank lower. Six obesity care organisations in January put out a statement concurring that BMI is "not a measure of body fat"; among other things, it failed to capture the uneven distribution of body fat.

BMI clumsily threads the needle between obesity and mortality, mistaking correlation for causation. People who are obese have a high BMI, but it is not necessarily true that a high BMI implies obesity. The science around 'fat' is constantly evolving. It is known that excess body fat increases the risk of non-communicable diseases, such as type 2 diabetes, heart conditions and 13 types of cancers. An analysis in Science journal, however, found 'obese' people (with a BMI of 30 or more) carried a lower cardiovascular risk, and those in the 'normal' range were metabolically unhealthy and had a higher mortality risk – what it called the "obesity mortality paradox".

Research has found at least 59 different types of obesity, making one measure of 'body fat' impractical. The measure also relies only on self-reported weight and height, disregarding other influences such as bone density, muscularity, sex, age, genetic differences, per a study in the International Journal of Obesity. Social factors such as poverty and education also influence weight and obesity.

Body fat also varies across ethnic and racial groups. Asian Indians, for instance, suffer from the Y-Y paradox, explains Dr. Sunil Kohli, in that "at the same BMI, we have more visceral fat — the fat inside the stomach — than Europeans do." Since Indians are prone to abdominal obesity, they are at higher risk of type 2 diabetes and heart diseases, studies show. WHO notes that BMI underestimates health risks for South Asians, and the optimal health for Indians would then be a low BMI.

What can BMI tell us?

BMI makes sense, because it is simple and inexpensive. India's aviation body shapes fitness norms for aircrew based on BMI. Zerodha encourage employees to lower BMI as part of their wellness program (it was censured by activists for being unscientific and biased). "Everyone is aware of their height; for measuring weight you need to stand on a weighing scale — it's as simple as that," explains Ms. Gupta. The internet is populated with BMI tables that categorise fitness, requiring little skill or technique, and better still, offering algorithmic assurance to those who are 'unhealthy'.



“BMI is one method of tracking your weight and identifying potential weight-related problems,” says Ms. Gupta. Like a Rapid Antigen Test for COVID-19, it may help screen for chronic health conditions without promising the accuracy of an RT-PCR test.

Dr. Kohli concurs that it’s an imperfect measure, but here to stay, since it offers utility in measuring population-level trends. “It’s a crude indicator– but also an easily measurable indicator.”

“For 1.2 billion people, if you want to understand how many people are overweight and underweight, BMI is the easiest data to capture, which also costs the least amount,” he says. The data generates an initial hypothesis, giving “a rough idea as to where you want your healthcare interventions”.

CAN THYROID CHANGES HAPPEN AT ANY STAGE OF MY LIFE? DO I NEED TO WATCH OUT FOR BROCCOLI, SOY AND GLUTEN?

The thyroid gland, a small butterfly-shaped organ located at the base of the neck, plays a crucial role in regulating various bodily functions. Despite its relatively modest size, it has a powerful impact on our overall well-being. It produces and releases hormones that help control metabolism, growth and development. However, the behaviour of the thyroid can vary at different stages of life, leading to potential disorders that require attention and management.

That’s because thyroid function and levels vary according to age, hormonal imbalances and even interaction with medication that you need to take. If these levels are undiagnosed, then the thyroid can have an impact on cardiovascular diseases, bone health and infertility.

THYROID FUNCTION AT DIFFERENT STAGES OF OUR LIFE

During infancy and childhood, the thyroid gland is vital for proper growth and brain development. Insufficient production of thyroid hormones during this period can result in a condition known as congenital hypothyroidism, which can lead to developmental delays if left untreated. Regular screenings for thyroid function are conducted shortly after birth to identify and promptly address such issues.

As we move into adolescence and adulthood, the thyroid gland continues to influence our overall health. Two common disorders that can arise during these stages are hyperthyroidism and hypothyroidism. Hyperthyroidism occurs when the thyroid produces an excess of hormones, while hypothyroidism refers to an underactive thyroid that doesn’t produce enough hormones.

Hyperthyroidism can manifest with symptoms such as rapid weight loss, anxiety, irritability and an increased heart rate. On the other hand, hypothyroidism often presents itself with fatigue, weight gain, depression, and sensitivity to cold. Both conditions can impact the quality of life and require medical attention.

Thyroid also plays a crucial role in pregnancy as it regulates metabolism and hormone levels. Imbalances in thyroid function can have significant implications for both mother and baby. Hypothyroidism can lead to complications like miscarriage, preterm birth, and impaired fetal brain development. Hyperthyroidism increases the risk of preeclampsia, premature birth and low birth weight. Maintaining a balanced thyroid during pregnancy is essential for optimal maternal and foetal health. Regular monitoring of thyroid hormone levels, appropriate medication and a healthy lifestyle contribute to a smooth pregnancy, reducing the risk of complications and ensuring the well-being of both mother and child.



SIGNS AND SYMPTOMS OF DYSFUNCTION

Recognising the signs of a potential thyroid problem is essential. If you experience unexplained weight fluctuations, persistent fatigue, changes in mood, hair loss, or irregular menstrual cycles, it may be prudent to consult a healthcare professional. Additionally, individuals with a family history of thyroid disorders or autoimmune diseases should be vigilant and consider periodic check-ups.

To evaluate thyroid function, a simple blood test can measure the levels of a thyroid-stimulating hormone (TSH) and thyroid hormones (T3 and T4). TSH is produced by the pituitary gland and regulates thyroid hormone production. Abnormal levels of TSH can indicate an overactive or underactive thyroid. If the results suggest a potential thyroid disorder, further testing, such as thyroid ultrasound or a radioactive iodine uptake scan, may be required to determine the underlying cause.

WHAT'S THE TREATMENT

Maintaining normal thyroid levels is crucial for overall well-being. In cases of hyperthyroidism, treatment options may include medications to block hormone production, radioactive iodine therapy to reduce thyroid activity, or surgery to remove part or all of the gland. Hypothyroidism, on the other hand, is typically managed with thyroid hormone replacement therapy, where synthetic hormones are prescribed to compensate for the inadequate production.

HOW OUR LIFESTYLE IMPACTS THYROID

Lifestyle choices can also impact thyroid health. Having a balanced diet rich in iodine, selenium and zinc, which are essential for proper thyroid function, is important. Regular exercise can help regulate hormone levels and support a healthy metabolism. Additionally, stress management techniques, such as meditation or counselling, may be beneficial, as stress can influence thyroid function.

Certain foods can impact thyroid health and contribute to thyroid issues. For individuals with hypothyroidism, goitrogens found in cruciferous vegetables like broccoli, cabbage and kale may interfere with thyroid hormone production when consumed in large amounts. Additionally, soy-based products and gluten-containing foods may exacerbate thyroid dysfunction in some individuals. On the other hand, iodine-rich foods like seaweed and seafood can be beneficial for those with iodine deficiency-related thyroid problems. It's important to note that while food can play a role, individual responses vary, and a balanced diet with moderation is key.