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WHY THE U.S. MID-TERM ELECTION MATTERS

Background: The U.S. mid-term elections will be held on November 8, 2022. In this election, every one of the 435 seats in the House of Representatives and 35 — slightly more than one-third — of the 100 seats in the Senate will be up for grabs. Alongside the election of these lawmakers in Washington, 39 state, gubernatorial and a range of other local contests will be on the cards.

A major redistricting exercise happened following the 2020 census, in which the boundaries of voting districts were redrawn by state authorities, amidst controversy relating to gerrymandering allegations, in some cases.

At the federal level, the stakes are high for Democrats to retain their grip on both houses of Congress. While earlier this year, it appeared that the Republican Party held the edge in many of the races slated for November, the Supreme Court ruling against the constitutional right to abortion as enshrined in Roe vs Wade is expected to galvanise liberals across the board and potentially lead to significantly higher turnouts on election day.

The Congressional inquiry into the January 6, 2021, riots and assault on the Capitol building by alleged supporters of former president Donald Trump, and the seizure of classified documents from Mr. Trump's mansion in Mar-a-Lago, Florida, have further muddied the prospects for Republican candidates who leaned on Mr. Trump for support. Nevertheless, many of the races in the mid-term elections remain close, as U.S. President Joe Biden still polls poorly across the nation for his performance in office, inflation and recessionary concerns for the economy remain, and the impact of the COVID-19 pandemic has still not worked its way out of the system as yet.

Overview of U.S. government structure

The U.S. political system is characterised by the tripartition of power across organs of the state. After the war to establish independence from the Great Britain, in its effort to set up political institutions for governance, the U.S. borrowed from the ideas of French philosopher, Montesquieu, who in 1748 spoke of a division of power to ensure that no single person or group could assume autocratic authority owing to a system of checks and balances between executive, legislative, and judicial branches of government.

In the U.S. context, these three branches are represented by, respectively, the President, Congress and the courts led by the Supreme Court. However, there is an important difference in the balance of power between these three arms of the state in the U.S., as compared to parliamentary democracies such as India. In India, the executive draws its very authority to make policy from its majority control of Parliament, and the proximity of this relationship implies that there is no realistic scenario where Parliament may overrule the actions of the Executive, which is the Cabinet led by the Prime Minister.

However, in the U.S., not only is the President empowered to veto legislation passed in Congress, but the President's power is circumscribed by Congress's power to vote out, by a two thirds majority, a presidential veto of a law that it had passed. Further, Congress controls budget appropriations which essentially gives it the levers to control what the White House can and cannot do in terms policy — effectively setting limits to presidential power yet again. Simultaneously, U.S. presidents enjoy a certain amount of autonomy from Congress as they are





not members of Congress as such but are elected indirectly by the people, through the electoral college.

On the other hand, U.S. courts possess the power to constrain the reach of Congressional legislation by, where the situation warrants it, declaring laws passed by Congress unconstitutional. They also have the power to declare presidential actions as unconstitutional in scenarios where it is believed that the President has acted beyond the scope of their legitimate authority.

Thus, all three branches of the U.S. government enjoy a balance of autonomy and limitations of powers imposed by the other two branches, which establishes a robust system of checks and balances and differentiates the balance of power and functioning of U.S. state institutions from those of parliamentary democracies.

Potential for gridlock

The flip side of strong checks and balances is the increased risk of gridlock whereby the very functioning of the U.S. government can be seriously stymied. This is often seen in the case of federal shutdowns leading to the furlough of many thousands of government employees, or of major hurdles to the passage of landmark legislation such as the Affordable Care Act spearheaded by the Barack Obama administration in 2010. In each such case, the resolution of the policy crisis has required adroit dealmaking, essentially pork-barrel politics to appease various Senators or Congressmen, a modality that undermines the effectiveness and credibility of the Executive.

The sense of stalemate at the federal level, particularly in Congress, is deepened by what is known as small State bias. This bias, an institutional deficit in the U.S. electoral system, stems from the fact that there is a growing chasm between the rapidly growing, densely populated and increasingly diverse States along the two coasts of the U.S. and the more numerous yet considerably more homogenous, sparsely populated States in the hinterland. Given that under the U.S. constitution only two Senators are allocated to each State regardless of its population, large States such as California have the same number of representatives in the Upper House as, for example, Wyoming, which is the U.S.'s least populous State.

This means that just to break even in the 100-seat Senate, Democrats need to win a far greater proportion of the national vote than the Republicans. Consider the example of the evenly split present Senate, where 50 Democratic Senators represent 56.5% of the voters, but the 50 Republican Senators represent only 43.5% of the voters. The correction of this small State bias would require political heavy lifting to bring about constitutional amendments that allowed for a greater measure of proportional representation for Congress.

The House of Representatives does reflect the demographic realities of the country, in that Congressional districts for the election of its members are based on population size. However, the precise demarcation of each district's boundary makes a significant difference to electoral outcomes as within each district a first-past-the-post — rather than proportional voting — system is followed where the majority winner claims the House seat for that district.

Concerns surrounding gerrymandering

While redistricting, the process of redrawing electoral boundaries is an exercise conducted across U.S. congressional and state legislative districts every decade, following the publication of the





results of the population census, gerrymandering or making calculated political gains through redistricting is a blight on the functioning of substantive democracy in the U.S.

The movement of Democratic supporters into urban areas, and the movement of Republicans to rural areas with far lower population density is a well-established long-term demographic trend. Given this skewed geographic distribution of voters over time, Republican Party lawmakers have discovered political gains in including or excluding cities in a district with a relatively larger proportion of rural voters depending on the density of Democratic residents.

The deep concerns surrounding gerrymandering came to the fore after the 2020 census results were announced in August 2021, a delayed outcome owing to the COVID-19 pandemic. In its wake, several 'swing States', or States that have historically switched between voting Republican and Democrat, including Georgia, North Carolina and Ohio, Republican state legislators have managed to gerrymander electoral districts to create "supermajorities" where none existed before, posing a challenge to the legitimate authority of the Democratic Governor of the State in question.

In such a scenario, short of moving the courts on redistricting methodologies, the political process leaves Democrats with few options to impact policymaking, thus undermining the representation of the people by their government. As noted earlier, the U.S. Congress is virtually gridlocked on major policy issues, leaving vital questions in areas such as reproductive rights, gun control and healthcare reform in the hands of state authorities to implement or not as they choose. Abortion rights, for example, have now been entirely handed over to U.S. States to implement or not, as they will. This makes gerrymandering a factor of serious concern.

Before the Voting Rights Act of 1965 passed into law, redistricting was driven by 'packing,' the attempt to redraw electoral district maps to ensure that a larger proportion of a specific demographic group, such as African American voters, is 'packed' into a single or a few districts, blunting their ability to decisively determine an electoral outcome. Until the second half of the 20th century, Southern States especially controlled the impact of the African American voter through such means. The other side of the coin to packing is 'cracking,' a process through which lawmakers break down the bunching together of certain voters who would support their opponents' party, and spread them more thinly across several districts, thus diluting their vote.

Ultimately, it is only when bipartisan independent commissions are given control over redistricting that the process stands a chance of being rebalanced fairly towards representing only genuine changes in population distribution. Currently, 39 out of 50 U.S. States do not have any such independent body deciding this matter, leaving lawmakers in these States free to gerrymander and undermine the election process significantly.

TRIAL BY FIRE

The United Kingdom's Conservative Party has elected Liz Truss, earlier the country's Foreign Secretary, as its next Prime Minister, making her the third woman to hold the top role in the country's political executive. She ascends to the post at a difficult time for the U.K., economically and politically — the government is challenged by soaring energy costs and recessionary headwinds; and the war in Ukraine has left the country scrambling to find alternatives to Russian fuel while standing up to Moscow's belligerence. Making matters harder, her path to the top has not inspired confidence in terms of her standing within the party. While she secured her victory with the backing of 81,326 of her party's members, her rival and former Chancellor, Rishi Sunak garnered 60,399 votes in the final contest, a much narrower margin than expected and the





narrowest margin of any election for party leadership held in the past two decades. It is also concerning that Ms. Truss won the support of less than 50% of Conservative Party members, as nearly 20% of them did not vote. In terms of policy implications this poses a challenge: in the coming months Ms. Truss will have to win over a Conservative Party cohort that prefers fundamentally different approaches to hers in tackling the most serious crises that the U.K. faces. For example, with her plan to introduce £30 billion in tax cuts including reversing the rise in National Insurance, temporarily dropping green levies on energy bills, and scrapping a planned rise in corporation tax, there are likely to be party members who will oppose her proposals.

Nevertheless, if there is one strength that Ms. Truss has demonstrated in the past, it is her adaptable politics, especially at times when this trait could improve her prospects in the big picture. Indeed, she has moved far from her political origins as a Liberal Democrat and also from her former position on Brexit as a Remainer. It was considered a politically astute move by her to steer clear of the Conservative coup that ended her predecessor Boris Johnson's tenure in office, yet she managed simultaneously to avoid being seen as a staunch insider of Mr. Johnson's political circle. She will need a strong measure of these skills to accomplish the mammoth tasks of lifting up the enervated reputation of the Conservative Party among the British public, carrying it past the sleaze scandals that plagued the Johnson government and, importantly, bringing down the soaring cost of living by tackling the energy crises and reinvigorating the sluggish U.K. economy with the right macroeconomic policy mix. Towards achieving this, Ms. Truss may do well to tap into her recent experience crafting post-Brexit deals with the European Union — and even extending that model to trading partners across the world. One thing is clear: she will have to hit the ground running and deliver positive results soon, else face harsh judgement by her constituents.

THE CHILEAN REFERENDUM FOR A NEW CONSTITUTION

The story so far: The people of Chile resoundingly rejected a new constitution which was set to replace a charter imposed by General Augusto Pinochet 41 years ago. Amid heavy turnout for the referendum, 61.9% of the voters rejected the draft document. President Gabriel Boric who had lobbied hard for the new document, said the results made it evident that the Chilean people "were not satisfied with the constitutional proposal that the convention presented to Chile".

What was the need for a new constitution?

In 2019, over a million people took to the streets of Chile for greater equality and more social protections. According to the World Bank, Chile has been among Latin America's fastest-growing economies in recent decades. However, more than 30% of the population is economically vulnerable and income inequality remains high. The 2019 protests sought reforms to address this inequality, which was in part spurred by the involvement of private sectors in social realms. The protests culminated with the then right-wing President Sebastian Piñera approving a referendum on the constitution. In October 2020, 78% of Chileans approved a proposal to draft a new constitution.

How was the new constitution drafted?

In the national plebiscite of 2020, the voters had to tackle two main points: firstly, whether the constitution should be changed at all; and secondly, whether the new constitution would be prepared by a constitutional convention of members elected directly or a mixed constitutional convention —consisting of both members of Parliament and directly elected citizens in equal





proportion. Seventy-nine per cent of voters suggested that a directly elected constitutional convention be entrusted with this duty. A second vote conducted between May 15 and 16 in 2021 elected the members of the constitutional convention. The 155-member convention reserved 17 seats exclusively for indigenous people — ensuring representation of the varied communities constituting approximately 12.8% of the country's total population as per the 2017 census. Further, in order to ensure gender parity, it was mandated that neither gender can have more than 55% representation in the convention. Also, independent members were to be in majority. The constitutional convention in charge of the process commenced work in July 2021.

What changes did the proposed constitution entail?

The main changes to the constitution involved reforms to the pension system, mining grants, the nature of property ownership as well as policies with respect to the environment.

Chile's 1981 pension system mandated that all wage and salary workers pay a percentage of their gross earnings into a pension fund administered by varied private pension fund administrators (AFPs). In simple words, profit-making national or foreign liability companies managed social security funding. The then-Chilean government stated that the move was motivated by efficiency and fiscal concerns, and a wish to reduce the role of government in economic affairs. The earlier system based on the pay-as-you-go mechanism had ensured that pensions were not subjected to financial market fluctuations. Further, the incumbent Finance Minister of Chile Mario Marcel had pointed out recently that the 1981 system allowed for a lower level of contributions from workers and companies compared to other countries.

President Boric had proposed replacing the private sector-held system with a public one — among the biggest demands during the 2019 protests. Reuters, quoting Mr. Marcel, reported in March this year that the government would send the long-awaited reform bill to Congress next year. According to ratings agency Fitch, the existing pension system's assets are equal to about 60% of the Chilean GDP. "Changes to the Chilean pension system could affect the ability of Chilean corporates to raise financing in the local market. The existing system encourages national savings and is the primary source of local financing for long-term investment projects used by many companies in the country," it states.

President Boric has also been a proponent of increasing mining taxes and royalties. During his campaign, he had also proposed setting up a national lithium company. Chile is the world's second-largest producer of lithium after Australia.

Recent amendments have stipulated that the state has an "absolute, exclusive, inalienable and imprescriptible domain on all mines." Exploiting natural resources (such as coal and copper, among others) has helped Chile prosper but fostered sizeable social inequality. The text of the amendment permitted certain 'mining concessions,' only if they serve the public good as determined by the judiciary. Fitch stated that a change in direction could hinder investments in the sector, especially large long-term investments. It added that potential concerns include the increased role of indigenous people in new project approvals, changes in property and water rights, and unclear terms of compensation if an asset is expropriated.

The new Chilean constitution was to also grant freedom to own all properties and goods, except those which "nature has made common to all men" or which should be collectively owned by the country as a whole. A qualified quorum law would establish requirements for the acquisition of properties to better serve the interests of the nation, including considerations about national security, public health utilities, and preservation of the environment. It recognises that the





environment must be preserved and it is the right of the community to live in an environment free of contamination. The erstwhile constitution's 1981 Water Code let the government grant 'free water rights' to private entities. This ended up creating a market for water with the state unable to supply enough for domestic consumption. Bloomberg reported in February that a proposal to annul free water rights for private concerns was approved in an initial vote by the convention's environmental committee. This effectively meant that mines, agribusiness and utilities would have to seek temporary permits to use water. Additionally, the revised mechanism would prioritise human consumption, stability of water reserves, and indigenous rights.

THE CHAMPION OF RIGHTS

It would have been out of character for Michelle Bachelet, the outgoing UN High Commissioner for Human Rights, if she had not released the pending report on the human rights violations in the Xinjiang region of China, before her term ended. She went on to release the report merely minutes before the end of her four-year tenure. The report, which the Chinese government sought to stop publication, stated that the Chinese regime had committed "serious human rights violations" against Uighur people in the province.

Ms. Bachelet, in many ways, has been an unconventional politician and later a diplomat who has been unafraid of ruffling feathers. This was evident in the way Ms. Bachelet's office (OHCHR, or the Office of the UN High Commissioner for Human Rights) approached the Supreme Court of India in March 2020, asking to be impleaded in the petitions challenging the controversial Citizenship Amendment Act after informing the Human Rights Council that the OHCHR had "great concerns over the CAA". The Indian government averred that no foreign party had any "locus standi" on what was an internal matter of India.

Other issues that the OHCHR has raised during Ms. Bachelet's tenure included the Saudi Arabialed military intervention in Yemen that resulted in a humanitarian crisis in that country and the repression of Palestinians, including children, by Israeli forces that continued into 2022.

Life under dictatorship

A two-time former President of Chile, Ms. Bachelet's formative years were spent in repression by the military regime in the South American country. She had joined Salvador Allende's socialist party — Unidad Popular — in 1970 while pursuing medical studies at the University of Chile. After Allende's government was toppled in a murderous coup d'état led by General Augusto Pinochet on September 11, 1973, her family was subject to severe repression — her father was accused of being a dissident, tortured in detention and died following a heart attack. Ms. Bachelet and her mother were both detained; she was roughed up but released from prison and later left the country, first to Australia and then to Berlin, East Germany, where she studied medicine before returning to Chile in 1982 and finishing a degree in paediatrics.

THE INTERNATIONAL MONETARY FUND'S STAFF-LEVEL AGREEMENT WITH SRI LANKA

The story so far: The International Monetary Fund (IMF) on September 1 announced a staff-level agreement with Sri Lanka, months after the island nation's economic crisis intensified this year, following a serious Balance of Payments problem.





What is the staff-level agreement?

It is a formal arrangement by which IMF staff and Sri Lankan authorities agree on a \$2.9-billion package that will support Sri Lanka's economic policies with a 48-month arrangement under the Extended Fund Facility (EFF).

However, even though the IMF has agreed to support Sri Lanka, the EFF is conditional on many factors. Sri Lanka must take a series of immediate measures that the Fund has deemed necessary to fix fiscal lapses and structural weaknesses — such as raising fiscal revenue, safeguarding financial stability and reducing corruption vulnerabilities. Apart from making domestic policy changes to strengthen the economy, Sri Lanka must also restructure its debt with its multiple lenders. The IMF has said that it will provide financial support to Sri Lanka only after the country's official creditors give financing assurances on debt sustainability, and when the government reaches a collaborative agreement with its private creditors. The process could take several months.

What next?

Sri Lanka has already taken some significant policy measures. Beginning this year, the Central Bank has floated the rupee, raised interest rates sharply, increased electricity tariffs and fuel prices and restored tax cuts introduced during President Gotabaya's time in office. While the government embarks on a path of fiscal consolidation, it has the difficult task of negotiating with a diverse group of creditors, including International Sovereign Bond (ISB) holders, to whom the island owes nearly half of its foreign debt, multilateral-lateral agencies, and foreign governments, mainly China, Japan, and India. While talks with the ISB holders are likely to be legal and technical, discussion with bilateral creditors is a more complex exercise, with geopolitical dimensions.

What have the countries said?

China has signalled its willingness to lend more money to the country but has put the onus of restructuring past debt on Sri Lanka. "We hope Sri Lanka will work actively with China in a similar spirit and work out a feasible solution expeditiously," the Chinese Embassy said after the government firmed up the staff-level agreement with the IMF.

Japan has pledged to work with Sri Lanka and other creditors, but underscored that it is important for Sri Lanka, in collaboration with the IMF and Paris Club, "to work for the betterment of its economic and fiscal situation while securing transparency." India, too, backs the IMF process and will likely cooperate, although New Delhi has said it is still studying the "evolving, unfolding" story of the IMF agreement. Ministry of External Affairs spokesman Arindam Bagchi said: "India has been advocating for assistance to Sri Lanka but let us see how it progresses. Issues of creditor equitability and transparency are important." This means that India expects Sri Lanka to treat all its creditors equally and fairly. The statement comes amid speculation on whether Colombo might accord preferential treatment to one partner.

The IMF has indicated that creditors also have a role to play in ensuring Sri Lanka's crisis does not deepen.

Is the \$2.9-billion a bailout package?

The \$2.9 billion agreed upon by both sides, is short of Sri Lanka's expectations of support totalling \$3 to \$4 billion. In any case, even if the IMF package arrives swiftly, subject to Sri Lanka's success with the "prior actions" spelt out by the Fund, it cannot "bailout" Sri Lanka.





After a pre-emptive sovereign default in April — the island's foreign debt totals \$51 billion — Sri Lanka is still grappling with its Balance of Payments crisis. The government has resorted to wide import restrictions, while exports remain limited to the country's traditional basket of tea, garments, and spices.

From the ordinary citizen's point of view, cost of living is soaring. Headline inflation went up to 64.3% in August 2022, and food inflation increased to 93.7%. The World Food Programme estimated that about 30% of Sri Lanka's population, became food insecure, since the crisis worsened this year. Many families, especially those belonging to the working population, are starving.

How then can the IMF package help?

If it comes through, the IMF package will effectively make Sri Lanka credit-worthy again, allowing the government to borrow once again from private creditors, multilateral lenders and bilateral partners. While many see the programme as necessary, few think it will be sufficient for substantive economic recovery. They believe it would push the government to make necessary policy shifts to ensure higher revenue and lesser state spending and address the problem of corruption.

The responsibility of building fiscal strength and resilience is, however, Sri Lanka's. For that, the government must also introspect on its heavy reliance on imports, the status of domestic production, prospects for boosting exports with greater value addition, and ways to address income and wealth inequality.

DIFFICULT TO IMPLEMENT, WHAT IS THE IDEA OF CLIMATE REPARATION?

Facing the worst flooding disaster in its history, Pakistan has begun demanding reparations, or compensation, from the rich countries that are mainly responsible for causing climate change. In repeated public statements, Pakistan's Minister for Climate Change, Sherry Rehman, has been saying that while her country makes negligible contribution to global warming, it has been among the most vulnerable to climate change. The current floods have already claimed over 1,300 lives, and caused economic damage worth billions of dollars. Rich nations, Rehman has argued, owe reparations to countries like Pakistan for the consequences of climate change.

On the face of it, Pakistan's demand for reparations appears to be a long shot, but the principles being invoked are fairly well-established in environmental jurisprudence. In fact, Pakistan is not alone in making this demand. Almost the entire developing world, particularly the small island states, has for years been insisting on setting up an international mechanism for financial compensation for loss and damage caused by climate disasters. The issue has come up repeatedly at international climate change negotiations, and on other platforms.

Historical emissions argument

At its heart, the demand for compensation for loss and damage from climate disasters is an extension of the universally acknowledged "Polluter Pays" principle that makes the polluter liable for paying not just for the cost of remedial action, but also for compensating the victims of environmental damage caused by their actions.

In the climate change framework, the burden of responsibility falls on those rich countries that have contributed most of the greenhouse gas emissions since 1850, generally considered to be the





beginning of the industrial age. The United States and the European Union, including the UK, account for over 50% of all emissions during this time. If Russia, Canada, Japan, and Australia too are included, the combined contribution goes past 65%, or almost two-thirds of all emissions.

Historical responsibility is important because carbon dioxide remains in the atmosphere for hundreds of years, and it is the cumulative accumulation of this carbon dioxide that causes global warming. A country like India, currently the third largest emitter, accounts for only 3% of historical emissions. China, which is the world's biggest emitter for over 15 years now, has contributed about 11% to total emissions since 1850.

While the impact of climate change is global, it is much more severe on the poorer nations because of their geographical locations and weaker capacity to cope. This is what is giving rise to demands for loss and damage compensation. Countries that have had negligible contributions to historical emissions and have severe limitations of resources are the ones that face the most devastating impacts of climate change.

Admission of responsibility

The UN Framework Convention on Climate Change (UNFCCC), the 1994 international agreement that lays down the broad principles of the global effort to fight climate change, explicitly acknowledges this differentiated responsibility of nations. It makes it very clear that rich countries must provide both the finance and the technology to the developing nations to help them tackle climate change. It is this mandate that later evolved into the \$100 billion amount that the rich countries agreed to provide every year to the developing world.

While this promise is yet to be met, this \$100 billion per year amount is not meant for loss and damage. Climate disasters were not a regular occurrence in 1994, and as such the UNFCCC does not make a mention of loss and damage. This particular demand emerged much later, and faced stiff resistance from the developed nations

It was after much struggle that the developing countries and NGOs managed to establish a separate channel on loss and damages at international climate change negotiations. The Warsaw International Mechanism (WIM) for Loss and Damages, set up in 2013, was the first formal acknowledgment of the need to compensate developing countries struck by climate disasters.

However, the progress on this front has been painfully slow. The discussions under WIM so far have focused mainly on enhancing knowledge and strengthening dialogue. No funding mechanism, or even a promise to provide funds, has come about. At last year's climate conference in Glasgow, a three-year task force was set up to discuss a funding arrangement.

The pushback

It is not hard to understand why the developed countries are dead against compensation claims. They are struggling to put together even the \$100 billion per year flow that they had reluctantly agreed to provide.

Further, loss and damage claims can easily spiral into billions of dollars, or even more. According to a recent report by the UN Office for the Coordination of Humanitarian Efforts (UNOCHA), prepared for the UN General Assembly, annual funding requests related to climate-linked disasters averaged \$15.5 billion in the three-year period between 2019 and 2021. The economic loss from cyclone Amphan in India and Bangladesh in 2020 has been assessed at \$15 billion.





The report said that the United States alone is estimated to have "inflicted more than \$1.9 trillion in damages to other countries" due to its emissions. Then there are non-economic losses as well, including loss of lives, displacement and migration, health impacts, and damage to cultural heritage. The report cited the results of another study to say that the unavoidable annual economic losses from climate change were projected to reach somewhere between \$290 billion to \$580 billion by the year 2030.

Estimating the quantum of loss

Of course, not every loss and damage can be put up for compensation claims. There are practical difficulties in estimating how much a country has actually suffered due to the actions of others. To begin with, it has to be established that the disaster was caused by climate change. Good progress has been made in attribution science over the last few years, which now enables scientists to say with a fair degree of certainty how much role climate change has had to play in a particular extreme weather event. But it is still far from being an exact science.

Then there is this other step about assessing how much of the losses are due to the event itself, and what could be attributed to misgovernance. For example, the kind of flooding currently being witnessed in Bengaluru could, to a very large extent, be attributed to the lack of efficient urban planning even though a heavy downpour could be the result of climate change. A lot of background work is going on to create the framework in which it would be possible to quantify the compensation due to an affected country.

What Pakistan has done, through its demands for reparations, is to call attention to this often neglected aspect, as the world prepares for this year's climate conference, scheduled to be held in Sharm-el Shaikh in Egypt in November. Pakistan has already received widespread support from global climate NGOs that are likely to press for allotting more time for this subject at the Egypt conference.

AT THREAT FROM PAKISTAN'S MONSTER MONSOON, THE 5,000-YEAR-OLD HERITAGE OF MOHENJO DARO

In the 1960s, hydrologist Robert L Raikes and archaeologist George F Dales put forward the theory that a series of catastrophic floods in the Indus around c. 1800 BC had wiped out the great urban centres of the Harappan civilization. Last week, Pakistan's Department of Archaeology warned that heavy rainfall in the Sindh province threatened the World Heritage status of Mohenjo Daro, one of the largest of Indus Valley Civilization sites.

The prehistoric antiquity of Mohenjo Daro, which flourished on the right (west) bank of the Indus river in the 3rd millennium BC was established by Rakhal Das Banerji of the Archaeological Survey of India in 1922. The ruins of the sprawling city of unbaked (burnt) brick 510 km north-east of Karachi and 28 km from Larkana in Sindh were recognised as a UNESCO World Heritage site in 1980.

Damage at the site

Authorities in Sindh have called for urgent attention towards conservation and restoration work at the site, for fear that it might be removed from the World Heritage list, the Pakistani daily Dawn reported on Sunday. The report said that the curator of the 5,000-year-old site wrote to the director of culture, antiquities, and archaeology at the end of last month saying "we have put in efforts to protect the site with our resources", but departments like irrigation, roads, highways,





and forest needed to step in because "landlords and farmers had...inserted pipes and given cuts to canals and roads to release water into Mohenjo Daro's channel".

The Dawn report said that between August 16 and 26, the archaeological ruins of Mohenjo Daro had received a record 779.5 mm of rain, which had resulted in "considerable damage to the site and partial falling of several walls, including the protection wall of the stupa dome". The Nation reported that it had emerged on Thursday that the ruins "did not remain safe from the devastating effects of downpours", and that the "DK Area, Muneer Area, Stupa, Great Bath and other important sites of these ruins have been badly affected by the natural disaster".

The "Paris Stairs, the Stupa and the DK Area are particularly in a worst condition", The Nation report said. It quoted site curator Ihsan Ali Abbasi as saying that "although these ruins are not inundated with water, still persistent rainfall has eroded them". The Friday Times said in a report on August 31 that "much of Mohenjo Daro, including the iconic Mound of the Dead site, has been ravaged by floodwaters, with excavated areas being damaged as the water seeps through and creates furrows as it fills out the site".

In a separate report, The Nation said on Monday that "keeping in view that...Mohenjo Daro...is facing the danger of obliteration after braving the monstrosity of recent flash floods and torrential rains", the entry of tourists to the site had been prohibited.

Mound of the Dead

Along with Harappa, Mohenjo Daro is the best known site of the bronze age urban civilization that flourished in the valley of the Indus between roughly 3,300 BC and 1,300 BC, with its 'mature' phase spanning the period 2,600 BC to 1,900 BC. The civilization went into decline in the middle of the second millennium BC for reasons that are believed to include catastrophic climate change.

Sites of the Indus Valley Civilisation have been found in a large area extending from Sutkagen Dor in Balochistan near the Pakistan-Iran border to Rakhigarhi in Haryana's Hisar district, and from Manda in Jammu to Daimabad in Maharashtra. Other important sites of the Harappan civilization in India are at Lothal and Dholavira in Gujarat, and Kalibangan in Rajasthan.

The ruins of Mohenjo Daro remained undocumented until Banerji visited the site in 1920, and began digging the following year. Excavation continued in phases until 1964-65; even now only a small part of the site has been excavated. The site is famous for its elaborate town planning with street grids with brick pavements, developed water supply, drainage, and covered sewerage systems, homes with toilets, and monumental buildings such as the Great Granary and the Great Bath. At its peak, Mohenjo Daro, literally 'Mound of the Dead', has been estimated to have between 30,000 and 60,000 residents with a highly evolved social organisation.

Saving the site

Some reports from Pakistan said that even though the site has suffered damage in the heavy rain, it has not been flooded. UN Secretary General Antonio Guterres has announced plans to visit Pakistan this week, and The Nation reported that it was "expected" that he would visit the archeological site as well. Work on removing soil and silt from drains at the site is ongoing.

There are around 1,100 UNESCO listed sites across its 167 member countries. Last year, the World Heritage Committee decided to delete 'Liverpool — Maritime Mercantile City' in the United Kingdom from the World Heritage List due to "the irreversible loss of attributes conveying the outstanding universal value of the property". In 2007, the UNESCO panel had delisted the Arabian





Oryx Sanctuary in Oman after concerns over poaching and habitat degradation, and the Elbe Valley in Dresden, Germany, in 2009 after the construction of the Waldschlosschen road bridge across the Elbe river.

END OF AN ERA

The passing of Queen Elizabeth II, the United Kingdom's longest serving monarch who reigned for over 70 years, marks the end of an era for British monarchy. Her tenure as Head of State began during the early post-War years and witnessed a paradigm-changing shift in the balance of political power from the British empire to the Commonwealth, and the emergence of free, post-colonial nations. During her time on the throne the Cold War came to an end and so too did the U.K.'s 47-year experiment as a member of the European Union. No fewer than 15 U.K. Prime Ministers came and went while she reigned, from Winston Churchill to Liz Truss. Her rule was not without controversy. On the personal front she suffered an "annus horribilis" in 1992, when the marriages of three of her children broke down and Windsor Castle was damaged by fire. In the aftermath of the death of King Charles' former wife, Diana, in a car accident in Paris in 1997, criticism was levelled at the monarchy for shying away from public response. Despite these occasional setbacks, Queen Elizabeth has consistently enjoyed a high favourability rating among the British public, 75% according to a recent poll. Observers attribute this to her stubborn silence on political issues, a "closed book" approach that allowed subjects, critics, and outsiders to project onto her and the royal family, whatever they wished to.

Her passing however raises complex questions regarding the state of the monarchy vis-à-vis the Commonwealth realms and the prognosis for the latter's continuing evolution in a vastly different socioeconomic milieu compared to the Elizabethan era. Consider, for example, the debate in Australia, where there is a popular movement to reposition the country as a Republic, particularly in the context of the administration of Prime Minister Anthony Albanese being keen to set up a treaty with the Aboriginal and Torres Strait Islander communities. In 2021, Barbados became the 18th country to remove the British monarch from the role of head of state. Other than these two nations and the U.K., the British monarch remains the head of the state in Antigua and Barbuda, Belize, Canada, Grenada, Jamaica, New Zealand, Papua New Guinea, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Solomon Islands, The Bahamas, and Tuvalu. At least six Caribbean nations have hinted at following the Barbados example. However, the broader Commonwealth group of 56 nations, of which India and other South Asian countries are members, remains intact, thanks in large part to the critical role that the Queen played in championing the organisation and maintaining its relevance. As epochal was her rule, so too could the impact of her passing be on the mission and prospects of the Commonwealth.

PERILS OF BRINKSMANSHIP

The shooting down of a Chinese drone by Taiwan's military on September 1 has marked a new phase in the already simmering tensions across the Taiwan Strait, highlighting the growing risks of escalation, even if unintended. Over recent weeks, China's military has carried out unprecedented military drills surrounding Taiwan, following the visit last month of U.S. House Speaker Nancy Pelosi. Some manoeuvres crossed the median of the Taiwan Strait and were declared by China's military to have also taken place in territorial waters claimed by Taiwan. Taiwan soberly chose not to engage the PLA vessels. In the wake of the drills, the Chinese military has subsequently sought to continue asserting Beijing's territorial claims by sending drones into Taiwan's airspace. Photographs taken up close of Taiwan military personnel were subsequently





shared on social media, apparently to demonstrate Beijing's capabilities, but in the process raising pressure on Taipei to show a response. Taiwan's military said it took the decision to shoot down what it called an unidentified civilian drone over its airspace in Shiyu Island after delivering several warnings. Shooting down a military drone may have elicited a different response from China, which has so far played down the incident. While the Chinese military reportedly has been deploying both military and civilian-use drones, so have ordinary residents in Fujian right across the strait, raising the risks of miscalculation triggering a serious incident.

The deployment of drones has added a further layer of unpredictability to an already tense situation. The past month's developments have certainly served a reminder to the region of the fragility of the current status quo, and particularly of China's willingness to change it. While most observers expect that a Chinese invasion remains too risky a prospect for the Communist Party leadership in the immediate future, an unintended escalation no longer remains a remote possibility. Most countries, including India, have preferred to stay out of the Taiwan issue, considering the One China Policy and the needs of the complicated relations with China. But sooner rather than later, they will need to assess the implications to their own security interests of a serious crisis. Taiwan's status as a lynchpin in the global semiconductor industry is a case in point. While India's recent reference to the "militarisation" of the strait is not a reflection of a major change in its approach, New Delhi has appeared to show greater willingness to do more with Taiwan particularly in the economic realm, such as setting up an alternative base for semiconductor manufacturing in India. These are, even if long overdue, steps in the right direction.



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NATION

AT VOSTOK-22, WHY IS INDIA NOT JOINING NAVAL DRILL?

The story so far: From September 1-7, Russia is holding annual military exercises in its eastern region, with about 13 countries including India and China sending contingents. While the exercises in Vostok-2022 are routine, they are the first such multilateral exercises to be held since the Russian war in Ukraine began. They include a maritime component near the disputed islands of South Kuril, claimed by both Russia and Japan.

Who is taking part in Vostok-22?

The countries that have sent military contingents are Algeria, Armenia, Azerbaijan, Belarus, India, Kazakhstan, Kyrgyzstan, China, Laos, Mongolia, Nicaragua, Syria and Tajikistan, according to the Russian Ministry of Defence, which estimates that "more than 50,000 troops and 5,000 units of military equipment" including 140 aircraft and 60 warships would participate in the exercises.

According to a statement issued by the Indian Defence Ministry, the Indian Army contingent is part of "joint manoeuvres to include joint field training exercises, combat discussions, and firepower exercises." However, India has only sent its army contingent of the 7/8 Gorkha Rifles, and will not take part in the maritime section of the two-part event.

This is because, while the first part of the land exercises will be held in Russian military training grounds in Siberia and the Far Eastern Federal District, the maritime part of the exercises would be held in the Sea of Okhotsk and the Sea of Japan. These are near the disputed South Kuril islands.

Japan's Foreign Ministry issued a demarche calling on Russia to move the location of its maritime exercises, which the Russian Ambassador in Tokyo rejected, and India's decision not to take part in the naval exercises is believed to be in deference to Tokyo's sensitivities.

Why has Washington criticised the exercises?

In a statement ahead of the exercises, U.S. White House Secretary Karine Jean-Pierre said that the U.S. has "concerns about any country exercising with Russia while Russia wages an unprovoked, brutal war against Ukraine," adding that the decision to participate was up to each country, and that the government had been "pretty public" about its opposition to the exercises in talks. The Biden administration is in the process of stitching together support for more sanctions against Russia for its invasion of Ukraine, as well as a demand for price-caps on Russian oil exports, and the decision by India and other countries to participate in Vostok-2022 presents a divided approach towards Russia.

The Ministry of External Affairs (MEA), however, rejected the concerns. "Let me just emphasise that India has been regularly participating in multilateral exercises in Russia, along with a number of other countries," MEA spokesperson Arindam Bagchi said, adding that "there will be only army participation in the Vostok exercises this year."

What does India's participation mean?

By sending an army contingent to join Russian and Chinese troops in the exercises at this time, New Delhi is aiming to send a four-pronged message. The first is its continuing relationship with





Russia despite the Ukraine war, where the Modi government has decided not to join the Western sanctions regime, or to curb oil imports and other economic engagement with Moscow.

The second is to signal balance and non-alignment in the current crisis, given India has mostly abstained from votes at the United Nations seeking to criticise Russia. India also takes part in routine Indo-Pacific exercises with its Western partners including the Quad, as well as in bilateral exercises, like the India-U.S. "Yudh Abhyas" in Uttarakhand next month. These exercises will take place just after Prime Minister Narendra Modi's visit to Uzbekistan for the Shanghai Cooperation Organisation (SCO) summit in September, where he will participate alongside leaders of Russia, China, Belarus, Kazakhstan, Kyrgyzstan, who have sent contingents for Vostok-22 as well. It is a way of signalling that India remains comfortable in both its engagement with the U.S.-EU coalition and its rival groupings led by Russia-China. Third, by staying away from the maritime exercises, New Delhi has shown both its sensitivity to Japan's concerns on maintaining the status quo over the disputed islands, as well as stressing the importance of territorial sovereignty and integrity for India. This coming week, India is hosting a Quad meeting on Indo-Pacific initiatives in Delhi and holding bilateral talks with the U.S. and Japan on trade and defence as well.

Finally, the message the government continues to give is that it is willing to engage with China on a number of fronts, even as military talks with China at the LAC (Line of Actual Control) remain stuck. The government, however, asserts that it cannot be "business as usual" with China until the latest logjam over Chinese troops' transgression since April 2020 is resolved.

SC BATS FOR DISABLED IPS CANDIDATES

The Supreme Court on Tuesday wondered whether the government can "lower the scale" of eligibility for disabled candidates applying for the Indian Police Service (IPS) even as the petitioners said if Israeli, American, and Canadian forces can accommodate the disabled, India can well try.

A Bench of Justices Indira Banerjee and M.M. Sundresh said police departments such as the cybercrime wing which are "grossly understaffed", could accommodate disabled persons who cleared the services exam.

Justice Banerjee reminded the government that there was a time when women were not allowed to join, "now they are".

The NGO had challenged an announcement of September last year excluding the disabled from certain branches of the civil services, both in combat and administrative capacities. Mr. Datar had argued that the issue was of national importance and the notification was both unlawful and arbitrary.

Abuse of rights

He said the exclusion of disabled persons amounted to the abuse of the Rights of Persons with Disabilities Act.

The Supreme Court had earlier allowed disabled persons who have cleared their civil services' written exams time till April 1 to provisionally apply to the Union Public Services Commission for selection to the Indian Police Service, Indian Railways Protection Force Service and the Delhi, Daman & Diu, Dadra and Nagar Haveli, Andaman and Nicobar Islands and Lakshadweep Police Service.





BAIL FOR WOMEN

The story so far: "We hasten to add that the relief of interim bail is granted to the appellant in the peculiar facts including the fact that the appellant happens to be a lady," said the Supreme Court Bench headed by Chief Justice of India, U.U. Lalit, in its order on activist Teesta Setalvad on September 2. During the hearing, too, Justice Lalit made an oral observation that under Section 437 of the Code of Criminal Procedure (CrPC), a woman is entitled to favourable treatment. He was referring to a provision that says being a woman is a possible ground for granting bail, even when otherwise it cannot be considered.

What does the bail provision say?

Section 437 of the CrPC deals with bail in case of non-bailable offences. It says a person shall not be released on bail if there is reasonable ground to believe that he has committed an offence punishable with death or life imprisonment; or, if he has been previously been convicted for an offence punishable with death, life imprisonment, or for a term of seven years or more; or been convicted on two or more occasions on other offences with a term between three and seven years. However, it also contains exceptions in a proviso that says the court may grant bail even in these cases, "if such person is under the age of 16 or is a woman or is sick or infirm".

Are there other provisions favourable to women accused?

There are several provisions in criminal law that give special consideration to women, of any age, when they are victims of offences, including sexual offences, in the way they are treated as witnesses and victims of crimes. There are also some provisions relating to women when they are made an accused, and arrested.

For instance, when a police officer requires the attendance of any person who he believes is acquainted with a case under investigation, the person has to appear before the officer (Section 160). However, no woman shall be required to do so at any place other than the place in which she resides. This is understood to mean that the officer has to visit the place of residence to make enquiries. This benefit is also available to boys under 15, men above 65 and any mentally or physically disabled person. In its 84th and 135th Report in 1980 and 1989, the Law Commission suggested that the word 'place' is ambiguous, and it would be better to amend it to 'dwelling place'.

What does the CrPC say on the arrest of a woman?

A police officer may arrest a person who has committed a cognisable offence without a judicial order or a warrant (Section 41). If the person does not submit to custody based on the word or action of the police, Section 46 enables the police officer to confine the person physically to effect the arrest. A proviso was introduced in the CrPC in 2009 to the effect that where a woman is to be arrested, only a female police officer may touch the woman's person, unless circumstances otherwise require. Earlier, through a 2005 amendment, a subsection was added to Section 46 to prohibit the arrest of a woman after sunset or before sunrise. However, in exceptional circumstances, a woman police officer can obtain the prior permission of a judicial magistrate to make the arrest.

What does it say on women who don't appear in public?

The police may seek entry into any premises where they suspect that a person who is required to be arrested is present. In a situation where any such place is an apartment in the occupancy of a





female (who is not the person to be arrested) and if the woman is one who, by custom, does not appear in public, the police have to give notice to her so that she may withdraw before they enter it (Proviso to Section 47). It adds that they shall afford her every reasonable facility for withdrawing before they break open and enter the place.

In yet another exception, a woman who intends to file a defamation case, but is one who does not appear in public according to custom, can ask someone else to file the complaint on her behalf.

CHANGING THE AGE OF CONSENT

In August 2, in Rama @ Bande Rama v. State of Karnataka, the Karnataka High Court quashed criminal proceedings of rape and kidnapping under the Indian Penal Code, and penetrative and aggravated penetrative sexual assault under the Protection of Children from Sexual Offences (POCSO) Act, 2012, which had been initiated based on a complaint of a 17-year-old girl's father against her 20-year-old partner. The girl stated in court that the acts were consensual and she had married the accused after she had turned 18. The marriage was registered and a child was born to the couple. The High Court observed that "if the court would shut its doors to the couple who are married and bringing up the child, the entire proceedings would result in miscarriage of justice."

Normalcy of relationships

With the enactment of POCSO, a number of young couples in consensual and non-exploitative relationships have found themselves embroiled in the criminal justice system. Since consent of a "child" is immaterial, consensual sexual intercourse with or among adolescents is treated on a par with rape. While boys/young men are charged with sexual offences, the girls are treated as victims and institutionalised in children's homes when they refuse to return to their parents or their parents refuse to accept them. Faced with criminal prosecution and incarceration, the only relief available to the couple is to urge the High Court to quash the case by using its inherent power under Section 482 of the Criminal Procedure Code, "to prevent abuse of the process of any Court or otherwise to secure the ends of justice."

Several other High Courts too have recognised the normalcy of these relationships, the futility of prosecuting romantic cases owing to the consensual nature of the relationships and marriage between the parties, as well as the harmful impact of continued prosecution on both parties. While quashing a similar case in Vijaylakshmi v. State Rep (2021), the Madras High Court observed that, "[p]unishing an adolescent boy who enters into a relationship with a minor girl by treating him as an offender, was never the objective of the POCSO Act." In Raj Kumar v. State of Himachal Pradesh (2021), the Himachal Pradesh High Court allowed a petition filed by the minor girl's father for quashing the trial against his son-in-law. It observed: "If criminal proceedings are allowed to continue, the same will adversely affect the married life of his daughter..." In Skhemborlang Suting v. State of Meghalaya (2021), a couple got entangled under the POCSO Act when the husband took his wife, who was 17, to a hospital for a check-up after she became pregnant. The Meghalaya High Court quashed the case observing that an application of the Act would "result in the breakdown of a happy family relationship and the possible consequence of the wife having to take care of a baby with no support..."

An analysis by Enfold Proactive Health Trust of 1,715 "romantic" cases under the POCSO Act decided between 2016-2020 by Special Courts in Assam, Maharashtra, and West Bengal revealed that such cases constituted 24.3% of the total cases decided by the courts. The parents and





relatives of the girls constituted 80.2% of the complainants. They approached the police after the girl went "missing", or eloped with her partner, or a pregnancy was discovered. The victim and the accused were married to each other in only 46.5% of the cases. In 85.5% of the cases, the girls said the relationship was consensual. In 81.5% of the cases, they did not state anything incriminating against the accused during evidence. In 61.7% of the cases, the Special Courts too acknowledged that the relationship was consensual. Moreover, acquittals were recorded in 93.8% of the cases.

Law reform

The high rate of acquittals shows that the law is not in sync with social realities of adolescent relationships. The High Courts have also acknowledged the disruptive impact of the criminal law in such cases. While the marriage between the parties appears to have influenced several High Courts and resulted in the quashing of romantic cases under the POCSO Act, sexual behaviour is normative during adolescence, and not all relationships end in marriage. Blanket criminalisation of such consensual sexual acts involving older adolescents erodes their dignity, best interests, liberty, privacy, evolving autonomy, and development potential. It also impacts the delivery of justice as these cases constitute a large burden on our courts, and divert attention from investigation and prosecution of actual cases of child sexual abuse and exploitation. There is thus a compelling need for law reform to revise the age of consent and prevent the criminalisation of older adolescents engaging in factually consensual and non-exploitative acts.

MOVING OUT OF THE SHADOWS, FROM SILENCE TO ASSERTION

A Talaq-e-Hasan petition filed by a Ghaziabad-based woman, seeking to make the divorce pronounced by the husband at an interval of at least a month extra-judicial, was in the limelight recently when Justice S.K. Kaul observed that the practice of Talaq-e-Hasan or divorce pronounced to the wife once a month for three months is "not so improper". The Bench of the Supreme Court of India, that included Justice M.M. Sundresh, also brought to the counsel's notice the possibility of exploring divorce through mubarat or mutual consent. The judges referred to the option of khula, or a Muslim woman's right to divorce as well.

The Court's observation continues the trend of the judiciary taking into cognisance the rights available to a Muslim couple to dissolve an unhappy marital union. It also marks the increasing propensity of Muslim women to stand up for their rights in marriage or otherwise, a clear departure from times when women left the husband's house in silence, battered, bruised and fearing social opprobrium. Indeed, more and more Muslim women are now approaching various courts, including Darul Qaza or shariah courts, for redress of marital grievances.

While the widely-acclaimed invalidation of instant triple talaq by a five-judge Bench of the Court, in 2017, is well documented, there was a Kerala High Court judgment of 2021 which upheld the validity of khula. The court called khula, "the form of divorce conferred upon the wife similar to talaq conferred upon the husband". Incidentally, there are more cases of khula in Darul Qazas or shariah courts than those of instant triple talaq, post the 2017 verdict, according to a rough estimate. In other words, greater awareness of their rights is seeing more and more Muslim women walking out of an abusive marriage, even opting for khula.





There is change

While much has been happening in the judicial fora when it comes to Muslim women's rights, a silent churning is also going on within the Muslim community in India. Often said to be a community under siege in recent times, age-old mores are now being questioned, and in many cases, rejected. Take for instance, the rumblings around the issue of the hijab. While many women stood up to be counted, arguing forcefully their right to wear what their faith ordains, and quoted verses from Surah Ahzaab of the Koran, many also pointed out the rights granted under the Constitution of India to the minorities to protect their religion, language and culture. It was the new-found confidence of Muslim women to quote from the religious book and also speak up for the rights of a citizen enshrined in the Constitution. Allowing the monopoly of sundry maulanas to interpret the scriptures for them has been fading away.

Seeking rights

Some girls went a step further. They pointed out that it is not just women who have to observe purdah in Islam. The men too have their own limited purdah — a mode of compulsory dressing from the navel to the knees that they are not allowed to violate. Again, they quoted verses 30-31 of Surah Nur of the Koran to buttress their contention. The women are thinking for themselves, interpreting things for themselves, and speaking for themselves. The men have been left either gaping or applauding. Interestingly, at a much lower profile, Muslim women have also been asserting their right to enter mosques to pray. In the past, mosques were considered a men-only zone. Now, women want their sacred space. It started with a petition in the Haji Ali Dargah case in 2016, where women won the right to enter the dargah's sanctum sanctorum. This kind of a silent assertion of their rights is unprecedented.

At a time when the community is often said to face existential questions, there is a prolonged internal churning within the community, with Muslim women speaking up unlike before. For instance, during the height of the Babri Masjid protests in the late 1980s and early 1990s, it was almost invariably the Muslim men who took out rallies and spoke in public. In the Shah Bano case too, where the women actually stood to gain, there was very little affirmative response from Muslim women.

Recent years have seen change to the extent that in December 2019 when the Citizenship (Amendment) Act (CAA) was passed, it was not the traditional Muslim leadership that hit the streets but the women of the community. Even as pro-CAA noises emanated from Jama Masjid's Imam Bukhari and the chief of the Ajmer Dargah, Muslim women took the Government, the media and the men by surprise too by assuming leadership of a long-drawn out struggle against the CAA. The message is clear: Indian Muslim women have found their voice. Be it the issue of divorce or the right to pray in a mosque or don the hijab to college, they have a mind of their own and are ready to express it.

Some obstacles

Of course, not everything is hunky-dory. Even as women assert their right to end a marriage through khula, some clerics still insist on the man's consent, thereby defeating the very purpose of khula. On the same lines, even as cases against nikah halala are pending before the Supreme Court for over three years, some maulanas still tend to misuse the provision for halala. Whereas the Koran allows two divorces, considering them revocable, and the third one is considered final, some clerics tend to circumvent it through a distortion of the provision of halala. Many maulanas still consider a divorce pronounced in haste as final, and tell the victim to marry another man,





consummate the marriage, and obtain divorce in order to return to her first husband after iddah or waiting period. Muslim women are taking on such practices too in the Supreme Court. The quiet churning within the Muslim community could well herald the winds of change.

THE BAN ON CONVERSION THERAPY FOR THE LGBTQIA+ COMMUNITY

The story so far: The National Medical Commission (NMC), the apex regulatory body of medical professionals in India, has written to all State Medical Councils, banning conversion therapy and calling it a "professional misconduct". In a letter dated August 25, it also empowered the State bodies to take disciplinary action against medical professionals who breach the guideline. The letter said the NMC was following a Madras High Court directive to issue an official notification listing conversion therapy as a wrong, under the Indian Medical Council (Professional Conduct, Etiquettes and Ethics) Regulations, 2002.

What is conversion therapy? What are the risks?

Conversion or reparative therapy is an intervention aimed at changing the sexual orientation or gender identity of an individual with the use of either psychiatric treatment, drugs, exorcism and even violence, with the aim being to make the individual a heterosexual. The conversion therapy umbrella also includes efforts to change the core identity of youth whose gender identity is incongruent with their sex anatomy. Often, the therapy is offered by quacks with little expertise in dealing with the issue. According to the American Academy of Child and Adolescent Psychiatry (AACAP), the interventions under conversion therapy are provided under the false premise that homosexuality and diverse gender identities are pathological. "They are not; the absence of pathology means there is no need for conversion or any other like intervention." Further, according to AACAP and other health experts, conversion therapy poses the risk of causing or exacerbating mental health conditions, like anxiety, stress and drug use which sometimes even lead to suicide.

What is the role of the Madras High Court in the ban?

On June 7, 2021, Justice N. Anand Venkatesh of the Madras High Court gave a landmark ruling on a case he was hearing about the ordeal of a same-sex couple who sought police protection from their parents. Pending adequate legislation more protective of the community, Justice Venkatesh issued a slew of interim guidelines for the police, activists, Union and State Social Welfare Ministries, and the National Medical Commission to "ensure their safety and security to lead a life chosen by them." The ruling prohibited any attempt to medically "cure" or change the sexual orientation of LGBTQIA+ (lesbian, gay, bisexual, transgender, queer, intersex, asexual or of any other orientation) people. It urged the authorities to take action against "professional[s] involving themselves in any form or method of conversion therapy," which could include the withdrawal of licence to practice medicine. On July 8, 2022, the court gave an order to the National Medical Commission directing it to "issue necessary official notification by enlisting 'Conversion Therapy' as a professional misconduct." The NMC issued the directive to State Medical Councils on August 25.

What were some of the other guidelines issued by the court?

In its 2021 verdict, the Madras High Court directed the police, for example, to close complaints of missing persons' cases, "without subjecting them to harassment", if it found on investigation that the parties were consenting adults belonging to the LGBTQIA+ community. The court asked the





Ministry of Social Justice & Empowerment to draw up a list of NGOs and other groups which could handle the issues faced by the community, and gave it a time of eight weeks from the date of the order. This March, the court pulled up the Ministry for failing to compile a comprehensive list. The court said the community should be provided with legal assistance by the District Legal Services Authority in coordination with law enforcement agencies. Asking agencies to follow the Transgender Persons (Protection of Rights) Rules, 2020, and the Transgender Persons (Protection of Rights) Act, 2019, in letter and spirit, the court said it was imperative to hold sensitisation programmes for an all-out effort to understand the community and its needs.

How can schools, colleges and medical professionals help?

Experts say schools and colleges must effect changes in curricula for a better understanding of the community. As late as 2018, medical books listed homosexuality and lesbianism as a "perversion". People of a different sexual orientation or gender identity often narrate harrowing tales of bullying, discrimination, stigma and ostracisation. Gender-neutral restrooms should be compulsory in educational institutes and other places. Parents too need to be sensitised, because the first point of misunderstanding and abuse often begins at home, with teenagers being forced to opt for "conversion" therapies. Health professionals point out that even adults opting for sex reassignment surgeries need to get proper guidance like therapy pre and post operation; for an ordinary citizen, the cost too can be prohibitive.

PREVENTIVE DETENTIONS ROSE IN 2021

Preventive detentions in 2021 saw a rise by over 23.7% compared with the year before, with over 1.1 lakh people being placed under preventive detention, according to statistics released by the National Crime Records Bureau (NCRB) last month.

Of these, 483 were detentions under the National Security Act, of which almost half (241) were either in custody or still detained as of 2021-end. Over 24,500 people placed under preventive detention were either in custody or still detained as of 2021-end — the highest since 2017 when the NCRB started recording this data.

In 2017, the NCRB's Crime in India report found that 67,084 persons had been detained as a preventive measure that year. Of these, 48,815 were released between one and six months of their detention and 18,269 were either in custody or still in preventive detention as of the end of the year.

The number of persons placed under detention has been increasing since 2017 — to over 98,700 in 2018 and over 1.06 lakh in 2019 — before dipping to 89,405 in 2020. Data pertaining to 2021 showed that 1,10,683 persons were placed under preventive detention last year, of which 24,525 were either in custody or still detained as of the end of the year and the rest were let go within one to six months.

While the number of persons placed under preventive detention has seen an increase in 2021, the NCRB data showed that the number of people arrested in such a manner under the National Security Act had dipped significantly compared with the year before.

Preventive detentions under the NSA increased to 741 in 2020. This number dropped to 483 in 2021.

Use of provision





Among other laws under which the NCRB has recorded data on preventive detentions are the Goonda Act (State and Central) (29,306), Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 (1,331), and a category classified as "Other Detention Acts", under which most of the detentions were registered (79,514). Since 2017, the highest number of persons to be placed under preventive detention has consistently been under the "Other Detention Acts" category.

Shwetank Sailakwal, advocate-on-record, who has researched preventive detention laws and procedures in India, pointed out that several laws such as the Unlawful Activities (Prevention) Act and Maharashtra Control of Organised Crime Act also provide for making preventive detentions.

According to Section 151 of the Code of Criminal Procedure, the police are empowered to make preventive arrests if they believe they must do so to prevent the commission of "any cognisable offence". This detention can be extended beyond 24 hours if required "under any other provisions of this Code or of any other law".

CRITICISING PM TODAY IS RISKY, SAYS SRIKRISHNA; MINISTER RIJIJU HITS BACK

Underlining that "in a democracy, the right to criticise the government is a fundamental right and nobody can muzzle that," Justice B N Srikrishna, former judge of the Supreme Court, has expressed concern on the current situation, saying "today, things are very bad" and "I must confess, if I were to stand in a public square and say I don't like the face of the Prime Minister, somebody might raid me, arrest me, throw me in jail without giving me any reason". "Those people who speak all the time without any restrictions to abuse the popularly elected Prime Minister are crying about freedom of expression! They will never talk about Emergency imposed by Congress party and never dare to criticise some Regional Party CMs," Rijiju said in a Twitter post.

"I don't know if a former judge of the Supreme Court has actually said this. If it's true then the statement itself is demeaning the institution he has served," he said.

His remarks, made in an interview to The Hindu newspaper drew a sharp response from Union Minister for Law and Justice Kiren Rijiju.

Reached for comment, Justice Srikrishna, who headed an expert committee to study and identify key data protection issues and recommend methods to address them, told The Indian Express: "I was talking about civil servants exercising their fundamental right to freedom of speech. As long as the criticism is civil and made in a decent manner, it should not come in the way of their service rules. But my concern is also about the rule of law and how the government responds to critics."

In The Hindu interview, he was asked if a Telangana IAS officer was wrong in tweeting from her personal account in support of Gujarat riot gangrape victim Bilkis Bano.

Justice Srikrishna replied that when one enters government service, certain disciplinary rules reply. He referred to two High Court rulings and said "I think the trend is that judges are taking the view that IAS officers have a right to express themselves in a legitimate and decent manner".

Justice Srikrishna retired as a judge of the Supreme Court in 2006. Since his retirement, he has headed several committees both for the Congress-led UPA government and the BJP government.





THE PLIGHT OF INDIA'S FLOODED TECH CAPITAL IS STRIKING. BUT BENGALURU'S PREDICAMENT IS UNFORTUNATELY NOT UNIQUE

As Bengaluru reels under floods, schools are shut and tech firms have urged employees to work from home. Power and water supply have been hit in many areas. Residents in expensive enclaves have had to be evacuated from their flats and villas and CEOs of MNCs reportedly had to wade through water and even travel on tractors to work. There is flooding in the Outer Ring Road area, which hosts tech firms that bring in revenue of billions of dollars annually. The Bruhat Bengaluru Mahanagara Palike (BBMK) Chief Commissioner has blamed the extreme weather conditions — this is reportedly the city's second wettest rainy season in 50 years. Chief Minister Basavaraj Bommai attributed it to the "maladministration" and "unplanned" development under previous governments. There is truth in that explanation but the CM did not reveal what his government has done to break from the past, or correct it. The unfortunate fact is that the Bommai administration has been busy with polarising issues such as hijab in educational institutions, or in stoking spectres of conversion, rather than attending to Bengaluru's crumbling infrastructure.

Of course, the current predicament in Bengaluru is not an exception. The scenes seen in India's Silicon Valley this week have been witnessed earlier in Chennai, Hyderabad, Mumbai, Guwahati, Kochi and several other cities and towns in India. Each town/city may cite local factors for the collapse of infrastructure in the face of extreme events, but a common thread runs through all the stories. A large number of urban wetlands that soak up rainwater have been built upon, including in Bengaluru. Corrupt civic bodies are guilty of treating cities as pieces of lifeless real estate to be sliced up for the benefit of the highest bidders. Stormwater drains remain locked in decades-old networks, whose deficits are aggravated by the inefficiency of municipal bodies. Last year, for instance, the Comptroller and Auditor General pulled up the BBMK for "its inability to manage stormwater drains in the city." It raised questions about Bengaluru's sewerage plan, especially the municipality's failure to map the city's tertiary drains, which have a critical role in managing runoff.

Urban bodies complain — and mostly, they have a point — that they lack adequate resources. Municipal tax rates are far too low for local administrations to build, manage and renew public services and utilities efficiently. But the truth also is that civic bodies are often guilty of impropriety in the use of resources. The CAG, for instance, also found that the Bengaluru municipality did not maintain proper records of the stormwater management funds allotted to it under the JNNURM. It also noted the lack of coordination between the municipality and the Bangalore Development Authority on drainage-related matters. The net result of all these omissions is on show in Bengaluru, where, as an IT czar put it, technology professionals are forced to be on the road for hours to design apps that promise to deliver groceries in 10 minutes.

FATHER'S DOMICILE AND CASTE WILL DECIDE WOMAN'S JOB QUOTA ELIGIBILITY: BIHAR GOVT

With the state government changing the condition of domicile, a woman from Bihar living outside the state after her marriage can avail benefit of reservation if her father is a permanent resident of the state. Also, such a woman will take her father's caste and not that of her husband's.

In the state, 35 per cent government jobs are reserved for women and the state government is likely to advertise about 4-lakh vacancies for contract teachers in a phased manner within a year.





As per a letter from the General Administration Department (GAD) on September 2, the Bihar government made its position clear on whether a married woman could get benefits of reservation on the basis of caste of her father or not. The letter said: "Those women whose fathers are domicile of Bihar cannot be deprived of benefits of reservation only because of their residential certificates are issued on the basis of their husbands' addressess". The GAD letter made it clear that "the basis of an individual being eligible for reservation would be decided on basis of the caste of father of the individual".

Deputy Secretary Rajnish Kumar in his letter to the heads of all government departments, referred to a 1996 government order that had put a clause of one being "domicile of Bihar" for getting reservation benefits. The letter also referred to a 2007 order of the state government to decide the caste of an applicant.

As most married women use residential addresses of their husbands and several of them are married outside the caste of their birth, the state government decided that father's domicile and caste will be considered for giving reservation benefits. A married woman candidate has to present non-creamy layer certificate issued by the circle office under which her father's village or town falls.

Initiatives focused on women

This decision looks like yet another move by the Nitish Kumar government to cater to the casteneutral constituency of women. His government had given 50 per cent reservation to women in panchayats and local bodies in 2006 and 2007, respectively. The decision paved the way for representation by over 5,000 women later. Subsequently, the state government introduced 35 per cent reservation in the state police as well as in other government jobs.

POWER AS SPECTACLE: UPBRAIDING OFFICERS IN PUBLIC, THE MINISTER AND THE MP ONLY UNDERMINE THEIR OWN AUTHORITY

Two incidents, in Jharkhand and in Telangana, involving BJP MPs and a senior Union minister berating bureaucrats in public, framed shows of power as unseemly spectacle. A day after an FIR was filed against BJP MPs Nishikant Dubey, Manoj Tiwari, and seven others by Jharkhand Police on allegations of forcibly obtaining clearance for an aircraft to depart from Deogarh airport in contravention of safety protocols, Delhi Police registered what appears to be a revenge FIR against the Deogarh Deputy Commissioner on charges of sedition. And in Telangana, Union Finance Minister Nirmala Sitharaman, reportedly on not finding Prime Minister Narendra Modi's photo displayed at PDS shops in Telangana, pulled up the Kamareddy Collector in public.

Deogarh Deputy Commissioner Manjunath Bhajantri was booked after he complained to the Ministry of Civil Aviation about Dubey allegedly entering the Air Traffic Control room on August 31 and obtaining clearance for a flight to take off after sunset — Deogarh airport is not equipped to handle night-time flights.

While Dubey's conduct reeks of entitlement, Sitharaman struck an odd, jarring, note when she publicly lashed out at the District Collector. Her trigger: the absence of the PM's pictures at PDS shops. Her argument that the Union government is bearing the cost and so Modi's pictures should be prominently displayed is problematic. Every government attempts to take political ownership for its schemes. At the same time, it's also true that welfare schemes are not the largesse of individual leaders and nor should they be seen to be so by rights-bearing citizens. But the merit





of Sitharaman's argument isn't exactly the issue here — it is how a powerful Minister upbraids an officer not for a lapse in governance but to ostensibly further her party's image politics.

Note:

Air traffic control, as the name suggests, is the traffic control room for aircraft at airports and in certain designated airspaces, from where ground-based air traffic controllers direct aircraft movements. The controllers use equipment including radar to track aircraft, and communicate with pilots over radio. The ATC complex typically has a tower, which may be attached to a building.

Prior approval is needed to enter the ATC building. The AEP application form, which is issued by the Bureau of Civil Aviation Security (BCAS), mentions 13 zones that a person can potentially enter. Among them are the arrivals hall, the departures hall, the terminal building, the security hold area, the apron area, the ATC building, the ATC tower, the cargo terminal building, etc.

However, the access authorisations are granted on a 'need' basis. For example, airline ground staff, who may have authorisation to enter the arrivals hall, the departures hall, the terminal building, and the security hold area, may not necessarily be authorised to enter the ATC tower or the ATC building.

An order issued by the Ministry of Civil Aviation in October 2007 on the subject "Courtesy towards Members of Parliament at Airports" said a "Member of Parliament may be allowed free access in the Terminal building and Visitors Gallery on the basis of MPs Identity Card".

However, the order did not state whether MPs were allowed to also enter ATC premises. The same order was circulated again by the Civil Aviation Ministry in January 2020.

CANINE SQUAD DEPLOYED AT TIHAR TO PREVENT DRUG SMUGGLING

In a bid to curb smuggling of drugs in Tihar jail, authorities have deployed a dog squad to sniff out narcotics hidden by inmates in their cells and body cavities.

Director-General (Prisons) Sandeep Goel said a four-member dog squad has been deployed in jail premises and plans are afoot to bring in more trained dogs. The canines have been trained in the camps of paramilitary forces.

"There have been several incidents where jail guards have seized narcotics from inside an inmate's cell. In order to prevent such cases, the dog squad has been raised and specially trained to sniff out drugs from inside the cell," a jail officer said.

Inmates smuggle drugs inside their body cavities such as mouth and anus, and retrieve the narcotics when they reach their cells. The jail officer said the drugs are also smuggled by the inmates' kin through their clothes.

Recently, a junior doctor of Tihar was caught allegedly smuggling drugs inside the prison for an inmate. He allegedly hid the drugs inside his shoes and was caught while being frisked.

Pilot plan

The jail officer said the performance of the canine squad will be monitored and if it is found to be successful in intercepting drugs, such squads will also be deployed in the prisons at Mandoli and Rohini.





The Tihar jail authorities have also installed several jammers inside the jail premises to block mobile signals as inmates are known to smuggle phones inside the prison.

Prison expert and former jailer Sunil Gupta said, "The move won't serve its purpose as the dogs will not be able to sniff out drugs from inside a cell as the cells usually stink that that odour will camouflage the smell of drugs."

THE PROBLEMATIC DURGA PUJA PUSH

West Bengal Chief Minister Mamata Banerjee's recent decision to increase the honorarium to puja committees organising community Durga Pujas has once again triggered a debate on the relationship between state and religion. Since 2018, when the Trinamool Congress government started giving ₹10,000 to each community Durga Puja club, the honorarium has increased to ₹60,000. The number of clubs receiving the cash benefit has risen from 18,000 in 2018 to 43,000 today. Ms. Banerjee's initiative will cost the State exchequer ₹258 crore. This is besides the 60% subsidy the government hands out to puja pandals on electricity tariff. The controversial decision comes at a time when the State is reeling under a financial crunch, physical infrastructure is crumbling, and the government is unable to pay dearness allowance dues to State government employees.

Durga Puja is a week-long festival organised with unparalleled pomp and splendour in West Bengal. It also provides a great opportunity for political mobilisation. For the last 11 years, Ms. Banerjee has used the opportunity well by inaugurating hundreds of community pujas weeks before the actual festival and instituting State government awards to honour community pujas. The new culture of providing political patronage to big-ticket Durga Pujas has helped the Trinamool to extend its influence.

The pujas contribute significantly to the State's economy. A study by the British Council in 2019 had estimated that the economic worth of the creative industries around Durga Puja in West Bengal is about ₹32,377 crore and the festival contributes 2.58% to the State's GDP. 'Durga Puja in Kolkata' got an important international recognition in December 2021 by making it to UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.

The State government is well within its rights to promote Durga Puja, which is a grand spectacle. It has a duty to provide logistical support, ensure safety and security, and maintain law and order as well as traffic during the festival. But providing cash incentives to community Durga Pujas raises troubling questions.

But first, what led to cash offers to community Durga Pujas? In April 2012, less than a year after being voted to power, Ms. Banerjee announced a monthly honorarium to imams and muezzins. After the Calcutta High Court struck down the decision in 2013, honoraria given to imams and muezzins were routed through the State Wakf Board. Just as no imam approached the State government seeking money for performing religious duties, no community puja organiser sought an honorarium from the State. This was purely a 'balancing act' by the Trinamool government. Like most State government schemes, the move was populist and drew loud applause. By providing honoraria to puja committees, the Trinamool government was also aiming to counter allegations made by the BJP, of "Muslim appeasement". Over the last few years, the Trinamool has gained politically by giving money to community puja organisers.

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

Telegram: http://t.me/DreamIAS Jamshedpur





However, by promoting religion, the government is venturing into uncharted territory from where there might be no turning back. Despite changes over the last few years in designs, decorations and themes, community Durga Pujas in West Bengal have remained secular affairs as people from all walks of life and communities participate. With these cash incentives, the pujas could become dependent on the State government. The initiative also allows the government to interfere in community affairs. Above all, providing an honorarium could prevent the natural evolution of a religious and cultural practice that has spanned centuries.

THE MANDATORY REQUIREMENTS FOR PACKAGED COMMODITIES

The story so far: The Department of Consumer Affairs, Legal Metrology Division has notified a draft amendment to the Legal Metrology (Packaged Commodities) Rules 2011. As stated in the notification, the Department of Consumer Affairs Legal Metrology Division has observed that many manufacturers/packagers/importers do not clearly label necessary declarations or prime constituents on the front of packaged commodities, which are deemed essential to be disclosed in order to protect consumer interests.

What are the mandatory provisions under the Legal Metrology (Packaged Commodities) Rules, 2011?

It is mandatory under the Legal Metrology (Packaged Commodities) Rules, 2011 to ensure a number of declarations, such as the name and address of the manufacturer/packer/importer, the country of origin, the common or generic name of the commodity, the net quantity, the month and year of manufacture, the Maximum Retail Price (MRP) and consumer care information. As a consumer-oriented policy, all prepackaged commodities should also be inspected.

As stated in Rule 2(h), the "principal display panel", in relation to a package, means the total surface area of a package containing the information required in accordance with these rules, namely that all the information should be grouped together and given in one place — the preprinted information could be grouped together and given in one place and the online information in another place.

Additionally, Rule 9(1)(a) provides that the declaration on the package must be legible and prominent. The consumers' 'right to be informed' is violated when important declarations are not prominently displayed on the package.

If there is more than one major product, Rule 6(1)(b) states that ".....the name or number of each product shall be mentioned on the package." This sub-rule is however, not applicable to mechanical or electrical commodities.

What are the proposed amendments?

As many blended food and cosmetic products are sold on the market, the key constituents need to be mentioned on the product packaging. It is common for consumers to assume that brands' claims are accurate, but such claims are usually misleading. Additionally, the front side of the package must contain the percentage of the composition of the unique selling proposition (USP). As the name suggests, a USP also known as a unique selling point, is a marketing strategy designed to inform customers about the superiority of one's own brand or product. Listing the USP of a product on the front of the package without disclosing its composition percentage violates consumer rights. Also, packages displaying key constituents must display a percentage of the content used to make the product. For example, if a brand sells aloe vera moisturiser or almond





milk/biscuits, then the maximum percentage of the product should be aloe vera and almond, otherwise, the product name is misleading.

The Department of Consumer Affairs, Legal Metrology Division has suggested that at least two prime components should be declared on the package's front side along with the brand name. Currently, manufacturers list the ingredients and nutritional information only on the back of the packaging.

The proposed Section 6(1)(ba) states that when a commodity contains more than one constituent, the front side of the package must include a declaration of two or more of the commodities' prime constituents along with the brand name. This declaration must also include the percentage/quantity of the USPs of the product in the same font size as the declaration of the USPs. However, mechanical or electrical commodities are excluded from this sub-rule.

Moreover, public comments were solicited from all stakeholders, including industries, associations, consumers, and voluntary consumer organisations, in order to obtain their viewpoints.

When the new provision of Section 6(1) (ba) is added, consumers will not be misled by the fake claims of manufacturers relating to the content in blended foods and cosmetics.

BASIC SKILLS POOR IN REGIONAL LANGUAGES: NCERT

Foundational learning of students in Hindi is poor but their performance in regional languages in some States was even worse, according to a survey carried out by the Union Ministry of Education and the National Council of Educational Research and Training (NCERT).

Around 53% of Class 3 students in 18 States surveyed for Hindi proficiency either lacked or had limited knowledge and skills in reading and comprehending the language. But proficiency of regional languages, which was analysed in States such as Maharashtra, Andhra Pradesh, Karnataka and Kerala, was poorer with 59% students either lacking or displaying limited skills.

Around 67% students could not perform well in Assamese in Assam and Meghalaya.

In Kerala, 56% of the students could not read or comprehend Malayalam, and in Goa, 59% could not do so in Konkani.

In Meghalaya, 61% of the students could not perform well in Khasi, and 54% were found to be poor in Manipuri in Manipur.

The survey divides learners on the basis of their knowledge and skills into four categories — those who "lack" them, have "limited" proficiency, "sufficient" competency and those who are "superior".

The findings are part of the National Report on Benchmarking of Oral Reading Fluency with Reading Comprehension and Numeracy, which aims to assess foundational learning of children at the end of Class 3.

The National Education Policy, 2022, which advocates for a three-language formula where two of the languages are native to India, says the medium of instruction till at least Class 5 or preferably till Class 8 should be in the mother tongue, after which it can be taught as a language.





The survey findings will help the government determine benchmarks in 20 languages and numeracy.

The government has launched NIPUN as a national mission to enable all children at the end of Class 3 to attain foundational skills by the year 2026-27 and these benchmarks will provide a baseline for subsequent surveys.

Approximately, 86,000 Class 3 students from 10,000 schools were covered for the study.

CABINET APPROVES SCHEME TO UPGRADE SCHOOLS, WITH NEP CONDITION FOR STATES

The Union Cabinet on Wednesday approved the PM SHRI (PM Schools for Rising India) scheme under which 14,500 schools, to be identified in consultation with states and Union Territories, will be upgraded at a cost of Rs 27,360 crore over the next five years.

PM SHRI will be a new Centrally sponsored scheme where the Government will bear 60 per cent of the implementation cost while states will be responsible for the remaining 40 per cent, Union Education Minister Dharmendra Pradhan said.

The scheme will be open to states that agree to implement the NEP 2020 in entirety. "States/UTs would sign (the)

MoU agreeing to implement NEP in entirety with (the) Centre laying down the commitments for supporting these schools for achieving specified quality assurance as PM SHRI schools," said a statement issued by the Ministry of Education.

Pradhan said the objective of the exercise is to have a set of model schools — at least two in every block — where key components of the National Education Policy (NEP) 2020 are showcased. The schools will be chosen after a rigorous assessment following applications from state governments, he said.

The scheme is open to schools run by the Centre, such as Kendriya Vidyalayas and Jawahar Navodaya Vidyalayas, as well as those run by the state governments and local bodies. To qualify for the scheme, the schools will have to meet a prescribed benchmark involving about 60 parameters, from availability of electricity to toilets.

The Education Minister said that under the scheme, which is expected to cover 18 lakh students, money will be transferred "directly to school authorities". Moreover, flexibility will be provided so that schools can choose the areas where up to 40 per cent of the total funds are to be spent.

Last month, the Centre had informed the Lok Sabha that most states and Union Territories have initiated action on NEP while West Bengal and Tamil Nadu are yet to inform the status of implementation.

On Wednesday, Pradhan said states are largely onboard with the idea of PM SHRI. "The policy department of the ministry (of education) has held multiple rounds of discussions on this with the states over the last one year. The application window will be opened soon so that states, or schools with the permission of respective state governments, can start applying. We aim to have the first set of upgraded schools during the ongoing year itself," he said.

A key highlight of the scheme is the decision to replicate the Gujarat government's Vidya Samiksha Kendra model, under which academic data is collected for analysis using AI tools.





HOW WILL UGC EXECUTE THE COLLEGE CLUSTER PLAN?

The story so far: On September 2, the University Grants Commission (UGC) issued new guidelines for transforming colleges and universities into multi-disciplinary institutions. The guidelines prescribe three approaches, which include clustering of institutions located in proximity so that they can collaborate with each other to offer innovative programmes in offline, online or distance learning mode. The other two strategies recommended by the UGC include merger of single-stream institutions with other multi-disciplinary institutions under the same management or different managements and strengthening of existing establishments by setting up of new departments.

Who is likely to benefit from the move?

Colleges with poor enrolment and fewer resources may benefit by forming clusters with other institutions and help students access better facilities as well as avail innovative courses, according to the guidelines. The member colleges in a cluster will continue to function as affiliated colleges under the university in the initial phase during which they will share their resources to offer multi-disciplinary programmes and guide student research projects. Subsequently, the affiliating university may affiliate the cluster of colleges as a single unit which will be given autonomy in a graded manner before turning into an autonomous degree-granting cluster of colleges. These can later turn into research and teaching-intensive universities.

The partnership plan must include infrastructure expansion, number of students, departments involved, administrative and academic functions and research activities. Member colleges will also have to design their timetable so that students don't face scheduling clashes. UGC chairman M. Jagadesh Kumar told The Hindu: "When multiple small institutions come together and transform into a degree-granting institution, they will have more opportunities for growth. It will ultimately help the higher education system to grow and be accessible to a large number of students."

Why the emphasis on multi-disciplinary institutions now?

More multi-disciplinary institutions in the country is one of the recommendations for higher education in the National Education Policy 2020. The policy document has set a target of 2030 for all higher education institutions (HEIs) to become multi-disciplinary, and thereafter, increase student enrolments "preferably in the thousands" by 2040. The goal is to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3% (2018) to 50% by 2035. The NEP proposes that though a number of new institutions may be developed to attain these goals, a large part of the capacity creation will be achieved by expanding and improving existing HEIs.

What is the response of the sector to the guidelines?

While the emphasis on multi-disciplinary education is welcome, many wonder where the financial resources will come from. The UGC chairman said State governments will provide the required funds for functioning of State-run multi-disciplinary institutions.

"By suggesting clustering and merging of colleges, the intent is to build upon existing infrastructure to attain the goal of higher Gross Enrolment Ratio without any additional funding. Already institutions are running on their optimum thresholds as there have been no teacher recruitments for the past several years at Central and State Universities," said an official with a





State government's Higher Education Council. He, however, welcomed the room provided for institutions to collaborate with each other to offer additional programmes. "The UGC is evading its responsibility in providing funds. The latest guidelines seek to implement the NEP, which is not acceptable to us in toto because it is partisan and emphasises on centralisation and commercialisation," said Kerala's Minister for Higher Education, R. Bindu. "It says colleges must become autonomous degree-granting institutions— what will happen to small colleges in remote areas, which will simply be obliterated? Backward sections of our society will be deprived of higher education," she added.

Others have said that there should be regulations instead of guidelines so that they are adopted by State governments.

SEAT BELTS, HEAD RESTRAINTS AND SAFETY REGULATIONS

The story so far: The death of Cyrus P. Mistry, former Chairman of Tata Sons, in a car crash in Maharashtra's Palghar district on September 4 has turned the focus on whether compulsory use of seat belts in cars — including by passengers in the rear seat — can save lives during such accidents. Media reports cited police sources to say that Mistry and a co-passenger, Jahangir Pandole, who was also killed in the mishap, were not wearing seat belts. Although a full investigation has to follow, authorities said preliminary findings showed the car was moving at high speed, covering about 20 km in nine minutes from the last check post where it was recorded by CCTV.

How is a seat belt a life saver?

The focus in the aftermath is on the seat belt. The three-point seat belt engineered by Nils Evar Bohlin, a passive safety device first incorporated into a car by Volvo in 1959, and now standard in cars sold in India, is a low cost restraint system that prevents occupants of a vehicle from being thrown forward in a crash. In the U.S, unrestrained drivers and passengers represented 48% of all deaths in vehicle crashes during 2016, according to the National Highway Traffic Safety Administration.

In a car crash, particularly at moderate to high speeds, the driver or passenger who has no seat belt continues to move forward at the speed of the vehicle, until some object stops the occupant. This could be the steering wheel, dashboard or windscreen for those in front, and the front seat, dashboard or windscreen for those in the rear. The Centre for Road Safety at the Transport Department of New South Wales, Australia (NSW Centre), which has had a compulsory seat belt rule since 1971 explains that "even if the vehicle is fitted with an airbag, the force at which an unrestrained occupant strikes the airbag can cause serious injuries."

Without an airbag, and no seat belt restraint, a severe crash leads to the occupant of the rear seat striking the seat in front with such force that "it is sufficient for the seat mountings and seat structures to fail," says the NSW Centre. The seat belt performs many functions, notably slowing the occupant at the same rate as the vehicle, distributing the physical force in a crash across the stronger parts of the body such as the pelvis and chest, preventing collisions with objects within the vehicle and sudden ejection. Newer technologies to "pretension" the belt, sense sudden pull forces and apply only as much force as is necessary to safely hit the airbags. Absence of seat belts could lead to rear seat occupants colliding with internal objects in the car, or even being ejected through the front windscreen during the collision.





What role do head restraints play?

Head restraints, which are found either as adjustable models or moulded into the seats, prevent a whiplash injury. This type of injury occurs mostly when the vehicle is struck from behind, leading to sudden extreme movement of the neck backwards and then forwards. It could also happen vice versa in other circumstances. The injury involves the muscles, vertebral discs, nerves and tendons of the neck, says Johns Hopkins Medicine, and is manifested as neck stiffness, pain, numbness, ringing in the ears, blurred vision and sleeplessness among others.

The head restraint built into the seat must be properly placed and aligned with the neck, to prevent the injury in a vehicle accident. A study done by the Insurance Institute for Highway Safety (IIHS) in the U.S. estimated that claims for neck injuries were lower by 11% when the seats and restraints were rated good by it, compared to those rated poor. The ratings system has resulted in newer models, since 2015, almost fully getting a good rating.

How does India regulate and enforce safety?

On February 11, 2022, the Ministry of Road Transport and Highways issued a draft notification providing for three-point seat belts to be provided in all vehicles coming under the M1 category, that is, for carriage of passengers comprising not more than eight seats in addition to the driver's seat, for vehicles manufactured from October 1. Also, it stipulated relevant Indian Standards to be followed by the manufacturers for both seat belts and reminder systems alerting occupants to wear them.

What stands out is that the amended Motor Vehicles Act of 2019 already requires the occupants of a passenger vehicle to wear a seat belt. As per Section 194(B) of the Act, whoever drives a motor vehicle without wearing a safety belt or carries passengers not wearing seat belts shall be punishable with a fine of one thousand rupees.

Evidently, although cars are equipped with seat belts, the enforcement for rear seat occupants is virtually absent in India. U.S. research findings published in the Journal of Safety Research by Laurie F. Beck and colleagues show that seat belt use was low in states with weak laws or no laws at all, and riders of taxi services are high risk groups. The IIHS study found that rear seat passengers who did not buckle up were eight times more likely to suffer serious injuries than those who did.

The toll from non-compliance in India is high, as taxicabs often have missing seat belts. In one of the few questions on the subject asked in Parliament, the Road Transport Ministry said, during 2017, a shocking "26,896 people lost their lives due to non-use of seat belts and 16,876 of them were passengers. No specific data with regard to loss of lives due to non-usage of seat belts by rear seat passengers is available with the Ministry," it added.

In the aftermath of the accident in which Cyrus Mistry died, there have been suggestions that automotive technology should bring about compliance by making it impossible to operate the vehicle if seat belts are not fastened. As of July, the European Union's General Safety Regulation requires new vehicles to incorporate advanced emergency braking technology that launches automatically when a collision is imminent, and intelligent speed assistance to reduce speed suitably besides accident event recorders, all of which are relevant to the Palghar crash. Making high quality dash cameras standard in cars could be a start to help record accidents and establish the cause.





'DARK SKY RESERVE' TO COME UP IN LADAKH

In a first-of-its-kind initiative, the Department of Science & Technology (DST) has announced the setting up of India's first dark sky reserve at Hanle in Ladakh in the next three months.

Hanle, which is about 4,500 metres above sea level, hosts telescopes and is regarded as one of the world's most optimal sites for astronomical observations. However, ensuring that the site remains well-suited for astronomy implies keeping the night sky pristine, or ensuring minimal interference to the telescopes from artificial light sources such as electric lights and vehicular lights from the ground.

A dark sky reserve is a designation given to a place that has policies in place to ensure that a tract of land or region has minimal artificial light interference. The International Dark Sky Association is a U.S.-based non-profit that designates sites as international dark sky places, parks, sanctuaries and reserves, depending on the criteria they meet. Several such reserves exist around the world but none so far in India.

In June, a three-way Memorandum of Understanding (MOU) was signed among the Union Territory administration, the Ladakh Autonomous Hill Development Council (LAHDC), Leh, and the Indian Institute of Astrophysics (IIA), Bengaluru, which uses and maintains the telescopes, for launching the dark space reserve. Science Minister Jitendra Singh, on Saturday, following a meeting with R.K. Mathur, Lieutenant-Governor, Ladakh, said that the site "will have activities to help in boosting local tourism and economy through interventions of science and technology".

Annapurni Subramaniam, director, Indian Institute of Astrophysics, said that to promote astrotourism, villages around Hanle would be encouraged to promote homestays equipped with telescopes that visitors can use to view the night sky.

Villagers would also be trained to help visitors with astronomical observations. "There would be some restrictions on vehicles and headlights during the evening. There will be delineators on roads like you do outside observatories. People can come, park, observe the sky and stay in homestays," she told The Hindu.

Ideal conditions

The Indian Astronomical Observatory, the high-altitude station of the IIA, is situated to the north of Western Himalayas, at an altitude of 4,500 metres above mean sea level. Located atop Mt. Saraswati in the Nilamkhul Plain in the Hanle Valley of Changthang, it is a dry, cold desert with sparse human population.

The cloudless skies and low atmospheric water vapour make it one of the best sites in the world for optical, infrared, sub-millimetre, and millimetre wavelengths.

The Himalayan Chandra Telescope, High Energy Gamma Ray Telescope, Major Atmospheric Cherenkov Experiment Telescope and GROWTH-India are the prominent telescopes located at the Hanle observatory.

TARGETING OF ARSHDEEP SINGH: CRICKETERS AND HATERS

As the ball slipped between his fingers and even before it hit the ground, the fate that awaited Arshdeep Singh, post-match, could have been foretold. A stand-up comic suggested that the young





Indian pacer's social media manager delete the apps from his phone, predicting a barrage of hateful messages. It was said half-jokingly. But what followed wasn't funny at all. For hours after the match, the 23-year-old was vilified across social media platforms, his Wikipedia page edited to add references to Khalistan, prompting the government to seek an explanation from the website's executives. All this over a dropped catch in the match in which India was defeated by Pakistan in the Asia Cup on Sunday.

The overreaction of sports fans isn't new. It follows a tediously predictable pattern: Outrageous, xenophobic comments are made against a player in the garb of criticism; a show of support follows and, in rare cases, there's condemnation of the vicious attacks from teammates; the outrage subsides and it is business as usual. Until the next such incident takes place. This has been happening since the time Chetan Sharma was hit for a last-ball six by Javed Miandad. But the recent wave of social media abuse is different – it has been directed prominently at players from minority communities. Before Arshdeep, Mohammed Shami was targeted after India's defeat to Pakistan in the T20 World Cup last October.

Indian and Pakistani players have always enjoyed cordial relationships off the field. The bonhomie, however, has been missing on social media. TV studios fan the flames with a build-up that borders on warmongering. Social media executives, too, need to be much more responsible in ensuring their platforms are not used to spread hate. Every cricketer has made a slip-up like Arshdeep's at one time or another. The reasonable reaction to such a mishap would be slapping the head or throwing it back in disappointment. Anything beyond that isn't cricket.

CONTENT MODERATION ON WIKIPEDIA

The story so far: On Tuesday, India summoned officials of Wikipedia, in response to cricketer Arshdeep Singh's Wikipedia page being edited with misleading information that stated he was a "khalistani". This was done by online trolls after Arshdeep Singh dropped a catch in India's match against Pakistan. The Minister of State for Electronics and IT, Rajeev Chandrashekhar tweeted that "no intermediary operating in India can permit this type of misinformation" as it violated the government's expectation of a safe and trusted internet. To determine the role and liability of the Wikimedia Foundation (the owner of Wikipedia), in such instances, it is important to understand how content on the platform is moderated.

What is Wikipedia and its model for functioning?

Since its inception in 2001, Wikipedia has become a household name. It describes itself as a "multilingual free online encyclopedia written and maintained by a community of volunteers through open collaboration and a wiki-based editing system". Unlike traditional encyclopedias that have entries from pre-identified authors, all of Wikipedia's encyclopedic content is user generated. This means that anyone can contribute to its pool of knowledge by making edits to existing pages for updation or correction and can even add new pages.

While this model has its advantages in so far that it allows democratisation of knowledge,unhindered access to edit has also resulted in concerns relating to the reliability of information that it hosts.

Are there no control mechanisms for content on Wikipedia?

Even though majority of the content is user generated, the Wikimedia Foundation has instituted some content moderation practices.

 $\mathbf{3}^{RD}$ FLOOR AND $\mathbf{4}^{TH}$ FLOOR SHATABDI TOWER, SAKCHI, JAMSHEDPUR





First, to increase its reliability and also to prevent vandalism and disruptive edits, over time restrictions have been placed on edits to the content that Wikipedia hosts. One of these restrictions is to allow certain "protections" to be accorded to particular pages. A page may have varying degree of protection depending on the vulnerability of the page to vandalism, disruption and abuse. To implement this system of protection, Wikipedia classifies users depending on the edit rights that they have. For example, one of the highest levels of protection that can be accorded to a page is "full protection". This means that only those users (called administrators) that have been given full edit rights (as per Wikipedia community review process) can make modifications. A slightly lower level of protection is "semi protection". "Semi protected" pages cannot be edited by unregistered users. Another category of protection is "pending changes", which means that changes made will not be reflected on the page unless the changes are accepted by an editor with those rights.

Second, given that edit rights are widespread there have been instances of "content disputes" and "edit warring". Content disputes occur when editors disagree with each other's content. This could also lead to edit warring where editors repeatedly override each other's contribution in a specific page. In such circumstances also, administrators can provide temporary or permanent protection to a page to prevent edits.

However, most of the individuals that perform tasks for Wikipedia such as those holding the designation of bureaucrats, administrators or other editors with varying levels of edit rights are not employees of Wikimedia. These individuals gain such designations and exercise attendant rights through a community review process. Essentially, the more the trust they gain from the Wikipedia community, the greater is their degree of editorial responsibility. They are not given or removed from a particular designation by the Wikimedia Foundation per se.

Although Wikimedia's terms of use state that it "generally does not contribute, monitor or delete content" there are ways in which the Wikimedia Foundation exerts control over Wikipedia. First, the Wikimedia Foundation legally controls the servers on which Wikipedia's content is hosted. This means that even though they do not have ownership of the user generated content hosted on Wikipedia, they are in control of the user activity information generated on the servers. Second, Wikimedia Foundation also exercises control on who the "system administrators" of Wikipedia are. System administrators are in a position to exercise considerable power because they can take decisions of blocking users or reversing edits in some circumstances, which can have content moderation implications.

Therefore, can the Wikimedia Foundation be held responsible for the content that Wikipedia hosts?

There is no settled position on this. Typically, the architecture of Wikipedia is that of an intermediary i.e. it hosts content generated by its users. Under most laws regulating online content, intermediaries are endowed with immunity from the user generated content they host, provided they maintain some due diligence over their platforms. Intermediaries are afforded this immunity because first, the sheer volume of content generated makes it impossible to monitor this content and second, being personally responsible for user content would inundate them in legal battles making operations at that scale infeasible.

In previous challenges to content on Wikipedia, there have been rulings that the Wikimedia Foundation does not own the content, and does not have the legal responsibility for it. However, administrators or editors have taken heed of the content concerns arising out of the situation and have made suitable edits. In case volunteer editors do not make suitable edits, Wikimedia, as per





its terms of use states that it can "contribute, monitor or delete content" for legal compliance. Therefore, it is arguable that since Wikimedia can exercise such power, it can be held responsible for illegal content being hosted on Wikipedia.

What can the Indian government do if it is aggrieved by content on Wikipedia?

In India, for intermediaries to claim the "safe harbour" of not being responsible for the content they host, under Section 79 of the Information Technology Act, 2000, they must abide by due diligence requirements under the Act and its Rules. As per the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, there are certain categories of information that an intermediary should not allow to be hosted or uploaded on its platform. One such category is information that is "patently false and untrue, and is written or published in any form, with the intent to mislead or harass a person, entity or agency for financial gain or to cause any injury to any person". Therefore, in the Indian context, even if the Wikimedia Foundation does not own the information hosted on Wikipedia, once Wikimedia Foundation has "actual knowledge" of such content being hosted on its platform, it would be held responsible for the same.

In the context of the IT Rules, 2021 "actual knowledge" occurs when an intermediary has been notified by either a court order or through an order of the appropriate agency demanding removal of the offending content. In this case while neither has happened, Wikipedia administrators and editors have removed the distortion from Arshdeep Singh's page and granted it certain protection such that only "trusted editors" can edit the page.

KINGSWAY, RAJPATH, KARTAVYA PATH: FROM 'RIGHT TO RULE' TO 'DUTY TO SERVE'

The iconic Rajpath, stretching from Rashtrapati Bhavan to India Gate, was renamed Kartavya Path on Wednesday following a formal decision taken at a special meeting of the New Delhi Municipal Council (NDMC). "As we complete 75 yrs of Independence, it is only fitting to shed the colonial baggage and move towards India@100 in the #AmritKaal with our own legacy. The renaming of "Rajpath" to "Kartavyapath" is a reminder that the spirit of public service is not "right to rule" but "duty to serve", MoS Culture Meenakshi Lekhi tweeted after the meeting.

The revamped Kartavya Path will be inaugurated by Prime Minister Narendra Modi at a special event on Thursday evening, in the presence of Union Ministers Hardeep Puri and G Kishan Reddy, during which a granite statue of Netaji Subhas Chandra Bose will also be installed under the Grand Canopy at India Gate.

Kartavya Path

The entire stretch and the area from the Netaji statue under the Grand Canopy to the Rashtrapati Bhavan will be known as Kartavya Path. As per the NDMC resolution, Kartavya Path includes the erstwhile "Rajpath and Central Vista lawns".

Kartavya Path, which will be opened to the public at the end of the official function, will exhibit landscapes, lawns with walkways, added green spaces, refurbished canals, amenity blocks, improved signages and vending kiosks.

"New pedestrian underpasses, improved parking spaces, new exhibition panels, and upgraded night lighting are some other features that will enhance the public experience," the Prime Minister's Office said in a statement on Wednesday.





"It also includes a number of sustainability features like solid waste management, storm-water management, recycling of used water, rainwater harvesting, water conservation and energy efficient lighting systems, among others," the statement said.

For Republic Day celebrations, foldable seating arrangements will replace the temporary structures that are installed and removed every year, the Ministry of Urban Affairs said in a statement.

The revamped and expanded lawns on both sides of the erstwhile Rajpath are part of the larger Central Vista project, where a new triangular Parliament building, along with the Central Secretariat and several other government offices, are being rebuilt.

Kingsway to Rajpath

Called Kingsway during British rule, the three-km stretch was built as a ceremonial boulevard by Edwin Lutyens and Herbert Baker, the architects of New Delhi, more than a hundred years ago. The capital of the Raj moved to New Delhi from Calcutta in 1911, and construction continued for several years thereafter.

Lutyens conceptualised the modern imperial city centred around a "ceremonial axis", which was named Kingsway in honour of the then Emperor of India, George V, who visited Delhi during the Durbar of 1911, where he formally proclaimed the decision to move the capital.

The nomenclature followed that of the Kingsway in London, an arterial road built in 1905, which was named in honour of King Edward VII, the father of George V.

Following Independence, the road was given its Hindi name, Rajpath, on which the Republic Day parades took place over the decades that followed.

During his address from the Red Fort on August 15, Modi had stressed on the abolition of symbols of colonialism. The new name and look of Rajpath, as well as the installation of the 28-foot statue of Netaji under the Grand Canopy under which a statue of George V once stood, are meant to represent that spirit of the proud new India.

The new New Delhi

The construction of the Central Vista Redevelopment Project began in February 2021, with the new Parliament building and redevelopment of the Central Vista Avenue in the first phase. The aim is to build an iconic avenue that truly befits the New India, the government has said about the Rs 608 crore Central Vista Avenue project.

The PMO statement issued on Wednesday said, "It symbolises a shift from erstwhile Rajpath being an icon of power to Kartavya Path being an example of public ownership and empowerment." The inauguration of the new avenue and the statue of Netaji are "steps...in line with the Prime Minister's second 'Panch Pran' for New India in Amrit Kaal: 'remove any trace of colonial mindset'," the statement said.

The statue of Bose will be installed in the same place where a hologram statue was unveiled by the PM on Parakram Diwas (January 23) this year. Crafted by Arun Yogiraj, the statue has been carved from a monolithic granite stone and weighs 65 tonnes.





THE CONTROVERSY OVER K.K. SHAILAJA'S NOMINATION FOR THE RAMON MAGSAYSAY AWARD

The story so far: The decision of former Kerala Health Minister K.K. Shailaja to decline an offer to be considered for the prestigious Ramon Magsaysay Award this year has sparked a row following allegations that the CPI(M) (Communist Party of India (Marxist)) restrained her from accepting the honour.

Why did the CPI(M) decline?

The party cited the 'anti-communist' credentials of the former Philippines President as the reason for declining the offer. Magsaysay was a "staunch anti-communist" who oversaw the defeat of communists (Hukbalahap) in Philippines in the 1950s, leaders of the Left said. "...this award is in the name of Ramon Magsaysay who has a history of brutal oppression of the communists in the Philippines," said CPI(M) general secretary Sitaram Yechury to news agency PTI.

Ms. Shailaja told The Hindu that she turned down the award after consulting the central leadership. "The NGOs may not be in favour of the communist ideology. And hence it was not right that I receive it as an individual because I was considered for something which was actually part of a collective effort. So, I decided not to accept the award. I thanked them and politely refused the award saying I was not interested in receiving it in an individual capacity," Ms. Shailaja said.

Who was Ramon Magsaysay?

Born in 1907, Ramon Magsaysay served as the seventh President of the Philippines from December 1953 to March 1957 before he was killed in a plane crash on Mount Manunggal in Cebu island. During World War II, he served as a guerilla leader against the Japanese as part of the 31st Infantry Division of the Philippines. The U.S. took note of his military leadership during the war and appointed him as the military governor of his home province after the Philippines attained independence in 1946. Ramon Magsaysay started his political journey with his election to the House of Representatives in 1946. He came into prominence with his appointment as the Secretary of National Defence to deal with the communist-led Huks movement. In 1953, Ramon Magsaysay became President of the Philippines. As President, Magsaysay led several agrarian, military and administrative reforms. His three-year tenure is often cited as the 'golden years' of the Philippines.

What is the Ramon Magsaysay Award?

Following the death of President Ramon Magsaysay in 1957, the Rockefeller Brothers Fund (RBF) established the Ramon Magsaysay Awards in the President's honour in agreement with the Philippines government. Later, the Fund set up the Ramon Magsaysay Award Foundation, a non-profit organisation to manage Asia's biggest honour that recognises selfless work transforming lives. Regarded as Asia's version of the Nobel Prize, the award was initially given for contributions to government service, public service, community leadership, journalism, literature and creative communication arts, and peace and international understanding. The category of 'emergent leadership' was added later. From India, 58 have bagged the international honour. Some of the past awardees include Mother Teresa, Satyajit Ray, Verghese Kurien, Arvind Kejriwal, Mahasweta Devi and Aruna Roy.





What about the campaign against the communist rebellion?

The Hukbalahap was a communist-led, peasant-based movement with its roots in the pre-colonial era of political, economic and social inequalities. It was founded in the 1940s to fight the Japanese Army that had invaded the Philippines. A member of the Communist Party of the Philippines, Luis Taruc, was its first commander. The Hukbalahap emerged as a popular, well-organised, highly-trained force that aimed to seize power once the war ended. However, mistrust grew between the U.S. and the Huks which resulted in serious confrontations between the U.S. Army and the rebels. Backed by U.S. forces, the Philippines government disarmed the rebels and arrested their leaders. During the first elections held in the Philippines after its independence, a few from the Hukbalahap also contested and won including Luis Taruc, but they were unseated. The Huks then retreated to jungles in central Luzon where they began to restructure their organisation and resume plans to overthrow the newly elected Philippines government. They enjoyed massive support from the people who were still waiting for land reforms and were dismayed with corruption within the government.

President Manuel Roxas intended to fulfil his promise of removing the Huks from the island. According to an analysis by the U.S. Army Centre of Military History, "The Philippine Military Police Command, reorganised with the Police Constabulary after the war, joined Civil Guards on indiscriminate "Huk Hunts" wherever they thought Huks or their sympathisers were located. Preying on the people for supplies, food, and information (often obtained through intimidation and torture) they provided opportune and popular targets for Taruc's forces. They proved the best recruiters for the Huks, who gained new members with each passing day. This was the real start of the insurrection." Between 1946 and 1950, the Huks took control of large patches of the islands and targeted the Philippine Army and Police Constabulary.

To deal with the threat of an uprising, President Elpidio Quirino appointed Ramon Magsaysay as the Secretary of National Defence — a vocal spokesperson against communism. Using his experience of guerilla warfare, Magsaysay reformed the Armed Forces of the Philippines, let go of 'corrupt' officers and built public support. He launched the Economic Development Corps (EDCOR) project to establish resettlement colonies for the Huks, provided 'cash for guns' to facilitate their return to mainstream society and pushed for a land reform law. Later as President, Ramon Magsaysay led a massive anti-Huks campaign 'Operation Thunder-Lightning' in 1954 with the help of a reorganised military and intelligence. "When it ended in mid-September, government forces had captured 88 Huks, killed 43, accepted the surrender of 54 others, and destroyed 99 production bases, burned more than 500 enemy huts, and captured 99 weapons," says Major Lawrence M. Greenberg, the author of the U.S. military analysis on the rebellion.

THE CARNATIC MAESTRO: T V SANKARANARAYANAN

His guru and maternal uncle Madurai Mani Iyer was one of the all-time greats of Carnatic music. But that formidable legacy did not weigh down T V Sankaranarayanan, who died on Friday at 77. "TVS" effortlessly carried on with the music of Madurai Mani Iyer and, over the course of time, became as popular as his uncle.

TVS was initiated into music by his mother, Gomathi. Soon, Madurai Mani Iyer took over the teaching and by the time TVS turned 12, he had started accompanying his uncle on stage. Madurai Mani Iyer let him develop an eclectic taste in music, encouraging him to listen to prominent musicians of his time. The 1950s and 60s were indeed a golden age for Carnatic music, with stalwarts such as Musiri Subramania Iyer, Maharajapuram Viswanatha Iyer, Chembai Vaidyanatha





Bhagavathar, Semmangudi Sreenivasa Iyer, G N Balasubramaniam, Brinda-Mukta sisters, S Ramanathan and M S Subbulakshmi, active in the concert circuit. TVS had his first solo concert in 1968. Madurai Mani Iyer died the same year, at the relatively young age of 56. But with the sound grounding provided by Mani Iyer as well as his own parents, in no time, TVS won over listeners, who spotted the finer aspects of the Madurai Mani Iyer school in his singing. In 2003, the Madras Music Academy bestowed on him the Sangita Kalanidhi. The same year the nation honoured him with Padma Bhushan.

At its best, TVS's music reflected the festive spirit of the Carnatic concert, where laya and bhava come together to produce immense joy and exhilaration. T M Krishna said on TVS's passing: "When I began singing, I so wished to sound like you. Your music was filled with passion, romance, flourish and unrestricted flow. You made me fall in love with this music."







BUSINESS & ECONOMICS

INDIA SOARS AHEAD OF UK TO BECOME WORLD'S FIFTH BIGGEST ECONOMY

Britain has dropped behind India to become the world's sixth largest economy, delivering a further blow to the government in London as it grapples with a brutal cost-of-living shock.

The former British colony leaped past the UK in the final three months of 2021 to become the fifth-biggest economy. The calculation is based in US dollars, and India extended its lead in the first quarter, according to GDP figures from the International Monetary Fund.

The UK's decline down the international rankings is an unwelcome backdrop for the new prime minister. Conservative Party members choose Boris Johnson's successor on Monday, with Foreign Secretary Liz Truss expected to beat former Chancellor of the Exchequer Rishi Sunak in the runoff.

The winner will take over a nation facing the fastest inflation in four decades and rising risks of a recession that the Bank of England says may last well into 2024.

By contrast, the Indian economy is forecast to grow more than 7% this year. A world-beating rebound in Indian stocks this quarter has just seen their weighting rise to the second spot in the MSCI Emerging Markets Index, trailing only China's.

On an adjusted basis and using the dollar exchange rate on the last day of the relevant quarter, the size of the Indian economy in "nominal" cash terms in the quarter through March was \$854.7 billion. On the same basis, UK was \$816 billion.

The calculations were done using the IMF database and historic exchange rates on the Bloomberg terminal.

The UK is likely to have fallen further since. UK GDP grew just 1% in cash terms in the second quarter and, after adjusting for inflation, shrank 0.1%. Sterling has also underperformed the dollar relative to the rupee, with the pound falling 8% against the Indian currency this year.

The IMF's own forecasts show India overtaking the UK in dollar terms on an annual basis this year, putting the Asian powerhouse behind just the US, China, Japan and Germany. A decade ago, India ranked 11th among the largest economies, while the UK was 5th.

CHINA TO START PAYING FOR RUSSIAN GAS IN ROUBLES, YUAN

Russia's Gazprom said on Tuesday it had signed an agreement to start switching payments for gas supplies to China to yuan and roubles instead of dollars.

The shift is part of a push by Russia to reduce its reliance on the U.S. dollar, euro and other hard currencies in its banking system and for trade – a drive that Moscow has accelerated since it was hit with Western sanctions in response to its invasion of Ukraine.

Russia has been forging closer economic ties with China and other non-Western countries, in particular as new markets for its vital hydrocarbon exports.





Gazprom CEO Alexei Miller said allowing for payments in Russian roubles and Chinese yuan was "mutually beneficial" for both Gazprom and Beijing's state-owned China National Petroleum Corporation.

"It will simplify the calculations, become an excellent example for other companies and give an additional impetus for the development of our economies," he said.

Gazprom did not provide further details on the scheme or say when payments would switch from dollars into roubles and yuan.

President Vladimir Putin earlier this year forced European customers to open rouble bank accounts with Gazprombank and pay in Russian currency if they wanted to continue receiving Russian gas. Supplies were cut off to some companies and countries that refused the terms of the deal.

Russia signed a landmark \$37.5 billion extension to its deal to supply gas to China on the eve of the invasion.

It started pumping gas to China through the 3,000-km (1,865 mile) Power of Siberia gas pipeline in late 2019. Putin hailed the move as a "genuinely historical event, not only for the global energy market, but above all for us, for Russia and China."

CENTRE BANS EXPORT OF BROKEN RICE DUE TO DOMESTIC DEMAND

The Centre has banned the export of broken rice, mostly used as animal feed and as a component for ethanol production, in view of the domestic demand and the production scenario of rice.

The export of broken rice rose by 4,178% during April to August from the figure during the corresponding period in 2019.

India exports broken rice mainly to China, Senegal, Vietnam, Djibouti and Indonesia. It exported about 21.31 lakh tonne of broken rice in the past five months.

Justifying the reason to ban export, Sudhanshu Pandey, Secretary, Department of Food and Public Distribution, said on Friday that the move would ensure adequate availability of broken rice for the domestic poultry industry and for other animal feedstock and for producing ethanol under the ethanol blending programme.

Mr. Pandey said the country was likely to witness a shortfall of about 6% in area and production of paddy during the ongoing kharif season.

"The final area for kharif in 2021 was 403.58 lakh hectares. So far, an area of 325.39 lakh hectares has been covered. In domestic production, 60 to 70 lakh tonnes estimated production loss is anticipated but due to good monsoon rain in some pockets, the production loss may reduce to 40 to 50 tonnes. However, this would be at par with last year's production," Mr. Pandey said.

"There has been a rise in global demand for broken rice due to geo-political scenario which has impacted price movement of commodities. The export of broken rice has increased by 43 times in the past four years," he said, adding that about 21.31 lakh tonnes of broken rice was exported during April-August compared with just 0.41 lakh tonne in the corresponding period in 2018-19.





He said in the current ethanol season year, against the contracted quantity of 36 crore litres, only 16.36 crore litres had been supplied by distilleries due to low availability of broken rice. Also, domestic price of broken rice, which was ₹16 per kg in the open market, had increased to ₹22 per kg because of higher international prices.

IN SHARP SLIDE IN GLOBAL OIL PRICES, HOPE FOR EASING OF INFLATION IN INDIA

In a major relief to the Indian economy, the Brent crude prices have fallen sharply over the last ten days. While they were trading at around \$110 per barrel in July end, the prices have declined to under \$90 per barrel. The decline has been very sharp over the last ten days as they dropped around 13% to trade at \$88 per barrel on Thursday. If on the one hand it is a reflection of expectations of slowdown in global growth which may have its bearing on India's growth too, on the other it comes as a big respite for India which imports almost 85% of its oil. Softening in crude oil prices can ease-off a part of the inflation.

What led to this?

The crude prices fell sharply by around 4% Wednesday and the decline has come despite OPEC's announcement to cut supply by 100,000 barrels per day beginning October in a bid to prop up the prices. While the prices have been softening over the last couple of months, the recent sharp decline is due to renewed fears of recession in Europe and decline in demand from China, which brought in new Covid lockdown measures amid weakening factory activity. There is a concern that these factors could dent the future demand of crude oil.

Market participants say OPEC's decision to cut production is in itself an indication that it expects decline in demand and further softening in prices.

"Crude oil prices slumped to their lowest levels since January on Wednesday, after weak economic prints from China, interest rate hikes and a surprise rise in US inventories brewed concerns over slowing demand. The US energy watchdog forecast slightly higher demand and tighter supply going into 2023. We expect crude oil prices to trade sideways to down with resistance at \$84 per barrel with support at \$80 per barrel," said Tapan Patel of HDFC Securities.

What does this mean for India?

India imports nearly 85% of its crude requirement and in the year ended March 2022, the oil import bill doubled to \$119 billion on account of rise in prices. The rise in import bill not only leads to inflation and rise in current account deficit and fiscal deficit, but also weakens the rupee against the dollar and hurts stock market sentiment.

A rise in crude oil price also has an indirect impact on India as it leads to a rise in edible oil prices, coal prices and also that of fertiliser as they use gas as the feedstock. Gas accounts for 80% of all fertiliser production costs.

So if a rise in crude oil prices could lead to a much enhanced import burden, it also leads to reduction in demand in the economy which hurts growth. It could also lead to higher fiscal deficit if the government chooses to bear the burden by way of subsidies.

In that sense, a softening in crude oil prices is a big relief for all stakeholders – the government, the consumers and even the corporates. If oil continues to trade at lower levels, it will result in lower inflation levels, higher disposable incomes and thereby higher economic growth.





Will RBI pause on rate hike?

While the inflation has softened from 7.79 in April to 6.71 in July and the trajectory is expected to be downwards going forward in line with the decline in the crude oil prices and other commodities, it is unlikely that RBI would take a pause.

Experts say that while the oil marketing companies (OMCs) have been bearing the burden of high oil prices, it will depend upon whether the government and OMCs take steps to bring down the prices for consumers following the fall in global crude oil prices. "While I think it will bring a breather to the OMCs, I don't see a decline in retail inflation on account of softening crude oil prices as retail prices of fuel may continue to stay high," said Madan Sabnavis, chief economist at Bank of Baroda.

If that is the case, the RBI may go for a rate hike in its forthcoming monetary policy meeting. So, one will have to wait for a sustained lower crude oil prices for a longer period of time and for the same to be passed on to retail fuel prices and a meaningful softening in inflation before RBI draws comfort and takes a pause.

What impact will it have on equity and debt markets?

Over the last four trading sessions the benchmark Sensex at BSE has risen 1.5%. Among other factors, a softening crude oil price has also played a role in the index rise as companies across sectors that are sensitive to crude oil prices have witnessed a rise in their share prices. Market participants also believe that a revival in demand in the economy will lead to earnings revival for companies over the next couple of quarters.

If decline in crude oil prices is positive for the Indian economy and equity markets, investors should invest with a long term focus; debt investors too should now prepare themselves to lock into high interest rates as they peak over the next few months. While 10-year GSec yield is currently trading at around 7.14%, given that the environment continues to remain challenging and RBI could continue to raise rates, the interest rates could rise further.

WHY IS INFLATION RATE DIFFERENT ACROSS STATES?

The story so far: India's economy grew at a slower-than-expected 13.5% in the first quarter of the year. Private consumption picked up, but inflation has been a dampener. Retail inflation which shot up to an eight-year high of 7.79% in April, cooled slightly to 6.7% by July. However, in several States and Union Territories (UTs), including Assam, Andhra Pradesh, Gujarat, Haryana and Telangana, consumers continued to face over 7% inflation in July, while 11 States, including West Bengal, Uttar Pradesh and Bihar, saw accelerated price rise in the month.

Which States are seeing the highest inflation and where are consumers better off?

Inflation measured by the Consumer Price Index (CPI) crossed the central bank's upper tolerance limit of 6% in January and has averaged 6.8% till July 2022. But an analysis of State-wise inflation prints for this period reveals that 14 States as well as three UTs, including Jammu and Kashmir, have faced higher than the national inflation, most of them averaging over 7% in the same period.

While consumers in Telangana (8.32%), West Bengal (8.06%) and Sikkim are worst-hit with 8%-plus inflation, other major States are not too far behind, with some of them posting a spike in price rise in July. The average 2022 retail inflation so far in Maharashtra and Haryana has been 7.7%,



followed by Madhya Pradesh (7.52%), Assam (7.37%), Uttar Pradesh (7.27%), Gujarat and J&K both of which have averaged 7.2% and Rajasthan (7.1%).

By contrast, a dozen States have recorded retail price rise of less than 6% through 2022, including Kerala (4.8%), Tamil Nadu (5.01%), Punjab (5.35%), Delhi (5.56%) and Karnataka (5.84%). Manipur, Goa and Meghalaya, in fact, averaged inflation below 4%, at 1.07%, 3.66% and 3.84%, respectively.

Andhra Pradesh and Jharkhand's inflation averaged just 0.1% over the national rate at 6.9%, but the former averaged 8.18% in the April to June quarter before easing slightly to 7.38% in July, while the same numbers were 7.36% and 5.65% for the latter, respectively.

What explains the variations in price rise among the States?

Food price inflation that dropped to a five-month low of 6.8% in July, is a key differentiating factor for States' inflation experience, explained Bank of Baroda chief economist Madan Sabnavis. States that are not major crop producers have higher food inflation as transport costs are added on, and those with predominantly rural areas also clock more inflation as the CPI for rural areas assigns a higher weightage to food, he pointed out. Indeed, rural inflation has averaged more than urban inflation at 7.07% from January to July, and 7.6% in the four months since it peaked at 8.38% in April. For urban consumers, inflation only crossed 6% in March 2022, has averaged 6.47% through 2022 and fallen 0.6 percentage points by July from its 2022 high of 7.09% in April.

Consumption patterns and divergences in different items' price trends also influence variations among States. Tomato inflation dropped to 44% from 158.4% in June, while meat and fish price rise cooled to a 46-month low of 3% in July. As EY India noted in a report this week, inflation in petrol used for conveyance eased to a 32-month low of 0.3%, diesel turned negative for the first time since November 2019 at (-)2.4%, but LPG inflation hit a six-month high of 23% and kerosene touched an unprecedented 108.8% in July. That some States lowered their fuel taxes made a difference.

Why does it matter?

While the share of private consumption has spiked to nearly 60% of GDP in Q1 2022-23, this persistently high inflation has dented spending propensity, particularly in rural India that is facing more price pressures.

"Private consumption is improving, with urban demand getting support from contact-intensive services. Had it not been for high inflation and subdued rural demand due to negative real rural wage growth, private consumption would have grown faster," said CRISIL's chief economist Dharmakirti Joshi. With the monsoon's progress still uneven, there is anxiety about rural demand even as inflationary pressures continue to cramp household budgets. Identifying what is driving inflation higher (or lower) in some States vis-à-vis others could help policy makers address those pressure points more specifically to provide lasting relief to consumers, apart from other broadbrush ploys such as interest rate hikes and trade curbs to cool prices of individual items. The Centre and States can co-ordinate to pinpoint and address the price triggers that may not be driven by global headwinds but local factors.





INDIA, 7% PLUS ANNUAL GROWTH, AND THE REALITIES

The National Statistical Office's real GDP growth estimate of 13.5% for the first quarter of 2022-23 is 2.7% points lower than the Reserve Bank of India's earlier assessment of 16.2%. Assuming that the central bank's estimates of the remaining three quarters of the fiscal year at 6.2% in 2Q, 4.1% in 3Q, and 4% in 4Q are realised, the annual GDP growth using the NSO's 1Q estimate works out to be 6.7%. Compared to the pre-COVID-19 GDP level of ₹35.5 lakh crore in 1Q of 2019-20, real GDP at ₹36.9 lakh crore shows an increase of only 3.8%. This indicates that the performance of the Indian economy is not fully normalised yet which would be consistent with a growth of 6.5% to 7%. In order at least to reach an annual growth of 7%, GDP may have to grow at about 5% in 3Q and 4Q of 2022-23.

Composition of growth

Out of the eight Gross Value Added (GVA) sectors, the first quarter growth performance is higher than the average of 12.7% in public administration, defence and other services (26.3%), trade, hotels, transport et al. (25.7%), construction (16.8%), and electricity, gas, water supply et al. (14.7%). Agricultural growth has remained robust, showing a growth of 4.5% in 1Q of 2022-23, which is the highest growth over nine consecutive quarters. Growth in manufacturing, at 4.8%, however, is much below the overall average. A more relevant comparison would be to look at the increase with respect to corresponding output levels in the pre-COVID-19 normal year, that is in 1Q of 2019-20.

In this comparison, manufacturing seems to have done better with an increase of 7% in 1Q of 2022-23 while the trade, hotels, transport et al. sector has remained below its pre-COVID-19 level by a margin of minus 15.5%. This was the main contact-intensive sector which suffered the most during COVID-19 and which may show better recovery in succeeding quarters. Construction has also increased by a small margin of 1.2% when compared to its 1Q 2019-20 level.

On the demand side, all major segments showed magnitudes in 1Q of 2022-23 that were higher than their corresponding levels in 1Q of 2019-20. Recovery in domestic demand has been reflected in the growth rates of private final consumption expenditure (PFCE), at 25.9%, and gross fixed capital formation (GFCF) at 20.1% over the corresponding quarter of the previous year. As compared to its 1Q 2019-20 level, the GFCF showed a growth of 6.7%. The ratio of gross fixed capital formation to GDP at current prices is 29.2% in 1Q of 2022-23 which is 1% point higher than the investment rate of 28.2% in the corresponding quarter of the previous year.

The contribution of net exports to real GDP growth is negative at minus 6.2% points in 1Q of 2022-23 since import growth continues to exceed export growth by a tangible margin. Such an adverse contribution of net exports to real GDP growth is an all-time high for the 2011-12 base series. It is likely that import growth will continue to exceed export growth in the next few quarters, both in real and nominal terms, considering prevailing high global prices of petroleum products and other intermediate inputs and India's growing demand for importing intermediate goods with a view to boosting 'Make in India'.

On the feasibility

The Indian economy may still show a 7% plus growth in 2022-23 provided it performs better in the subsequent quarters, particularly in the last two. Two important areas of policy support for this purpose would be to further increase the investment rate and to reduce the magnitude of





negative contribution of net exports. Available high frequency indicators for the first four to five months of 2022-23 indicate continuing growth momentum.

Headline manufacturing Purchasing Manager's Index (PMI) was at an eight-month high of 56.4 in July 2022. It remained high at 56.2 in August 2022. PMI services were at 55.5 in July 2022, indicating 12 consecutive months of expansion. Outstanding bank credit by scheduled commercial banks (SCBs) grew by 15.3% in the fortnight ending August 12, 2022. Gross Goods and Services Tax collections have remained high at ₹1.49 lakh crore and ₹1.43 lakh crore in July and August 2022, respectively, although a good part of this may be due to the higher inflation levels of both Wholesale Price Index (WPI) and Consumer Price Index (CPI).

As seen in 1Q of 2022-23, GVA growth has been led by public administration, defence, and other services, with a growth of 26.3%. This has been driven by the central government's frontloading of capital expenditure. The Centre's capital expenditure grew by 62.5% during the first four months of 2022-23. This momentum needs to be maintained. This would be facilitated by a buoyant growth in the Centre's gross tax revenues, which showed a growth of nearly 25% during the first four months of the current fiscal year. The relatively high tax revenue growth is in turn linked to the excess of nominal GDP growth at 26.7% in 1Q of 2022-23 over the real GDP growth of 13.5%. Such a large gap between these two growth measures reflects a high implicit price deflator (IPD)-based inflation which is estimated at 11.6% in 1Q of 2022-23. This in turn is because of the ongoing WPI and CPI inflation trends where the former continues to exceed the latter. With buoyant tax revenue growth, fiscal policy may strongly support GDP growth without making any significant sacrifice on the budgeted fiscal deficit target.

Raise investment rate

In the light of likely development in 2022-23, how confident are we of achieving the growth rate of 6% to 7% over a normal base? Given our desire to achieve developed country status in the next 25 years, the required growth rate is in the range of 8% to 9%. In 2023-24, we must try to achieve a growth rate of 6% to 7%. The key to growth lies in raising the investment rate. Public capital expenditure has shown a rise. In crisis years, it is particularly good. It can crowd in private capital expenditure. But this cannot be the normal. Private capital expenditures, both corporate and noncorporate, must rise. It is pointed out that capacity utilisation in industry has touched 75% in 4Q 2021-22. This should help to attract private investment if demand for goods continues to increase. The output loss because of COVID-19 and the consequent lockdown is greater if we measure it from the trend line rather than the base of 2019-20. Had we maintained growth of 7% since 2019-20 in successive years, the real GDP would have been ₹183.4 lakh crore in 2022-23. Even if we achieve a 7% growth in 2022-23 over 2021-22, there is a shortfall of ₹25.7 lakh crore at 2011-12 prices. The international environment for growth is bleak. Developed countries even fear a recession. India's growth path in the next few years must depend on domestic investment picking up. Sector-wise growth in investment must be the focus of policymakers in removing bottlenecks and creating a favourable climate.

SCIENTISTS REMAIN SCEPTICAL ABOUT HOW NANO UREA BENEFITS CROPS

Nano urea, a fertilizer patented and sold by the Indian Farmers Fertiliser Cooperative Ltd. (IFFCO), has been approved by the government for commercial use because of its potential to substantially reduce the import bill, but several experts have questioned the science underlying its efficacy.





Prime Minister Narendra Modi, while inaugurating a nano urea production plant at Kalol in Gujarat on May 28, said, "... A small bottle (500 ml) of nano urea is equivalent to one 50-kg bag of granular urea currently used by farmers."

IFFCO's nano urea contains nitrogen, an element critical for plant development, in the form of granules that are a hundred thousand times finer than a sheet of paper. At this nano scale, which is about a billionth of a metre, materials behave differently than in the visible realm.

Ramesh Raliya, 34, who is credited as the inventor of nano urea and is now a consultant with IFFCO, told The Hindu that his process used "organic polymers" that kept the nano particles of nitrogen stable and in a form that could be sprayed on plants.

Chemically packaged urea is 46% nitrogen, which means a 45-kg sack contains about 20 kg of nitrogen.

Contrastingly, nano urea sold in 500-ml bottles has only 4% nitrogen (or around 20 g). How this can compensate for the kilograms of nitrogen normally required puzzles scientists.

Plants need nitrogen to make protein and they source almost all of it from soil bacteria which live in a plant's roots and have the ability to break down atmospheric nitrogen, or that from chemicals such as urea into a form usable by plants.

To produce one tonne of wheat grain, a plant needs 25 kg of nitrogen. For rice, it is 20 kg of nitrogen, and for maize, it is 30 kg of nitrogen. Not all the urea cast on the soil, or sprayed on leaves in the case of nano urea, can be utilised by the plant. If 60% of the available nitrogen was used, it would yield 496 kg of wheat grain. Even if 100% of 20 g of nano urea, which is what is effectively available, is utilised by the plant, it will yield only 368 g of grain, said N.K. Tomar, retired Professor of Soil Science at Chaudhary Charan Singh Haryana Agricultural University, Hissar, Haryana.

"Therefore, total attempt is futile and causing sheer wastage of money. This claim of IFFCO is unfounded and will be disastrous for farmers," he notes in a letter to the NITI Aayog as well as the National Academy for Agricultural Sciences. Dr. Tomar told The Hindu that they had not yet responded to his letter.

Dr. Tomar's views are seconded by I.P. Abrol, former Deputy Director-General, Indian Council of Agricultural Research (ICAR).

"Urea is highly water soluble and already reaches the lowest form of concentration when absorbed. How nanoparticles can increase the effectiveness of nitrogen uptake by being still smaller is unclear to me. That foliar spraying (spraying on leaves) improves fertilizer uptake is known for over half a century. So what's new here?" Dr. Abrol asked.

Unlike the coarse particles that farmers throw onto the soil during sowing, the nano particle form of nano urea, when applied on to the leaves, stimulates enzymes such as nitrase and nitrite reductase, which help plants metabolise nitrogen, Dr. Ramesh Raliya said.

Different parts of the plant contain nitrogen in varying proportions and because nano particles are so small and numerous, they have a lot more surface area relative to their volume, compared with the millimetre-size grains of urea that plants are exposed to nearly 10,000 times more in nitrogen.





SOURING MSME LOANS SPEAK OF A CONTINUING DISTRESS THAT SIMMERS IN THE LABOUR MARKETS

During the early days of the pandemic, the Union government had announced an emergency credit line guarantee scheme designed to help micro, small and medium enterprises in distress. This facility was meant to ease the cash flow woes of these units, helping them pay off their obligations and salaries to employees. MSMEs were provided credit facilities up to a maximum of 20 per cent of their outstanding debt. Subsequently, the government enhanced the scheme, expanding its scope in order to ensure greater fund flows into the economy. As per data, around Rs 2.8 lakh crore of loans have been disbursed under this scheme across one crore accounts. However, as reported in this paper, 16.4 per cent of these accounts have turned non-performing as borrowers have not been able to service their loans due to financial stress. These numbers suggest that even though the overall economy has surpassed its pre-Covid level, large parts of it continue to be mired in distress.

According to data furnished by the National Credit Guarantee Trustee Company, 16.22 lakh loans have turned bad. In value terms, this works out to Rs 11,893 crore. This implies that among the firms that availed the ECLGS facility, it is the relatively smaller firms that are under stress and have not been able to meet their obligations. Also, most of the loans that have turned bad were under the first tranche of the scheme. This is worrying as it points towards the possibility of more pain surfacing in the months ahead.

While these numbers do provide some sense of the scale of financial stress among the MSMEs, it is important to draw a distinction — these are "formal" MSMEs with access to formal sources of finances. For the informal MSMEs, much larger in number, the financial stress is likely to have been greater as most of the measures announced by the government to help the MSMEs deal with the fallout of the pandemic, flowed through the formal monetary channels. Informal MSMEs with no access to formal sources of credit and such facilities are likely to have fared worse. Only those with sufficient reserves are likely to have been able to survive this turbulent period. Given that MSMEs, both formal and informal, employ a sizeable section of the labour force, their continuing financial stress points to the simmering distress in the labour market.

ILLEGAL LOAN APPS: FM ORDERS ACTION; RBI TO MAKE 'WHITE LIST'

Noting concerns on increasing instances of money laundering, tax evasion and criminal intimidation by illegal loan apps, especially against low-income persons, the government has asked the Reserve Bank of India (RBI) to prepare a "white list" of legal digital lending apps to be permitted in app stores.

The RBI will also monitor money laundering through mule/rented accounts, take proactive action in cancelling dormant non-banking financial company (NBFC) licences and remove unregistered payment aggregators within a timeframe.

The decision was taken in a meeting chaired by Finance Minister Nirmala Sitharaman on Thursday, which discussed various issues related to illegal loan apps. There have been rising instances of fraud by digital lending apps, which are not registered with the central bank and operate on their own.





"(She) also noted the possibility of money-laundering, tax evasions, breach/privacy of data and misuse of unregulated payment aggregators, shell companies, defunct NBFCs, etc, for perpetrating such actions," it added.

It was also decided in the meeting that the central bank will ensure registration of payment aggregators within a timeframe and no unregistered payment aggregator will be allowed to function after that. The Corporate Affairs Ministry will identify shell companies and deregister them to prevent their misuse.

All ministries and agencies have been directed to take all possible actions to prevent operations of such apps. Steps would be taken to increase cyber awareness for customers, bank employees, law enforcement agencies and other stakeholders, the Finance Ministry said. The meeting was attended by the secretaries in the finance and electronics & IT ministries, and an RBI deputy governor.

Last Saturday, the Enforcement Directorate (ED) raided several premises in Bengaluru, including those of Razorpay, Cashfree Payments, Paytm Payment Service and also entities controlled or operated by Chinese individuals. The crackdown, coming in the wake of complaints against Chinese loan apps, were carried out under the provisions of the Prevention of Money Laundering Act (PMLA), 2002.

The ED is probing cases of NBFCs allegedly indulging in predatory lending practices in violation of RBI guidelines. As per the agency, after it began its probe, many of these companies shut shop and diverted funds through fintech companies to buy crypto assets which were then laundered abroad. In this connection, the ED had searched premises associated with crypto exchange WazirX and frozen Rs 64 crore in its accounts.

The searches revealed that some entities — controlled and operated by Chinese individuals — have been using forged documents of Indians to appoint them dummy directors of those entities. The ED believes these entities are "generating proceeds of crime" and has concluded that these entities were conducting "suspected/illegal business" through various merchant IDs or accounts held either with payment gateways or even banks.

The RBI has been concerned about the proliferation of Chinese loan apps, many of which started operations during the pandemic, targeting the vulnerable and the unemployed. These digital lending platforms charge very high lending rates and then resort to strong-arm tactics to recover the money.

ONLINE GAMING: LENS ON WINNERS TO PAY TAXES, UPDATE ITRS

Tax authorities on both the direct and indirect tax side are raising scrutiny for possible evasion in one major upcoming sector — online gaming. Direct tax officials are learnt to be scrutinising data for winnings to the tune of Rs 58,000 crore over a span of three years for an online gaming platform, urging taxpayers to come forward and pay taxes. Meanwhile, a Group of Ministers (GoM) will meet Monday to discuss the contours of Goods and Services Tax (GST) for online gaming, horse racing and casinos.

Central Board of Direct Taxes (CBDT) Chairman Nitin Gupta has urged taxpayers to come forward and report the undeclared winnings from the online gaming platform in the facility for updated returns, which allows taxpayers to update their information for last two assessment years, i.e. FY20 and FY21. "It is an Indian (online gaming) company ... requesting the winners to come





forward and file the updated return to pay the tax. Whatsoever data we have, we will proceed forward. Taxpayers should come forward voluntarily and it is the best thing. Some may have earned more and some less, some might have earned in millions and some in small amounts. They are usually in a ledger account and they merge win and loss, it (data) is humongous," he told The Indian Express.

GameKing, Dream 11, Nazara Technologies are some big players in the online gaming industry. The online gaming industry is currently contributing more than Rs 2,200 crores of GST, as per a recent study by EY and Assocham.

Tax authorities are asking taxpayers to make use of the updated returns facility introduced under Section 139 (8A) in this year's Budget to report any such undeclared transactions. As per the Income Tax Department, over 1.55 lakh updated ITRs have been filed up to September 2 and more than 20,000 taxpayers have filed updated ITRs for both AYs 2020-21 and 2021-22.

"Over Rs 50 crore worth of undeclared tax payments have come in through these updated returns. In times to come, this is expected to increase," a senior tax department official said.

Winnings from lottery or prize money in a competition are liable to a flat rate of tax at 30 per cent without any basic exemption limit. In such a case, the payer of prize money will generally deduct tax at source (TDS) from the winnings and will pay only the balance amount.

"No expenses allowed. If you have lost the game, nothing is allowed. Each win is taxed. It is like a lottery. Loss cannot be adjusted against the win. We are looking into it and the figure could be huge. We have collected some data on that. We leave it to taxpayers to come forward and pay taxes as there is a facility of updated returns," Gupta said.

The GoM on casinos, horse racing and lottery is expected to finalise the valuation process for taxing these categories under GST. It had earlier finalised a uniform 28 per cent tax on all three categories, but then was given more time to review its recommendations that will then be taken up in the next GST Council meeting, likely to be held by mid-September

WHAT RELIANCE'S MOVE TO ACQUIRE A MAJORITY STAKE IN A SOLAR SOFTWARE FIRM MEANS

Oil-to-telecom conglomerate Reliance Industries has signed definitive agreements to acquire a majority stake in California-based solar software startup SenseHawk Inc for a total transaction value of \$32 million. The move comes as the company turns its focus towards the new energy sector where it plans to achieve 100 GW of solar energy by 2030.

Why the acquisition?

Founded in 2018, SenseHawk is a developer of software based management tools for the solar energy generation industry. It offers solutions ranging from planning to production by helping companies streamline processes and use automation. SenseHawk also offers a digital platform to manage the end-to-end solar asset lifecycle.

The company has more than 140 customers in 15 countries with assets totalling more than 100 GW.





LIFE & SCIENCE

CHINA'S FULLY SOLAR-POWERED, SEMI-SATELLITE DRONE, EXPLAINED

China's first fully solar-powered unmanned aerial vehicle has successfully completed its maiden test flight with all onboard systems functioning optimally.

According to Chinese state media reports, the drone took off from an airport in Shaanxi province at 5.50 pm Saturday, had a smooth flight for 26 minutes and landed safely.

The new machine

With a wingspan of 164-ft, the drone is a large machine powered entirely by solar panels. The high-altitude, long-endurance (HALE) UAV can stay airborne for long durations. Named the Qimingxing-50, or Morning Star-50, this drone flies above 20-km altitude where there is stable airflow with no clouds. This helps these drones to make the maximum use of solar equipment to stay functional for extended durations. In fact, the drone's chief designer told South China Morning Post that it can operate without a break for months, even years.

Cross between drone and satellite

The fact that the drone can operate in near-space – 20 km to 100 km above the Earth's surface – makes it capable of carrying out satellite-like functions. If satellite services are not available for, say, time-sensitive operations or in case of wartime disruption, then near-space UAVs can step in to fill the operational gap. These drones are also referred to as 'High Altitude Platform Stations' or pseudo-satellites. China already has this capacity, but the Qimingxing-50's long-endurance provides an added advantage to make this capability available over a longer period.

In July this year, the US Army helped test a solar-powered, near-space Airbus Zephyr S drone that set a new record by being airborne for 42 days.

Both these drones can undertake surveillance missions that require them to stay operational, watching over borders or oceans, for months.

Easy to lock-and-load

Drones like the Morning Star-50 are cost-effective to build and are also easy to launch and operate. Being entirely powered by clean energy from the Sun, the present one can help boost China's capabilities to operate in near-space and over the ocean. This HALE UAV is capable of conducting high-altitude reconnaissance, apart from monitoring forest fires, providing communication and environment relay.

ALONE TOGETHER: THE STORY OF A JAPANESE MAN EARNING BY SIMPLY BEING THERE FOR OTHERS SPEAKS OF A LONELINESS THAT WON'T BE EASILY FIXED

Shoji Morimoto has the perfect job. The 38-year-old Tokyo resident gets paid to do nothing. All he does is hire himself out as a companion. no small talk required, for 10,000 yen (\$71) per booking. This "job" sees him accompany people who might, as one client wanted, go out for a quiet cup of tea or play on a see-saw with another. Morimoto makes enough money from this job — which he took up after he was rebuked for "doing nothing" at a previous job in publishing — to support a wife and child.





The appeal of Morimoto's job is evident. Which hamster stuck on the 9-to-5 wheel hasn't wished to be paid to simply exist or, at the most, to do the very least required to earn money? A story like Morimoto's offers hope that there is a way out of the burnout culture that most employees find themselves stuck in, an alternative to the hustle-till-you-drop valorisation of productivity.

Look closer, however, and this story of the perfect job — one which may make the average person wonder if they're a mug for risking repetitive stress injury at their desk job — is a lot less cheering. Take, for instance, the gig that required Morimoto to smile and wave at a complete stranger through a train window because the latter wanted a send-off. Or Morimoto's claim that at least a quarter of his clients are repeat customers, with one having hired him 270 times. That so many are willing to pay for the simple companionship that, in a less disconnected world, would be freely available, speaks of a profound malaise of loneliness. It won't be fixed by one man hiring himself out.

GOOGLE PLAY STORE TO ADD FANTASY GAMES, RUMMY APPS FOR ONE YEAR

Google is changing its long-held stance on disallowing real-money fantasy games on its Play Store in India, as the company has announced a limited period pilot to allow such real-money games like daily fantasy sports (DFS) and rummy apps on its app marketplace. Google said the pilot will be for one year starting September 28, and DFS and rummy apps from developers incorporated in the country will have to apply to get onboarded to the Play Store.

DFS games are those where contestants use their knowledge of athletic events and athletes to select or manage rosters of simulated athletes whose performance directly corresponds with the actual performance of human athletes on sports teams or in sports events. This is a significant move by Google which had so far not allowed such apps on its app store.

The company had maintained such a hard-line against these apps that in 2020 it had temporarily removed payments app Paytm from the Play Store for promoting its fantasy app Paytm First Games which Google considered to be a betting app. However, since then, the online gaming sector in India has picked up tremendous pace.

The fantasy sports market in the country is projected to grow from Rs 34,600 crore in FY21 to an estimated Rs 1,65,000 crore by FY25, as per a report by the Federation of Indian Fantasy Sport (FIFS) and Deloitte. The fantasy sports market in India has a user base of around 13 crore — the highest anywhere in the world.

Despite such apps not being on Google's Play Store so far, the sector has seen three start-ups — Dream11, Mobile Premier League, and Games 24×7 — turn unicorn, i.e. private companies with a valuation of \$1 billion or more. On Android, these apps had to be sideloaded, meaning that users had to install them using a software package directly from the Internet.

Notably, developers selected as part of the pilot will not be able to offer Google's in-app billing mechanism and instead will have to offer alternate third-party billing features in their apps. Google, it is understood, will not charge a commission on transactions made on these apps, in line with its service fee policy for such apps globally.

"We are constantly exploring ways for local developers to build successful businesses and offer delightful experiences on Google Play. Through this pilot program, we are taking a measured approach that will help us collate learnings and retain an enjoyable and safe experience for our users," a company spokesperson said in a statement.





According to a source briefed on the matter, Google has chosen to allow fantasy games as part of a pilot "because of the evolving nature of the fantasy gaming industry and in order to collate adequate information about any possible user harms and safety of such apps". The online gaming sector is facing regulatory uncertainty. Despite some favourable judgements by the Supreme Court and other high courts that fantasy gaming apps are games of skill and hence legal, the app category has been banned in several states including Telangana, Andhra Pradesh and Odisha among others.

Indeed, that is also one of the key parameters that developers will have to follow if they wish to be selected in the pilot. In its terms and conditions about the pilot, Google has said that developers will have to ensure that they restrict access to their app to users residing in states where DFS and rummy apps are prohibited.

GOOGLE TO ACCEPT 3RD-PARTY APP PAYMENTS IN INDIA: WHAT THIS MEANS FOR DEVELOPERS

In a significant move, Google will allow developers of non-gaming Android apps from several countries, including India, to offer third-party payment options under a pilot project. On these alternate payment systems, developers will see their service fee of 15-30 per cent reduced by 4 per cent. However, even now, developers will have to support Google's inbuilt system in their apps.

The development follows increased global regulatory scrutiny on Google and Apple over the companies mandating their own in-app billing systems and charging commission on each transaction.

In March, Google had first launched the pilot project on Spotify, a developer that has been particularly vocal against Google and Apple's handling of payment methods on in-app purchases. With the latest move, the pilot has now been extended to non-gaming app developers in India and four other markets — Australia, Indonesia, Japan and the European Economic Area.

Why is this significant?

In 2021, South Korea passed a law which made it mandatory for Google and Apple to open their app stores to alternative payment systems. Indian developers have also met with the government to explore the scope of a similar legislation in the country.

On Google's Play Store as well as on Apple's App Store, developers, for the most part, have not been allowed to introduce their own payment methods as the two companies have forced them to use their proprietary billing system for in-app purchases. With this, Google and Apple are able to keep a cut of the transactions as commission which in some cases, could go as high as 30 per cent. However, it is worth noting that Google recently lowered its App Store fees for all subscription-based services to 15 per cent from 30 per cent, effective January 1, 2022. The penalty for violating this rule is typically suspension from both app stores. Video game developer Epic Games faced this fate in 2020 after it introduced its own in-app payment method in its popular game Fortnite.

Have Indian app developers raised concerns?

In 2020, Google said it would enforce its in-app payment method in India by September 2021, which led to significant backlash from the industry. Prominent Indian internet entrepreneurs, including Paytm's Vijay Shekhar Sharma and BharatMatrimony's Murugavel Janakiraman, raised





concerns about this system with the IT Ministry. As a result of this pressure, Google said it would defer the enforcement of its rules in India until March 2022, later extending it to October 2022.

NEW TITANIC FOOTAGE HERALDS NEXT STAGE IN DEEP-SEA TOURISM

New footage of the Titanic wreckage released last week by a commercial exploration company shows the doomed ship in vivid detail and highlighted that the world for wealthy tourists not only extends to space, but also the deep sea.

The one-minute clip was shared by OceanGate Expeditions, a company that takes paying tourists in submersibles to shipwrecks and underwater canyons. For the Titanic expedition this summer, guests paid \$250,000 to take a submersible down about 2.4 miles to where the wreckage rests on the seabed.

Since the hulking ship was found upright and split in two sections in 1985, less than 400 miles off Newfoundland, it has captivated historians, archaeologists and others. Stockton Rush, the president of OceanGate, said private exploration was needed to continue feeding this fascination.

"No public entity is going to fund going back to the Titanic," Rush said. "There are other sites that are newer and probably of greater scientific value."

OceanGate has now led two expeditions to the site and has one planned for 2023. The dives last about eight hours, including the estimated 2.5 hours each way it takes to descend and ascend.

Scientists and historians provide context on the trip and some conduct research at the site, which has become a reef that is home to many organisms. The team also documents the wreckage with high-definition cameras to monitor its decay and capture it in detail.

But the high-quality footage of the ship's bow, anchor and an anchor chain does not impress everyone.

HIGH SEAS DECEPTION: HOW SHADY SHIPS USE GPS TO EVADE INTERNATIONAL LAW

The scrappy oil tanker waited to load fuel at a dilapidated jetty projecting from a giant Venezuelan refinery on a December morning. A string of abandoned ships listed in the surrounding turquoise Caribbean waters, a testament to the country's decay after years of economic hardships and US sanctions.

Yet, on computer screens, the ship — called Reliable — appeared nearly 300 nautical miles away, drifting innocuously off the coast of St. Lucia in the Caribbean. According to Reliable's satellite location transmissions, the ship had not been to Venezuela in at least a decade.

Shipping data researchers have identified hundreds of cases like Reliable, where a ship has transmitted fake location coordinates in order to carry out murky and even illegal business operations and circumvent international laws and sanctions.

The digital mirage — enabled by a spreading technology — could transform how goods are moved around the world, with profound implications for the enforcement of international law, organized crime and global trade.

Tampering this way with satellite location trackers carried by large ships is illegal under international law, and until recently, most fleets are believed to have largely followed the rules.





But over the past year, Windward, a large maritime data company that provides research to the United Nations, has uncovered more than 500 cases of ships manipulating their satellite navigation systems to hide their locations. The vessels carry out the deception by adopting a technology that until recently was confined to the world's most advanced navies. The technology, in essence, replicates the effect of a VPN cellphone app, making a ship appear to be in one place while physically being elsewhere.

Its use has included Chinese fishing fleets hiding operations in protected waters off South America, tankers concealing stops in Iranian oil ports, and container ships obfuscating journeys in the Middle East. A US intelligence official, who discussed confidential government assessments on the condition of anonymity, said the deception tactic had already been used for weapons and drug smuggling.

After originally discovering the deception near countries under sanction, Windward has since seen it spread as far as Australia and Antarctica. Under a United Nations maritime resolution signed by nearly 200 nations in 2015, all large ships must carry and operate satellite transponders, known as automatic identification systems, or AIS, which transmit a ship's identification and navigational positional data. The resolution's signatories, which include practically all seafaring nations, are obligated under the UN rules to enforce these guidelines within their jurisdictions.

"It's a new way for ships to transmit a completely different identity," said Matan Peled, a founder of Windward. "Things have unfolded at just an amazing and frightening speed."

The spread of AIS manipulation shows how easy it has become to subvert its underlying technology — the Global Positioning System, or GPS — which is used in everything from cellphones to power grids, said Dana Goward, a former senior US Coast Guard official and the president of Resilient Navigation and Timing Foundation, a Virginia-based GPS policy group.

"This shows just how vulnerable the system is," he said.

Goward said that until now, all major global economy players had a stake in upholding an order built on satellite navigation systems.

But rising tensions between the West, Russia and China could be changing that. "We could be moving toward a point of inflection," Goward said.

Analysts and Western security officials say the US and European Union sanctions on Russian energy imports as a result of the war in Ukraine could drive Russia's trade underground in coming months, obscuring shipments of even permitted goods in and out of the country. A large shadow economy risks escalating maritime deception and interference to unprecedented levels.

US intelligence officials confirmed that the spread of AIS manipulation is a growing national security problem and a common technique among sanctioned countries. But China has also emerged in recent years as a source of some of the most sophisticated examples of AIS manipulation, officials said, and the country goes to great lengths to conceal the illegal activities of its large fishing industry.

Windward is one of the main companies that provide shipping industry data to international organizations, governments and financial institutions — including the United Nations, US government agencies and banks like HSBC, Société Générale and Danske Bank. At least one client,





the UN Security Council body that monitors North Korea's sanctions compliance, has used Windward's data to identify ships that breach international laws.

The United States is the only country that bans dealings with Venezuela's state oil company, meaning that Berlina's oil transfer was not illegal in Venezuela or Cyprus, where the ship is registered. But because of Washington's outsize role in global finance, many ships try to hide their presence in Venezuela to avoid being ostracized by banks, insurance companies and customers.

The spread of the deception tactic could be mitigated by the United Nations adopting stricter security protocols for the software that is installed in the AIS transponders by commercial manufacturers, maritime officials and satellite data experts said.

The technology to fake satellite signals, either from the ship itself or from a remote location, has existed for decades but was previously confined to military use, according to Windward. In the past two years, however, military grade AIS transponders, or at least the software that replicates its effects, appear to have become available for sale on the black market, spreading rapidly among dealers of sanctioned and illicit goods.

The war in Ukraine is likely to accelerate its adoption. After the invasion began in February, the US Department of Transportation's Maritime Administration reported an increase in cases of AIS manipulation and jamming in the Black Sea, coinciding with US and Ukrainian claims that Russia was trying to hide its oil exports and smuggle stolen Ukrainian grain.

The Department of Transportation referred questions to the US Coast Guard, which confirmed an increase in reported cases of AIS manipulation.

In the future, the technology could also become available to airplanes, which use a similar satellite transponder to AIS, with potentially significant implications for terrorism, smuggling and people's ability to cross national borders undetected, said Peled.

"It's not a matter of if, but when," he said.

HAS SCIENCE EVOLVED TO RECORD DREAMS?

Our understanding of human biology has taken large strides in the last century. However, progress in our understanding of dreams has been really slow. The biological function of dreams is a grey area; the only sure thing is that most human beings dream regularly.

The phase of sleep associated with vivid dreaming is called REM (rapid eye movement) sleep. People who have woken up in this phase of sleep often report that they were dreaming. The rapid eye movements are a puzzle to researchers because they are difficult to measure.

A recent report (Science Vol. 377, 2022) addresses the question of whether eye movements are related to whatever is going on in the dream. Could the movements carry information about a dream that could be analysed and interpreted?

Interpreting dreams

But first, some background on the interpretation of dreams. The early twentieth century was dominated by the theories of Sigmund Freud, focused on the symbolic meaning of images recollected from dreams. The discovery of REM sleep, in 1952, led to a shift away from psychoanalysis.





The brain was found to be as active in REM sleep as in the fully awake state. Yet the body was inactive, asleep. REM sleep was found in all mammals and birds. Michel Jouvet showed that inducing damage to the brain stem in a cat freed it from bodily immobility in the dream state. This cat would noisily fight with other cats, stopping when it woke up.

The recording of brainwaves (EEG) provided fresh insights. These recordings showed very little difference between REM sleep and the awake state. More surprisingly, the neuroscientist Matthew Wilson recorded brain activity in a rat while it was exploring a maze and, not much later, obtained identical brainwaves when the same rat was in REM sleep — was it solving the maze in the dream?

Database of dreams

Another way of studying dreams was to compile vast databases of dreams. Analysing 50,000 dreams led the compiler, Calvin Hall, to conclude that most dreams did not resemble surrealist paintings, and were fairly predictable. Children may smile while dreaming, as children were more likely to dream of animals, but adult dreams were not very pleasant and were often filled with moments of anxiety.

We are anxious about important things, things that need to be resolved. In a theory proposed by Francis Crick and Graeme Mitchison, dreaming served as a housekeeping function, a nightly sorting of that particular day's happenings. While sorting, a few important events (possible sources of anxiety) were stored away as memories, the rest treated as clutter.

Could there be a real-time output from dreams that could be recorded? The results are conflicting. Some studies indicated that either the direction or the frequency of eye movement matched the recollected mental process in the dream. An electrooculograph (EOG) was used to record eye movements in sleeping human volunteers, it recorded whether eye movement was chiefly vertical (up-down) or horizontal (left-right). If the volunteer reported that he was looking upward in his dream, his recorded rapid eye movements were up-down.

Other studies attributed REM to random activity in the brain.

Practicing strategies

When awake, eye movements are necessary for survival. A mouse in an open field frequently moves its eyes upward, scanning the sky for danger from birds. A human pedestrian will perform left-right scans, looking out for oncoming traffic. In both these instances, the eyes move in the same direction as the head. The brain keeps track of which way your head is pointed using nerve cells called Head Direction (HD) cells. In mice, using electrodes inserted in a HD cell, it has been shown that these cells are active when the head is moving.

Senza and Scanziani recorded both REM as well as HD cell activity in sleeping mice. Remarkably, they showed that in its REM sleep, their mouse performed up-down eye movements similar to daytime scans of the sky. The HD cells too indicated the corresponding movement, although the head itself did not move, the mouse being asleep. It appears that the dream was about escaping from a predatory bird.

Can these studies be used to benefit humans? Persons who have experienced sudden, intense trauma suffer from PTSD (post-traumatic stress disorder). A soldier shocked by a hand grenade exploding just behind him, although otherwise unhurt, can suffer from recurring nightmares and anxiety for several years. What does he 'see' every night? A better understanding would lead to better rehabilitation strategies.





DOLPHIN, PORPOISE: FIRST TIME, AVIAN FLU IS SEEN IN CETACEANS

A bottlenose dolphin found dead in a Florida canal in the spring tested positive for a highly virulent strain of bird flu, scientists said on Wednesday. The announcement came a week after Swedish officials reported that they had found the same type of avian influenza in a stranded porpoise.

This version of the virus, which has spread widely among North American and European birds, has affected an unusually broad array of species. But these findings represent the first two documented cases in cetaceans, a group of marine mammals that includes dolphins, porpoises and whales.

It is too soon to say how commonly the virus infects cetaceans, but its discovery in two different species on two different continents suggests that there have "almost certainly" been other cases, said Richard Webby, an influenza virologist at St. Jude Children's Research Hospital in Memphis.

"Our surveillance activities on a global scale are never sensitive enough to pick up the only two events of this kind," said Dr Webby, who was not involved in the initial detection of the virus but is now working with the Florida team on follow-up studies.

This strain of bird flu is known as Eurasian H5N1.

While experts emphasise that the risk to humans remains low, the spread of the virus to new species poses potential risks to wildlife and provides the virus with new chances to mutate and adapt to mammalian hosts. Besides birds, the virus has earlier turned up in foxes, bobcats, skunks, and seals.

STUDY SAYS ONION LOWERS BLOOD SUGAR BUT THEN WHY ARE SO MANY INDIANS DIABETIC STILL?

Should we always believe studies that gain traction in the West just because they go viral or do we contextualise them in the local scenario? This question follows a new study that has revealed that onion could be a miracle superfood that can lower blood sugar levels by 50 per cent and can be considered for "potential use" in diets while treating patients with Type 2 diabetes.

According to The Independent, the findings were presented at The Endocrine Society's 97th annual meeting in San Diego on August 25 and revealed that the extract of an onion bulb could "strongly lower" high blood sugar and total cholesterol levels when given alongside the anti-diabetic drug Metformin. The lead study author, Anthony Ojieh of Delta State University, in Abraka, Nigeria, was quoted as saying, "Onion is cheap and available and has been used as a nutritional supplement. It has the potential for use in treating patients with diabetes." Of course, it must be noted that the researchers tested the theory on rats. In total, three groups of rats with medically induced diabetes were given various doses of the onion extract to see if it would enhance the drug's effect.

Questioning the study, Dr Anoop Misra, Chairman, Fortis CDOC Center for Diabetes, says, "Going by this logic, India wouldn't have been the diabetes hotspot it is today. We consume a lot of onions, they are a kitchen staple and still we have so many people with diabetes. Yes, onions have a high fibre value but in India it is had in all forms, raw, as ringlets, munched down whole and used liberally in our cooking. So, till we get details about the mechanism by which the onion extract





brought about the blood glucose reduction, its impact on metabolism and whether its efficacy is as good with other drugs, it will be too hasty to draw specific conclusions. We do not yet have an explanation and researchers have to work on it."

However, he feels that "These interesting findings in rats cannot be ignored totally and the study should be replicated in humans through clinical trials. And that too it must be tested separately on Indians who have traditionally lived on onions."

The study found that of the diabetic rats, those given 400 mg and 600 mg per kg of body weight "strongly reduced" their blood sugar levels by 50 per cent and 35 per cent respectively compared with a baseline level. The onion extract also lowered the total cholesterol level in diabetic rats, with the 400 mg and 600 mg having the greatest effects.

Finding these observations "interesting", Dr Ambrish Mithal, Chairman and Head, Endocrinology and Diabetes, Max Healthcare, points to the massive amount of onions used, something that is difficult to internalise through a dietary route, even by humans. "They used up to 600 mg per kg of body weight in rats with induced diabetes. Only then did it result in a significant reduction in blood glucose levels. This finding is not new in the sense that there have been some isolated human case reports. But there has been no real clinical data derived from a proper study on humans," he says.

Dr Mithal also questioned the rationale and mechanism of the study. "We can only assume that the onion-induced reduction of blood glucose levels is because of quercetin, a flavonoid, which has been found to give onions a therapeutic potential in reducing inflammation, lowering blood pressure and maintaining blood sugar. Quercetin reduces sugar as it enhances uptake of glucose by cells and improves insulin secretion. It has a long-term antioxidant property, so it protects patients from developing vascular complications. But then quercetin has to be identified as the differentiator. Without identifying the causative factor, the study is still in the realm of theory. Also, if quercetin is indeed identified in later studies, then the amount needed by a human body can only be administered as an extract in a pill. Of course, only time will tell whether this will work. We need significant and human-tested research for that," he adds.

HOW SITTING FOR LONG SLAMS YOUR HEART AND LUNGS, RAISES BLOOD SUGAR AND PILES UP BELLY FAT

In 1953, Jeremy Morris published a study of London's transport workers. It revealed that drivers of double decker buses had a 42 per cent higher risk of fatal or non-fatal heart attacks when compared to bus conductors. This was despite a similar socio-economic background and age. The uniform size of the sedentary drivers was larger than that of the conductors who went up and down 500-750 steps in the bus each day. They reinforced this finding with a study which showed that sedentary telephone operators had a higher rate of heart attacks than postmen who biked and walked to deliver letters.

Subsequently, there have been many studies which showed that physical activity is good for health and longevity. However, the question remained as to whether physical activity for some periods of the day can counter the effects of prolonged sedentariness and sitting during most of the day. Emma Wilmot provided clarity on this in a 2012 study which pooled data from 18 studies involving 794,577 participants. She reported that an increase in sedentary time raised the risk of several adverse health outcomes: 147 per cent increase in cardiovascular disease; 112 per cent increase in diabetes; 90 per cent increase in cardiovascular deaths and a 47 per cent increase in





risk of death from all causes combined. EG Wilmot also showed that these associations of increased health risks with sedentariness were mostly independent of the moderate or vigorous activity performed during parts of the day.

Sitting for long hours harmful despite short period exercises?

So, there is a need to avoid sitting for long periods of the day even if one practises the routine of exercise for short periods. Otherwise, sedentariness will cause a host of health problems: heart and blood vessel diseases (such as heart attacks, brain strokes, deep vein thrombosis and varicose veins); diabetes; obesity (general and abdominal); cancers (of colon, uterus, lung and breast); back and other joint problems; bone loss; anxiety, depression and even dementia. Sedentariness makes you a "sitting duck" for ill health.

How does sitting for long periods damage the body?

It raises blood glucose, blood fats, blood pressure, body weight and fat in the abdomen among many effects. Blood circulation also becomes sluggish, with pooling in the lower half of the body. When skeletal muscles are inactive, membranes of the muscle cells develop insulin resistance. A contracting muscle requires more sugar to provide needed energy (calories). Insulin pushes sugar into those cells from the blood. A slumbering muscle shuts the door to the entry of sugar it no longer needs, by becoming resistant to the action of insulin. That raises blood sugar, manifesting as diabetes. Blood fat levels too rise as they are no longer consumed for energy expenditure. Insulin resistance is also related to high levels of blood pressure, abdominal fat, inflammation and increased clotting tendency of the blood. Even as body weight increases, fat deposition is especially marked in the abdomen. Sitting long on the haunches is a sure bet for paunches.

Physical activity enhances muscle strength and stimulates calcium deposition in the bones. Sedentariness leads to loss of muscle and depletes bone calcium ("use it or lose it"). It also leads to slowing down of bowel movement and constipation, with the prolonged stay of toxins in the large bowel, leading to colon cancer. Inflammation damages blood vessels while sluggish blood circulation allows clots to form and grow on the injured surface. Blood fats too get deposited on areas of injury to the endothelium (inner lining) of blood vessels. The risk of heart attacks and brain strokes increases over time, due to such damage.

Sluggish flow of blood in the deep veins of the legs and pelvis leads to clots, which can get dislodged and travel to the lungs, causing the highly dangerous condition of pulmonary embolism. That is why immobility is kept to the minimum even in patients requiring bed rest, with active or passive leg exercises. The danger of deep vein thrombosis with long distance air travel is well established.

How sitting encourages unhealthy dietary practices

Prolonged sitting encourages unhealthy eating behaviours. Packaged ultra-processed foods and beverages are consumed in large quantities, initially out of boredom and later from addiction. A study of teenagers showed that those watching television were likely to gain more weight than those using a desktop computer, because the latter had their hands busy on the keyboard while the former had a remote in one hand and junk food in the other. This was true of the desktop era but the modern teenager can easily reach for chips or cola while operating a smartphone. Those used to sitting for long conveniently position food and drinks within easy reach (to snack at will or lack of will power to desist).



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How 'work from home' legitimised prolonged sitting that weakens lungs

Even before the Covid-19 pandemic, the nature of office work or studies in schools and colleges created conditions for prolonged sitting. The pandemic brought us "work from home" and "online teaching", where even commuting was not needed. While some employees and students did help in household work and made themselves useful as well as frequently mobile, many found the chair to be a throne they were reluctant to leave. The waves of webinars and virtual meetings also kept people tethered to their seat, with no option to move if the camera had to be kept on (unless one invoked the internet era excuse of an interrupted net connection). With prolonged sitting, even breathing becomes shallow (as the oxygen demand of muscles goes down) and many air sacs of the lung close. So, when Covid hits the lungs, there is decreased respiratory reserve. Apart from the increased risk of all other health problems associated with sedentariness, this too increases risk to life.

What should one do then?

Several solutions have been suggested, from intermittently standing and stretching to taking short walks. It is suggested this should be done frequently. That may not be possible in long flights, desultory meetings or cinema halls. However, some movement of legs and even a bit of squirming in the seat may be justified, antique etiquettes disregarded. In some offices, standing desks are being used. While that liberates and elevates the bottom, the legs still need exercise. Why not walk to a colleague to sort out a matter, instead of inflaming that person and your own arteries by shooting off terse or torrid emails from your seat? As the drillmaster at school used to order, "stand at ease", "attention" and "quick march" is a good sequence to follow.

